

## 2023 Herbicide Evaluation Trials

*Dr. Travis Legleiter and Sara Carter*

Acknowledgements

Chemicals Used

Definitions

Weather Data

### **Trials**

#### **UKREC**

23-2	23-13	23-15	23-16	23-17	23-20	23-26
23-28	23-31	23-33	23-34			

#### **Spindletop**

23-21	23-22	23-23	23-24	23-32
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## ACKNOWLEDGEMENTS

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## PESTICIDES USED

<u>TRADE NAME</u>	<u>COMMON NAME</u>	<u>COMPANY</u>
A23980B		SYNGENTA
AMV5233D		AMVAC
AATREX	ATRAZINE	SYNGENTA
ABUNDIT EDGE	GLYPHOSATE	CORTEVA
ACURON	S-METOLACHLOR + ATRAZINE + MESOTRIONE + BICYCLOPYRONE	SYNGENTA
ACURON FLEXI	S-METOLACHLOT + MESOTRIONE + BICYCLOPYRONE	SYNGENTA
ACURON GT	S-METOLACHLOR + ATRAZINE + MESOTRIONE + BICYCLOPYRONE + GLYPHOSATE	SYNGENTA
ALLY XP	METSULFURON-METHYL	FMC
AMS	AMMONIUM SULFATE	CLEAN CROP
AMSOL	AMMONIUM SULFATE	WINFIELD
ANTHEM FLEX	CARFENTRAZONE-ETHYL + PYROXASULFONE	FMC
ANTHEM MAXX	PYROXASULFONT + FLUTHIACET-METHYL	FMC
ARMEZON	TOPRAMEZONE	BASF
ARMEZON PRO	DIMETHENAMID-P + TOPRAMEZONE	BASF
ATRAZINE		VARIOUS
AUTHORITY FIRST	CHLORANSULAM-METHYL+ SULFENTRAZONE	FMC
AUTHORITY SUPREME	PYROXASULFONE + SULFENTRAZONE	FMC
AUTHORITY XL	CHLORIMURON ETHYL + SULFENTRAZONE	FMC
BAS101005H		BASF
BAS82100H		BASF
BICEP II MAGNUM	ATRAZINE + S-METOLACHLOR	SYNGENTA
BOUNDARY	S-METOLACHLOR + METRIBUZIN	SYNGENTA
BROADAXE XC	SULFENTRAZONE + S-METOLACHLOR	SYNGENTA
CALLISTO	MESOTRIONE	SYNGENTA
CLASS ACT RIDION	WATER CONDITIONER + SURFACTANT	WINFIELD
CROP OIL CONCENTRATE (COC)		LOVELAND
DELARO	PROTHIOCONAZOLE + TRIFLOXYSTROBIN	BAYER
DELTAFORCE	DRA	LOVELAND
DELTALOCK	PH BUFFER	LOVELAND
DIFLEXX DUO	DICAMBA + TEMBOTRIONE	BAYER
DIMETRIC LIQUID	METRIBUZIN	WINFIELD
DUAL II MAGNUM	S-METOLACHLOR	SYNGENTA

## PESTICIDES USED (CONTINUED)

<u>TRADE NAME</u>	<u>COMMON NAME</u>	<u>COMPANY</u>
ENGENIA	DICAMBA	BASF
ENLIST DUO	2,4-D CHOLINE + GLYPHOSATE	CORTEVA
ENLIST ONE	2,4-D(CHOLINE)	CORTEVA
EVERPREX	S-METOLACHLOR	CORTEVA
EXPRESS	TRIBENURON METHYL	FMC
FEXAPAN	DICAMBA	CORTEVA
FIERCE EZ	FLUMIOXAZIN + PYROXASULFONE	VALENT
FIERCE MTZ	FLUMIOXAZIN + PYROXASULFONE + METRIBUZIN	VALENT
FIERCE XLT	CHLORIMURON ETHYL + FLUMIOXAZIN + PYROXASULFONE	VALENT
FIRSTRATE	CLORNSULAM-METHYL	CORTEVA
FLEXSTAR	FOMESAFEN	SYNGENTA
FUSION	FLUAZIFOP-P-BUTYL + FENOXAPROP-P-ETHYL	SYNGENTA
GLEAN XP	CHLOROSULFURON	FMC
HALEX GT	S-METOLACHLOR + GLYPHOSATE + MESOTRIONE	SYNGENTA
HARNESS	ACETOCHLOR	BAYER
HELMET MTZ	METRIBUZIN + METOLACHLOR	HELM
HORNET	CLOPYRALID = FLUMETSULAM	AMVAC
IMPACT	TOPRAMEZONE	AMVAC
IMPACT CORE	ACETOCHLOR + TOPRAMEZONE	AMVAC
IMPACT Z	ATRAZINE + TOPRAMAZONE	AMVAC
INDUCE	NONIONIC SURFACTANT	HELENA
IN-PLACE	DRIFT CONTROL	WILBUR-ELLIS
INTACT	DRIFT CONTROL + DEPOSITION AID	PRECISION LABS
INTERLINE	GLUFOSINATE	UPL
KEYSTONE NXT	ACETOCHLOR + ATRAZIINE	CORTEVA
KYBER	FLUMIOXAZIN + PYROXASULFONE + METRIBUZIN	CORTEVA
LEXAR EZ	ATRAZINE + S-METOLACHLOR + MESOTRIONE	SYNGENTA
LIBERTY 280	GLUFOSINATE AMMONIUM	BAYER
LO-VOL 2,4-D		TENKOZ
MAVERICK	MESOTRIONE + CLOPYRALID + PYROXASULFONE	VALENT
MOCCASIN II PLUS	S-METOLACHLOR	UPL
MSO	METHYLATED SEED OIL	LOVELAND
NIS	NON-IONIC SURFACTANT	VARIOUS
NPAK AMS LIQUID	AMMONIUM SULFATE	WINFIELD
OUTLOOK	DIMETHENAMID-P	BASF

## **PESTICIDES USED (CONTINUED)**

<b><u>TRADE NAME</u></b>	<b><u>COMMON NAME</u></b>	<b><u>COMPANY</u></b>
PERPETUO	FLUMICLORAC + PYROXASULFURON	VALENT
POWERFLEX	PYROXSULAM	CORTEVA
PREFIX	S-METOLACHLOR + BENOXACOR	SYNGENTA
PURSUIT	IMAZETHAPYR	BASF
RESICORE	ACETOCHLOR + CLOPYRALID + MESOTRIONE	CORTEVA
RESICORE XL	ACETOCHLOR + CLOPYRALID + MESOTRIONE	CORTEVA
RESTRAINT	ACETOCHLOR + TOLPYRALATE	SUMMIT
REVITON	TIAFENACIL	HELM
ROUNDUP POWERMAX 3	GLYPHOSATE (POTASSIUM SALT)	BAYER
SELECT MAX	CLETHODIM	VALENT
SEQUENCE	GLYPHOSATE + S-METOLACHLOR	SYNGENTA
SHIELD EX	TOPYRALATE	SUMMIT
SINATE	TOPRAMEZONE + GLUFOSINATE-AMMONIUM	AMVAC
SONIC	SULFENTRAZONE + CLORANSULAM-METHYL	CORTEVA
STATUS	DICAMBA + DIFLUFENZOPYR	BASF
STINGER	CLOPYRALID	CORTEVA
STOREN	S-METOLACHLOR + MESOTRIONE + PYROXASULFONE + BICYCLOPYRONE	SYNGENTA
SURMISE	GLUFOSINATE-AMMONIUM	ALBAUGH
SURVEIL	CLORANSULAM-METHYL + FLUMIOXAZIN	CORTEVA
TAVIUM PLUS VAPORGRIP	S-METOLACHLOR + DICAMBA	SYNGENTA
TENDOVO	CLORANSULAM-METHYL+ METRIBUZIN + S-METOLACHLOR	SYNGENTA
TRICOR	METRIBUZIN	UPL
TRIPZIN	PENDIMETHALIN + METRIBUZIN	UPL
TRIVOLT	ISOXAFLUTOLE + THIENCARBAZONE-METHYL + FLUFENACET	BAYER
VALOR XLT	FLUMIOXAZIN + CHLORIMURON ETHLY	VALENT
VERDICT	DIMETHENAMID-P + SAFLUFENACIL	BASF
WARRANT	ACETOCHLOR	BAYER
XTENDIMAX WITH VAPORGRIP	DICAMBA + VAPROGRIP TECHNOLOGY	BAYER
ZIDUA	PYROXASULFONE	BASF
ZIDUA PRO	PYROXASULFONE + SAFLUFENACIL + IMAZETHAPYR	BASF
ZONE ELITE	SULFENTRAZONE + METOLACHLOR	HELM

ABUTH	Velvetleaf	<i>Abutilon theophrasti</i>
ACCSS	Hophornbeam copperleaf (pineland three-seeded mercury)	<i>Acalypha ostryifolia</i>
ALLVI	Wild (field) garlic	<i>Allium vineale</i>
AMACH	Smooth(Green) pigweed	<i>Amaranthus hybridus</i>
AMBEL	Common ragweed	<i>Ambrosia artemisiifolia</i>
AMBTR	Giant ragweed	<i>Ambrosia trifida</i>
ANVCR	Spurred anoda	<i>Anoda cristata</i>
BROTE	Cheatgrass	<i>Bromus tectorum</i>
CERVU	Mouse ear chickweed	<i>Cerastium fontanum vulgare</i>
CHEAL	Common lambsquarters	<i>Chenopodium album</i>
CYPES	Yellow nutsedge	<i>Cyperus esculentus</i>
DIGSA	large (smooth) crabgrass	<i>Digitaria sanguinalis</i>
ELEIN	Goosegrass	<i>Eleusine indica</i>
EPHNU	Nodding spurge (eye bane)	<i>Chamaesyce nutans/Euphoriba nutas</i>
EPHPT	Red caustic creeper	<i>Euphoriba prostrata</i>
ERICA	Canada horseweed (Marestail)	<i>Erigeron canadensis (Conyza canadensis)</i>
GERCA	Carolina geranium	<i>Geranium carolinanum</i>
GLXMA	Soybean	<i>Glycine max</i>
HORPU	Little Barley	<i>Hordeum pusillum</i>
IPOHE	Ivyleaf morningglory	<i>Ipomea hederacea</i>
IPOLA	Pitted morningglory	<i>Ipomea lacunosa</i>
IPOSS	Morningglory	<i>Ipomoea sp</i>
LAMAM	Henbit	<i>Lamium amplexicaule</i>
LAMPU	Purple deadnettle	<i>Lamium purpureum</i>
LOLMG	Annual ryegrass	<i>Lolium multiflorum</i>
OXAST	European wood sorrel	<i>Oxalis stricta</i>
SENGL	Cressleaf groundsel	<i>Packera glabella</i>
SETFA	Giant foxtail	<i>Setaria faberi</i>
SIDSP	Prickly sida	<i>Sida spinosa</i>
SOLXN	Purple nightshade	<i>Solanum umbrelliferum</i>
SORHA	Johnsongrass	<i>Sorghum halapense</i>
STEME	Common chickweed	<i>Stellaria media</i>
TAROF	Blowball/dandelion	<i>Taraxacum officinale</i>
THLAR	Fanweed/Field pennycress	<i>Thlaspi arvense</i>
TRZAW	Winter wheat	<i>Triticum aestivum</i>
TRZAX	Soft wheat	<i>Triticum aestivum</i>
VIOAR	Field pansy	<i>Viola arvensis</i>
ZEAMX	Corn	<i>Zea mays</i>

## APPLICATION TIMING

### PREEMERGENCE

BURNDOWN	BURNDOWN EXISTING VEGETATION
PRE, PREEM	PREEMERGENCE
DPRE	DELAYED PREEMERGENCE

### POSTEMERGENCE

POEMSE	SPRING GREENUP, 4 <sup>TH</sup> TILLER WHEAT
POSPOS	2-3" WEEDS, 8-12" CORN, 42 DAA, 20DAB
V2	SECOND TRIFOLIATE (SOYBEAN), 2 COLLAR CORN
V3	THIRD TRIFOLIATE (SOYBEAN), 3 COLLAR CORN
EAPOCR	VE/VC-V3 CORN, <3" WEEDS
EPOST	21 DAA, 2-4" WEEDS
V4	FOURTH TRIFOLIATE (SOYBEAN), 4 COLLAR CORN
25 DAA	25 DAYS AFTER APPLICATION "A"
MP	MID-POSTEMERGENCE OF CROP/WEEDS
4W-6C	4" WEEDS +/- 6" CORN
4W-12C	4" WEEDS +/- 12" CORN
LAPLAP	2" WEEDS AFTER POST APPLICATION
LAPOCR	>12" CORN

# Princeton Climate Data, January

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
01-01-2023	65	37	51	0.02	99	64	52	49			
01-02-2023	69	54	61	1.12	96	74	52	50			
01-03-2023	66	60	63	1.12	97	76	57	53			
01-04-2023	62	37	49		96	50	55	51			
01-05-2023	50	33	41		87	37	53	46			
01-06-2023	51	25	38		95	33	49	44			
01-07-2023	56	40	48		82	43	50	46			
01-08-2023	50	38	44		87	60	48	47			
01-09-2023	50	25	37		96	40	48	44			
01-10-2023	59	34	46		83	45	48	44			
01-11-2023	69	48	58		90	58	52	46			
01-12-2023	63	37	50	0.65	96	75	51	48			
01-13-2023	37	32	34	0.03	91	74	48	42			
01-14-2023	38	28	33		84	53	44	42			
01-15-2023	50	27	38		84	38	43	39			
01-16-2023	57	42	49	0.11	89	40	44	40			
01-17-2023	65	43	54		98	33	52	46			
01-18-2023	63	41	52	0.54	97	59	52	44			
01-19-2023	61	41	51		95	51	52	48			
01-20-2023	44	27	35		91	52	50	44			
01-21-2023	45	21	33		94	52	45	40			
01-22-2023	42	34	38	0.21	96	74	44	41			
01-23-2023	45	28	36		93	53	44	42			
01-24-2023	48	22	35	0.30	96	47	43	38			
01-25-2023	44	35	39	0.33	97	81	44	41			
01-26-2023	36	27	31		85	62	42	40			
01-27-2023	55	24	39		86	33	44	39			
01-28-2023	54	37	45	0.05	86	35	42	38			
01-29-2023	50	36	43	0.30	98	75	45	42			
01-30-2023	36	26	31	0.13	97	90	42	40			
01-31-2023	26	21	23	0.20	93	82	40	38			

Summary for the period 1-1-2023 through 1-31-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
	52	34	43	5.11	92	56	48	44			
(Deviation from normal)	+9	+10	+9	+1.31							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)



# Princeton Climate Data, February

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
02-01-2023	E	32	20	26	0.03	85	63	42	38		
02-02-2023		36	27	31		95	54	41	38		
02-03-2023		31	17	24		83	39	41	36		
02-04-2023		48	16	32		86	35	39	37		
02-05-2023		58	36	47		90	48	42	40		
02-06-2023		62	26	44		97	33	45	39		
02-07-2023		66	49	57	0.03	97	44	47	43		
02-08-2023		62	47	54	0.35	97	84	50	46		
02-09-2023		66	42	54	0.18	90	63	52	47		
02-10-2023		43	32	37		97	72	50	46		
02-11-2023		51	26	38		94	34	48	42		
02-12-2023		56	29	42		72	17	47	42		
02-13-2023		63	27	45		85	31	49	42		
02-14-2023		63	36	49	0.06	85	36	48	42		
02-15-2023		74	56	65		88	35	54	47		
02-16-2023		66	38	52	2.24	97	72	56	50		
02-17-2023		38	23	30		87	51	53	44		
02-18-2023		50	21	35		92	33	46	40		
02-19-2023		61	41	51		61	30	48	44		
02-20-2023		69	48	58		91	47	51	47		
02-21-2023		62	33	47		98	28	52	45		
02-22-2023		77	57	67	0.28	95	44	56	50		
02-23-2023		74	43	58		97	36	58	54		
02-24-2023		46	32	39		72	46	60	49		
02-25-2023		53	38	45		94	52	58	50		
02-26-2023		54	38	46	0.08	95	69	52	46		
02-27-2023		72	54	63	0.02	95	32	56	52		
02-28-2023		67	42	54		93	41	56	50		

Summary for the period 2-1-2023 through 2-28-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
	57	36	46	3.27	90	45	50	44			
(Deviation from normal)	+7	+8	+8	-1.16							

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# Princeton Climate Data, March

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
03-01-2023	79	50	64	0.44	96	45	57	52			
03-02-2023	58	48	53	0.12	93	45	57	54			
03-03-2023	70	42	56	2.01	97	69	57	52			
03-04-2023	59	33	46		95	30	57	48			
03-05-2023	65	32	48		95	27	57	48			
03-06-2023	77	45	61		74	31	58	52			
03-07-2023	60	44	52		84	48	57	52			
03-08-2023	54	42	48		59	22	53	50			
03-09-2023	52	38	45	0.12	98	42	52	44			
03-10-2023	52	38	45	0.01	95	42	51	48			
03-11-2023	49	29	39	0.13	94	54	51	44			
03-12-2023	47	38	42	0.04	98	67	51	48			
03-13-2023	40	32	36		83	48	48	45			
03-14-2023	42	25	33		83	46	44	40			
03-15-2023	53	19	36		92	27	51	40			
03-16-2023	64	37	50	0.12	85	32	51	43			
03-17-2023	56	33	44	0.24	94	39	51	48			
03-18-2023	40	24	32		92	36	47	41			
03-19-2023	39	22	30		76	35	46	39			
03-20-2023	51	18	34		89	23	49	38			
03-21-2023	53	32	42	0.30	94	26	48	40			
03-22-2023	60	44	52	0.05	95	83	49	46			
03-23-2023	71	60	65		88	72	56	48			
03-24-2023	70	56	63	2.85	98	73	57	55			
03-25-2023	61	43	52	0.02	96	51	56	52			
03-26-2023	72	39	55		95	27	61	50			
03-27-2023	60	38	49		90	47	59	50			
03-28-2023	56	35	45		92	27	58	50			
03-29-2023	60	31	45		95	21	59	47			
03-30-2023	70	32	51		88	21	60	48			
03-31-2023	73	52	62	0.44	93	35	59	53			

Summary for the period 3-1-2023 through 3-31-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
	58	37	48	6.89	90	42	54	47			
(Deviation from normal)	-2	+2	-0	+1.95							

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# Princeton Climate Data, April

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
04-01-2023	69	40	54		82	28	58	54			
04-02-2023	67	32	49		92	35	61	50			
04-03-2023	73	54	63		88	47	60	54			
04-04-2023	84	58	71		97	49	63	57			
04-05-2023	80	54	67	0.17	94	53	65	60			
04-06-2023	54	47	50	0.02	83	44	63	57			
04-07-2023	59	43	51		69	21	56	53			
04-08-2023	64	45	54		51	38	59	54			
04-09-2023	71	40	55		62	13	60	49			
04-10-2023	72	39	55		79	26	63	51			
04-11-2023	75	41	58		88	22	65	52			
04-12-2023	78	40	59		90	16	65	54			
04-13-2023	82	43	62		81	15	67	55			
04-14-2023	77	55	66		89	37	68	59			
04-15-2023	82	50	66	0.65	96	34	70	58			
04-16-2023	60	48	54	0.06	96	47	64	58			
04-17-2023	66	41	53		82	21	62	55			
04-18-2023	78	39	58		90	24	65	53			
04-19-2023	83	50	66		77	26	68	58			
04-20-2023	84	58	71		84	17	69	59			
04-21-2023	64	44	54	0.71	98	78	64	58			
04-22-2023	62	37	49		99	35	63	55			
04-23-2023	55	32	43		97	34	62	52			
04-24-2023	58	35	46		95	26	62	51			
04-25-2023	68	38	53		85	23	63	51			
04-26-2023	71	39	55		92	27	64	53			
04-27-2023	65	51	58	0.43	98	59	65	56			
04-28-2023	68	50	59		99	49	65	54			
04-29-2023	66	48	57	0.10	98	61	64	56			
04-30-2023	60	43	51		96	34	62	52			

Summary for the period 4-1-2023 through 4-30-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
	70	44	57	2.14	88	35	64	55			
(Deviation from normal)	-1	-2	-2	-2.66							

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# Princeton Climate Data, May

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS	BARE	MX	MN	
05-01-2023	65	45	55		65	30	62	56			
05-02-2023	64	42	53		75	28	62	52			
05-03-2023	66	40	53		80	27	66	54			
05-04-2023	70	38	54		95	27	66	54			
05-05-2023	72	50	61		84	40	67	56			
05-06-2023	82	57	69		81	52	71	61			
05-07-2023	76	62	69	1.86	95	69	66	64			
05-08-2023	82	62	72	0.24	97	63	72	64			
05-09-2023	75	58	66	0.15	97	60	72	64			
05-10-2023	79	55	67		97	46	74	63			
05-11-2023	76	63	69	0.02	94	64	72	65			
05-12-2023	73	66	69	0.02	97	76	70	66			
05-13-2023	80	65	72		98	61	72	66			
05-14-2023	86	65	75	0.83	98	53	77	68			
05-15-2023	81	64	72	0.18	99	62	80	70			
05-16-2023	76	63	69	0.01	98	75	75	70			
05-17-2023	79	54	66		99	33	78	67			
05-18-2023	80	55	67		94	35	78	66			
05-19-2023	76	63	69	0.01	96	55	125	125			
05-20-2023	71	54	62	1.15	98	49	74	66			
05-21-2023	74	51	62		93	40	74	65			
05-22-2023	79	54	66		87	37	74	65			
05-23-2023	82	57	69		93	46	75	65			
05-24-2023	84	59	71		97	26	78	66			
05-25-2023	79	58	68		93	46	78	67			
05-26-2023	75	50	62		80	25	74	63			
05-27-2023	79	55	67		88	38	77	67			
05-28-2023	75	50	62		91	39	76	67			
05-29-2023	82	53	67		95	31	78	67			
05-30-2023	86	65	75		92	36	81	70			
05-31-2023	86	61	73		95	39	80	70			

Summary for the period 5-1-2023 through 5-31-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS	BARE	MX	MN	
	77	56	67	4.47	92	45	75	66			
(Deviation from normal)	-4	-0	-2	-0.49							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)

# Princeton Climate Data, June

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS	BARE	MX	MN	
06-01-2023	87	63	75		94	38	80	71			
06-02-2023	90	64	77		96	32	83	72			
06-03-2023	90	60	75		89	28	80	72			
06-04-2023	90	62	76		91	32	125	125			
06-05-2023	86	61	73		86	30	83	74			
06-06-2023	86	58	72		87	28	84	73			
06-07-2023	76	58	67	0.02	96	54	80	74			
06-08-2023	80	54	67		98	20	80	69			
06-09-2023	81	51	66		84	21	81	68			
06-10-2023	84	53	68		89	26	82	70			
06-11-2023	77	62	69	0.17	93	67	78	70			
06-12-2023	71	52	61		96	46	76	70			
06-13-2023	78	48	63		98	32	76	64			
06-14-2023	83	54	68		94	33	79	67			
06-15-2023	88	59	73		98	30	81	79			
06-16-2023	89	60	74		98	40	84	72			
06-17-2023	82	58	70		90	36	81	70			
06-18-2023	84	58	71	0.45	96	49	83	71			
06-19-2023	79	67	73	0.78	98	69	80	73			
06-20-2023	83	66	74	0.10	95	60	81	73			
06-21-2023	80	68	74		95	60	80	73			
06-22-2023	74	62	68		96	60	76	70			
06-23-2023	85	58	71		99	41	81	73			
06-24-2023	88	60	74		98	37	82	72			
06-25-2023	93	73	83	0.06	91	47	86	74			
06-26-2023	86	65	75		98	41	82	73			
06-27-2023	86	62	74		94	45	82	72			
06-28-2023	88	64	76	0.01	95	46	82	73			
06-29-2023	82	69	75		93	62	82	73			
06-30-2023	95	71	83		88	57	84	74			

Summary for the period 6-1-2023 through 6-30-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS	BARE	MX	MN	
	84	61	72	1.59	94	42	82	73			
(Deviation from normal)	-3	-3	-3	-2.26							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)

# Princeton Climate Data, July

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
07-01-2023	90	70	80	0.23	96	62	84	74			
07-02-2023	90	69	79	0.96	98	54	125	125			
07-03-2023	86	68	77		99	52	82	74			
07-04-2023	87	67	77		98	58	83	75			
07-05-2023	89	69	79		95	52	86	75			
07-06-2023	89	68	78		98	50	125	125			
07-07-2023	88	68	78		95	45	86	77			
07-08-2023	85	70	77	3.35	98	66	84	76			
07-09-2023	74	62	68	0.32	98	70	78	75			
07-10-2023	83	58	70		99	40	82	73			
07-11-2023	84	59	71		98	41	125	125			
07-12-2023	88	61	74		98	57	83	74			
07-13-2023	87	74	80		96	62	83	77			
07-14-2023	88	71	79		99	60	85	75			
07-15-2023	84	71	77	0.40	98	73	84	75			
07-16-2023	86	66	76		99	51	83	76			
07-17-2023	86	67	76	0.65	97	58	84	76			
07-18-2023	85	67	76	0.34	98	76	82	74			
07-19-2023	81	68	74	1.10	97	70	80	75			
07-20-2023	84	72	78	0.32	97	66	82	77			
07-21-2023	82	69	75		99	53	82	76			
07-22-2023	82	64	73		98	51	82	75			
07-23-2023	84	62	73		99	45	82	75			
07-24-2023	87	68	77	1.62	97	61	83	76			
07-25-2023	89	68	78		99	57	84	75			
07-26-2023	86	75	80		90	64	84	77			
07-27-2023	91	76	83		90	60	83	77			
07-28-2023	92	74	83		96	57	85	77			
07-29-2023	88	71	79	1.94	98	63	82	78			
07-30-2023	86	69	77		98	48	83	77			
07-31-2023	86	66	76		98	49	85	77			

Summary for the period 7-1-2023 through 7-31-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
	86	68	77	11.23	97	57	87	80			
(Deviation from normal)	-3	+2	-1	+6.94							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)

# Princeton Climate Data, August

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
08-01-2023	83	64	73		94	44	82	75			
08-02-2023	79	62	70		96	61	79	75			
08-03-2023	81	71	76	0.88	98	77	80	76			
08-04-2023	83	72	77	0.41	98	75	81	76			
08-05-2023	85	71	78	1.71	98	71	81	76			
08-06-2023	86	69	77	0.05	99	65	82	76			
08-07-2023	82	66	74		95	63	80	76			
08-08-2023	81	62	71		99	56	80	75			
08-09-2023	78	66	72	0.18	98	74	79	75			
08-10-2023	82	69	75	0.29	99	63	79	76			
08-11-2023	86	67	76		99	57	82	75			
08-12-2023	83	70	76	0.76	98	67	79	74			
08-13-2023	86	70	78	0.07	99	69	82	76			
08-14-2023	83	68	75	0.71	98	69	80	76			
08-15-2023	78	62	70		98	61	78	74			
08-16-2023	79	59	69		99	50	78	73			
08-17-2023	82	59	70		99	58	78	73			
08-18-2023	81	60	70		98	44	79	74			
08-19-2023	84	58	71		97	48	80	71			
08-20-2023	90	65	77		97	62	81	74			
08-21-2023	91	72	81		98	59	81	75			
08-22-2023	92	75	83		99	55	82	77			
08-23-2023	92	72	82		99	54	82	77			
08-24-2023	92	71	81		100	56	82	77			
08-25-2023	94	72	83		100	57	82	77			
08-26-2023	88	72	80	0.17	99	67	81	76			
08-27-2023	78	69	73	3.64	99	83	80	76			
08-28-2023	82	65	73		98	52	80	75			
08-29-2023	82	62	72		96	46	79	74			
08-30-2023	81	61	71		98	42	80	73			
08-31-2023	78	55	66		96	47	77	71			

Summary for the period 8-1-2023 through 8-31-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
	84	66	75	8.87	98	60	80	75			
(Deviation from normal)	-4	+2	-1	+4.86							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)

# Princeton Climate Data, September

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

DATE	AIR TEMP				RH		SOIL TEMP		
	MX	MN	AV	PRECIP	MX	MN	MX	MN	EVAP
09-01-2023	85	56	70		98	57	78	70	
09-02-2023	86	70	78		98	58	81	74	
09-03-2023	87	66	76		99	52	79	74	
09-04-2023	89	69	79		96	55	80	73	
09-05-2023	88	69	78	1.00	97	56	79	74	
09-06-2023	86	69	77	0.06	98	58	79	74	
09-07-2023	78	63	70		98	53	77	73	
09-08-2023	82	62	72		99	50	78	73	
09-09-2023	78	60	69		97	55	77	72	
09-10-2023	82	61	71		97	44	78	71	
09-11-2023	83	58	70		97	48	77	70	
09-12-2023	77	64	70	0.01	97	60	76	71	
09-13-2023	79	56	67		93	32	77	70	
09-14-2023	79	53	66		96	31	74	67	
09-15-2023	79	51	65		93	36	74	65	
09-16-2023	80	55	67		94	37	74	66	
09-17-2023	78	56	67	0.11	98	44	74	67	
09-18-2023	76	51	63		99	38	73	66	
09-19-2023	78	49	63		99	39	73	64	
09-20-2023	81	52	66		98	51	73	66	
09-21-2023	82	64	73	0.06	98	47	75	67	
09-22-2023	84	58	71		95	34	75	68	
09-23-2023	84	56	70		98	37	75	67	
09-24-2023	80	52	66	0.01	96	33	74	66	
09-25-2023	85	59	72	0.02	97	40	75	66	
09-26-2023	85	58	71		98	41	76	68	
09-27-2023	84	60	72	0.06	97	50	76	70	
09-28-2023	74	63	68	1.44	98	70	73	68	
09-29-2023	83	62	72		98	51	75	67	
09-30-2023	85	60	72		99	36	76	68	

Summary for the period 9-1-2023 through 9-30-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP			TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	EVAP	
	82	59	71	2.77	97	46	76	69		
(Deviation from normal)	+1	+2	+1	-0.56						

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)



# Princeton Climate Data, October

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS	BARE	MX	MN	
10-01-2023	83	60	71		95	37	74	67			
10-02-2023	84	58	71		97	40	75	67			
10-03-2023	85	58	71		98	37	76	67			
10-04-2023	80	59	69		94	49	73	67			
10-05-2023	69	63	66	0.38	99	76	71	66			
10-06-2023	75	49	62		100	27	72	66			
10-07-2023	64	40	52		96	36	71	63			
10-08-2023	66	39	52		99	32	65	57			
10-09-2023	72	46	59		92	26	67	62			
10-10-2023	69	40	54		97	29	64	57			
10-11-2023	70	43	56		96	50	65	58			
10-12-2023	77	48	62		99	47	67	58			
10-13-2023	75	56	65	0.12	98	57	66	62			
10-14-2023	67	51	59	0.02	96	68	66	63			
10-15-2023	58	49	53	0.01	87	46	63	60			
10-16-2023	56	42	49		92	65	61	58			
10-17-2023	62	42	52		99	53	62	59			
10-18-2023	70	43	56		95	39	62	57			
10-19-2023	74	54	64	0.02	90	49	63	60			
10-20-2023	71	46	58		94	35	62	59			
10-21-2023	81	40	60		99	26	63	58			
10-22-2023	68	43	55		93	41	62	56			
10-23-2023	75	42	58		96	27	62	55			
10-24-2023	72	56	64		71	45	61	56			
10-25-2023	79	59	69		77	47	64	59			
10-26-2023	80	56	68		90	49	64	59			
10-27-2023	73	65	69	0.09	95	61	64	62			
10-28-2023	68	52	60	0.58	98	79	63	59			
10-29-2023	57	47	52	2.22	98	94	64	62			
10-30-2023	47	31	39	0.38	96	51	62	56			
10-31-2023	49	27	38		96	42	58	53			

Summary for the period 10-1-2023 through 10-31-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS	BARE	MX	MN	
	70	49	59	3.82	94	47	66	60			
(Deviation from normal)	-1	+0	-1	+0.77							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)

# Princeton Climate Data, November

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
11-01-2023	47	24	35		94	41	54	52			
11-02-2023	57	28	42		95	23	54	50			
11-03-2023	63	35	49		69	25	53	49			
11-04-2023	70	51	60		87	42	55	52			
11-05-2023	69	41	55		96	35	55	52			
11-06-2023	77	44	60		90	44	57	53			
11-07-2023	77	57	67		85	55	60	58			
11-08-2023	80	61	70		88	52	62	58			
11-09-2023	70	48	59	0.05	86	37	61	58			
11-10-2023	63	45	54	0.08	92	24	61	57			
11-11-2023	57	35	46		83	31	59	52			
11-12-2023	64	35	49		83	23	56	52			
11-13-2023	69	33	51		94	27	55	51			
11-14-2023	64	42	53		71	22	54	50			
11-15-2023	70	40	55		86	34	55	51			
11-16-2023	74	42	58		95	45	56	52			
11-17-2023	63	47	55	0.17	98	71	56	53			
11-18-2023	55	32	43		96	38	55	52			
11-19-2023	60	28	44		94	29	55	48			
11-20-2023	61	43	52	0.73	98	54	54	51			
11-21-2023	56	43	49	0.12	97	77	53	50			
11-22-2023	47	32	39		95	59	53	50			
11-23-2023	57	30	43	0.01	98	37	53	48			
11-24-2023	51	34	42		93	52	51	47			
11-25-2023	50	30	40		90	50	49	46			
11-26-2023	46	31	38	0.10	96	71	47	45			
11-27-2023	41	26	33		93	39	48	45			
11-28-2023	38	21	29		87	37	44	41			
11-29-2023	56	22	39		88	41	46	41			
11-30-2023	60	38	49		71	27	45	41			

Summary for the period 11-1-2023 through 11-30-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
	60	37	49	1.26	90	41	54	50			
(Deviation from normal)	+1	-1	+0	-3.37							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)

# Princeton Monthly Climate Data, Jan-Nov

This data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 ext.245)  
 World Wide Web URL: <http://www.gwx.ca.uky.edu/>

Monthly Climate Data(01-2023 to 11-2023)

----- AIR TEMPERATURE -----											-- SOD --	
		AVERAGE			EXTREME		AVG DEPART	NO. OF DAYS		4" TEMP		
YEAR	MONTH	MAX	MIN	AVG	MAX	MIN	FROM NORM	>=90	<=32	MAX	MIN	
2023	Jan	52	34	43	69	21	+9	0	13	48	44	
2023	Feb	57	36	46	77	16	+8	0	12	50	44	
2023	Mar	58	37	48	79	18	+1	0	11	54	47	
2023	Apr	70	44	57	84	32	-2	0	2	64	55	
2023	May	77	56	67	86	38	-0	0	0	75	66	
2023	Jun	84	61	72	95	48	-3	5	0	82	73	
2023	Jul	86	68	77	92	58	-1	4	0	87	80	
2023	Aug	84	66	75	94	55	-2	6	0	80	75	
2023	Sep	82	59	71	89	49	-0	0	0	76	69	
2023	Oct	70	49	59	85	27	+0	0	2	66	60	
2023	Nov	60	37	49	80	21	+2	0	11	54	50	

----- PRECIPITATION -----										
		DEPARTURE			GREATEST			% RAIN	NO. DAYS	
YEAR	MONTH	TOTAL	NORMAL	TOTAL	DEPARTURE	24 HOUR	DAYS	>=.01		
2023	Jan	5.11	+1.31	5.11	+1.31	1.12	45	14		
2023	Feb	3.27	-1.16	8.38	+0.15	2.24	32	9		
2023	Mar	6.89	+1.95	15.27	+2.10	2.85	45	14		
2023	Apr	2.14	-2.66	17.41	-0.56	0.71	23	7		
2023	May	4.47	-0.49	21.88	-1.05	1.86	32	10		
2023	Jun	1.59	-2.26	23.47	-3.31	0.78	23	7		
2023	Jul	11.23	+6.94	34.70	+3.63	3.35	35	11		
2023	Aug	8.87	+4.86	43.57	+8.49	3.64	35	11		
2023	Sep	2.77	-0.56	46.34	+7.93	1.44	30	9		
2023	Oct	3.82	+0.77	50.16	+8.70	2.22	29	9		
2023	Nov	1.26	-3.37	51.42	+5.33	0.73	23	7		

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)

# Lexington Climate Data, January

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
01-01-2023	59	38	48		97	80	50	45			
01-02-2023	64	52	58	T	83	70	51	46			
01-03-2023	67	58	62	2.59	100	80	56	51			
01-04-2023	63	51	57	1.04	100	45	56	53			
01-05-2023	52	34	43		88	42	54	45			
01-06-2023	47	32	39		75	45	47	42			
01-07-2023	52	31	41		82	37	47	41			
01-08-2023	45	37	41	0.01	89	59	46	43			
01-09-2023	46	36	41	T	89	49	46	42			
01-10-2023	55	33	44		82	48	45	40			
01-11-2023	58	40	49		84	68	46	41			
01-12-2023	62	48	55	0.57	100	76	50	46			
01-13-2023	39	33	36	0.05	93	32	49	42			
01-14-2023	39	31	35	T	75	52	42	39			
01-15-2023	45	20	32		85	31	40	38			
01-16-2023	51	30	40	0.12	93	34	40	38			
01-17-2023	64	50	57	0.17	97	40	49	40			
01-18-2023	53	34	43	T	92	58	48	42			
01-19-2023	64	47	55	0.47	90	32	52	46			
01-20-2023	42	35	38	T	76	57	50	42			
01-21-2023	43	33	38		72	51	45	40			
01-22-2023	42	34	38	0.22	100	64	44	40			
01-23-2023	40	33	36	T	88	31	43	40			
01-24-2023	48	27	37		85	44	43	38			
01-25-2023	58	38	48	0.21	96	55	44	41			
01-26-2023	39	32	35	0.02	85	25	43	40			
01-27-2023	48	24	36	0.02	81	24	40	38			
01-28-2023	58	37	47		61	30	44	38			
01-29-2023	49	43	46	0.53	100	37	44	42			
01-30-2023	47	35	41		100	89	46	44			
01-31-2023	32	28	30	0.26	92	24	41	40			

Summary for the period 1-1-2023 through 1-31-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
	51	37	44	6.28	88	49	46	42			
(Deviation from normal)	+12	+14	+13	+3.42							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)  
 "T" indicates Trace amount of Precip (too small to measure).

# Lexington Climate Data, February

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
02-01-2023	34	22	28	0.01	96	66	41	38			
02-02-2023	37	26	31		89	64	40	38			
02-03-2023	31	22	26		78	36	40	37			
02-04-2023	51	17	34		68	26	37	35			
02-05-2023	55	40	47		67	41	41	37			
02-06-2023	56	28	42		88	34	45	38			
02-07-2023	67	45	56		83	39	46	41			
02-08-2023	56	46	51	0.02	100	74	48	46			
02-09-2023	74	50	62	T	84	31	52	48			
02-10-2023	48	40	44		79	56	51	46			
02-11-2023	51	25	38		88	25	47	41			
02-12-2023	57	32	44		64	15	46	41			
02-13-2023	64	30	47		53	23	46	40			
02-14-2023	63	31	47	T	69	27	46	42			
02-15-2023	73	54	63	0.06	80	35	52	46			
02-16-2023	62	57	59	2.50	100	80	54	50			
02-17-2023	42	32	37	0.01	82	56	54	44			
02-18-2023	47	22	34		81	32	45	40			
02-19-2023	62	40	51		53	27	47	42			
02-20-2023	58	52	55		90	38	48	45			
02-21-2023	60	43	51		89	22	51	45			
02-22-2023	77	47	62	0.03	83	30	54	46			
02-23-2023	76	58	67	0.95	93	40	59	54			
02-24-2023	48	32	40		67	43	59	49			
02-25-2023	53	33	43	0.02	97	52	58	47			
02-26-2023	59	36	47		93	57	51	45			
02-27-2023	74	50	62	0.13	93	33	54	49			
02-28-2023	63	49	56		77	46	57	50			

Summary for the period 2-1-2023 through 2-28-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
	57	38	47	3.73	82	41	49	44			
(Deviation from normal)	+13	+12	+13	+0.52							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)

"T" indicates Trace amount of Precip (too small to measure).

# Lexington Climate Data, March

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
03-01-2023	81	50	65		89	20	57	49			
03-02-2023	59	49	54	0.54	100	40	57	53			
03-03-2023	71	45	58	0.91	97	54	54	49			
03-04-2023	59	41	50	T	79	30	56	47			
03-05-2023	63	33	48		82	37	56	46			
03-06-2023	75	46	60		55	31	56	49			
03-07-2023	60	44	52		74	43	55	50			
03-08-2023	48	30	39		55	33	51	44			
03-09-2023	61	39	50		93	36	53	44			
03-10-2023	50	40	45	0.16	100	62	52	47			
03-11-2023	48	36	42		75	47	51	44			
03-12-2023	40	35	37	0.07	100	55	50	45			
03-13-2023	39	33	36	0.02	89	54	45	43			
03-14-2023	42	29	35	0.01	81	26	45	40			
03-15-2023	51	21	36		85	22	48	38			
03-16-2023	67	34	50		48	19	48	40			
03-17-2023	55	37	46	0.40	97	28	48	46			
03-18-2023	43	24	33		78	37	46	40			
03-19-2023	37	20	28	T	65	36	43	38			
03-20-2023	51	21	36		65	24	46	38			
03-21-2023	60	32	46		63	21	47	39			
03-22-2023	55	46	50	0.15	96	61	47	45			
03-23-2023	77	57	67	T	87	53	55	47			
03-24-2023	69	58	63	0.83	100	37	55	54			
03-25-2023	69	54	61	0.56	93	38	58	55			
03-26-2023	70	36	53		83	29	58	48			
03-27-2023	66	49	57		76	40	59	52			
03-28-2023	55	35	45	T	92	44	58	49			
03-29-2023	60	30	45		85	25	56	46			
03-30-2023	64	35	49		79	24	58	47			
03-31-2023	64	51	57	0.80	93	31	57	51			

Summary for the period 3-1-2023 through 3-31-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
	58	38	48	4.45	82	37	52	46			
(Deviation from normal)	+4	+4	+4	+0.05							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)  
 "T" indicates Trace amount of Precip (too small to measure).

# Lexington Climate Data, April

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS	BARE	MX	MN	
04-01-2023	69	44	56	0.40	84	26	57	54			
04-02-2023	59	41	50		70	37	58	50			
04-03-2023	74	44	59		59	36	59	50			
04-04-2023	80	58	69		80	51	62	55			
04-05-2023	87	64	75	0.35	87	34	66	60			
04-06-2023	62	44	53	0.17	97	60	64	56			
04-07-2023	57	43	50	T	76	34	55	52			
04-08-2023	59	41	50		55	24	55	49			
04-09-2023	67	36	51		52	23	57	47			
04-10-2023	72	40	56		60	21	60	49			
04-11-2023	76	38	57		79	25	62	51			
04-12-2023	77	45	61		61	26	64	54			
04-13-2023	84	44	64		71	21	65	55			
04-14-2023	77	60	68		75	38	65	59			
04-15-2023	79	55	67		86	41	67	59			
04-16-2023	69	50	59	T	87	56	66	61			
04-17-2023	62	44	53		73	23	61	55			
04-18-2023	71	38	54		70	26	62	53			
04-19-2023	82	43	62		66	25	64	55			
04-20-2023	85	59	72		49	21	65	57			
04-21-2023	76	59	67	0.05	100	37	64	59			
04-22-2023	63	43	53	0.88	100	33	63	57			
04-23-2023	52	36	44		76	39	60	54			
04-24-2023	56	31	43		85	32	58	51			
04-25-2023	66	37	51		62	26	59	52			
04-26-2023	71	40	55		79	33	60	53			
04-27-2023	69	49	59	T	90	40	60	55			
04-28-2023	68	59	63	0.48	96	63	60	55			
04-29-2023	63	47	55	0.01	93	67	62	57			
04-30-2023	61	45	53	0.02	89	42	60	52			

Summary for the period 4-1-2023 through 4-30-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS	BARE	MX	MN	
	70	46	58	2.36	77	35	61	54			
(Deviation from normal)	+4	+1	+3	-1.52							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)  
 "T" indicates Trace amount of Precip (too small to measure).

# Lexington Climate Data, May

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS	MN	BARE	MN	
05-01-2023	56	45	50	0.02	76	41	62	57			
05-02-2023	63	45	54		54	32	57	52			
05-03-2023	63	42	52		62	37	58	53			
05-04-2023	70	36	53		85	32	60	52			
05-05-2023	76	45	60		71	26	64	55			
05-06-2023	77	50	63		80	38	64	58			
05-07-2023	72	63	67	0.44	90	61	64	61			
05-08-2023	77	54	65	0.08	93	65	65	60			
05-09-2023	77	63	70	0.05	90	44	66	63			
05-10-2023	79	49	64		68	31	68	60			
05-11-2023	84	60	72	T	76	38	68	62			
05-12-2023	76	67	71	0.03	87	61	68	65			
05-13-2023	82	67	74	T	90	56	70	65			
05-14-2023	80	64	72	0.35	87	48	71	67			
05-15-2023	77	60	68		70	46	71	66			
05-16-2023	69	59	64	0.49	90	67	70	66			
05-17-2023	75	51	63		93	41	69	64			
05-18-2023	80	48	64		71	37	70	62			
05-19-2023	78	66	72	T	81	57	70	67			
05-20-2023	73	60	66	0.82	97	49	70	67			
05-21-2023	75	49	62		83	35	70	63			
05-22-2023	78	49	63		83	30	69	64			
05-23-2023	84	57	70		75	37	72	65			
05-24-2023	82	55	68		72	33	72	65			
05-25-2023	74	55	64		74	27	71	66			
05-26-2023	79	49	64		71	38	70	63			
05-27-2023	73	54	63		64	36	70	64			
05-28-2023	65	54	59	0.25	86	51	68	64			
05-29-2023	82	57	69		86	47	71	64			
05-30-2023	85	63	74	T	78	39	76	67			
05-31-2023	87	66	76		75	35	77	69			

Summary for the period 5-1-2023 through 5-31-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS	MN	BARE	MN	
	76	55	65	2.53	79	42	68	62			
(Deviation from normal)	+0	-0	+0	-1.94							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)  
 "T" indicates Trace amount of Precip (too small to measure).



# Lexington Climate Data, June

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
06-01-2023	89	62	75		83	28	78	71			
06-02-2023	91	59	75		89	20	77	71			
06-03-2023	93	58	75		77	24	77	71			
06-04-2023	89	60	74		72	37	80	71			
06-05-2023	87	62	74		83	31	79	73			
06-06-2023	85	53	69		86	25	78	71			
06-07-2023	74	62	68	0.37	93	51	77	71			
06-08-2023	78	50	64		89	24	74	67			
06-09-2023	81	50	65		77	22	74	66			
06-10-2023	84	52	68		77	27	75	66			
06-11-2023	81	63	72	0.19	90	50	74	69			
06-12-2023	71	61	66	0.53	90	48	73	68			
06-13-2023	78	49	63		86	35	72	65			
06-14-2023	84	64	74		59	37	73	66			
06-15-2023	85	60	72		83	37	76	67			
06-16-2023	85	65	75		78	70	76	70			
06-17-2023	82	53	67		86	35	76	69			
06-18-2023	85	53	69		86	29	77	69			
06-19-2023	78	68	73	1.10	90	68	77	71			
06-20-2023	84	70	77	0.23	90	58	77	71			
06-21-2023	83	66	74	0.06	84	50	77	71			
06-22-2023	71	61	66		84	63	76	70			
06-23-2023	75	65	70	0.04	90	65	73	70			
06-24-2023	88	67	77		87	41	78	70			
06-25-2023	86	66	76	0.33	90	56	78	71			
06-26-2023	85	65	75	1.30	87	47	76	70			
06-27-2023	83	63	73	0.03	87	48	77	70			
06-28-2023	85	62	73		87	47	79	71			
06-29-2023	83	67	75		81	56	79	72			
06-30-2023	85	69	77	2.57	87	67	78	71			

Summary for the period 6-1-2023 through 6-30-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
	83	61	72	6.75	84	43	76	70			
(Deviation from normal)	+0	-1	-1	+3.09							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)

# Lexington Climate Data, July

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
07-01-2023	83	69	76	1.24	93	63	78	73			
07-02-2023	87	69	78	1.19	90	62	77	72			
07-03-2023	85	70	77	0.06	90	56	79	72			
07-04-2023	89	70	79	T	87	52	82	73			
07-05-2023	91	69	80		87	39	85	74			
07-06-2023	89	75	82	0.09	84	51	84	76			
07-07-2023	89	70	79	0.01	90	34	85	76			
07-08-2023	84	66	75	T	87	58	83	75			
07-09-2023	83	70	76	0.13	90	50	80	75			
07-10-2023	86	57	71		90	38	80	71			
07-11-2023	87	63	75		83	39	82	73			
07-12-2023	88	63	75		84	41	82	73			
07-13-2023	91	74	82		84	53	83	76			
07-14-2023	92	72	82	T	87	35	86	77			
07-15-2023	82	70	76	0.14	87	68	85	78			
07-16-2023	86	69	77		90	44	82	75			
07-17-2023	87	70	78	0.03	81	44	82	75			
07-18-2023	88	64	76	1.05	90	58	80	73			
07-19-2023	84	70	77	0.21	93	58	79	75			
07-20-2023	84	73	78	0.46	87	64	80	75			
07-21-2023	85	69	77		90	48	82	75			
07-22-2023	85	68	76		84	44	81	76			
07-23-2023	85	62	73		87	39	82	74			
07-24-2023	88	66	77	T	84	51	80	74			
07-25-2023	89	66	77	0.71	90	49	82	73			
07-26-2023	92	74	83	T	85	51	82	77			
07-27-2023	93	77	85		76	57	82	78			
07-28-2023	94	73	83		79	55	83	77			
07-29-2023	93	77	85	T	81	46	84	80			
07-30-2023	90	72	81		85	41	83	79			
07-31-2023	87	65	76		84	39	82	77			

Summary for the period 7-1-2023 through 7-31-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
	88	69	78	5.32	86	49	82	75			
(Deviation from normal)	+2	+4	+3	+0.32							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)  
 "T" indicates Trace amount of Precip (too small to measure).

# Lexington Climate Data, August

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS	MN	BARE	MN	
08-01-2023	84	60	72		83	38	80	75			
08-02-2023	81	62	71		72	51	80	75			
08-03-2023	85	69	77	0.58	91	60	78	75			
08-04-2023	90	65	77		90	44	80	75			
08-05-2023	89	66	77		87	46	80	76			
08-06-2023	87	75	81	T	84	58	79	77			
08-07-2023	86	71	78	0.12	87	51	79	76			
08-08-2023	83	67	75	0.05	90	49	79	75			
08-09-2023	82	67	74	T	87	56	78	75			
08-10-2023	84	70	77	T	90	52	78	75			
08-11-2023	88	66	77		90	40	81	74			
08-12-2023	89	71	80	0.01	84	53	80	76			
08-13-2023	91	71	81	0.03	87	48	82	76			
08-14-2023	86	72	79	0.27	87	67	82	77			
08-15-2023	77	66	71	0.08	90	55	80	76			
08-16-2023	80	63	71	0.02	93	53	79	74			
08-17-2023	83	60	71		90	47	79	72			
08-18-2023	81	62	71	0.10	96	37	79	74			
08-19-2023	84	56	70		86	37	78	71			
08-20-2023	93	64	78		81	36	80	73			
08-21-2023	95	70	82		87	45	80	75			
08-22-2023	93	73	83		87	47	81	77			
08-23-2023	94	67	80		79	40	82	76			
08-24-2023	91	72	81	0.46	87	53	82	77			
08-25-2023	98	71	84	0.68	91	47	82	78			
08-26-2023	89	71	80	T	87	55	82	77			
08-27-2023	80	69	74	T	87	62	82	77			
08-28-2023	85	67	76		84	44	78	75			
08-29-2023	85	67	76		73	47	78	74			
08-30-2023	81	59	70		83	39	77	73			
08-31-2023	77	55	66		86	48	76	71			

Summary for the period 8-1-2023 through 8-31-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS	MN	BARE	MN	
	86	67	76	2.40	86	49	80	75			
(Deviation from normal)	+2	+4	+3	-1.53							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)  
 "T" indicates Trace amount of Precip (too small to measure).

# Lexington Climate Data, September

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS	BARE	MX	MN	
09-01-2023	89	55	72			86	44	76	70		
09-02-2023	91	67	79			87	41	78	73		
09-03-2023	92	66	79			84	37	78	74		
09-04-2023	93	65	79			84	35	78	73		
09-05-2023	95	70	82			78	34	79	75		
09-06-2023	86	71	78	T		87	58	79	75		
09-07-2023	82	66	74			87	54	77	75		
09-08-2023	82	63	72			90	54	77	73		
09-09-2023	74	62	68			90	68	76	73		
09-10-2023	83	62	72			84	45	76	71		
09-11-2023	87	60	73			90	38	79	71		
09-12-2023	77	62	69	0.30		90	53	78	72		
09-13-2023	79	60	69	0.09		100	29	77	71		
09-14-2023	81	49	65			84	28	76	67		
09-15-2023	79	54	66			77	32	76	68		
09-16-2023	84	49	66			86	34	76	68		
09-17-2023	78	59	68	T		86	38	76	71		
09-18-2023	79	51	65			89	38	75	68		
09-19-2023	80	50	65			83	28	76	68		
09-20-2023	85	57	71			75	30	76	68		
09-21-2023	85	58	71			81	33	76	70		
09-22-2023	88	56	72			84	29	77	69		
09-23-2023	81	52	66			84	23	76	69		
09-24-2023	84	53	68			86	40	76	69		
09-25-2023	82	60	71	T		87	39	76	70		
09-26-2023	87	61	74			87	34	78	70		
09-27-2023	77	64	70	0.02		87	59	77	71		
09-28-2023	78	64	71	0.58		100	53	73	70		
09-29-2023	83	61	72	T		90	47	75	68		
09-30-2023	84	57	70			89	39	75	68		

Summary for the period 9-1-2023 through 9-30-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS	BARE	MX	MN	
	84	59	71	0.99	86	40	77	71			
(Deviation from normal)	+6	+4	+5	-2.21							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)  
 "T" indicates Trace amount of Precip (too small to measure).

# Lexington Climate Data, October

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
10-01-2023	85	58	71		87	36	76	68			
10-02-2023	87	55	71		86	29	76	68			
10-03-2023	90	58	74		84	29	77	69			
10-04-2023	87	58	72		86	33	76	69			
10-05-2023	79	60	69	0.01	87	46	75	70			
10-06-2023	77	63	70	0.04	90	35	73	69			
10-07-2023	64	43	53		73	31	72	63			
10-08-2023	62	41	51		76	35	67	60			
10-09-2023	70	44	57	T	76	27	65	59			
10-10-2023	69	42	55		82	25	66	59			
10-11-2023	69	38	53		86	31	65	58			
10-12-2023	82	53	67		83	32	68	60			
10-13-2023	84	54	69		80	29	70	63			
10-14-2023	65	54	59	0.26	93	61	68	63			
10-15-2023	58	51	54	0.02	86	51	64	60			
10-16-2023	55	47	51	0.13	100	53	61	58			
10-17-2023	57	50	53		83	59	59	57			
10-18-2023	67	44	55		86	40	62	56			
10-19-2023	70	53	61	0.21	93	45	62	57			
10-20-2023	63	55	59	0.58	96	59	60	59			
10-21-2023	73	41	57		86	33	60	55			
10-22-2023	63	48	55		80	41	61	56			
10-23-2023	73	39	56		79	28	61	54			
10-24-2023	79	52	65		66	32	62	56			
10-25-2023	80	58	69		57	37	64	58			
10-26-2023	78	61	69		67	43	64	60			
10-27-2023	72	65	68	0.04	84	58	64	62			
10-28-2023	73	63	68	0.05	90	73	65	62			
10-29-2023	67	60	63	0.35	93	84	65	64			
10-30-2023	58	44	51	0.61	93	73	64	59			
10-31-2023	49	31	40	T	85	40	58	53			

Summary for the period 10-1-2023 through 10-31-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	MX	MN	MX	MN	
	71	51	61	2.30	84	43	66	61			
(Deviation from normal)	+3	+6	+5	-0.27							

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)  
 "T" indicates Trace amount of Precip (too small to measure).

# Lexington Climate Data, November

This weather data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 Ext245)  
 World Wide Web URL: <http://www.agwx.ca.uky.edu/>

DATE	AIR TEMP			PRECIP	RH		SOIL TEMP				EVAP
	MX	MN	AV		MX	MN	GRASS	BARE	MX	MN	
11-01-2023	48	27	37		78	37	53	52			
11-02-2023	57	28	42		75	20	54	47			
11-03-2023	63	39	51		50	20	52	47			
11-04-2023	68	48	58		57	33	54	50			
11-05-2023	66	48	57		77	22	56	52			
11-06-2023	74	40	57		70	38	56	51			
11-07-2023	75	64	69		83	50	60	55			
11-08-2023	81	54	67		90	41	61	56			
11-09-2023	72	57	64	T	78	43	62	60			
11-10-2023	58	47	52	0.10	93	51	61	57			
11-11-2023	55	35	45		79	43	59	53			
11-12-2023	60	35	47		82	36	56	51			
11-13-2023	67	33	50		85	30	55	50			
11-14-2023	60	37	48		55	27	54	50			
11-15-2023	71	41	56		53	20	55	50			
11-16-2023	72	40	56		65	30	56	50			
11-17-2023	66	60	63	0.02	89	51	56	54			
11-18-2023	55	42	48	0.02	86	38	56	53			
11-19-2023	61	30	45		88	28	55	49			
11-20-2023	53	47	50	0.01	77	44	53	51			
11-21-2023	55	49	52	1.46	93	71	52	51			
11-22-2023	50	41	45		89	61	53	51			
11-23-2023	53	32	42		88	52	51	47			
11-24-2023	50	33	41		88	60	50	46			
11-25-2023	50	29	39		76	50	49	45			
11-26-2023	53	40	46	0.05	93	67	48	46			
11-27-2023	42	31	36	0.04	78	53	48	45			
11-28-2023	35	24	29	T	68	39	43	40			
11-29-2023	51	16	33		74	38	44	39			
11-30-2023	61	37	49		64	29	45	41			

Summary for the period 11-1-2023 through 11-30-2023:

	AIR TEMP			TOTAL PRECIP	RH		SOIL TEMP				TOTAL EVAP
	MX	MN	AV		MX	MN	GRASS	BARE	MX	MN	
(Deviation from normal)	+3	+6	+5	-1.69	77	41	54	50			

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)  
 "T" indicates Trace amount of Precip (too small to measure).

# Lexington Monthly Climate Data, Jan-Nov

This data provided by the University of Kentucky  
 Agricultural Weather Center (Phone (859)257-3000 ext.245)  
 World Wide Web URL: <http://www.wagwx.ca.uky.edu/>

Monthly Climate Data(01-2023 to 11-2023)

		----- AIR TEMPERATURE -----							-- SOD --		
		AVERAGE			EXTREME		AVG DEPART	NO. OF DAYS		4" TEMP	
YEAR	MONTH	MAX	MIN	AVG	MAX	MIN	FROM NORM	>=90	<=32	MAX	MIN
2023	Jan	51	37	44	67	20	+13	0	9	46	42
2023	Feb	57	38	47	77	17	+12	0	12	49	44
2023	Mar	58	38	48	81	20	+4	0	8	52	46
2023	Apr	70	46	58	87	31	+3	0	1	61	54
2023	May	76	55	65	87	36	+1	0	0	68	62
2023	Jun	83	61	72	93	49	-0	2	0	76	70
2023	Jul	88	69	78	94	57	+2	8	0	82	75
2023	Aug	86	67	76	98	55	+1	8	0	80	75
2023	Sep	84	59	71	95	49	+3	4	0	77	71
2023	Oct	71	51	61	90	31	+4	1	1	66	61
2023	Nov	59	39	49	81	16	+4	0	8	54	50

		----- PRECIPITATION -----						
		DEPARTURE		CUMULATIVE		GREATEST	% RAIN	NO. DAYS
YEAR	MONTH	TOTAL	NORMAL	TOTAL	DEPARTURE	24 HOUR	DAYS	>=.01
2023	Jan	6.28	+3.42	6.28	+3.42	2.59	45	14
2023	Feb	3.73	+0.52	10.01	+3.94	2.50	32	9
2023	Mar	4.45	+0.05	14.46	+3.99	0.91	35	11
2023	Apr	2.36	-1.52	16.82	+2.47	0.88	27	8
2023	May	2.53	-1.94	19.35	+0.53	0.82	29	9
2023	Jun	6.75	+3.09	26.10	+3.62	2.57	37	11
2023	Jul	5.32	+0.32	31.42	+3.94	1.24	39	12
2023	Aug	2.40	-1.53	33.82	+2.41	0.68	35	11
2023	Sep	0.99	-2.21	34.81	+0.20	0.58	13	4
2023	Oct	2.30	-0.27	37.11	-0.07	0.61	35	11
2023	Nov	1.70	-1.69	38.81	-1.76	1.46	23	7

Data if used for legal purposes must be certified by NCDC,  
 National Climate Data Center (Phone 828/271-4800)

# University of Kentucky

## Preemergence Use of Anthem Flex herbicide for Italian Ryegrass and Annual Bluegrass Management in Winter Wheat

Trial ID: 23-2\_WHT-REC      Cooperator Trial ID:  
 Protocol ID: USA-22-066      Location: University of Kentucky      Trial Year: 2023  
 Project ID:      Project ID 2:      Project ID 3:  
 Study Director: Josh Mayfield      Sponsor Contact:  
 Investigator: Travis Legleiter

Reps: 4		Plots: 10 by 30 feet		Mix Size: 2 L (total for 4 plots; minimum=1.564 L)											
Trt	Treatment	Form	Form	Form	Rate	Other	Other	Appl	Amt	Product	Rep	1	2	3	4
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Code to Measure					
1	UNTREATED CHECK											101	210	304	410
2	ANTHEM FLEX INDUCE	4 LB/GAL 90 %	SE SL		3.20 FL OZ/A 0.25 % V/V			B B	3.333 mL/mx 4.999 mL/mx		102	208	302	407	
3	ANTHEM FLEX INDUCE	4 LB/GAL 90 %	SE SL		3.50 FL OZ/A 0.25 % V/V			A A	3.646 mL/mx 4.999 mL/mx		103	201	307	408	
4	ANTHEM FLEX INDUCE	4 LB/GAL 90 %	SE SL		3.50 FL OZ/A 0.25 % V/V			B B	3.646 mL/mx 4.999 mL/mx		104	209	306	404	
5	ANTHEM FLEX INDUCE	4 LB/GAL 90 %	SE SL		2.70 FL OZ/A 0.25 % V/V			A A	2.812 mL/mx 4.999 mL/mx		105	203	308	405	
6	ANTHEM FLEX INDUCE	4 LB/GAL 90 %	SE SL		2.70 FL OZ/A 0.25 % V/V			B B	2.812 mL/mx 4.999 mL/mx		106	202	310	406	
7	ANTHEM FLEX INDUCE	4 LB/GAL 90 %	SE SL		2.70 FL OZ/A 0.25 % V/V			B B	2.812 mL/mx 4.999 mL/mx		107	204	301	402	
	HARMONY EX SG (0.6 oz/a)														
	HARMONY SG	50 %W/W	SG		0.4 OZ/A		0.0125 LB A/A	C	0.3994 g/mx						
	EXPRESS SG	50 %W/W	SG		0.2 OZ/A		0.00625 LB A/A	C	0.1997 g/mx						
	INDUCE	90 %	SL		0.25 % V/V			C	4.999 mL/mx						
8	ANTHEM FLEX FINESSEC&F (0.5 oz/A)	4 LB/GAL	SE		2.70 FL OZ/A			B	2.812 mL/mx		108	206	303	401	
	GLEAN XP (75WG)	75 %W/W	WG		0.4166667 OZ/A		0.0195 LB A/A	B	0.4161 g/mx						
	ALLY XP	60 %W/W	DF		0.104167 OZ/A		0.0039 LB A/A	B	0.104 g/mx						
	INDUCE	90 %	SL		0.25 % V/V			B	4.999 mL/mx						
9	ANTHEM FLEX INDUCE	4 LB/GAL 90 %	SE SL		2.70 FL OZ/A 0.25 % V/V			B B	2.812 mL/mx 4.999 mL/mx		109	205	309	403	
	ANTHEM FLEX INDUCE	4 LB/GAL 90 %	SE SL		1.80 FL OZ/A 0.25 % V/V			C C	1.875 mL/mx 4.999 mL/mx						
10	ANTHEM FLEX INDUCE	4 LB/GAL 90 %	SE SL		2.70 FL OZ/A 0.25 % V/V			B B	2.812 mL/mx 4.999 mL/mx		110	207	305	409	
	POWERFLEX HL INDUCE	13.13 %W/W 90 %	WG SL		2 OZ WT/A 0.25 % V/V			C C	1.997 g/mx 4.999 mL/mx						

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form	Conc	Form	Unit	Form	Type	Lot	Code
29.375 mL		ANTHEM FLEX	4		LB/GAL		SE			
59.993 mL		INDUCE	90		%		SL			
0.399 g		HARMONY SG	50		%W/W		SG			
0.200 g		EXPRESS SG	50		%W/W		SG			
0.416 g		GLEAN XP (75WG)	75		%W/W		WG			
0.104 g		ALLY XP	60		%W/W		DF			
1.997 g		POWERFLEX HL	13.13		%W/W		WG			

\* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

\* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.



# University of Kentucky

## Preemergence Use of Anthem Flex herbicide for Italian Ryegrass and Annual Bluegrass Management in Winter Wheat

Trial ID: 23-2\_WHT-REC      Cooperator Trial ID:  
 Protocol ID: USA-22-066      Location: University of Kentucky      Trial Year: 2023  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Josh Mayfield      Sponsor Contact:  
 Investigator: Travis Legleiter

### General Trial Information

**Study Director:** Josh Mayfield  
**Investigator:** Travis Legleiter      **Title:** Assistant Extension Professor

**Discipline:** H      herbicide  
**Status:** E      established

**ARM Trial Created On:** 10-17-2022

### Trial Location

**City:** Princeton      **Country:** USA United States  
**State/Prov.:** Kentucky      **County:** Caldwell  
**Postal Code:** 42445

### Regulations

**Conducted Under GLP:** No  
**Conducted Under GEP:** No

### Contacts

**Role:** STYDIR study director  
**Study Director:** Josh Mayfield  
**Role:** INVEST investigator  
**Investigator:** Travis Legleiter      **Title:** Assistant Extension Professor  
**Organization:** University of Kentucky  
**Address 1:** 348 University Drive      **Phone No.:** 859-562-1323  
**Country:** USA United States      **E-mail:** Travis.Legleiter@uky.edu  
**City:** Princeton, KY      **Postal Code:** 42445

### Crop Description

**Crop 1:** C      TRZAW Triticum aestivum      Winter wheat      **BBCH Scale:** BCER  
**Entry Date:** 8-1-2023      **Stage Scale:** BBCH  
**Variety:** Pioneer 26R59  
**Planting Date:** 10-28-2022      **Planting Rate:** 156.7 LB/A  
**Depth:** 1 IN      **Planting Method:** DRILLE drilled  
**Row Spacing:** 7.5 IN  
**Soil Temperature:** 60 F      **Soil Moisture:** SLIWET slightly wet, moist  
**Harvested Width:** 5 FT  
**% Standard Moisture:** 13.5

### Pest Description

**Pest 1 Type:** W      **Code:** LAMAM Lamium amplexicaule      **Entry Date:** 8-1-2023  
**Common Name:** Henbit deadnettle      **Stage Scale:** BBCH

**Pest 2 Type:** W      **Code:** LOLMG Lolium multiflorum gaudini      **Entry Date:** 8-1-2023  
**Common Name:** Annual ryegrass      **Stage Scale:** BBCH

**Pest 3 Type:** W      **Code:** GERCA Geranium carolinianum      **Entry Date:** 8-1-2023  
**Common Name:** Carolina geranium      **Stage Scale:** BBCH

**Pest 4 Type:** W      **Code:** ALLVI Allium vineale      **Entry Date:** 8-1-2023  
**Common Name:** Field garlic      **Stage Scale:** BBCH

**Pest 5 Type:** W      **Code:** STEME Stellaria media      **Entry Date:** 8-1-2023  
**Common Name:** chickweed      **Stage Scale:** BBCH

**Pest 6 Type:** W      **Code:** AMBTR Ambrosia trifida      **Entry Date:** 8-1-2023  
**Common Name:** Giant ragweed      **Stage Scale:** BBCH

### Site and Design

**Treated Plot Width:** 10 FT      **Site Type:** FIELD field  
**Treated Plot Length:** 30 FT  
**Treated Plot Area:** 300.0 FT<sup>2</sup>      **Tillage Type:** CONTIL conventional-till  
**Replications:** 4      **Treatments:** 10      **Plots:** 40      **Study Design:** RACOB� Randomized Complete Block (RCB)  
**Distance between Blocks:** 1 FT  
**Distance between 'Plot' Experimental Units:** 0.5 FT

### Maintenance

No.	Date	Type	Product Name	Conc	Unit	Form	Form	Form	Rate	Rate	Unit
1.	2-21-2023	FERT	UAN 28-0-0	28	%	L			40	LB	A/A
2.	3-30-2023	FERT	UAN 28-0-0	28	%	L			80	LB	A/A

# University of Kentucky

## Field Prep./Maintenance:

### MAINTENANCE TREATMENT

PART	TYPE	COMPONENT	RATE	UNIT	TIMING	APPS	LOT #
A	Pesticide	PARAZONE 3SL	29	Ounce (Fluid) Product Per Acre	4 PREPRE	1	
B	Pesticide	INDUCE	0.25	Percent Volume Per Volume	4 PREPRE	1	
C	Pesticide	HARMONY EX SG	0.60	Ounce (Dry) Product Per Acre	3 LAPOWE	1	
D	Pesticide	QUELEX	0.75	Ounce (Dry) Product Per Acre	3 LAPOWE	1	
E	Pesticide	INDUCE	0.25	Percent Volume Per Volume	3 LAPOWE	1	

### Soil Description

**Description Name:** 201-AB  
**% Sand:** 7.2      **% OM:** 2.6      **Texture:** SIL      silt loam  
**% Silt:** 77.9      **Soil Name:** Crider Silt loam  
**% Clay:** 14.9  
**pH:** 5.29      **CEC:** 13.81

### Application Description

	A	B	C
<b>Date</b>	10-28-2022	11-7-2022	4-6-2023
<b>Start Time</b>	4:11 PM	11:32 AM	2:30 PM
<b>Stop Time</b>	4:17 PM	11:51 AM	2:45 PM
<b>Interval to Prev. Appl.</b>		10 DAYS	150 DAYS
<b>Method</b>	SPRAY	SPRAY	SPRAY
<b>Timing</b>	PREEM	PREPRE	LAPOWE
<b>Placement</b>	SOIL	SOIL	FOLIAR
<b>Applied By</b>	JLG	JLG	CMY
<b>Entry Date</b>	8-1-2023	8-2-2023	8-2-2023
<b>Air Temperature Start, Stop</b>	69, 68 F	67, 67 F	68, 68 F
<b>% Relative Humidity Start, Stop</b>	54, 55	50, 50	35, 35
<b>Wind Velocity+Dir. Start</b>	5 MPH, SW	2.6 MPH, SW	9 MPH, NW
<b>Wind Velocity+Dir. Stop</b>	5 MPH, SW	3.4 MPH, SW	5 MPH, NW
<b>Wind Velocity+Dir. Max</b>	5 MPH, SW	3.4 MPH, SW	11 MPH, NW
<b>Wet Leaves (Y/N)</b>	N, no	N, no	N, no
<b>Soil Temperature</b>	60 F	60 F	50 F
<b>Soil Moisture</b>	SLIWET	SLIWET	DRY
<b>% Cloud Cover</b>	15	90	0

### Protocol Application Directions:

#### TIMING (APPL)

TIMING No.	CODE	DESCRIPTION	MIN APPS	APP INTERVAL	MAX APPS	SPRAYER DEFAULT
0	UNTRCHK	Untreated Timing	0	0	0	
A=1	PREPRE	PRE	1	0	1	
B= 2	PREPRE	DPRE	1	0	1	
C=3	LAPOWE	4th Tiller/Spring Greenup	1	0	1	
D=4	PREPRE	Start Clean Burndown	1	0	1	

Comments: DPRE - delayed preemergence - when 80% of germinated seed have a shoot = 0.5" long

### Crop Stage At Each Application

	A	B	C
<b>Crop 1 Code, BBCH Scale</b>	TRZAW, BCER	TRZAW, BCER	TRZAW, BCER
<b>Stage Majority, Percent</b>			31, -
<b>Stage Minimum, Percent</b>			31, -
<b>Stage Maximum, Percent</b>			31, -
<b>Height Average</b>		1.875 IN	11 IN
<b>Height Minimum, Maximum</b>		0.25, 3.5	9, 13

# University of Kentucky

## Pest Stage At Each Application

	A	B	C
<b>Pest 1 Code, Type, Scale</b>	LAMAM, W, BBCH	LAMAM, W, BBCH	LAMAM, W, BBCH
<b>Height Average</b>		0.25 IN	2.75 IN
<b>Height Minimum, Maximum</b>		0.25, 0.25	0.25, 5.25
<b>Density Average</b>		55.38 FT2	9.25 FT2
<b>Density Minimum, Maximum</b>		14, 92	1, 13
<b>Pest 2 Code, Type, Scale</b>	LOLMG, W, BBCH	LOLMG, W, BBCH	LOLMG, W, BBCH
<b>Height Average</b>		2 IN	4.25 IN
<b>Height Minimum, Maximum</b>		1.25, 2.75	3, 5.5
<b>Density Average</b>		46.63 FT2	11.66 FT2
<b>Density Minimum, Maximum</b>		2, 89	4, 20
<b>Pest 3 Code, Type, Scale</b>	GERCA, W, BBCH	GERCA, W, BBCH	GERCA, W, BBCH
<b>Height Average</b>		0.25 IN	2 IN
<b>Height Minimum, Maximum</b>		0.25, 0.25	1.75, 2.25
<b>Density Average</b>		1.8 FT2	4 FT2
<b>Density Minimum, Maximum</b>		1, 3	0, 4
<b>Pest 4 Code, Type, Scale</b>	ALLVI, W, BBCH	ALLVI, W, BBCH	ALLVI, W, BBCH
<b>Height Average</b>		2.125 IN	
<b>Height Minimum, Maximum</b>		2, 2.25	
<b>Density Average</b>		3 FT2	
<b>Density Minimum, Maximum</b>		0, 3	
<b>Pest 5 Code, Type, Scale</b>	STEME, W, BBCH	STEME, W, BBCH	STEME, W, BBCH
<b>Height Average</b>		0.25 IN	9 IN
<b>Height Minimum, Maximum</b>		0.25, 0.25	0, 9
<b>Density Average</b>		6 FT2	9 FT2
<b>Density Minimum, Maximum</b>		1, 11	0, 9
<b>Pest 6 Code, Type, Scale</b>	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
<b>Height Average</b>			1.125 IN
<b>Height Minimum, Maximum</b>			0.5, 1.75
<b>Density Average</b>			10.75 FT2
<b>Density Minimum, Maximum</b>			3, 32

## Application Equipment

	A	B	C
<b>Equipment Type</b>	BACCAI	BACCAI	BACCAI
<b>Operation Pressure</b>	32 PSI	32 PSI	35 PSI
<b>Nozzle Model</b>	XR11002	XR11002	XR11002
<b>Nozzle Type</b>	FLAFXR	FLAFXR	FLAFXR
<b>Nozzle TradeName</b>	XR TeeJet	XR TeeJet	XR TeeJet
<b>Nozzle Tip Size, Color</b>	02, Yellow	02, Yellow	02, Yellow
<b>Nozzle Spacing</b>	20.0 IN	20.0 IN	20.0 IN
<b>Boom Length</b>	10.0 FT	10.0 FT	10.0 FT
<b>Boom Height</b>	18.0 IN	18.0 FT	18.0 FT
<b>Ground Speed</b>	3 MPH	3 MPH	3 MPH
<b>Carrier</b>	WATER	WATER	WATER
<b>Application Amount</b>	15 GAL/AC	15 GAL/AC	15 GAL/AC
<b>Mix Size</b>	2.0 L	2.0 L	2.0 L
<b>Propellant</b>	COMCO2	COMCO2	COMCO2

Notes	Context	Date	By	Notes
	STATUS	10-17-2022	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
	STATUS	8-1-2023	Travis Legleiter	Automatically added by ARM: Status changed to: E: changed by (EKYLET).
	STATUS	8-1-2023	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

# University of Kentucky

## Preemergence Use of Anthem Flex herbicide for Italian Ryegrass and Annual Bluegrass Management in Winter Wheat

Trial ID: 23-2\_WHT-REC      Cooperator Trial ID:  
 Protocol ID: USA-22-066      Location: University of Kentucky      Trial Year: 2023  
 Project ID:      Project ID 2:      Project ID 3:  
 Study Director: Josh Mayfield      Sponsor Contact:  
 Investigator: Travis Legleiter

Rating Date	11-10-2022	11-10-2022	11-10-2022	11-15-2022	11-15-2022
Part Rated	plant, c	plant, p	plant, p	plant, c	plant, p
Rating Type	phygen	control	control	phygen	control
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Crop Type, Code	C, TRZAW			C, TRZAW	
BBCH Scale	BCER			BCER	
Crop Scientific Name	Triticum aestiv>			Triticum aestiv>	
Crop Name	Winter wheat			Winter wheat	
Pest Type		W, Weed	W, Weed		W, Weed
Pest Code		LAMAM	LOLMG		LAMAM
Pest Scientific Name		Lamium amplexic>	Lolium multiflo>		Lamium amplexic>
Pest Name		Henbit deadnett>	Annual ryegrass		Henbit deadnett>
Pest Stage Scale		BBCH	BBCH		BBCH
Rating Timing					
Days After First/Last Applic.	13, 3	13, 3	13, 3	18, 8	18, 8
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	18 DA-A	18 DA-A
Plant-Eval Interval	13 DP-1	13 DP-1	13 DP-1	18 DP-1	18 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes			AA		
Number of Decimals					
Data Entry Date	11-18-2022	11-18-2022	11-18-2022	11-18-2022	11-18-2022

Trt	Treatment	Rate	Rate Unit	Appl Code	Plot	1	2	3	4	5
1	UNTREATED CHECK				101	0.0	0.0	0.0	0.0	0.0
					210	0.0	0.0	0.0	0.0	0.0
					304	0.0	0.0	0.0	0.0	0.0
					410	0.0	0.0	0.0	0.0	0.0
					Mean =	0.0	0.0	0.0d	0.0	0.0
2	ANTHEM FLEX	3.20 FL OZ/A	B		102	0.0	95.0	80.0	0.0	80.0
	INDUCE	0.25 % V/V	B		208	0.0	95.0	50.0	0.0	95.0
					302	0.0	95.0	90.0	0.0	95.0
					407	0.0	95.0	70.0	0.0	95.0
					Mean =	0.0	95.0	73.8d	0.0	91.3
3	ANTHEM FLEX	3.50 FL OZ/A	A		103	0.0	95.0	80.0	0.0	95.0
	INDUCE	0.25 % V/V	A		201	0.0	95.0	90.0	0.0	95.0
					307	0.0	95.0	90.0	0.0	95.0
					408	0.0	95.0	90.0	0.0	95.0
					Mean =	0.0	95.0	87.8d	0.0	95.0
4	ANTHEM FLEX	3.50 FL OZ/A	B		104	0.0	95.0	90.0	0.0	95.0
	INDUCE	0.25 % V/V	B		209	0.0	95.0	60.0	0.0	95.0
					306	0.0	95.0	75.0	0.0	95.0
					404	0.0	95.0	70.0	0.0	80.0
					Mean =	0.0	95.0	74.7d	0.0	91.3
5	ANTHEM FLEX	2.70 FL OZ/A	A		105	0.0	80.0	80.0	0.0	95.0
	INDUCE	0.25 % V/V	A		203	0.0	95.0	90.0	0.0	95.0
					308	0.0	95.0	90.0	0.0	95.0
					405	0.0	95.0	90.0	0.0	80.0
					Mean =	0.0	91.3	87.8d	0.0	91.3
6	ANTHEM FLEX	2.70 FL OZ/A	B		106	0.0	90.0	80.0	0.0	95.0
	INDUCE	0.25 % V/V	B		202	0.0	95.0	90.0	0.0	95.0
					310	0.0	95.0	80.0	0.0	95.0
					406	0.0	95.0	80.0	0.0	95.0
					Mean =	0.0	93.8	82.8d	0.0	95.0
7	ANTHEM FLEX	2.70 FL OZ/A	B		107	0.0	80.0	70.0	0.0	95.0
	INDUCE	0.25 % V/V	B		204	0.0	95.0	90.0	0.0	95.0
	HARMONY EX SG (0.6 oz/a)				301	0.0	95.0	65.0	0.0	95.0
	HARMONY SG	0.4 OZ/A	C		402	0.0	95.0	80.0	0.0	95.0
	EXPRESS SG	0.2 OZ/A	C							
	INDUCE	0.25 % V/V	C							
					Mean =	0.0	91.3	77.1d	0.0	95.0

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	11-10-2022	11-10-2022	11-10-2022	11-15-2022	11-15-2022
Part Rated	plant, c	plant, p	plant, p	plant, c	plant, p
Rating Type	phygen	control	control	phygen	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Crop Type, Code	C, TRZAW			C, TRZAW	
BBCH Scale	BCER			BCER	
Crop Scientific Name	Triticum aestiv>			Triticum aestiv>	
Crop Name	Winter wheat			Winter wheat	
Pest Type		W, Weed	W, Weed		W, Weed
Pest Code		LAMAM	LOLMG		LAMAM
Pest Scientific Name		Lamium amplexic>	Lolium multiflo>		Lamium amplexic>
Pest Name		Henbit deadnett>	Annual ryegrass		Henbit deadnett>
Pest Stage Scale		BBCH	BBCH		BBCH
Rating Timing					
Days After First/Last Applic.	13, 3	13, 3	13, 3	18, 8	18, 8
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	18 DA-A	18 DA-A
Plant-Eval Interval	13 DP-1	13 DP-1	13 DP-1	18 DP-1	18 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes			AA		
Number of Decimals					
Data Entry Date	11-18-2022	11-18-2022	11-18-2022	11-18-2022	11-18-2022

Trt	Treatment	Rate	Rate Unit	Appl Code	Plot	1	2	3	4	5
8	ANTHEM FLEX	2.70	FL OZ/A	B	108	0.0	95.0	70.0	0.0	95.0
	FINESSEC&F (0.5 oz/A)				206	0.0	95.0	80.0	0.0	95.0
	GLEAN XP (75WG)	0.4166667	OZ/A	B	303	0.0	90.0	65.0	0.0	95.0
	ALLY XP	0.104167	OZ/A	B	401	0.0	95.0	90.0	0.0	95.0
	INDUCE	0.25	% V/V	B						
	Mean =					0.0	93.8	77.1d	0.0	95.0
9	ANTHEM FLEX	2.70	FL OZ/A	B	109	0.0	95.0	80.0	0.0	95.0
	INDUCE	0.25	% V/V	B	205	0.0	90.0	80.0	0.0	95.0
	ANTHEM FLEX	1.80	FL OZ/A	C	309	0.0	95.0	70.0	0.0	95.0
	INDUCE	0.25	% V/V	C	403	0.0	95.0	70.0	0.0	95.0
		Mean =					0.0	93.8	75.2d	0.0
10	ANTHEM FLEX	2.70	FL OZ/A	B	110	0.0	90.0	60.0	0.0	95.0
	INDUCE	0.25	% V/V	B	207	0.0	95.0	80.0	0.0	95.0
	POWERFLEX HL	2	OZ WT/A	C	305	0.0	95.0	85.0	0.0	95.0
	INDUCE	0.25	% V/V	C	409	0.0	95.0	60.0	0.0	95.0
		Mean =					0.0	93.8	72.0d	0.0

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				11-15-2022	12-1-2022	12-1-2022	12-1-2022	12-1-2022	3-6-2023
				plant, p	plant, c	plant, p	plant, p	plant, p	plant, c
				control					
				%					
				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
				1	1	1	1	1	1
					C, TRZAW				C, TRZAW
					BCER				BCER
					Triticum aestiv>				Triticum aestiv>
					Winter wheat				Winter wheat
				W, Weed		W, Weed	W, Weed		
				LOLMG		LAMAM	LOLMG		
				Lolium multiflo>		Lamium amplexic>	Lolium multiflo>		
				Annual ryegrass		Henbit deadnett>	Annual ryegrass		
				BBCH		BBCH	BBCH		
				18, 8	34, 24	34, 24	34, 24	34, 24	129, 119
				18 DA-A					
				18 DP-1	34 DP-1	34 DP-1	34 DP-1	34 DP-1	129 DP-1
				Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
				11-18-2022	8-2-2023	8-2-2023	8-2-2023	8-2-2023	8-2-2023
Trt	Treatment	Rate	Rate Unit	Appl Code Plot	6	7	8	9	10
1	UNTREATED CHECK			101	0.0	0.0	0.0	0.0	0.0
				210	0.0	0.0	0.0	0.0	0.0
				304	0.0	0.0	0.0	0.0	0.0
				410	0.0	0.0	0.0	0.0	0.0
				Mean =	0.0	0.0	0.0	0.0	0.0
2	ANTHEM FLEX INDUCE	3.20 FL OZ/A	B	102	95.0	0.0	80.0	90.0	0.0
		0.25 % V/V	B	208	50.0	0.0	97.0	50.0	0.0
				302	97.0	0.0	97.0	90.0	0.0
				407	90.0	0.0	97.0	90.0	0.0
				Mean =	83.0	0.0	92.8	80.0	0.0
3	ANTHEM FLEX INDUCE	3.50 FL OZ/A	A	103	90.0	0.0	95.0	95.0	0.0
		0.25 % V/V	A	201	97.0	0.0	97.0	95.0	0.0
				307	97.0	0.0	80.0	90.0	0.0
				408	95.0	0.0	90.0	90.0	0.0
				Mean =	94.8	0.0	90.5	92.5	0.0
4	ANTHEM FLEX INDUCE	3.50 FL OZ/A	B	104	92.0	0.0	95.0	80.0	0.0
		0.25 % V/V	B	209	70.0	0.0	97.0	70.0	0.0
				306	97.0	0.0	97.0	80.0	0.0
				404	90.0	0.0	80.0	90.0	0.0
				Mean =	87.3	0.0	92.3	80.0	0.0
5	ANTHEM FLEX INDUCE	2.70 FL OZ/A	A	105	85.0	0.0	97.0	80.0	0.0
		0.25 % V/V	A	203	95.0	0.0	97.0	90.0	0.0
				308	95.0	0.0	80.0	90.0	0.0
				405	90.0	0.0	80.0	90.0	0.0
				Mean =	91.3	0.0	88.5	87.5	0.0
6	ANTHEM FLEX INDUCE	2.70 FL OZ/A	B	106	85.0	0.0	96.0	80.0	0.0
		0.25 % V/V	B	202	97.0	0.0	90.0	90.0	0.0
				310	90.0	0.0	97.0	90.0	0.0
				406	95.0	0.0	90.0	90.0	0.0
				Mean =	91.8	0.0	93.3	87.5	0.0
7	ANTHEM FLEX INDUCE	2.70 FL OZ/A	B	107	90.0	0.0	96.0	75.0	0.0
		0.25 % V/V	B	204	95.0	0.0	97.0	80.0	0.0
	HARMONY EX SG (0.6 oz/a)			301	95.0	0.0	97.0	90.0	0.0
	HARMONY SG	0.4 OZ/A	C	402	85.0	0.0	90.0	75.0	0.0
	EXPRESS SG	0.2 OZ/A	C						
	INDUCE	0.25 % V/V	C						
				Mean =	91.3	0.0	95.0	80.0	0.0

d=Means are reported in de-transformed data units

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Rating Date	11-15-2022	12-1-2022	12-1-2022	12-1-2022	3-6-2023
Part Rated	plant, p	plant, c	plant, p	plant, p	plant, c
Rating Type	control				
Rating Unit/Min/Max	%, 0, 100				
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Crop Type, Code		C, TRZAW			C, TRZAW
BBCH Scale		BCER			BCER
Crop Scientific Name		Triticum aestiv>			Triticum aestiv>
Crop Name		Winter wheat			Winter wheat
Pest Type	W, Weed		W, Weed	W, Weed	
Pest Code	LOLMG		LAMAM	LOLMG	
Pest Scientific Name	Lolium multiflo>		Lamium amplexic>	Lolium multiflo>	
Pest Name	Annual ryegrass		Henbit deadnett>	Annual ryegrass	
Pest Stage Scale	BBCH		BBCH	BBCH	
Rating Timing					
Days After First/Last Applic.	18, 8	34, 24	34, 24	34, 24	129, 119
Trt-Eval Interval	18 DA-A				
Plant-Eval Interval	18 DP-1	34 DP-1	34 DP-1	34 DP-1	129 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes					
Number of Decimals					
Data Entry Date	11-18-2022	8-2-2023	8-2-2023	8-2-2023	8-2-2023

Trt	Treatment	Rate	Unit	Appl	Code	Plot	6	7	8	9	10
8	ANTHEM FLEX	2.70	FL OZ/A	B	108		90.0	0.0	96.0	80.0	0.0
	FINESSEC&F (0.5 oz/A)			B	206		95.0	0.0	97.0	90.0	0.0
	GLEAN XP (75WG)	0.4166667	OZ/A	B	303		65.0	0.0	97.0	80.0	0.0
	ALLY XP	0.104167	OZ/A	B	401		95.0	0.0	95.0	90.0	0.0
	INDUCE	0.25	% V/V	B							
					Mean =		86.3	0.0	96.3	85.0	0.0
9	ANTHEM FLEX	2.70	FL OZ/A	B	109		80.0	0.0	97.0	80.0	0.0
	INDUCE	0.25	% V/V	B	205		95.0	0.0	97.0	90.0	0.0
	ANTHEM FLEX	1.80	FL OZ/A	C	309		90.0	0.0	97.0	90.0	0.0
	INDUCE	0.25	% V/V	C	403		75.0	0.0	80.0	65.0	0.0
					Mean =		85.0	0.0	92.8	81.3	0.0
10	ANTHEM FLEX	2.70	FL OZ/A	B	110		60.0	0.0	97.0	80.0	0.0
	INDUCE	0.25	% V/V	B	207		95.0	0.0	97.0	97.0	0.0
	POWERFLEX HL	2	OZ WT/A	C	305		95.0	0.0	97.0	90.0	0.0
	INDUCE	0.25	% V/V	C	409		80.0	0.0	80.0	75.0	0.0
					Mean =		82.5	0.0	92.8	85.5	0.0

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Rating Date	3-6-2023	3-6-2023	4-20-2023	4-20-2023	4-20-2023
Part Rated	plant, p	plant, p	plant, c	plant, p	plant, p
Rating Type			phyto		
Rating Unit/Min/Max					
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Crop Type, Code			C, TRZAW		
BBCH Scale			BCER		
Crop Scientific Name			Triticum aestiv>		
Crop Name			Winter wheat		
Pest Type	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	LAMAM	LOLMG		THLAR	LOLMG
Pest Scientific Name	Lamium amplexic>	Lolium multiflo>		Thlaspi arvense	Lolium multiflo>
Pest Name	Henbit deadnett>	Annual ryegrass		Field pennycress	Annual ryegrass
Pest Stage Scale	BBCH	BBCH		BBCH	BBCH
Rating Timing					
Days After First/Last Applic.	129, 119	129, 119	174, 14	174, 14	174, 14
Trt-Eval Interval					
Plant-Eval Interval	129 DP-1	129 DP-1	174 DP-1	174 DP-1	174 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes		EC			ER2
Number of Decimals					
Data Entry Date	8-2-2023	8-2-2023	8-2-2023	8-2-2023	8-2-2023

Trt	Treatment	Rate	Rate Unit	Appl Code	Plot	11	12	13	14	15
1	UNTREATED CHECK				101	0.0	0.0	0.0	0.0	0.0
					210	0.0	0.0	0.0	0.0	0.0
					304	0.0	0.0	0.0	0.0	0.0
					410	0.0	0.0	0.0	0.0	0.0
					Mean =	0.0	0.0	0.0	0.0	0.0
2	ANTHEM FLEX	3.20 FL OZ/A	B		102	70.0	97.0	0.0	85.0	95.0
	INDUCE	0.25 % V/V	B		208	90.0	90.0	0.0	90.0	
					302	80.0	90.0	0.0	90.0	60.0
					407	60.0	50.0	0.0	0.0	0.0
					Mean =	75.0	81.8	0.0	66.3	51.7
3	ANTHEM FLEX	3.50 FL OZ/A	A		103	71.0	90.0	0.0	80.0	80.0
	INDUCE	0.25 % V/V	A		201	60.0	80.0	0.0	50.0	
					307	30.0	80.0	0.0	80.0	60.0
					408	70.0	70.0	0.0	80.0	70.0
					Mean =	57.8	80.0	0.0	72.5	70.0
4	ANTHEM FLEX	3.50 FL OZ/A	B		104	80.0	97.0	0.0	90.0	95.0
	INDUCE	0.25 % V/V	B		209	90.0	80.0	0.0	70.0	
					306	90.0	80.0	0.0	90.0	90.0
					404	70.0	80.0	0.0	100.0	60.0
					Mean =	82.5	84.3	0.0	87.5	81.7
5	ANTHEM FLEX	2.70 FL OZ/A	A		105	90.0	90.0	0.0	80.0	50.0
	INDUCE	0.25 % V/V	A		203	70.0	70.0	0.0	95.0	
					308	30.0	80.0	0.0	80.0	50.0
					405	50.0	80.0	0.0	80.0	50.0
					Mean =	60.0	80.0	0.0	83.8	50.0
6	ANTHEM FLEX	2.70 FL OZ/A	B		106	82.0	50.0	0.0	95.0	25.0
	INDUCE	0.25 % V/V	B		202	70.0	95.0	0.0	80.0	
					310	70.0	60.0	0.0	80.0	20.0
					406	40.0	50.0	0.0	0.0	0.0
					Mean =	65.5	63.8	0.0	63.8	15.0
7	ANTHEM FLEX	2.70 FL OZ/A	B		107	80.0	80.0	0.0	95.0	70.0
	INDUCE	0.25 % V/V	B		204	60.0	50.0	0.0	95.0	
	HARMONY EX SG (0.6 oz/a)				301	50.0	70.0	0.0	90.0	80.0
	HARMONY SG	0.4 OZ/A	C		402	95.0	75.0	0.0	100.0	85.0
	EXPRESS SG	0.2 OZ/A	C							
	INDUCE	0.25 % V/V	C							
					Mean =	71.3	68.8	0.0	95.0	78.3

d=Means are reported in de-transformed data units



# University of Kentucky

Rating Date	3-6-2023	3-6-2023	4-20-2023	4-20-2023	4-20-2023
Part Rated	plant, p	plant, p	plant, c	plant, p	plant, p
Rating Type			phyto		
Rating Unit/Min/Max					
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Crop Type, Code			C, TRZAW		
BBCH Scale			BCER		
Crop Scientific Name			Triticum aestiv>		
Crop Name			Winter wheat		
Pest Type	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	LAMAM	LOLMG		THLAR	LOLMG
Pest Scientific Name	Lamium amplexic>	Lolium multiflo>		Thlaspi arvense	Lolium multiflo>
Pest Name	Henbit deadnett>	Annual ryegrass		Field pennycress	Annual ryegrass
Pest Stage Scale	BBCH	BBCH		BBCH	BBCH
Rating Timing					
Days After First/Last Applic.	129, 119	129, 119	174, 14	174, 14	174, 14
Trt-Eval Interval					
Plant-Eval Interval	129 DP-1	129 DP-1	174 DP-1	174 DP-1	174 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes		EC			ER2
Number of Decimals					
Data Entry Date	8-2-2023	8-2-2023	8-2-2023	8-2-2023	8-2-2023

Trt	Treatment	Rate	Rate Unit	Appl Code	Plot	11	12	13	14	15
8	ANTHEM FLEX	2.70	FL OZ/A	B	108	95.0	95.0	0.0	95.0	80.0
	FINESSEC&F (0.5 oz/A)				206	90.0	70.0	0.0	95.0	
	GLEAN XP (75WG)	0.4166667	OZ/A	B	303	90.0	70.0	0.0	95.0	85.0
	ALLY XP	0.104167	OZ/A	B	401	95.0	70.0	0.0	100.0	50.0
	INDUCE	0.25	% V/V	B						
					Mean =	92.5	76.3	0.0	96.3	71.7
9	ANTHEM FLEX	2.70	FL OZ/A	B	109	90.0	50.0	0.0	80.0	90.0
	INDUCE	0.25	% V/V	B	205	80.0	70.0	0.0	95.0	
	ANTHEM FLEX	1.80	FL OZ/A	C	309	80.0	90.0	0.0	50.0	80.0
	INDUCE	0.25	% V/V	C	403	80.0	60.0	0.0	90.0	95.0
					Mean =	82.5	67.5	0.0	78.8	88.3
10	ANTHEM FLEX	2.70	FL OZ/A	B	110	50.0	70.0	0.0	90.0	80.0
	INDUCE	0.25	% V/V	B	207	90.0	50.0	0.0	95.0	
	POWERFLEX HL	2	OZ WT/A	C	305	70.0	80.0	0.0	100.0	95.0
	INDUCE	0.25	% V/V	C	409	50.0	60.0	0.0	95.0	90.0
					Mean =	65.0	65.0	0.0	95.0	88.3

# University of Kentucky

				5-7-2023	5-25-2023	7-7-2023	7-7-2023	7-7-2023		
				plant, p	plant, p	PLOT, C	GRAIN, C	GRAIN, C		
						LENGTH	WEIGHT	MOICON		
						FT, -, -	LB, -, -	%, 0, 100		
Rating Date				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Part Rated				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Rating Type				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Rating Unit/Min/Max				1	1	1	1	1		
Sample Size						C, TRZAW	C, TRZAW	C, TRZAW		
Collection Basis						BCER	BCER	BCER		
Reporting Basis						Triticum aestiv>	Triticum aestiv>	Triticum aestiv>		
Number of Subsamples						Winter wheat	Winter wheat	Winter wheat		
Crop Type, Code				W, Weed	W, Weed					
BBCH Scale				LOLMG	LOLMG					
Crop Scientific Name										
Crop Name										
Pest Type										
Pest Code										
Pest Scientific Name										
Pest Name										
Pest Stage Scale										
Rating Timing										
Days After First/Last Applic.				191, 31	209, 49	252, 92	252, 92	252, 92		
Trt-Eval Interval										
Plant-Eval Interval				191 DP-1	209 DP-1	252 DP-1	252 DP-1	252 DP-1		
Days After Emergence										
Pest Est.-Eval Interval										
Equipment										
EDC App				Rating Shell	Rating Shell					
Data Reliability										
ARM Action Codes				EC	EC	ET9	ET3	AA		
Number of Decimals										
Data Entry Date				8-2-2023	8-2-2023	8-2-2023	8-2-2023	8-2-2023		
Trt	Treatment	Rate	Appl							
No.	Name	Rate	Unit	Code	Plot	16	17	18	19	20
1	UNTREATED CHECK			101		0.0	0.0	26.90	11.090	16.60
				210		0.0	0.0	26.90	8.800	14.70
				304		0.0	0.0	26.90	8.760	15.60
				410		0.0	0.0	26.70	6.710	15.00
				Mean =		0.0	0.0	26.85	8.840	15.47d
2	ANTHEM FLEX INDUCE	3.20 FL OZ/A 0.25 % V/V	B	102		90.0	90.0	26.60	16.100	15.00
			B	208		95.0	95.0	26.50	11.080	17.40
				302		70.0	75.0	26.70	18.070	14.80
				407		50.0	40.0	27.80	15.610	18.10
				Mean =		76.3	75.0	26.90	15.215	16.30d
3	ANTHEM FLEX INDUCE	3.50 FL OZ/A 0.25 % V/V	A	103		90.0	85.0	26.70	13.780	17.10
			A	201		75.0	70.0	26.90	17.010	16.10
				307		70.0	70.0	26.60	15.010	16.60
				408		75.0	55.0	27.50	16.060	15.00
				Mean =		77.5	70.0	26.93	15.465	16.19d
4	ANTHEM FLEX INDUCE	3.50 FL OZ/A 0.25 % V/V	B	104		95.0	95.0	26.70	13.750	15.90
			B	209		95.0	87.0	26.90	14.020	16.10
				306		80.0	85.0	26.30	16.850	16.80
				404		55.0	50.0	26.90	15.130	15.10
				Mean =		81.3	79.3	26.70	14.938	15.97d
5	ANTHEM FLEX INDUCE	2.70 FL OZ/A 0.25 % V/V	A	105		90.0	80.0	26.20	11.220	17.70
			A	203		85.0	80.0	26.90	18.780	16.40
				308		70.0	55.0	26.60	13.870	16.20
				405		55.0	60.0	27.50	15.440	17.30
				Mean =		75.0	68.8	26.80	14.828	16.90d
6	ANTHEM FLEX INDUCE	2.70 FL OZ/A 0.25 % V/V	B	106		50.0	50.0	26.30	11.490	15.40
			B	202		85.0	90.0	27.20	19.800	17.10
				310		50.0	50.0	26.40	15.050	15.00
				406		50.0	50.0	27.60	14.520	15.60
				Mean =		58.8	60.0	26.88	15.215	15.77d
7	ANTHEM FLEX INDUCE	2.70 FL OZ/A 0.25 % V/V	B	107		80.0	80.0	26.00	12.540	18.70
			B	204		70.0	70.0	26.50	15.800	15.20
	HARMONY EX SG (0.6 oz/a)			301		50.0	50.0	26.20	16.980	15.40
	HARMONY SG	0.4 OZ/A	C	402		70.0	70.0	26.70	17.130	16.10
	EXPRESS SG	0.2 OZ/A	C							
	INDUCE	0.25 % V/V	C							
				Mean =		67.5	67.5	26.35	15.613	16.33d

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	5-7-2023	5-25-2023	7-7-2023	7-7-2023	7-7-2023
Part Rated	plant, p	plant, p	PLOT, C	GRAIN, C	GRAIN, C
Rating Type			LENGTH	WEIGHT	MOICON
Rating Unit/Min/Max			FT, -, -	LB, -, -	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Crop Type, Code			C, TRZAW	C, TRZAW	C, TRZAW
BBCH Scale			BCER	BCER	BCER
Crop Scientific Name			Triticum aestiv>	Triticum aestiv>	Triticum aestiv>
Crop Name			Winter wheat	Winter wheat	Winter wheat
Pest Type	W, Weed	W, Weed			
Pest Code	LOLMG	LOLMG			
Pest Scientific Name	Lolium multiflo>	Lolium multiflo>			
Pest Name	Annual ryegrass	Annual ryegrass			
Pest Stage Scale	BBCH	BBCH			
Rating Timing					
Days After First/Last Applic.	191, 31	209, 49	252, 92	252, 92	252, 92
Trt-Eval Interval					
Plant-Eval Interval	191 DP-1	209 DP-1	252 DP-1	252 DP-1	252 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell			
Data Reliability					
ARM Action Codes	EC	EC	ET9	ET3	AA
Number of Decimals					
Data Entry Date	8-2-2023	8-2-2023	8-2-2023	8-2-2023	8-2-2023

Trt	Treatment	Rate	Rate Unit	Appl Code Plot	16	17	18	19	20
8	ANTHEM FLEX	2.70 FL OZ/A	B	108	95.0	95.0	26.40	12.860	15.50
	FINESSEC&F (0.5 oz/A)		B	206	75.0	80.0	26.60	16.850	14.90
	GLEAN XP (75WG)	0.4166667 OZ/A	B	303	75.0	65.0	26.70	16.890	17.90
	ALLY XP	0.104167 OZ/A	B	401	65.0	50.0	27.30	15.640	16.70
	INDUCE	0.25 % V/V	B						
	Mean =				77.5	72.5	26.75	15.560	16.23d
9	ANTHEM FLEX	2.70 FL OZ/A	B	109	90.0	70.0	26.40	12.860	15.60
	INDUCE	0.25 % V/V	B	205	95.0	75.0	26.60	15.810	15.90
	ANTHEM FLEX	1.80 FL OZ/A	C	309	90.0	90.0	26.50	17.440	17.50
	INDUCE	0.25 % V/V	C	403	90.0	65.0	26.40	17.310	15.20
		Mean =				91.3	75.0	26.48	15.855
10	ANTHEM FLEX	2.70 FL OZ/A	B	110	97.0	97.0	26.70	14.410	14.40
	INDUCE	0.25 % V/V	B	207	97.0	98.0	26.40	16.270	16.50
	POWERFLEX HL	2 OZ WT/A	C	305	97.0	100.0	26.40	15.730	15.90
	INDUCE	0.25 % V/V	C	409	97.0	100.0	27.10	19.150	19.40
		Mean =				97.0	98.8	26.65	16.390

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	7-7-2023	7-7-2023
Part Rated	GRAIN, C	GRAIN, C
Rating Type	WEITES	YIELD
Rating Unit/Min/Max	LB, -, -	BU, -, -
Sample Size		1 A
Collection Basis		1 PLOT
Reporting Basis		
Number of Subsamples	1	1
Crop Type, Code	C, TRZAW	C, TRZAW
BBCH Scale	BCER	BCER
Crop Scientific Name	Triticum aestiv>	Triticum aestiv>
Crop Name	Winter wheat	Winter wheat
Pest Type		
Pest Code		
Pest Scientific Name		
Pest Name		
Pest Stage Scale		
Rating Timing		
Days After First/Last Applic.	252, 92	252, 92
Trt-Eval Interval		
Plant-Eval Interval	252 DP-1	252 DP-1
Days After Emergence		
Pest Est.-Eval Interval		
Equipment		
EDC App		
Data Reliability		
ARM Action Codes	ER3	TY1
Number of Decimals		1
Data Entry Date	8-2-2023	

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	21	22
1	UNTREATED CHECK						
					101	51.70	57.7
					210	55.20	46.8
					304		46.1
					410	54.00	35.9
					Mean =	53.63	46.6
2	ANTHEM FLEX INDUCE	3.20 FL OZ/A	B		102	55.90	86.4
		0.25 % V/V	B		208	54.40	58.0
					302		96.8
					407	53.40	77.2
					Mean =	54.57	79.6
3	ANTHEM FLEX INDUCE	3.50 FL OZ/A	A		103	54.00	71.8
		0.25 % V/V	A		201	54.10	89.1
					307		79.0
					408	55.90	83.3
					Mean =	54.67	80.8
4	ANTHEM FLEX INDUCE	3.50 FL OZ/A	B		104	55.20	72.7
		0.25 % V/V	B		209	53.50	73.4
					306		89.5
					404	55.50	80.2
					Mean =	54.73	78.9
5	ANTHEM FLEX INDUCE	2.70 FL OZ/A	A		105	52.10	59.2
		0.25 % V/V	A		203	54.90	98.0
					308		73.3
					405	53.00	77.9
					Mean =	53.33	77.1
6	ANTHEM FLEX INDUCE	2.70 FL OZ/A	B		106	55.20	62.0
		0.25 % V/V	B		202	55.20	101.3
					310		81.3
					406	54.50	74.5
					Mean =	54.97	79.8
7	ANTHEM FLEX INDUCE	2.70 FL OZ/A	B		107	51.70	65.8
		0.25 % V/V	B		204	55.90	84.9
	HARMONY EX SG (0.6 oz/a)				301		92.0
	HARMONY SG	0.4 OZ/A	C		402	55.30	90.4
	EXPRESS SG	0.2 OZ/A	C				
	INDUCE	0.25 % V/V	C				
					Mean =	54.30	83.3

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	7-7-2023	7-7-2023
Part Rated	GRAIN, C	GRAIN, C
Rating Type	WEITES	YIELD
Rating Unit/Min/Max	LB, -, -	BU, -, -
Sample Size		1 A
Collection Basis		1 PLOT
Reporting Basis		
Number of Subsamples	1	1
Crop Type, Code	C, TRZAW	C, TRZAW
BBCH Scale	BCER	BCER
Crop Scientific Name	Triticum aestiv>	Triticum aestiv>
Crop Name	Winter wheat	Winter wheat
Pest Type		
Pest Code		
Pest Scientific Name		
Pest Name		
Pest Stage Scale		
Rating Timing		
Days After First/Last Applic.	252, 92	252, 92
Trt-Eval Interval		
Plant-Eval Interval	252 DP-1	252 DP-1
Days After Emergence		
Pest Est.-Eval Interval		
Equipment		
EDC App		
Data Reliability		
ARM Action Codes	ER3	TY1
Number of Decimals		1
Data Entry Date	8-2-2023	

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	21	22
8	ANTHEM FLEX	2.70	FL OZ/A	B	108	55.20	69.1
	FINESSEC&F (0.5 oz/A)				206	55.90	90.5
	GLEAN XP (75WG)	0.4166667	OZ/A	B	303		87.2
	ALLY XP	0.104167	OZ/A	B	401	55.90	80.1
	INDUCE	0.25	% V/V	B			
	Mean =					55.67	81.7
9	ANTHEM FLEX	2.70	FL OZ/A	B	109	54.10	69.0
	INDUCE	0.25	% V/V	B	205	54.50	83.9
	ANTHEM FLEX	1.80	FL OZ/A	C	309		91.1
	INDUCE	0.25	% V/V	C	403	54.10	93.3
	Mean =					54.23	84.3
10	ANTHEM FLEX	2.70	FL OZ/A	B	110	55.90	77.5
	INDUCE	0.25	% V/V	B	207	54.00	86.4
	POWERFLEX HL	2	OZ WT/A	C	305		84.1
	INDUCE	0.25	% V/V	C	409	53.20	95.6
	Mean =					54.37	85.9

# University of Kentucky

## Preemergence Use of Anthem Flex herbicide for Italian Ryegrass and Annual Bluegrass Management in Winter Wheat

Trial ID: 23-2\_WHT-REC      Cooperator Trial ID:  
 Protocol ID: USA-22-066      Location: University of Kentucky      Trial Year: 2023  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Josh Mayfield      Sponsor Contact:  
 Investigator: Travis Legleiter

### Part Rated

PLOT = plot  
 GRAIN = grain  
 c = Crop is Part Rated  
 p = Pest is Part Rated

### Rating Type

phygen = phytotoxicity - general / injury  
 LENGTH = length  
 WEIGHT = weight  
 MOICON = moisture content  
 WEITES = weight - test  
 YIELD = yield

### Rating Unit/Min/Max

%, 0, 100 = percent  
 FT, , = foot  
 LB, , = pound  
 BU, , = bushel

PLOT = total plot  
 A = acre

PLOT = total plot

PLOT = total plot

### Crop Type Code

C = EPPO species (Bayer) codes  
 TRZAW, BCER, Triticum aestivum, Winter wheat = US

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

LAMAM, Lamium amplexicaule, Henbit deadnettle = US  
 LOLMG, Lolium multiflorum gaudini, Annual ryegrass = US  
 THLAR, Thlaspi arvense, Field pennycress = US

### Plant-Eval Interval

13 DP-1 = 1 TRZAW 10-28-2022  
 18 DP-1 = 1 TRZAW 10-28-2022  
 34 DP-1 = 1 TRZAW 10-28-2022  
 129 DP-1 = 1 TRZAW 10-28-2022  
 174 DP-1 = 1 TRZAW 10-28-2022  
 191 DP-1 = 1 TRZAW 10-28-2022  
 209 DP-1 = 1 TRZAW 10-28-2022  
 252 DP-1 = 1 TRZAW 10-28-2022

### EDC App

Rating Shell = Data pulled from Excel Rating Shell

### ARM Action Codes

AA = Automatic arcsine square root % transformation  
 EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table  
 ER2 = Excluded replicate 2  
 ET9 = Excluded treatment 9  
 ET3 = Excluded treatment 3  
 ER3 = Excluded replicate 3  
 TY1 =  $(726/(5*[18]))*[19]*(100-[20])/86.5$

# University of Kentucky

## Preemergence Use of Anthem Flex herbicide for Italian Ryegrass and Annual Bluegrass Management in Winter Wheat

Trial ID: 23-2\_WHT-REC      Cooperator Trial ID:  
 Protocol ID: USA-22-066      Location: University of Kentucky      Trial Year: 2023  
 Project ID:      Project ID 2:      Project ID 3:  
 Study Director: Josh Mayfield      Sponsor Contact:  
 Investigator: Travis Legleiter

Rating Date	11-10-2022	11-10-2022	11-10-2022	11-15-2022	11-15-2022
Part Rated	plant, c	plant, p	plant, p	plant, c	plant, p
Rating Type	phygen	control	control	phygen	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Crop Type, Code	C, TRZAW			C, TRZAW	
BBCH Scale	BCER			BCER	
Crop Scientific Name	Triticum aestiv>			Triticum aestiv>	
Crop Name	Winter wheat			Winter wheat	
Pest Type		W, Weed	W, Weed		W, Weed
Pest Code		LAMAM	LOLMG		LAMAM
Pest Scientific Name		Lamium amplexic>	Lolium multiflo>		Lamium amplexic>
Pest Name		Henbit deadnett>	Annual ryegrass		Henbit deadnett>
Pest Stage Scale		BBCH	BBCH		BBCH
Rating Timing					
Days After First/Last Applic.	13, 3	13, 3	13, 3	18, 8	18, 8
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	18 DA-A	18 DA-A
Plant-Eval Interval	13 DP-1	13 DP-1	13 DP-1	18 DP-1	18 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes			AA		
Number of Decimals					
Data Entry Date	11-18-2022	11-18-2022	11-18-2022	11-18-2022	11-18-2022

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1	2	3	4	5
					dAA				
1	UNTREATED CHECK				0.0 a	0.0 b	0.0 b	0.0 a	0.0 b
2	ANTHEM FLEX	3.20	FL OZ/A	B	0.0 a	95.0 a	73.8 a	0.0 a	91.3 a
	INDUCE	0.25	% V/V	B					
3	ANTHEM FLEX	3.50	FL OZ/A	A	0.0 a	95.0 a	87.8 a	0.0 a	95.0 a
	INDUCE	0.25	% V/V	A					
4	ANTHEM FLEX	3.50	FL OZ/A	B	0.0 a	95.0 a	74.7 a	0.0 a	91.3 a
	INDUCE	0.25	% V/V	B					
5	ANTHEM FLEX	2.70	FL OZ/A	A	0.0 a	91.3 a	87.8 a	0.0 a	91.3 a
	INDUCE	0.25	% V/V	A					
6	ANTHEM FLEX	2.70	FL OZ/A	B	0.0 a	93.8 a	82.8 a	0.0 a	95.0 a
	INDUCE	0.25	% V/V	B					
7	ANTHEM FLEX	2.70	FL OZ/A	B	0.0 a	91.3 a	77.1 a	0.0 a	95.0 a
	INDUCE	0.25	% V/V	B					
	HARMONY EX SG (0.6 oz/a)								
	HARMONY SG	0.4	OZ/A	C					
	EXPRESS SG	0.2	OZ/A	C					
	INDUCE	0.25	% V/V	C					
8	ANTHEM FLEX	2.70	FL OZ/A	B	0.0 a	93.8 a	77.1 a	0.0 a	95.0 a
	FINESSEC&F (0.5 oz/A)								
	GLEAN XP (75WG)	0.4166667	OZ/A	B					
	ALLY XP	0.104167	OZ/A	B					
	INDUCE	0.25	% V/V	B					
9	ANTHEM FLEX	2.70	FL OZ/A	B	0.0 a	93.8 a	75.2 a	0.0 a	95.0 a
	INDUCE	0.25	% V/V	B					
	ANTHEM FLEX	1.80	FL OZ/A	C					
	INDUCE	0.25	% V/V	C					

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Excluded replicate 2 in column 15; 3 in 21  
 Could not calculate LSD (% mean diff) for columns 1,4,7,10,13 because error mean square = 0.  
 ^Calculated from residual.  
 d=Means are reported in de-transformed data units

# University of Kentucky

				11-10-2022	11-10-2022	11-10-2022	11-15-2022	11-15-2022	
Rating Date					11-10-2022	11-10-2022	11-10-2022	11-15-2022	11-15-2022
Part Rated					plant, c	plant, p	plant, p	plant, c	plant, p
Rating Type					phygen	control	control	phygen	control
Rating Unit/Min/Max					%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size					1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis					1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis					1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples					1	1	1	1	1
Crop Type, Code					C, TRZAW			C, TRZAW	
BBCH Scale					BCER			BCER	
Crop Scientific Name					Triticum aestiv>			Triticum aestiv>	
Crop Name					Winter wheat			Winter wheat	
Pest Type						W, Weed	W, Weed		W, Weed
Pest Code						LAMAM	LOLMG		LAMAM
Pest Scientific Name						Lamium amplexic>	Lolium multiflo>		Lamium amplexic>
Pest Name						Henbit deadnett>	Annual ryegrass		Henbit deadnett>
Pest Stage Scale						BBCH	BBCH		BBCH
Rating Timing									
Days After First/Last Applic.					13, 3	13, 3	13, 3	18, 8	18, 8
Trt-Eval Interval					13 DA-A	13 DA-A	13 DA-A	18 DA-A	18 DA-A
Plant-Eval Interval					13 DP-1	13 DP-1	13 DP-1	18 DP-1	18 DP-1
Days After Emergence									
Pest Est.-Eval Interval									
Equipment									
EDC App					Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability									
ARM Action Codes							AA		
Number of Decimals									
Data Entry Date					11-18-2022	11-18-2022	11-18-2022	11-18-2022	11-18-2022
Trt Treatment				1	2	3	4	5	
No. Name	Rate	Rate Unit	Appl Code			dAA			
10 ANTHEM FLEX		2.70 FL OZ/A	B	0.0 a	93.8 a	72.0 a	0.0 a	95.0 a	
INDUCE		0.25 % V/V	B						
POWERFLEX HL		2 OZ WT/A	C						
INDUCE		0.25 % V/V	C						
LSD P=.05				.	4.92	14.01 - 14.45	.	5.89	
Standard Deviation				0.00	3.39	7.13t	0.00	4.06	
CV				0.0	4.02	12.63t	0.0	4.81	
Levene's F^				.	0.459	1.974	.	0.535	
Levene's Prob(F)				.	0.89	0.079	.	0.837	
Shapiro-Wilk^				.	0.8541*	0.9825	.	0.7895*	
P(Shapiro-Wilk)^				.	0.0001*	0.7796	.	0.0*	
Skewness^				.	-1.2917*	0.0647	.	-1.7408*	
P(Skewness)^				.	0.0019*	0.8684	.	0.0*	
Kurtosis^				.	2.6328*	0.3683	.	3.9906*	
P(Kurtosis)^				.	0.0013*	0.6305	.	0.0*	
Replicate F				0.000	2.976	0.145	0.000	1.253	
Replicate Prob(F)				1.0000	0.0492	0.9321	1.0000	0.3101	
Treatment F				0.000	305.952	32.296	0.000	214.367	
Treatment Prob(F)				1.0000	0.0001	0.0001	1.0000	0.0001	

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Excluded replicate 2 in column 15; 3 in 21  
Could not calculate LSD (% mean diff) for columns 1,4,7,10,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units



# University of Kentucky

Rating Date	11-15-2022	12-1-2022	12-1-2022	12-1-2022	3-6-2023
Part Rated	plant, p	plant, c	plant, p	plant, p	plant, c
Rating Type	control				
Rating Unit/Min/Max	%, 0, 100				
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Crop Type, Code		C, TRZAW			C, TRZAW
BBCH Scale		BCER			BCER
Crop Scientific Name		Triticum aestiv>			Triticum aestiv>
Crop Name		Winter wheat			Winter wheat
Pest Type	W, Weed		W, Weed	W, Weed	
Pest Code	LOLMG		LAMAM	LOLMG	
Pest Scientific Name	Lolium multiflo>		Lamium amplexic>	Lolium multiflo>	
Pest Name	Annual ryegrass		Henbit deadnett>	Annual ryegrass	
Pest Stage Scale	BBCH		BBCH	BBCH	
Rating Timing					
Days After First/Last Applic.	18, 8	34, 24	34, 24	34, 24	129, 119
Trt-Eval Interval	18 DA-A				
Plant-Eval Interval	18 DP-1	34 DP-1	34 DP-1	34 DP-1	129 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes					
Number of Decimals					
Data Entry Date	11-18-2022	8-2-2023	8-2-2023	8-2-2023	8-2-2023

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	6	7	8	9	10
1	UNTREATED CHECK				0.0 b	0.0 a	0.0 b	0.0 b	0.0 a
2	ANTHEM FLEX	3.20	FL OZ/A	B	83.0 a	0.0 a	92.8 a	80.0 a	0.0 a
	INDUCE	0.25	% V/V	B					
3	ANTHEM FLEX	3.50	FL OZ/A	A	94.8 a	0.0 a	90.5 a	92.5 a	0.0 a
	INDUCE	0.25	% V/V	A					
4	ANTHEM FLEX	3.50	FL OZ/A	B	87.3 a	0.0 a	92.3 a	80.0 a	0.0 a
	INDUCE	0.25	% V/V	B					
5	ANTHEM FLEX	2.70	FL OZ/A	A	91.3 a	0.0 a	88.5 a	87.5 a	0.0 a
	INDUCE	0.25	% V/V	A					
6	ANTHEM FLEX	2.70	FL OZ/A	B	91.8 a	0.0 a	93.3 a	87.5 a	0.0 a
	INDUCE	0.25	% V/V	B					
7	ANTHEM FLEX	2.70	FL OZ/A	B	91.3 a	0.0 a	95.0 a	80.0 a	0.0 a
	INDUCE	0.25	% V/V	B					
	HARMONY EX SG (0.6 oz/a)								
	HARMONY SG	0.4	OZ/A	C					
	EXPRESS SG	0.2	OZ/A	C					
	INDUCE	0.25	% V/V	C					
8	ANTHEM FLEX	2.70	FL OZ/A	B	86.3 a	0.0 a	96.3 a	85.0 a	0.0 a
	FINESSEC&F (0.5 oz/A)								
	GLEAN XP (75WG)	0.4166667	OZ/A	B					
	ALLY XP	0.104167	OZ/A	B					
	INDUCE	0.25	% V/V	B					
9	ANTHEM FLEX	2.70	FL OZ/A	B	85.0 a	0.0 a	92.8 a	81.3 a	0.0 a
	INDUCE	0.25	% V/V	B					
	ANTHEM FLEX	1.80	FL OZ/A	C					
	INDUCE	0.25	% V/V	C					

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t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Excluded replicate 2 in column 15; 3 in 21  
Could not calculate LSD (% mean diff) for columns 1,4,7,10,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

				11-15-2022	12-1-2022	12-1-2022	12-1-2022	3-6-2023
Rating Date				11-15-2022	12-1-2022	12-1-2022	12-1-2022	3-6-2023
Part Rated				plant, p	plant, c	plant, p	plant, p	plant, c
Rating Type				control				
Rating Unit/Min/Max				%, 0, 100				
Sample Size				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples				1	1	1	1	1
Crop Type, Code					C, TRZAW			C, TRZAW
BBCH Scale					BCER			BCER
Crop Scientific Name					Triticum aestiv>			Triticum aestiv>
Crop Name					Winter wheat			Winter wheat
Pest Type				W, Weed		W, Weed	W, Weed	
Pest Code				LOLMG		LAMAM	LOLMG	
Pest Scientific Name				Lolium multiflo>		Lolium multiflo>	Lolium multiflo>	
Pest Name				Annual ryegrass		Henbit deadnett>	Annual ryegrass	
Pest Stage Scale				BBCH		BBCH	BBCH	
Rating Timing								
Days After First/Last Applic.				18, 8	34, 24	34, 24	34, 24	129, 119
Trt-Eval Interval				18 DA-A				
Plant-Eval Interval				18 DP-1	34 DP-1	34 DP-1	34 DP-1	129 DP-1
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App				Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability								
ARM Action Codes								
Number of Decimals								
Data Entry Date				11-18-2022	8-2-2023	8-2-2023	8-2-2023	8-2-2023
Trt Treatment	Rate	Rate Unit	Appl Code	6	7	8	9	10
10 ANTHEM FLEX	2.70	FL OZ/A	B	82.5 a	0.0 a	92.8 a	85.5 a	0.0 a
INDUCE	0.25	% V/V	B					
POWERFLEX HL	2	OZ WT/A	C					
INDUCE	0.25	% V/V	C					
LSD P=.05				16.99	.	8.82	13.67	.
Standard Deviation				11.71	0.00	6.08	9.42	0.00
CV				14.77	0.0	7.29	12.41	0.0
Levene's F^				0.847	.	0.702	0.705	.
Levene's Prob(F)				0.58	.	0.702	0.699	.
Shapiro-Wilk^				0.8802*	.	0.9305*	0.9127*	.
P(Shapiro-Wilk)^				0.0005*	.	0.0167*	0.0046*	.
Skewness^				-1.4881*	.	-0.9379*	-1.3489*	.
P(Skewness)^				0.0004*	.	0.0203*	0.0013*	.
Kurtosis^				2.8829*	.	0.7577	3.9194*	.
P(Kurtosis)^				0.0005*	.	0.3248	0.0*	.
Replicate F				0.360	0.000	3.592	0.520	0.000
Replicate Prob(F)				0.7826	1.0000	0.0264	0.6718	1.0000
Treatment F				23.121	0.000	93.540	32.824	0.000
Treatment Prob(F)				0.0001	1.0000	0.0001	0.0001	1.0000

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t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Excluded replicate 2 in column 15; 3 in 21  
Could not calculate LSD (% mean diff) for columns 1,4,7,10,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	3-6-2023	3-6-2023	4-20-2023	4-20-2023	4-20-2023
Part Rated	plant, p	plant, p	plant, c	plant, p	plant, p
Rating Type			phyto		
Rating Unit/Min/Max					
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Crop Type, Code			C, TRZAW		
BBCH Scale			BCER		
Crop Scientific Name			Triticum aestiv>		
Crop Name			Winter wheat		
Pest Type	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	LAMAM	LOLMG		THLAR	LOLMG
Pest Scientific Name	Lamium amplexic>	Lolium multiflo>		Thlaspi arvense	Lolium multiflo>
Pest Name	Henbit deadnett>	Annual ryegrass		Field pennycress	Annual ryegrass
Pest Stage Scale	BBCH	BBCH		BBCH	BBCH
Rating Timing					
Days After First/Last Applic.	129, 119	129, 119	174, 14	174, 14	174, 14
Trt-Eval Interval					
Plant-Eval Interval	129 DP-1	129 DP-1	174 DP-1	174 DP-1	174 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes		EC			ER2
Number of Decimals					
Data Entry Date	8-2-2023	8-2-2023	8-2-2023	8-2-2023	8-2-2023

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	11	12	13	14	15
1	UNTREATED CHECK				0.0 b	0.0	0.0 a	0.0 b	0.0 b
2	ANTHEM FLEX	3.20	FL OZ/A	B	75.0 a	81.8 a	0.0 a	66.3 a	51.7 a
	INDUCE	0.25	% V/V	B					
3	ANTHEM FLEX	3.50	FL OZ/A	A	57.8 a	80.0 a	0.0 a	72.5 a	70.0 a
	INDUCE	0.25	% V/V	A					
4	ANTHEM FLEX	3.50	FL OZ/A	B	82.5 a	84.3 a	0.0 a	87.5 a	81.7 a
	INDUCE	0.25	% V/V	B					
5	ANTHEM FLEX	2.70	FL OZ/A	A	60.0 a	80.0 a	0.0 a	83.8 a	50.0 a
	INDUCE	0.25	% V/V	A					
6	ANTHEM FLEX	2.70	FL OZ/A	B	65.5 a	63.8 a	0.0 a	63.8 a	15.0 b
	INDUCE	0.25	% V/V	B					
7	ANTHEM FLEX	2.70	FL OZ/A	B	71.3 a	68.8 a	0.0 a	95.0 a	78.3 a
	INDUCE	0.25	% V/V	B					
	HARMONY EX SG (0.6 oz/a)								
	HARMONY SG	0.4	OZ/A	C					
	EXPRESS SG	0.2	OZ/A	C					
	INDUCE	0.25	% V/V	C					
8	ANTHEM FLEX	2.70	FL OZ/A	B	92.5 a	76.3 a	0.0 a	96.3 a	71.7 a
	FINESSEC&F (0.5 oz/A)								
	GLEAN XP (75WG)	0.4166667	OZ/A	B					
	ALLY XP	0.104167	OZ/A	B					
	INDUCE	0.25	% V/V	B					
9	ANTHEM FLEX	2.70	FL OZ/A	B	82.5 a	67.5 a	0.0 a	78.8 a	88.3 a
	INDUCE	0.25	% V/V	B					
	ANTHEM FLEX	1.80	FL OZ/A	C					
	INDUCE	0.25	% V/V	C					

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Excluded replicate 2 in column 15; 3 in 21  
Could not calculate LSD (% mean diff) for columns 1,4,7,10,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	3-6-2023	3-6-2023	4-20-2023	4-20-2023	4-20-2023			
Part Rated	plant, p	plant, p	plant, c	plant, p	plant, p			
Rating Type			phyto					
Rating Unit/Min/Max								
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1			
Crop Type, Code			C, TRZAW					
BBCH Scale			BCER					
Crop Scientific Name			Triticum aestiv>					
Crop Name			Winter wheat					
Pest Type	W, Weed	W, Weed		W, Weed	W, Weed			
Pest Code	LAMAM	LOLMG		THLAR	LOLMG			
Pest Scientific Name	Lamium amplexic>	Lolium multifo>		Thlaspi arvense	Lolium multifo>			
Pest Name	Henbit deadnett>	Annual ryegrass		Field pennycress	Annual ryegrass			
Pest Stage Scale	BBCH	BBCH		BBCH	BBCH			
Rating Timing								
Days After First/Last Applic.	129, 119	129, 119	174, 14	174, 14	174, 14			
Trt-Eval Interval								
Plant-Eval Interval	129 DP-1	129 DP-1	174 DP-1	174 DP-1	174 DP-1			
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell			
Data Reliability								
ARM Action Codes		EC			ER2			
Number of Decimals								
Data Entry Date	8-2-2023	8-2-2023	8-2-2023	8-2-2023	8-2-2023			
Trt Treatment No. Name	Rate	Rate Unit	Appl Code	11	12	13	14	15
10 ANTHEM FLEX		2.70 FL OZ/A	B	65.0 a	65.0 a	0.0 a	95.0 a	88.3 a
INDUCE		0.25 % V/V	B					
POWERFLEX HL		2 OZ WT/A	C					
INDUCE		0.25 % V/V	C					
LSD P=.05				21.90	20.45	.	31.66	29.97
Standard Deviation				15.10	14.01	0.00	21.82	17.47
CV				23.15	18.9	0.0	29.54	29.37
Levene's F^				1.586	0.477	.	0.589	0.655
Levene's Prob(F)				0.165	0.862	.	0.795	0.741
Shapiro-Wilk^				0.9837	0.9748	.	0.8746*	0.9584
P(Shapiro-Wilk)^				0.8219	0.5703	.	0.0004*	0.1474
Skewness^				0.0521	0.1367	.	-1.438*	0.105
P(Skewness)^				0.8938	0.7401	.	0.0006*	0.7879
Kurtosis^				-0.3431	0.9809	.	2.8869*	1.7275*
P(Kurtosis)^				0.6541	0.2282	.	0.0005*	0.0286*
Replicate F				1.616	1.721	0.000	0.866	2.383
Replicate Prob(F)				0.2088	0.1894	1.0000	0.4708	0.1207
Treatment F				11.332	1.268	0.000	6.832	9.215
Treatment Prob(F)				0.0001	0.3053	1.0000	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Excluded replicate 2 in column 15; 3 in 21  
Could not calculate LSD (% mean diff) for columns 1,4,7,10,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date		5-7-2023	5-25-2023	7-7-2023	7-7-2023	7-7-2023			
Part Rated		plant, p	plant, p	PLOT, C	GRAIN, C	GRAIN, C			
Rating Type				LENGTH	WEIGHT	MOICON			
Rating Unit/Min/Max				FT, -, -	LB, -, -	%, 0, 100			
Sample Size		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Collection Basis		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Reporting Basis		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples		1	1	1	1	1			
Crop Type, Code				C, TRZAW	C, TRZAW	C, TRZAW			
BBCH Scale				BCER	BCER	BCER			
Crop Scientific Name				Triticum aestiv>	Triticum aestiv>	Triticum aestiv>			
Crop Name				Winter wheat	Winter wheat	Winter wheat			
Pest Type		W, Weed	W, Weed						
Pest Code		LOLMG	LOLMG						
Pest Scientific Name		Lolium multiflo>	Lolium multiflo>						
Pest Name		Annual ryegrass	Annual ryegrass						
Pest Stage Scale		BBCH	BBCH						
Rating Timing									
Days After First/Last Applic.		191, 31	209, 49	252, 92	252, 92	252, 92			
Trt-Eval Interval									
Plant-Eval Interval		191 DP-1	209 DP-1	252 DP-1	252 DP-1	252 DP-1			
Days After Emergence									
Pest Est.-Eval Interval									
Equipment									
EDC App		Rating Shell	Rating Shell						
Data Reliability									
ARM Action Codes		EC	EC	ET9	ET3	AA			
Number of Decimals									
Data Entry Date		8-2-2023	8-2-2023	8-2-2023	8-2-2023	8-2-2023			
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	16	17	18	19	20
									dAA
1	UNTREATED CHECK				0.0	0.0	26.85 a	8.840 b	15.47 a
2	ANTHEM FLEX	3.20	FL OZ/A	B	76.3 abc	75.0 ab	26.90 a	15.215 a	16.30 a
	INDUCE	0.25	% V/V	B					
3	ANTHEM FLEX	3.50	FL OZ/A	A	77.5 abc	70.0 b	26.93 a	15.465	16.19 a
	INDUCE	0.25	% V/V	A					
4	ANTHEM FLEX	3.50	FL OZ/A	B	81.3 abc	79.3 ab	26.70 a	14.938 a	15.97 a
	INDUCE	0.25	% V/V	B					
5	ANTHEM FLEX	2.70	FL OZ/A	A	75.0 abc	68.8 b	26.80 a	14.828 a	16.90 a
	INDUCE	0.25	% V/V	A					
6	ANTHEM FLEX	2.70	FL OZ/A	B	58.8 c	60.0 b	26.88 a	15.215 a	15.77 a
	INDUCE	0.25	% V/V	B					
7	ANTHEM FLEX	2.70	FL OZ/A	B	67.5 bc	67.5 b	26.35 a	15.613 a	16.33 a
	INDUCE	0.25	% V/V	B					
	HARMONY EX SG (0.6 oz/a)								
	HARMONY SG	0.4	OZ/A	C					
	EXPRESS SG	0.2	OZ/A	C					
	INDUCE	0.25	% V/V	C					
8	ANTHEM FLEX	2.70	FL OZ/A	B	77.5 abc	72.5 ab	26.75 a	15.560 a	16.23 a
	FINESSEC&F (0.5 oz/A)								
	GLEAN XP (75WG)	0.4166667	OZ/A	B					
	ALLY XP	0.104167	OZ/A	B					
	INDUCE	0.25	% V/V	B					
9	ANTHEM FLEX	2.70	FL OZ/A	B	91.3 ab	75.0 ab	26.48	15.855 a	16.04 a
	INDUCE	0.25	% V/V	B					
	ANTHEM FLEX	1.80	FL OZ/A	C					
	INDUCE	0.25	% V/V	C					

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Excluded replicate 2 in column 15; 3 in 21  
Could not calculate LSD (% mean diff) for columns 1,4,7,10,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	5-7-2023	5-25-2023	7-7-2023	7-7-2023	7-7-2023			
Part Rated	plant, p	plant, p	PLOT, C	GRAIN, C	GRAIN, C			
Rating Type			LENGTH	WEIGHT	MOICON			
Rating Unit/Min/Max			FT, -, -	LB, -, -	%, 0, 100			
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1			
Crop Type, Code			C, TRZAW	C, TRZAW	C, TRZAW			
BBCH Scale			BCER	BCER	BCER			
Crop Scientific Name			Triticum aestiv>	Triticum aestiv>	Triticum aestiv>			
Crop Name			Winter wheat	Winter wheat	Winter wheat			
Pest Type	W, Weed	W, Weed						
Pest Code	LOLMG	LOLMG						
Pest Scientific Name	Lolium multiflo>	Lolium multiflo>						
Pest Name	Annual ryegrass	Annual ryegrass						
Pest Stage Scale	BBCH	BBCH						
Rating Timing								
Days After First/Last Applic.	191, 31	209, 49	252, 92	252, 92	252, 92			
Trt-Eval Interval								
Plant-Eval Interval	191 DP-1	209 DP-1	252 DP-1	252 DP-1	252 DP-1			
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App	Rating Shell	Rating Shell						
Data Reliability								
ARM Action Codes	EC	EC	ET9	ET3	AA			
Number of Decimals								
Data Entry Date	8-2-2023	8-2-2023	8-2-2023	8-2-2023	8-2-2023			
Trt Treatment								
No. Name	Rate	Rate Unit	Appl Code	16	17	18	19	20
10 ANTHEM FLEX		2.70 FL OZ/A	B	97.0 a	98.8 a	26.65 a	16.390 a	16.51 a
INDUCE		0.25 % V/V	B					
POWERFLEX HL		2 OZ WT/A	C					
INDUCE		0.25 % V/V	C					
LSD P=.05				15.62	18.84	0.414	3.2350	1.891 - 1.914
Standard Deviation				10.70	12.91	0.283	2.2167	1.020t
CV				13.72	17.42	1.06	15.06	4.3t
Levene's F^				0.347	0.638	1.009	0.608	0.755
Levene's Prob(F)				0.939	0.739	0.452	0.763	0.657
Shapiro-Wilk^				0.9686	0.9773	0.9786	0.9598	0.971
P(Shapiro-Wilk)^				0.3892	0.6542	0.6971	0.2113	0.3863
Skewness^				-0.2238	0.0023	-0.4752	0.3218	0.4963
P(Skewness)^				0.5875	0.9956	0.2528	0.4364	0.208
Kurtosis^				-0.6726	-0.6772	0.0873	0.7516	-0.2089
P(Kurtosis)^				0.406	0.4028	0.9137	0.3538	0.7848
Replicate F				7.127	6.351	12.806	2.654	0.090
Replicate Prob(F)				0.0014	0.0025	0.0001	0.0715	0.9648
Treatment F				4.540	2.780	1.577	4.142	0.362
Treatment Prob(F)				0.0018	0.0250	0.1840	0.0032	0.9433

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Excluded replicate 2 in column 15; 3 in 21  
Could not calculate LSD (% mean diff) for columns 1,4,7,10,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	7-7-2023	7-7-2023
Part Rated	GRAIN, C	GRAIN, C
Rating Type	WEITES	YIELD
Rating Unit/Min/Max	LB, -, -	BU, -, -
Sample Size		1 A
Collection Basis		1 PLOT
Reporting Basis		
Number of Subsamples	1	1
Crop Type, Code	C, TRZAW	C, TRZAW
BBCH Scale	BCER	BCER
Crop Scientific Name	Triticum aestiv>	Triticum aestiv>
Crop Name	Winter wheat	Winter wheat
Pest Type		
Pest Code		
Pest Scientific Name		
Pest Name		
Pest Stage Scale		
Rating Timing		
Days After First/Last Applic.	252, 92	252, 92
Trt-Eval Interval		
Plant-Eval Interval	252 DP-1	252 DP-1
Days After Emergence		
Pest Est.-Eval Interval		
Equipment		
EDC App		
Data Reliability		
ARM Action Codes	ER3	TY1
Number of Decimals		1
Data Entry Date	8-2-2023	

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	21	22
1	UNTREATED CHECK				53.63 a	46.6 b
2	ANTHEM FLEX	3.20	FL OZ/A	B	54.57 a	79.6 a
	INDUCE	0.25	% V/V	B		
3	ANTHEM FLEX	3.50	FL OZ/A	A	54.67 a	80.8 a
	INDUCE	0.25	% V/V	A		
4	ANTHEM FLEX	3.50	FL OZ/A	B	54.73 a	78.9 a
	INDUCE	0.25	% V/V	B		
5	ANTHEM FLEX	2.70	FL OZ/A	A	53.33 a	77.1 a
	INDUCE	0.25	% V/V	A		
6	ANTHEM FLEX	2.70	FL OZ/A	B	54.97 a	79.8 a
	INDUCE	0.25	% V/V	B		
7	ANTHEM FLEX	2.70	FL OZ/A	B	54.30 a	83.3 a
	INDUCE	0.25	% V/V	B		
	HARMONY EX SG (0.6 oz/a)					
	HARMONY SG	0.4	OZ/A	C		
	EXPRESS SG	0.2	OZ/A	C		
	INDUCE	0.25	% V/V	C		
8	ANTHEM FLEX	2.70	FL OZ/A	B	55.67 a	81.7 a
	FINESSEC&F (0.5 oz/A)					
	GLEAN XP (75WG)	0.4166667	OZ/A	B		
	ALLY XP	0.104167	OZ/A	B		
	INDUCE	0.25	% V/V	B		
9	ANTHEM FLEX	2.70	FL OZ/A	B	54.23 a	84.3 a
	INDUCE	0.25	% V/V	B		
	ANTHEM FLEX	1.80	FL OZ/A	C		
	INDUCE	0.25	% V/V	C		

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Excluded replicate 2 in column 15; 3 in 21  
Could not calculate LSD (% mean diff) for columns 1,4,7,10,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	7-7-2023	7-7-2023
Part Rated	GRAIN, C	GRAIN, C
Rating Type	WEITES	YIELD
Rating Unit/Min/Max	LB, -, -	BU, -, -
Sample Size		1 A
Collection Basis		1 PLOT
Reporting Basis		
Number of Subsamples	1	1
Crop Type, Code	C, TRZAW	C, TRZAW
BBCH Scale	BCER	BCER
Crop Scientific Name	Triticum aestiv>	Triticum aestiv>
Crop Name	Winter wheat	Winter wheat
Pest Type		
Pest Code		
Pest Scientific Name		
Pest Name		
Pest Stage Scale		
Rating Timing		
Days After First/Last Applic.	252, 92	252, 92
Trt-Eval Interval		
Plant-Eval Interval	252 DP-1	252 DP-1
Days After Emergence		
Pest Est.-Eval Interval		
Equipment		
EDC App		
Data Reliability		
ARM Action Codes	ER3	TY1
Number of Decimals		1
Data Entry Date	8-2-2023	

Trt	Treatment	Rate	Rate Unit	Appl Code	21	22
10	ANTHEM FLEX	2.70	FL OZ/A	B	54.37 a	85.9 a
	INDUCE	0.25	% V/V	B		
	POWERFLEX HL	2	OZ WT/A	C		
	INDUCE	0.25	% V/V	C		
	LSD P=.05				2.248	15.66
	Standard Deviation				1.311	10.79
	CV				2.41	13.87
	Levene's F^				0.616	0.971
	Levene's Prob(F)				0.774	0.483
	Shapiro-Wilk^				0.9884	0.9578
	P(Shapiro-Wilk)^				0.9493	0.1413
	Skewness^				-0.3021	0.1772
	P(Skewness)^				0.4404	0.6501
	Kurtosis^				0.0135	0.8985
	P(Kurtosis)^				0.9859	0.2441
	Replicate F				0.639	3.035
	Replicate Prob(F)				0.5395	0.0463
	Treatment F				0.752	4.360
	Treatment Prob(F)				0.6592	0.0014

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Excluded replicate 2 in column 15; 3 in 21  
Could not calculate LSD (% mean diff) for columns 1,4,7,10,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units



# University of Kentucky

## Preemergence Use of Anthem Flex herbicide for Italian Ryegrass and Annual Bluegrass Management in Winter Wheat

Trial ID: 23-2\_WHT-REC      Cooperator Trial ID:  
 Protocol ID: USA-22-066      Location: University of Kentucky      Trial Year: 2023  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Josh Mayfield      Sponsor Contact:  
 Investigator: Travis Legleiter

### Part Rated

PLOT = plot  
 GRAIN = grain  
 c = Crop is Part Rated  
 p = Pest is Part Rated

### Rating Type

phygen = phytotoxicity - general / injury  
 LENGTH = length  
 WEIGHT = weight  
 MOICON = moisture content  
 WEITES = weight - test  
 YIELD = yield

### Rating Unit/Min/Max

%, 0, 100 = percent  
 FT, , = foot  
 LB, , = pound  
 BU, , = bushel

PLOT = total plot  
 A = acre

PLOT = total plot

PLOT = total plot

### Crop Type Code

C = EPPO species (Bayer) codes  
 TRZAW, BCER, Triticum aestivum, Winter wheat = US

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

LAMAM, Lamium amplexicaule, Henbit deadnettle = US  
 LOLMG, Lolium multiflorum gaudini, Annual ryegrass = US  
 THLAR, Thlaspi arvense, Field pennycress = US

### Plant-Eval Interval

13 DP-1 = 1 TRZAW 10-28-2022  
 18 DP-1 = 1 TRZAW 10-28-2022  
 34 DP-1 = 1 TRZAW 10-28-2022  
 129 DP-1 = 1 TRZAW 10-28-2022  
 174 DP-1 = 1 TRZAW 10-28-2022  
 191 DP-1 = 1 TRZAW 10-28-2022  
 209 DP-1 = 1 TRZAW 10-28-2022  
 252 DP-1 = 1 TRZAW 10-28-2022

### EDC App

Rating Shell = Data pulled from Excel Rating Shell

### ARM Action Codes

AA = Automatic arcsine square root % transformation  
 EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table  
 ER2 = Excluded replicate 2  
 ET9 = Excluded treatment 9  
 ET3 = Excluded treatment 3  
 ER3 = Excluded replicate 3  
 TY1 =  $(726/(5*[18]))*[19]*(100-[20])/86.5$

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023      Cooperator Trial ID:  
 Protocol ID: HBI001B4-2023US      Location: Cully Scott FS      Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne      Sponsor Contact: Mark Kitt      Conducted Under GEP: No  
 Investigator: Travis Legleiter      Trial Origin: P public institution trial

Reps: 4		Plots: 10 by 30 feet																	
Appl. Amount: 15 GAL/AC		Mix Size: 2 L (total for 4 plots; minimum=1.564 L, overage=436 mL)																	
Trt	Treatment	Form	Form	Form	Rate	Other	Other	Appl	Amt	Product	Rep	1	2	3	4				
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Code	to Measure								
1	UNTREATED CHECK											101	213	311	403				
2	STOREN AATREX 4L	386.02 gA/L 480 gA/L	ZC SC		1900 g Al/ha 840 g Al/ha		2.1 QT/A 0.748 QT/A	A		70.16 mL/mx 24.94 mL/mx		102	208	310	409				
3	STOREN AATREX 4L	386.02 gA/L 480 gA/L	ZC SC		2170 g Al/ha 840 g Al/ha		2.4 QT/A 0.748 QT/A	A		80.13 mL/mx 24.94 mL/mx		103	206	303	406				
4	ACURON 3.44 ZC	411.93 gA/L	ZC		2890 g Al/ha		3 QT/A	A		100.0 mL/mx		104	209	307	404				
5	RESICORE XL AATREX 4L	390.8 gA/L 480 gA/L	CS SC		2280 g Al/ha 840 g Al/ha		2.5 QT/A 0.748 QT/A	A		83.16 mL/mx 24.94 mL/mx		105	210	315	401				
6	RESICORE XL AATREX 4L	390.8 gA/L 480 gA/L	CS SC		2740 g Al/ha 840 g Al/ha		3 QT/A 0.748 QT/A	A		99.94 mL/mx 24.94 mL/mx		106	202	309	415				
7	TRIVOLT AATREX 4L	438 gA/L 480 gA/L	SC SC		560 g Al/ha 840 g Al/ha		17.5 FL OZ/A 0.748 QT/A	A		18.22 mL/mx 24.94 mL/mx		107	212	306	414				
8	TRIVOLT AATREX 4L	438 gA/L 480 gA/L	SC SC		640 g Al/ha 840 g Al/ha		20 FL OZ/A 0.748 QT/A	A		20.83 mL/mx 24.94 mL/mx		108	207	305	408				
9	MAVERICK AATREX 4L	244.3 gA/L 480 gA/L	SC SC		428 g Al/ha 840 g Al/ha		24 FL OZ/A 0.748 QT/A	A		24.97 mL/mx 24.94 mL/mx		109	215	304	411				
10	MAVERICK AATREX 4L	244.3 gA/L 480 gA/L	SC SC		571 g Al/ha 840 g Al/ha		32 FL OZ/A 0.748 QT/A	A		33.32 mL/mx 24.94 mL/mx		110	203	313	405				
11	STOREN AATREX 4L AMSOL STOREN AATREX 4L ROUNDUP POWERMAX 3	386.02 gA/L 480 gA/L  386.02 gA/L 480 gA/L 575 gAE/L	ZC SC SL ZC SC SL		948 g Al/ha 420 g Al/ha 2.5 % V/V 948 g Al/ha 420 g Al/ha 1180 g AE/ha		1.05 QT/A 0.374 QT/A 2.5 % V/V 1.05 QT/A 0.374 QT/A 28 FL OZ/A	A A B B B B		35.01 mL/mx 12.47 mL/mx 50.0 mL/mx 35.01 mL/mx 12.47 mL/mx 29.25 mL/mx		111	211	308	407				
12	STOREN AATREX 4L AMSOL STOREN AATREX 4L ROUNDUP POWERMAX 3	386.02 gA/L 480 gA/L  386.02 gA/L 480 gA/L 575 gAE/L	ZC SC SL ZC SC SL		1080 g Al/ha 420 g Al/ha 2.5 % V/V 1080 g Al/ha 420 g Al/ha 1180 g AE/ha		1.2 QT/A 0.374 QT/A 2.5 % V/V 1.2 QT/A 0.374 QT/A 28 FL OZ/A	A A B B B B		39.88 mL/mx 12.47 mL/mx 50.0 mL/mx 39.88 mL/mx 12.47 mL/mx 29.25 mL/mx		112	204	301	402				
13	STOREN AATREX 4L AMSOL NIS AATREX 4L HALEX GT 4.38 CS	386.02 gA/L 480 gA/L  480 gA/L 525 gA/L	ZC SC SL SL SC CS		1080 g Al/ha 420 g Al/ha 2.5 % V/V 0.25 % V/V 561 g Al/ha 2460 g Al/ha		1.2 QT/A 0.374 QT/A 2.5 % V/V 0.25 % V/V 0.5 QT/A 4 PT/A	A A B B B B		39.88 mL/mx 12.47 mL/mx 50.0 mL/mx 5.0 mL/mx 16.66 mL/mx 66.79 mL/mx		113	201	314	412				
14	LEXAR EZ 3.7 ZC AMSOL NIS AATREX 4L ACURON GT	443.8 gA/L  480 gA/L 514.35 gA/L	ZC SL SL SC ZC		1820 g Al/ha 2.5 % V/V 0.25 % V/V 561 g Al/ha 2260 g Al/ha		1.75 QT/A 2.5 % V/V 0.25 % V/V 0.5 QT/A 3.75 PT/A	A B B B B		58.46 mL/mx 50.0 mL/mx 5.0 mL/mx 16.66 mL/mx 62.63 mL/mx		114	214	302	413				
15	ACURON 3.44 ZC AMSOL NIS AATREX 4L HALEX GT 4.38 CS	411.93 gA/L  480 gA/L 525 gA/L	ZC SL SL SC CS		1440 g Al/ha 2.5 % V/V 0.25 % V/V 561 g Al/ha 2460 g Al/ha		1.5 QT/A 2.5 % V/V 0.25 % V/V 0.5 QT/A 4 PT/A	A B B B B		49.83 mL/mx 50.0 mL/mx 5.0 mL/mx 16.66 mL/mx 66.79 mL/mx		115	205	312	410				

# University of Kentucky

Reps: 4 Plots: 10 by 30 feet  
Appl. Amount: 15 GAL/AC Mix Size: 2 L (total for 4 plots; minimum=1.564 L, overage=436 mL)  
Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

Amount* Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
339.943 mL	STOREN	386.02	gA/L	ZC	
311.901 mL	AATREX 4L	480	gA/L	SC	
149.834 mL	ACURON 3.44 ZC	411.93	gA/L	ZC	
183.103 mL	RESICORE XL	390.8	gA/L	CS	
39.053 mL	TRIVOLT	438	gA/L	SC	
58.289 mL	MAVERICK	244.3	gA/L	SC	
250.000 mL	AMSOL			SL	
58.505 mL	ROUNDUP POWERMAX 3 575		gAE/L	SL	
15.000 mL	NIS			SL	
133.583 mL	HALEX GT 4.38 CS	525	gA/L	CS	
58.456 mL	LEXAR EZ 3.7 ZC	443.8	gA/L	ZC	
62.632 mL	ACURON GT	514.35	gA/L	ZC	

\* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

\* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

### General Trial Information

**Study Director:** Scott Payne **Title:** R&D Scientist 3  
**Investigator:** Travis Legleiter **Title:** Assistant Extension Professor

**Discipline:** H herbicide  
**Status:** E established

**Status Date:** 8-4-2023 1:25 PM

**ARM Trial Created On:** 4-5-2023

**Initiation Date:** 5-1-2023

**Protocol Revision Number:** 1.0

**Protocol Revision Date:** 4-5-2023

**Interim Report Due:** 10-6-2023

**Final Report Due:** 3-1-2024

**Usage/Type:** 0 Research and Development  
**Last Changed By:** Travis Legleiter

**Interim Data Due:** 10-6-2023

### Trial Location

**Address (Location):** 348 University Drive  
**City:** Princeton **Country:** USA United States  
**State/Prov.:** Kentucky KY **County:** Caldwell **Region:** NG  
**Postal Code:** 42445

### Regulations

**Conducted Under GLP:** No

**Conducted Under GEP:** No

**Registration Purposes (Y/N):** N

### Contacts

**Role:** STYDIR study director

**Study Director:** Scott Payne **Title:** R&D Scientist 3

**Organization:** Syngenta Crop Protection AG

**Address 1:** Syngenta Seeds, Inc Garst HQ, Research 2369 - 330th S

**Mobile No.:** +1-5154183929

**Country:** USA United States

**E-mail:** scott.payne@syngenta.com

**City:** Slater, IA

**Role:** INVEST investigator

**Title:** Assistant Extension Professor

**Investigator:** Travis Legleiter

**Organization:** University of Kentucky

**Address 1:** 348 University Drive **Phone No.:** 859-562-1323

**Country:** USA United States **E-mail:** Travis.Legleiter@uky.edu

**Postal Code:** 42445

**City:** Princeton, KY

**Role:** SPONSR sponsor

**Title:** Technical Product Lead

**Sponsor:** Mark Kitt

**Organization:** Syngenta Crop Protection AG

**Address 1:** Syngenta Crop Protection LLC 410 Swing Road Greensbor **Phone No.:** +16126568162 **Mobile No.:** +18162069137

**Country:** USA United States **E-mail:** mark.kitt@syngenta.com

**City:** Greensboro, NC

### Crop Description

**Crop 1:** C ZEAMD Zea mays indentata Dent corn **BBCH Scale:** BCOR

**Variety:** P1170AM

**Attributes:** RR/LL

**Stage Scale:** BBCH

**Planting Date:** 5-17-2023

**Depth:** 2 IN

**Planting Rate:** 32000 S/A

**Rows per Plot:** 4

**Row Spacing:** 30 IN

**Planting Method:** PLANTD planted  
**Planting Equipment:** VP vacuum planter

**Soil Moisture:** WET wet  
**Harvested Width:** 5 FT

**% Standard Moisture:** 15.5

# University of Kentucky

### Pest Description

**Pest 1 Type:** W **Code:** AMBTR *Ambrosia trifida*  
**Common Name:** Giant ragweed

**Stage Scale:** BBCH  
**Artificial Population:** N no

**Pest 2 Type:** W **Code:** DIGSA *Digitaria sanguinalis*  
**Common Name:** large crabgrass

**Stage Scale:** BBCH  
**Artificial Population:** N no

**Pest 3 Type:** W **Code:** IPOHE *Ipomoea hederacea*  
**Common Name:** ivy-leaf morning glory

**Stage Scale:** BBCH  
**Artificial Population:** N no

**Pest 4 Type:** W **Code:** ACCSS *Acalypha sp.*  
**Common Name:** Copperleaf  
**Attributes:** Hophornbeam Copperleaf (*A. ostryifolia*)

**Stage Scale:** BBCH  
**Artificial Population:** N no

### Site and Design

**Treated Plot Width:** 10 FT **Total Plot Width:** 10 FT **Site Type:** FIELD field  
**Treated Plot Length:** 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT plot  
**Treated Plot Area:** 300.0 FT2 **Tillage Type:** NOTILL no-till  
**Replications:** 4 **Treatments:** 15 **Plots:** 60 **Study Design:** RACOB� Randomized Complete Block (RCB)  
**Untreated Arrangement:** INCLUDED single control randomized in each block

### Maintenance

No.	Date	Type	Maintenance Product Name	Rate	Unit
1.	4-20-2023	FERT	Phosphorus	46	lbs
2.	4-20-2023	FERT	Nitrogen	18	lbs
3.	4-24-2023	FERT	Nitrogen	200	lbs
4.	4-19-2023	HERB	Roundup Powermax 3	30	fl oz/a
5.	4-19-2023	HERB	Interline	32	fl oz/a
6.	4-19-2023	ADJ	AMS	2.5	% v/v

### Field Prep./Maintenance:

At planting: Applied Roundup Powermax 3 (40 fl oz) + AMS Liquid (2.5%) to each bottle.  
Mix size: 2 L

### Soil Description

**Description Name:** 108-C4  
**% Sand:** 4.2 **% OM:** 2.6 **Texture:** SIL silt loam  
**% Silt:** 80.8 **Soil Name:** Crider Silt Loam  
**% Clay:** 15.1  
**pH:** 5.25 **CEC:** 12.7

### Application Description

	A	B
<b>Date</b>	5-18-2023	6-1-2023
<b>Stop Time</b>	2:59 PM	12:22 PM
<b>Interval to Prev. Appl.</b>		14 DAYS
<b>Method</b>	NONINC	NONINC
<b>Timing</b>	PREPRE	POSPOS
<b>Placement</b>	BROSOL	BROFOL
<b>Mixed/Prepared By</b>	JLG/CMY	JLG/CMY
<b>Applied By</b>	JLG	CMY
<b>Air Temperature Start, Stop</b>	79, 79 F	85.7, 86.1 F
<b>% Relative Humidity Start, Stop</b>	41, 43	55.3, 53.9
<b>Wind Velocity+Dir. Start</b>	1.4 MPH, SW	1.5 MPH, W
<b>Wind Velocity+Dir. Stop</b>	5.4 MPH, SW	1.7 MPH, W
<b>Wind Velocity+Dir. Max</b>	14.6 MPH, SW	5.7 MPH, W
<b>Wet Leaves (Y/N)</b>	N, no	N, no
<b>Soil Moisture</b>	WET	DRY
<b>% Cloud Cover</b>	0	50

### Crop Stage At Each Application

	A	B
<b>Crop 1 Code, BBCH Scale</b>	ZEAMD, BCOR	ZEAMD, BCOR
<b>Stage Majority, Percent</b>		V3, -
<b>Stage Minimum, Percent</b>		V2, -
<b>Stage Maximum, Percent</b>		V4, -
<b>Height Average</b>		7.875 IN
<b>Height Minimum, Maximum</b>		7, 8.75

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## Pest Stage At Each Application

	A	B
<b>Pest 1 Code, Type, Scale</b>	AMBTR, W, BBCH	AMBTR, W, BBCH
<b>Height Average</b>		0.625 IN
<b>Height Minimum, Maximum</b>		0.25, 1
<b>Density Average</b>		1.14 ft2
<b>Density Minimum, Maximum</b>		1, 2
<b>Pest 2 Code, Type, Scale</b>	DIGSA, W, BBCH	DIGSA, W, BBCH
<b>Height Average</b>		2.625 IN
<b>Height Minimum, Maximum</b>		0.25, 5
<b>Density Average</b>		1.25 ft2
<b>Density Minimum, Maximum</b>		1, 2
<b>Pest 3 Code, Type, Scale</b>	IPOHE, W, BBCH	IPOHE, W, BBCH
<b>Height Average</b>		0.5 IN
<b>Height Minimum, Maximum</b>		0, 1
<b>Density Average</b>		1 ft2
<b>Density Minimum, Maximum</b>		0, 1
<b>Pest 4 Code, Type, Scale</b>	ACCSS, W, BBCH	ACCSS, W, BBCH

## Application Equipment

	A	B
<b>Equipment Type</b>	BACCAI	BACCAI
<b>Operation Pressure</b>	35 PSI	35 PSI
<b>Nozzle Model</b>	XR11002	XR11002
<b>Nozzle Type</b>	FLAFXR	FLAFXR
<b>Nozzle TradeName</b>	XR TeeJet	XR TeeJet
<b>Nozzle Tip Size, Color</b>	02, Yellow	02, Yellow
<b>Nozzle Spacing</b>	20.0 IN	20.0 IN
<b>Boom ID</b>	BLUE	BLUE
<b>Boom Length</b>	10.0 FT	10.0 FT
<b>Boom Height</b>	18.0 IN	18.0 IN
<b>Ground Speed</b>	3 MPH	3 MPH
<b>Carrier</b>	WATER	WATER
<b>Application Amount</b>	15 GAL/AC	15 GAL/AC
<b>Mix Overage</b>	436.0 mL	436.0 mL
<b>Mix Size</b>	2.0 L	2 L
<b>Propellant</b>	COMCO2	COMCO2

Context	Date	By	Notes
STATUS 4-5-2023	Scott Cully		Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS 8-4-2023	Travis Legleiter		Automatically added by ARM: Status changed to: E: changed by (EKYLET).
STATUS 8-4-2023	Travis Legleiter		Automatically added by ARM: Trial Status updated to 'E' when Application Date entered.

## SE Definitions

	1.	2.	3.	4.	5.	6.
<b>Rating Timing</b>	1	2	3	4	5	
<b>SE Name</b>	ZUSW001	ZUSX001	ZUSX052_C3	ZUSX052	ZUSX048	
<b>SE Description</b>	%CONTR OL	%PHYT O- GENERA L	YIELD/A	YIELD/A	TEST WEIGHT - SEED	
<b>Part Rated</b>	PLANT, -	PLANT, -	GRAIN, -	GRAIN, -	SEED, -	
<b>Rating Type</b>	CONTRO	PHYGEN	YIELD	YIELD	WEITES	
<b>Rating Unit/Min/Max</b>	%, 0, 100	%, 0, 100	BU, -, -	BU, -, -	LB, -, -	
<b>Sample Size</b>	1 PLOT	1 PLOT	- FT2	- FT2	1 PLOT	
<b>Collection Basis</b>	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
<b>Reporting Basis</b>	1 PLOT	1 PLOT	1 A	1 A	1 BU	
<b>Calculation</b>	NC	NC	IN	IN	IN	
<b>Number of Subsamples</b>			1	1	1	
<b>ARM Action Codes</b>			@YLDLBBUADM[1,2]			

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## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023      Cooperator Trial ID:  
 Protocol ID: HBI001B4-2023US      Location: Cully Scott FS      Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne      Sponsor Contact: Mark Kitt      Conducted Under GEP: No  
 Investigator: Travis Legleiter      Trial Origin: P public institution trial

Assessed By					
Rating Date	5-31-2023	5-31-2023	6-8-2023	6-27-2023	6-27-2023
Rating Time					
SE Group No.	1	12	2	3	4
SE Name					
SE Description					
Part Rated	plant, P	plant, C	plant, c	plant, c	plant, p
Rating Type	Control	phygen	phygen	phygen	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	1, W, Weed				2, W, Weed
Pest Code	AMBTR				DIGSA
Pest Scientific Name	Ambrosia trifida				Digitaria sangu>
Pest Name	Giant ragweed				large crabgrass
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	13, 13	13, 13	21, 7	40, 26	40, 26
Trt-Eval Interval	13 DA-A				
Plant-Eval Interval	14 DP-1	14 DP-1	22 DP-1	41 DP-1	41 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell		Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes					
Number of Decimals					
Data Entry Date	6-8-2023	10-9-2023	10-9-2023	10-9-2023	10-9-2023
First Export Date					
Footnote Number					

Trt	Treatment	Rate	Appl	1	2	3	4	5
No.	Name	Rate Unit	Code Plot					
1	UNTREATED CHECK		101	0.0	0.0	0.0	0.0	0.0
			213	0.0	0.0	0.0	0.0	0.0
			311	0.0	0.0	0.0	0.0	0.0
			403	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	0.0
2	STOREN	1900 g AI/ha	A 102	100.0	0.0	0.0	0.0	100.0
	AATREX 4L	840 g AI/ha	A 208	100.0	0.0	0.0	0.0	80.0
			310	100.0	0.0	0.0	0.0	90.0
			409	100.0	0.0	0.0	0.0	90.0
			Mean =	100.0	0.0	0.0	0.0	90.0
3	STOREN	2170 g AI/ha	A 103	100.0	0.0	0.0	0.0	100.0
	AATREX 4L	840 g AI/ha	A 206	100.0	0.0	0.0	0.0	90.0
			303	100.0	0.0	0.0	0.0	85.0
			406	100.0	0.0	0.0	0.0	70.0
			Mean =	100.0	0.0	0.0	0.0	86.3
4	ACURON 3.44 ZC	2890 g AI/ha	A 104	100.0	0.0	0.0	0.0	80.0
			209	100.0	0.0	0.0	0.0	80.0
			307	100.0	0.0	0.0	0.0	90.0
			404	100.0	0.0	0.0	0.0	97.0
			Mean =	100.0	0.0	0.0	0.0	86.8
5	RESICORE XL	2280 g AI/ha	A 105	100.0	0.0	0.0	0.0	70.0
	AATREX 4L	840 g AI/ha	A 210	100.0	0.0	0.0	0.0	80.0
			315	100.0	0.0	0.0	0.0	50.0
			401	100.0	0.0	0.0	0.0	95.0
			Mean =	100.0	0.0	0.0	0.0	73.8

d=Means are reported in de-transformed data units

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Assessed By					
Rating Date	5-31-2023	5-31-2023	6-8-2023	6-27-2023	6-27-2023
Rating Time					
SE Group No.	1	12	2	3	4
SE Name					
SE Description					
Part Rated	plant, P	plant, C	plant, c	plant, c	plant, p
Rating Type	Control	phygen	phygen	phygen	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	1, W, Weed				2, W, Weed
Pest Code	AMBTR				DIGSA
Pest Scientific Name	Ambrosia trifida				Digitaria sangu>
Pest Name	Giant ragweed				large crabgrass
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	13, 13	13, 13	21, 7	40, 26	40, 26
Trt-Eval Interval	13 DA-A				
Plant-Eval Interval	14 DP-1	14 DP-1	22 DP-1	41 DP-1	41 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell		Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes					
Number of Decimals					
Data Entry Date	6-8-2023	10-9-2023	10-9-2023	10-9-2023	10-9-2023
First Export Date					
Footnote Number					

Trt No.	Treatment Name	Rate	Appl	1	2	3	4	5
		Rate Unit	Code Plot					
6	RESICORE XL	2740 g AI/ha	A 106	100.0	0.0	0.0	0.0	50.0
	AATREX 4L	840 g AI/ha	A 202	100.0	0.0	0.0	0.0	90.0
			309	100.0	0.0	0.0	0.0	50.0
			415	100.0	0.0	0.0	0.0	70.0
			Mean =	100.0	0.0	0.0	0.0	65.0
7	TRIVOLT	560 g AI/ha	A 107	100.0	0.0	0.0	0.0	90.0
	AATREX 4L	840 g AI/ha	A 212	100.0	0.0	0.0	0.0	90.0
			306	100.0	0.0	0.0	0.0	70.0
			414	100.0	0.0	0.0	0.0	70.0
			Mean =	100.0	0.0	0.0	0.0	80.0
8	TRIVOLT	640 g AI/ha	A 108	100.0	0.0	0.0	0.0	90.0
	AATREX 4L	840 g AI/ha	A 207	97.0	0.0	0.0	0.0	70.0
			305	100.0	0.0	0.0	0.0	85.0
			408	100.0	0.0	0.0	0.0	70.0
			Mean =	99.3	0.0	0.0	0.0	78.8
9	MAVERICK	428 g AI/ha	A 109	100.0	0.0	0.0	0.0	75.0
	AATREX 4L	840 g AI/ha	A 215	100.0	0.0	0.0	0.0	60.0
			304	100.0	0.0	0.0	0.0	70.0
			411	100.0	0.0	0.0	0.0	80.0
			Mean =	100.0	0.0	0.0	0.0	71.3
10	MAVERICK	571 g AI/ha	A 110	100.0	0.0	0.0	0.0	50.0
	AATREX 4L	840 g AI/ha	A 203	100.0	0.0	0.0	0.0	90.0
			313	100.0	0.0	0.0	0.0	80.0
			405	100.0	0.0	0.0	0.0	70.0
			Mean =	100.0	0.0	0.0	0.0	72.5
11	STOREN	948 g AI/ha	A 111	100.0	0.0	0.0	0.0	100.0
	AATREX 4L	420 g AI/ha	A 211	100.0	0.0	0.0	0.0	100.0
	AMSOL	2.5 % V/V	B 308	100.0	0.0	0.0	0.0	100.0
	STOREN	948 g AI/ha	B 407	95.0	0.0	0.0	0.0	100.0
	AATREX 4L	420 g AI/ha	B					
	ROUNDUP POWERMAX 3 1180 g AE/ha	B						
		Mean =		98.8	0.0	0.0	0.0	100.0

d=Means are reported in de-transformed data units

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Assessed By					
Rating Date	5-31-2023	5-31-2023	6-8-2023	6-27-2023	6-27-2023
Rating Time					
SE Group No.	1	12	2	3	4
SE Name					
SE Description					
Part Rated	plant, P	plant, C	plant, c	plant, c	plant, p
Rating Type	Control	phygen	phygen	phygen	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	1, W, Weed				2, W, Weed
Pest Code	AMBTR				DIGSA
Pest Scientific Name	Ambrosia trifida				Digitaria sangu>
Pest Name	Giant ragweed				large crabgrass
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	13, 13	13, 13	21, 7	40, 26	40, 26
Trt-Eval Interval	13 DA-A				
Plant-Eval Interval	14 DP-1	14 DP-1	22 DP-1	41 DP-1	41 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell		Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes					
Number of Decimals					
Data Entry Date	6-8-2023	10-9-2023	10-9-2023	10-9-2023	10-9-2023
First Export Date					
Footnote Number					

Trt No.	Treatment Name	Rate	Appl Code	Plot	1	2	3	4	5
12	STOREN	1080 g AI/ha	A	112	100.0	0.0	0.0	0.0	100.0
	AATREX 4L	420 g AI/ha	A	204	100.0	0.0	0.0	0.0	100.0
	AMSOL	2.5 % V/V	B	301	100.0	0.0	0.0	0.0	100.0
	STOREN	1080 g AI/ha	B	402	100.0	0.0	0.0	0.0	100.0
	AATREX 4L	420 g AI/ha	B						
	ROUNDUP POWERMAX 3	1180 g AE/ha	B						
				Mean =	100.0	0.0	0.0	0.0	100.0
13	STOREN	1080 g AI/ha	A	113	100.0	0.0	0.0	0.0	100.0
	AATREX 4L	420 g AI/ha	A	201	100.0	0.0	0.0	0.0	97.0
	AMSOL	2.5 % V/V	B	314	100.0	0.0	0.0	0.0	100.0
	NIS	0.25 % V/V	B	412	100.0	0.0	0.0	0.0	100.0
	AATREX 4L	561 g AI/ha	B						
	HALEX GT 4.38 CS	2460 g AI/ha	B						
				Mean =	100.0	0.0	0.0	0.0	99.3
14	LEXAR EZ 3.7 ZC	1820 g AI/ha	A	114	100.0	0.0	0.0	0.0	108.0
	AMSOL	2.5 % V/V	B	214	100.0	0.0	0.0	0.0	97.0
	NIS	0.25 % V/V	B	302	100.0	0.0	0.0	0.0	100.0
	AATREX 4L	561 g AI/ha	B	413	100.0	0.0	0.0	0.0	100.0
	ACURON GT	2260 g AI/ha	B						
				Mean =	100.0	0.0	0.0	0.0	101.3
15	ACURON 3.44 ZC	1440 g AI/ha	A	115	100.0	0.0	0.0	0.0	100.0
	AMSOL	2.5 % V/V	B	205	100.0	0.0	0.0	0.0	100.0
	NIS	0.25 % V/V	B	312	100.0	0.0	0.0	0.0	100.0
	AATREX 4L	561 g AI/ha	B	410	100.0	0.0	0.0	0.0	100.0
	HALEX GT 4.38 CS	2460 g AI/ha	B						
				Mean =	100.0	0.0	0.0	0.0	100.0

d=Means are reported in de-transformed data units



# University of Kentucky

Assessed By					
Rating Date	6-27-2023	6-27-2023	6-27-2023	7-28-2023	7-28-2023
Rating Time					
SE Group No.	5	6	7	8	9
SE Name					
SE Description					
Part Rated	plant, p	plant, p	plant, p	plant, p	plant, p
Rating Type	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	1, W, Weed	3, W, Weed	4, W, Weed	2, W, Weed	1, W, Weed
Pest Code	AMBTR	IPOHE	ACCSS	DIGSA	AMBTR
Pest Scientific Name	Ambrosia trifida	Ipomoea hederac>	Acalypha sp.	Digitaria sangu>	Ambrosia trifida
Pest Name	Giant ragweed	ivy-leaf mornin>	Copperleaf	large crabgrass	Giant ragweed
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	40, 26	40, 26	40, 26	71, 57	71, 57
Trt-Eval Interval					
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1	72 DP-1	72 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes	AA			AL	AA
Number of Decimals					
Data Entry Date	10-9-2023	10-9-2023	10-9-2023	10-9-2023	10-9-2023
First Export Date					
Footnote Number					

Trt	Treatment	Rate	Appl	6		7		8		9		10	
No.	Name	Rate Unit	Code Plot										
1	UNTREATED CHECK		101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			213	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			311	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			403	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0d	0.0	0.0	0.0	0.0d	0.0d	0.0d	0.0d	0.0d	0.0d
2	STOREN	1900 g AI/ha	A 102	80.0	80.0	100.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
	AATREX 4L	840 g AI/ha	A 208	70.0	0.0	70.0	90.0	70.0	90.0	70.0	90.0	70.0	50.0
			310	90.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	60.0
			409	80.0	80.0	90.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
			Mean =	80.5d	57.5	82.5	82.5	82.1d	82.1d	82.1d	82.1d	82.1d	71.4d
3	STOREN	2170 g AI/ha	A 103	90.0	80.0	100.0	80.0	80.0	80.0	80.0	80.0	80.0	50.0
	AATREX 4L	840 g AI/ha	A 206	70.0	0.0	95.0	90.0	90.0	90.0	90.0	90.0	90.0	80.0
			303	50.0	25.0	90.0	70.0	70.0	70.0	70.0	70.0	70.0	50.0
			406	80.0	25.0	0.0	60.0	60.0	60.0	60.0	60.0	60.0	50.0
			Mean =	73.8d	32.5	71.3	74.2d	74.2d	74.2d	74.2d	74.2d	74.2d	58.0d
4	ACURON 3.44 ZC	2890 g AI/ha	A 104	70.0	50.0	90.0	70.0	70.0	70.0	70.0	70.0	70.0	50.0
			209	50.0	0.0	30.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
			307	50.0	25.0	90.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
			404	90.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.0
			Mean =	66.4d	38.8	77.5	59.3d	59.3d	59.3d	59.3d	59.3d	59.3d	60.1d
5	RESICORE XL	2280 g AI/ha	A 105	90.0	0.0	50.0	20.0	20.0	20.0	20.0	20.0	20.0	50.0
	AATREX 4L	840 g AI/ha	A 210	80.0	0.0	50.0	70.0	70.0	70.0	70.0	70.0	70.0	40.0
			315	70.0	50.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0
			401	80.0	70.0	100.0	90.0	90.0	90.0	90.0	90.0	90.0	80.0
			Mean =	80.5d	30.0	72.5	18.2d	18.2d	18.2d	18.2d	18.2d	18.2d	58.0d

d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By					
Rating Date	6-27-2023	6-27-2023	6-27-2023	7-28-2023	7-28-2023
Rating Time					
SE Group No.	5	6	7	8	9
SE Name					
SE Description					
Part Rated	plant, p	plant, p	plant, p	plant, p	plant, p
Rating Type	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	1, W, Weed	3, W, Weed	4, W, Weed	2, W, Weed	1, W, Weed
Pest Code	AMBTR	IPOHE	ACCSS	DIGSA	AMBTR
Pest Scientific Name	Ambrosia trifida	Ipomoea hederac>	Acalypha sp.	Digitaria sangu>	Ambrosia trifida
Pest Name	Giant ragweed	ivy-leaf mornin>	Copperleaf	large crabgrass	Giant ragweed
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	40, 26	40, 26	40, 26	71, 57	71, 57
Trt-Eval Interval					
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1	72 DP-1	72 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes	AA			AL	AA
Number of Decimals					
Data Entry Date	10-9-2023	10-9-2023	10-9-2023	10-9-2023	10-9-2023
First Export Date					
Footnote Number					

Trt	Treatment	Rate	Appl	6		7		8		9		10	
No.	Name	Rate Unit	Code Plot										
6	RESICORE XL	2740 g AI/ha	A 106	50.0	0.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
	AATREX 4L	840 g AI/ha	A 202	60.0	20.0	90.0	70.0	70.0	70.0	70.0	70.0	60.0	60.0
			309	80.0	25.0	90.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
			415	90.0	70.0	90.0	0.0	70.0	70.0	70.0	70.0	70.0	70.0
			Mean =		71.4d	28.8	80.0	19.7d	57.6d				
7	TRIVOLT	560 g AI/ha	A 107	95.0	0.0	90.0	50.0	70.0	70.0	70.0	70.0	70.0	70.0
	AATREX 4L	840 g AI/ha	A 212	70.0	25.0	50.0	80.0	80.0	80.0	80.0	80.0	60.0	60.0
			306	50.0	50.0	60.0	50.0	60.0	60.0	60.0	60.0	60.0	60.0
			414	70.0	70.0	90.0	70.0	70.0	70.0	70.0	70.0	80.0	80.0
			Mean =		73.3d	36.3	72.5	61.2d	67.8d				
8	TRIVOLT	640 g AI/ha	A 108	80.0	50.0	90.0	80.0	80.0	80.0	80.0	80.0	70.0	70.0
	AATREX 4L	840 g AI/ha	A 207	40.0	25.0	80.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
			305	90.0	70.0	80.0	70.0	70.0	70.0	70.0	70.0	50.0	50.0
			408	70.0	50.0	25.0	80.0	80.0	80.0	80.0	80.0	70.0	70.0
			Mean =		71.5d	48.8	68.8	68.8d	60.2d				
9	MAVERICK	428 g AI/ha	A 109	80.0	50.0	90.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
	AATREX 4L	840 g AI/ha	A 215	70.0	50.0	50.0	25.0	50.0	50.0	50.0	50.0	50.0	50.0
			304	90.0	80.0	97.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
			411	70.0	70.0	70.0	50.0	50.0	50.0	50.0	50.0	70.0	70.0
			Mean =		78.2d	62.5	76.8	49.8d	65.2d				
10	MAVERICK	571 g AI/ha	A 110	60.0	10.0	50.0	70.0	70.0	70.0	70.0	70.0	80.0	80.0
	AATREX 4L	840 g AI/ha	A 203	50.0	50.0	95.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
			313	90.0	90.0	100.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
			405	50.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	50.0	50.0
			Mean =		63.9d	55.0	78.8	64.4d	63.0d				
11	STOREN	948 g AI/ha	A 111	100.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	AATREX 4L	420 g AI/ha	A 211	100.0	90.0	100.0	95.0	95.0	95.0	95.0	95.0	90.0	90.0
	AMSOL	2.5 % V/V	B 308	100.0	85.0	100.0	100.0	100.0	100.0	100.0	100.0	95.0	95.0
	STOREN	948 g AI/ha	B 407	100.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	AATREX 4L	420 g AI/ha	B										
	ROUNDUP POWERMAX 3 1180 g AE/ha	B											
		Mean =		100.0d	83.8	100.0	98.7d	98.1d					

d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By					
Rating Date	6-27-2023	6-27-2023	6-27-2023	7-28-2023	7-28-2023
Rating Time					
SE Group No.	5	6	7	8	9
SE Name					
SE Description					
Part Rated	plant, p	plant, p	plant, p	plant, p	plant, p
Rating Type	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	1, W, Weed	3, W, Weed	4, W, Weed	2, W, Weed	1, W, Weed
Pest Code	AMBTR	IPOHE	ACCSS	DIGSA	AMBTR
Pest Scientific Name	Ambrosia trifida	Ipomoea hederac>	Acalypha sp.	Digitaria sangu>	Ambrosia trifida
Pest Name	Giant ragweed	ivy-leaf mornin>	Copperleaf	large crabgrass	Giant ragweed
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	40, 26	40, 26	40, 26	71, 57	71, 57
Trt-Eval Interval					
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1	72 DP-1	72 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes	AA			AL	AA
Number of Decimals					
Data Entry Date	10-9-2023	10-9-2023	10-9-2023	10-9-2023	10-9-2023
First Export Date					
Footnote Number					

Trt No.	Treatment Name	Rate	Appl Code	Plot	6	7	8	9	10
12	STOREN	1080 g AI/ha	A	112	100.0	85.0	100.0	97.0	100.0
	AATREX 4L	420 g AI/ha	A	204	95.0	90.0	100.0	97.0	90.0
	AMSOL	2.5 % V/V	B	301	100.0	80.0	100.0	97.0	100.0
	STOREN	1080 g AI/ha	B	402	100.0	90.0	100.0	100.0	100.0
	AATREX 4L	420 g AI/ha	B						
	ROUNDUP POWERMAX 3	1180 g AE/ha	B						
				Mean =	99.7d	86.3	100.0	97.7d	99.4d
13	STOREN	1080 g AI/ha	A	113	90.0	70.0	100.0	90.0	85.0
	AATREX 4L	420 g AI/ha	A	201	100.0	90.0	100.0	90.0	95.0
	AMSOL	2.5 % V/V	B	314	97.0	90.0	100.0	97.0	80.0
	NIS	0.25 % V/V	B	412	100.0	97.0	100.0	100.0	100.0
	AATREX 4L	561 g AI/ha	B						
	HALEX GT 4.38 CS	2460 g AI/ha	B						
				Mean =	98.5d	86.8	100.0	94.1d	92.8d
14	LEXAR EZ 3.7 ZC	1820 g AI/ha	A	114	100.0	80.0	100.0	100.0	95.0
	AMSOL	2.5 % V/V	B	214	100.0	80.0	100.0	95.0	100.0
	NIS	0.25 % V/V	B	302	100.0	80.0	100.0	100.0	97.0
	AATREX 4L	561 g AI/ha	B	413	100.0	97.0	100.0	100.0	100.0
	ACURON GT	2260 g AI/ha	B						
				Mean =	100.0d	84.3	100.0	98.7d	99.0d
15	ACURON 3.44 ZC	1440 g AI/ha	A	115	100.0	80.0	100.0	100.0	85.0
	AMSOL	2.5 % V/V	B	205	95.0	70.0	100.0	97.0	90.0
	NIS	0.25 % V/V	B	312	100.0	80.0	100.0	100.0	80.0
	AATREX 4L	561 g AI/ha	B	410	100.0	97.0	100.0	97.0	100.0
	HALEX GT 4.38 CS	2460 g AI/ha	B						
				Mean =	99.7d	81.8	100.0	98.5d	91.5d

d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By					
Rating Date	7-28-2023	7-28-2023	10-24-2023	10-24-2023	10-24-2023
Rating Time					
SE Group No.	10	11	13	14	15
SE Name					
SE Description					
Part Rated	plant, p	plant, p	plot, -	grain, C	grain, C
Rating Type	control	control	length	WEIGHT	CONMOI
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	ft, -, -	lb, -, -	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	3, W, Weed	4, W, Weed			
Pest Code	IPOHE	ACCSS			
Pest Scientific Name	Ipomoea hederac>	Acalypha sp.			
Pest Name	ivy-leaf mornin>	Copperleaf			
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	71, 57	71, 57	159, 145	159, 145	159, 145
Trt-Eval Interval					
Plant-Eval Interval	72 DP-1	72 DP-1	160 DP-1	160 DP-1	160 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell			
Data Reliability					
ARM Action Codes		AA			ER4
Number of Decimals					
Data Entry Date	10-9-2023	10-9-2023	12-8-2023	12-8-2023	12-8-2023
First Export Date					
Footnote Number					

Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	11	12	13	14	15
1	UNTREATED CHECK		101	0.0	0.0	27.50	8.080	13.00
			213	0.0	0.0	27.80	8.580	14.30
			311	0.0	0.0	26.50	9.430	15.60
			403	0.0	0.0	28.40	20.850	
			Mean =	0.0	0.0d	27.55	11.735	14.30
2	STOREN	1900 g AI/ha	A 102	50.0	80.0	27.50	31.900	14.40
	AATREX 4L	840 g AI/ha	A 208	50.0	80.0	27.60	33.380	12.50
			310	40.0	50.0	26.50	30.640	13.70
			409	50.0	30.0	27.90	36.242*	
			Mean =	47.5	60.9d	27.38	33.041	13.53
3	STOREN	2170 g AI/ha	A 103	50.0	90.0	27.30	41.720	14.60
	AATREX 4L	840 g AI/ha	A 206	80.0	95.0	27.20	34.460	12.50
			303	20.0	70.0	26.40	23.560	16.00
			406	40.0	30.0	28.40	41.440	
			Mean =	47.5	74.5d	27.33	35.295	14.37
4	ACURON 3.44 ZC	2890 g AI/ha	A 104	50.0	70.0	27.30	32.990	12.40
			209	50.0	70.0	27.10	33.650	12.40
			307	25.0	70.0	26.70	35.680	12.90
			404	90.0	100.0	28.30	38.376*	
			Mean =	53.8	82.3d	27.35	35.174	12.57
5	RESICORE XL	2280 g AI/ha	A 105	50.0	70.0	27.20	38.880	12.00
	AATREX 4L	840 g AI/ha	A 210	50.0	50.0	27.60	38.080	14.30
			315	50.0	70.0	26.70	30.580	13.60
			401	60.0	80.0	27.90	47.260	
			Mean =	52.5	67.9d	27.35	38.700	13.30

d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By					
Rating Date	7-28-2023	7-28-2023	10-24-2023	10-24-2023	10-24-2023
Rating Time					
SE Group No.	10	11	13	14	15
SE Name					
SE Description					
Part Rated	plant, p	plant, p	plot, -	grain, C	grain, C
Rating Type	control	control	length	WEIGHT	CONMOI
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	ft, -, -	lb, -, -	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	3, W, Weed	4, W, Weed			
Pest Code	IPOHE	ACCSS			
Pest Scientific Name	Ipomoea hederac>	Acalypha sp.			
Pest Name	ivy-leaf mornin>	Copperleaf			
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	71, 57	71, 57	159, 145	159, 145	159, 145
Trt-Eval Interval					
Plant-Eval Interval	72 DP-1	72 DP-1	160 DP-1	160 DP-1	160 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell			
Data Reliability					
ARM Action Codes		AA			ER4
Number of Decimals					
Data Entry Date	10-9-2023	10-9-2023	12-8-2023	12-8-2023	12-8-2023
First Export Date					
Footnote Number					

Trt	Treatment	Rate	Appl		11	12	13	14	15
No.	Name	Rate Unit	Code Plot						
6	RESICORE XL	2740 g AI/ha	A 106		20.0	70.0	28.10	35.680	12.80
	AATREX 4L	840 g AI/ha	A 202		40.0	50.0	26.70	27.130	14.00
			309		25.0	50.0	26.80	28.640	14.50
			415		50.0	50.0	27.40	36.670	
			Mean =		33.8	55.1d	27.25	32.030	13.77
7	TRIVOLT	560 g AI/ha	A 107		70.0	70.0	28.40	38.950	12.30
	AATREX 4L	840 g AI/ha	A 212		70.0	50.0	26.30	27.070	14.30
			306		70.0	80.0	26.60	31.190	12.20
			414		20.0	50.0	27.90	38.130	
			Mean =		57.5	63.0d	27.30	33.835	12.93
8	TRIVOLT	640 g AI/ha	A 108		70.0	70.0	28.00	38.610	12.00
	AATREX 4L	840 g AI/ha	A 207		50.0	80.0	27.00	29.950	12.30
			305		20.0	70.0	26.60	36.520	12.50
			408		80.0	60.0	27.70	39.190	
			Mean =		55.0	70.2d	27.33	36.068	12.27
9	MAVERICK	428 g AI/ha	A 109		70.0	70.0	28.50	38.440	12.20
	AATREX 4L	840 g AI/ha	A 215		50.0	70.0	27.40	31.350	14.50
			304		50.0	60.0	26.30	31.130	12.20
			411		40.0	50.0	27.90	33.850	
			Mean =		52.5	62.7d	27.53	33.693	12.97
10	MAVERICK	571 g AI/ha	A 110		80.0	80.0	28.30	40.520	14.40
	AATREX 4L	840 g AI/ha	A 203		50.0	80.0	27.50	32.750	14.80
			313		50.0	60.0	26.80	36.440	14.20
			405		70.0	70.0	28.00	35.880	
			Mean =		62.5	72.9d	27.65	36.398	14.47
11	STOREN	948 g AI/ha	A 111		90.0	90.0	28.20	44.080	14.20
	AATREX 4L	420 g AI/ha	A 211		90.0	95.0	27.30	41.150	14.30
	AMSOL	2.5 % V/V	B 308		95.0	100.0	26.20	42.700	12.70
	STOREN	948 g AI/ha	B 407		97.0	97.0	28.00	46.260	
	AATREX 4L	420 g AI/ha	B						
	ROUNDUP POWERMAX 3 1180 g AE/ha	B							
		Mean =		93.0	96.8d	27.43	43.548	13.73	

d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By					
Rating Date	7-28-2023	7-28-2023	10-24-2023	10-24-2023	10-24-2023
Rating Time					
SE Group No.	10	11	13	14	15
SE Name					
SE Description					
Part Rated	plant, p	plant, p	plot, -	grain, C	grain, C
Rating Type	control	control	length	WEIGHT	CONMOI
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	ft, -, -	lb, -, -	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	3, W, Weed	4, W, Weed			
Pest Code	IPOHE	ACCSS			
Pest Scientific Name	Ipomoea hederac>	Acalypha sp.			
Pest Name	ivy-leaf mornin>	Copperleaf			
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	71, 57	71, 57	159, 145	159, 145	159, 145
Trt-Eval Interval					
Plant-Eval Interval	72 DP-1	72 DP-1	160 DP-1	160 DP-1	160 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell			
Data Reliability					
ARM Action Codes		AA			ER4
Number of Decimals					
Data Entry Date	10-9-2023	10-9-2023	12-8-2023	12-8-2023	12-8-2023
First Export Date					
Footnote Number					

Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code Plot	11	12	13	14	15	
12	STOREN	1080 g AI/ha	A 112	85.0	90.0	28.20	43.540	14.20	
	AATREX 4L	420 g AI/ha	A 204	95.0	100.0	27.50	42.730	12.80	
	AMSOL	2.5 % V/V	B 301	100.0	100.0	25.70	44.620	14.40	
	STOREN	1080 g AI/ha	B 402	97.0	100.0	27.20	45.750		
	AATREX 4L	420 g AI/ha	B						
	ROUNDUP POWERMAX 3	1180 g AE/ha	B						
			Mean =	94.3	99.4d	27.15	44.160	13.80	
13	STOREN	1080 g AI/ha	A 113	90.0	95.0	28.30	42.690	14.00	
	AATREX 4L	420 g AI/ha	A 201	60.0	100.0	26.80	39.230	14.00	
	AMSOL	2.5 % V/V	B 314	80.0	95.0	27.20	39.730	13.90	
	NIS	0.25 % V/V	B 412	90.0	90.0	27.60	41.960		
	AATREX 4L	561 g AI/ha	B						
	HALEX GT 4.38 CS	2460 g AI/ha	B						
			Mean =	80.0	96.3d	27.48	40.903	13.97	
14	LEXAR EZ 3.7 ZC	1820 g AI/ha	A 114	95.0	100.0	28.30	43.980	13.90	
	AMSOL	2.5 % V/V	B 214	90.0	90.0	27.20	40.650	14.20	
	NIS	0.25 % V/V	B 302	97.0	100.0	25.90	43.610	14.50	
	AATREX 4L	561 g AI/ha	B 413	97.0	97.0	27.90	42.450		
	ACURON GT	2260 g AI/ha	B						
			Mean =	94.8	98.5d	27.33	42.673	14.20	
15	ACURON 3.44 ZC	1440 g AI/ha	A 115	80.0	90.0	27.80	41.060	13.80	
	AMSOL	2.5 % V/V	B 205	97.0	100.0	27.10	45.840	12.60	
	NIS	0.25 % V/V	B 312	80.0	90.0	27.00	38.380	14.60	
	AATREX 4L	561 g AI/ha	B 410	90.0	95.0	27.20	43.050		
	HALEX GT 4.38 CS	2460 g AI/ha	B						
			Mean =	86.8	95.4d	27.28	42.083	13.67	

d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By		
Rating Date	10-24-2023	10-24-2023
Rating Time		
SE Group No.	16	17
SE Name		
SE Description		
Part Rated	grain, C	grain, C
Rating Type	WEITES	YIELD
Rating Unit/Min/Max	%, 0, 100	BU, -, -
Sample Size	1 plot	1 A
Collection Basis	1 plot	1 plot
Reporting Basis	1 plot	
Calculation	NC	NC
Number of Subsamples	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL
Crop Stage Scale		
Crop Stage Majority/Min/Max		
Crop Density		
Pest ID Code		
Pest Code		
Pest Scientific Name		
Pest Name		
Pest Stage Majority/Min/Max		
Pest Density		
Rating Timing		
Days After First/Last Applic.	159, 145	159, 145
Trt-Eval Interval		
Plant-Eval Interval	160 DP-1	160 DP-1
Days After Emergence		
Pest Est.-Eval Interval		
Equipment		
EDC App		
Data Reliability		
ARM Action Codes	ET5	EC TY1
Number of Decimals		1
Data Entry Date	12-8-2023	
First Export Date		
Footnote Number		

Trt	Treatment	Rate	Appl		
No.	Name	Rate Unit	Code Plot	16	17
1	UNTREATED CHECK		101	58.10	47.1
			213	55.20	48.7
			311	54.60	55.3
			403	56.59*	203.8*
			Mean =	56.12	50.4
2	STOREN	1900 g AI/ha	A 102	59.70	182.8
	AATREX 4L	840 g AI/ha	A 208	54.70	194.8
			310	56.90	183.7
			409	57.73*	203.8*
			Mean =	57.26	191.3
3	STOREN	2170 g AI/ha	A 103	60.90	240.3
	AATREX 4L	840 g AI/ha	A 206	59.90	204.1
			303	54.00	138.0
			406	59.80	233.2
			Mean =	58.65	203.9
4	ACURON 3.44 ZC	2890 g AI/ha	A 104	59.00	194.9
			209	49.50	200.3
			307	58.80	214.3
			404	56.39*	219.8*
			Mean =	55.92	207.3
5	RESICORE XL	2280 g AI/ha	A 105	48.80	231.6
	AATREX 4L	840 g AI/ha	A 210	60.00	217.7
			315	51.90	182.2
			401	61.80	267.9
			Mean =	55.63	224.8

d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By		
Rating Date	10-24-2023	10-24-2023
Rating Time		
SE Group No.	16	17
SE Name		
SE Description		
Part Rated	grain, C	grain, C
Rating Type	WEITES	YIELD
Rating Unit/Min/Max	%, 0, 100	BU, -, -
Sample Size	1 plot	1 A
Collection Basis	1 plot	1 plot
Reporting Basis	1 plot	
Calculation	NC	NC
Number of Subsamples	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL
Crop Stage Scale		
Crop Stage Majority/Min/Max		
Crop Density		
Pest ID Code		
Pest Code		
Pest Scientific Name		
Pest Name		
Pest Stage Majority/Min/Max		
Pest Density		
Rating Timing		
Days After First/Last Applic.	159, 145	159, 145
Trt-Eval Interval		
Plant-Eval Interval	160 DP-1	160 DP-1
Days After Emergence		
Pest Est.-Eval Interval		
Equipment		
EDC App		
Data Reliability		
ARM Action Codes	ET5	EC TY1
Number of Decimals		1
Data Entry Date	12-8-2023	
First Export Date		
Footnote Number		

Trt No.	Treatment Name	Rate	Appl	16	17
		Rate Unit	Code Plot		
6	RESICORE XL	2740 g AI/ha	A 106	58.00	203.8
	AATREX 4L	840 g AI/ha	A 202	57.90	160.9
			A 309	58.10	168.2
			A 415	60.60	211.9
			Mean =	58.65	186.2
7	TRIVOLT	560 g AI/ha	A 107	59.70	221.4
	AATREX 4L	840 g AI/ha	A 212	54.40	162.4
			A 306	55.20	189.5
			A 414	59.70	216.9
			Mean =	57.25	197.6
8	TRIVOLT	640 g AI/ha	A 108	59.30	223.4
	AATREX 4L	840 g AI/ha	A 207	57.80	179.1
			A 305	60.20	221.2
			A 408	59.00	227.7
			Mean =	59.08	212.8
9	MAVERICK	428 g AI/ha	A 109	59.20	218.0
	AATREX 4L	840 g AI/ha	A 215	57.20	180.1
			A 304	58.70	191.3
			A 411	58.10	192.3
			Mean =	58.30	195.4
10	MAVERICK	571 g AI/ha	A 110	59.40	225.6
	AATREX 4L	840 g AI/ha	A 203	58.20	186.8
			A 313	60.90	214.8
			A 405	60.00	206.7
			Mean =	59.63	208.5
11	STOREN	948 g AI/ha	A 111	60.40	246.9
	AATREX 4L	420 g AI/ha	A 211	60.10	237.8
			B 308	60.20	261.9
	AMSOL	2.5 % V/V	B 407	61.30	265.8
	ROUNDUP POWERMAX 3	1180 g AE/ha	B		
		Mean =	60.50	253.1	

d=Means are reported in de-transformed data units



# University of Kentucky

Assessed By		
Rating Date	10-24-2023	10-24-2023
Rating Time		
SE Group No.	16	17
SE Name		
SE Description		
Part Rated	grain, C	grain, C
Rating Type	WEITES	YIELD
Rating Unit/Min/Max	%, 0, 100	BU, -, -
Sample Size	1 plot	1 A
Collection Basis	1 plot	1 plot
Reporting Basis	1 plot	
Calculation	NC	NC
Number of Subsamples	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL
Crop Stage Scale		
Crop Stage Majority/Min/Max		
Crop Density		
Pest ID Code		
Pest Code		
Pest Scientific Name		
Pest Name		
Pest Stage Majority/Min/Max		
Pest Density		
Rating Timing		
Days After First/Last Applic.	159, 145	159, 145
Trt-Eval Interval		
Plant-Eval Interval	160 DP-1	160 DP-1
Days After Emergence		
Pest Est.-Eval Interval		
Equipment		
EDC App		
Data Reliability		
ARM Action Codes	ET5	EC TY1
Number of Decimals		1
Data Entry Date	12-8-2023	
First Export Date		
Footnote Number		

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	16	17
12	STOREN	1080 g	Al/ha	A	112	60.90	243.9
	AATREX 4L	420 g	Al/ha	A	204	61.20	249.5
	AMSOL	2.5 %	V/V	B	301	61.80	273.6
	STOREN	1080 g	Al/ha	B	402	61.80	265.1
	AATREX 4L	420 g	Al/ha	B			
	ROUNDUP POWERMAX 3	1180 g	AE/ha	B			
					Mean =	61.43	258.0
13	STOREN	1080 g	Al/ha	A	113	60.80	238.8
	AATREX 4L	420 g	Al/ha	A	201	60.50	231.8
	AMSOL	2.5 %	V/V	B	314	60.80	231.5
	NIS	0.25 %	V/V	B	412	58.90	239.6
	AATREX 4L	561 g	Al/ha	B			
	HALEX GT 4.38 CS	2460 g	Al/ha	B			
					Mean =	60.25	235.4
14	LEXAR EZ 3.7 ZC	1820 g	Al/ha	A	114	61.10	246.3
	AMSOL	2.5 %	V/V	B	214	60.50	236.1
	NIS	0.25 %	V/V	B	302	61.90	265.0
	AATREX 4L	561 g	Al/ha	B	413	60.60	240.9
	ACURON GT	2260 g	Al/ha	B			
					Mean =	61.03	247.1
15	ACURON 3.44 ZC	1440 g	Al/ha	A	115	59.70	234.4
	AMSOL	2.5 %	V/V	B	205	60.80	272.2
	NIS	0.25 %	V/V	B	312	59.30	223.5
	AATREX 4L	561 g	Al/ha	B	410	60.10	250.3
	HALEX GT 4.38 CS	2460 g	Al/ha	B			
					Mean =	59.98	245.1

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023      Cooperator Trial ID:  
 Protocol ID: HBI001B4-2023US      Location: Cully Scott FS      Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne      Sponsor Contact: Mark Kitt      Conducted Under GEP: No  
 Investigator: Travis Legleiter      Trial Origin: P public institution trial

P = Pest is Part Rated  
 C = Crop is Part Rated

### Rating Type

phygen = phytotoxicity - general / injury  
 WEIGHT = weight  
 CONMOI = content - moisture  
 WEITES = weight - test  
 YIELD = yield

### Rating Unit/Min/Max

% , 0, 100 = percent  
 ft, , = foot  
 lb, , = pound  
 BU, , = bushel

plot = total plot  
 A = acre

plot = total plot

plot = total plot

### Calculation

NC = no calculation

### Crop ID Code

1, ZEAMD, BCOR, Zea mays indentata, Dent corn, P1170AM = RR/LL

### Pest ID Code

- 1, W, Weed, AMBTR, Ambrosia trifida, Giant ragweed, = N
- 2, W, Weed, DIGSA, Digitaria sanguinalis, large crabgrass, = N
- 3, W, Weed, IPOHE, Ipomoea hederacea, ivy-leaf morning glory, = N
- 4, W, Weed, ACCSS, Acalypha sp., Copperleaf, Hophornbeam Copperleaf (A. ostryifolia) = N

### Plant-Eval Interval

- 14 DP-1 = 1 ZEAMD 5-17-2023
- 22 DP-1 = 1 ZEAMD 5-17-2023
- 41 DP-1 = 1 ZEAMD 5-17-2023
- 72 DP-1 = 1 ZEAMD 5-17-2023
- 160 DP-1 = 1 ZEAMD 5-17-2023

### EDC App

Rating Shell = Data pulled from Excel Rating Shell

### ARM Action Codes

- AA = Automatic arcsine square root % transformation
- AL = Automatic log transformation of X+1
- ER4 = Excluded replicate 4
- ET5 = Excluded treatment 5
- EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table
- TY1 =  $(777.857142857143 / (5 * [13])) * [14] * (100 - [15]) / 84.5$

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023      Cooperator Trial ID:  
 Protocol ID: HB1001B4-2023US      Location: Cully Scott FS      Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne      Sponsor Contact: Mark Kitt      Conducted Under GEP: No  
 Investigator: Travis Legleiter      Trial Origin: P public institution trial

Assessed By					
Rating Date	5-31-2023	5-31-2023	6-8-2023	6-27-2023	6-27-2023
Rating Time					
SE Group No.	1	12	2	3	4
SE Name					
SE Description					
Part Rated	plant, P	plant, C	plant, c	plant, c	plant, p
Rating Type	Control	phygen	phygen	phygen	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	1, W, Weed				2, W, Weed
Pest Code	AMBTR				DIGSA
Pest Scientific Name	Ambrosia trifida				Digitaria sangu>
Pest Name	Giant ragweed				large crabgrass
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	13, 13	13, 13	21, 7	40, 26	40, 26
Trt-Eval Interval	13 DA-A				
Plant-Eval Interval	14 DP-1	14 DP-1	22 DP-1	41 DP-1	41 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell		Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes					
Number of Decimals					
Data Entry Date	6-8-2023	10-9-2023	10-9-2023	10-9-2023	10-9-2023
First Export Date					
Footnote Number					

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5
		Unit						
1	UNTREATED CHECK			0.0 b	0.0 a	0.0 a	0.0 a	0.0 d
2	STOREN	1900 g Al/ha	A	100.0 a	0.0 a	0.0 a	0.0 a	90.0 ab
	AATREX 4L	840 g Al/ha	A					
3	STOREN	2170 g Al/ha	A	100.0 a	0.0 a	0.0 a	0.0 a	86.3 abc
	AATREX 4L	840 g Al/ha	A					
4	ACURON 3.44 ZC	2890 g Al/ha	A	100.0 a	0.0 a	0.0 a	0.0 a	86.8 abc
5	RESICORE XL	2280 g Al/ha	A	100.0 a	0.0 a	0.0 a	0.0 a	73.8 bc
	AATREX 4L	840 g Al/ha	A					
6	RESICORE XL	2740 g Al/ha	A	100.0 a	0.0 a	0.0 a	0.0 a	65.0 c
	AATREX 4L	840 g Al/ha	A					
7	TRIVOLT	560 g Al/ha	A	100.0 a	0.0 a	0.0 a	0.0 a	80.0 abc
	AATREX 4L	840 g Al/ha	A					
8	TRIVOLT	640 g Al/ha	A	99.3 a	0.0 a	0.0 a	0.0 a	78.8 abc
	AATREX 4L	840 g Al/ha	A					
9	MAVERICK	428 g Al/ha	A	100.0 a	0.0 a	0.0 a	0.0 a	71.3 bc
	AATREX 4L	840 g Al/ha	A					
10	MAVERICK	571 g Al/ha	A	100.0 a	0.0 a	0.0 a	0.0 a	72.5 bc
	AATREX 4L	840 g Al/ha	A					

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Missing data estimates are included in columns: Yates=14,16,17  
 Excluded replicate 4 in column 15  
 Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.  
 ^Calculated from residual.  
 d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By					
Rating Date	5-31-2023	5-31-2023	6-8-2023	6-27-2023	6-27-2023
Rating Time					
SE Group No.	1	12	2	3	4
SE Name					
SE Description					
Part Rated	plant, P	plant, C	plant, c	plant, c	plant, p
Rating Type	Control	phygen	phygen	phygen	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	1, W, Weed				2, W, Weed
Pest Code	AMBTR				DIGSA
Pest Scientific Name	Ambrosia trifida				Digitaria sangu>
Pest Name	Giant ragweed				large crabgrass
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	13, 13	13, 13	21, 7	40, 26	40, 26
Trt-Eval Interval	13 DA-A				
Plant-Eval Interval	14 DP-1	14 DP-1	22 DP-1	41 DP-1	41 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell		Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes					
Number of Decimals					
Data Entry Date	6-8-2023	10-9-2023	10-9-2023	10-9-2023	10-9-2023
First Export Date					
Footnote Number					

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5
		Rate Unit						
11	STOREN	948 g AI/ha	A	98.8 a	0.0 a	0.0 a	0.0 a	100.0 a
	AATREX 4L	420 g AI/ha	A					
	AMSOL	2.5 % V/V	B					
	STOREN	948 g AI/ha	B					
	AATREX 4L	420 g AI/ha	B					
	ROUNDUP POWERMAX 3	1180 g AE/ha	B					
12	STOREN	1080 g AI/ha	A	100.0 a	0.0 a	0.0 a	0.0 a	100.0 a
	AATREX 4L	420 g AI/ha	A					
	AMSOL	2.5 % V/V	B					
	STOREN	1080 g AI/ha	B					
	AATREX 4L	420 g AI/ha	B					
	ROUNDUP POWERMAX 3	1180 g AE/ha	B					
13	STOREN	1080 g AI/ha	A	100.0 a	0.0 a	0.0 a	0.0 a	99.3 a
	AATREX 4L	420 g AI/ha	A					
	AMSOL	2.5 % V/V	B					
	NIS	0.25 % V/V	B					
	AATREX 4L	561 g AI/ha	B					
	HALEX GT 4.38 CS	2460 g AI/ha	B					
14	LEXAR EZ 3.7 ZC	1820 g AI/ha	A	100.0 a	0.0 a	0.0 a	0.0 a	101.3 a
	AMSOL	2.5 % V/V	B					
	NIS	0.25 % V/V	B					
	AATREX 4L	561 g AI/ha	B					
	ACURON GT	2260 g AI/ha	B					

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Missing data estimates are included in columns: Yates=14,16,17  
Excluded replicate 4 in column 15  
Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By					
Rating Date	5-31-2023	5-31-2023	6-8-2023	6-27-2023	6-27-2023
Rating Time					
SE Group No.	1	12	2	3	4
SE Name					
SE Description					
Part Rated	plant, P	plant, C	plant, c	plant, c	plant, p
Rating Type	Control	phygen	phygen	phygen	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	1, W, Weed				2, W, Weed
Pest Code	AMBTR				DIGSA
Pest Scientific Name	Ambrosia trifida				Digitaria sangu>
Pest Name	Giant ragweed				large crabgrass
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	13, 13	13, 13	21, 7	40, 26	40, 26
Trt-Eval Interval	13 DA-A				
Plant-Eval Interval	14 DP-1	14 DP-1	22 DP-1	41 DP-1	41 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell		Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes					
Number of Decimals					
Data Entry Date	6-8-2023	10-9-2023	10-9-2023	10-9-2023	10-9-2023
First Export Date					
Footnote Number					

Trt Treatment No. Name	Rate	Appl Code	1	2	3	4	5
15 ACURON 3.44 ZC	1440 g AI/ha	A	100.0 a	0.0 a	0.0 a	0.0 a	100.0 a
AMSOL	2.5 % V/V	B					
NIS	0.25 % V/V	B					
AATREX 4L	561 g AI/ha	B					
HALEX GT 4.38 CS	2460 g AI/ha	B					
LSD P=.05			1.09	.	.	.	15.28
Standard Deviation			0.76	0.00	0.00	0.00	10.71
CV			0.82	0.0	0.0	0.0	13.33
Levene's F^			0.832	.	.	.	3.119*
Levene's Prob(F)			0.632	.	.	.	0.002*
Shapiro-Wilk^			0.572*	.	.	.	0.9716
P(Shapiro-Wilk)^			0.0*	.	.	.	0.1744
Skewness^			-3.2309*	.	.	.	-0.1035
P(Skewness)^			0.0*	.	.	.	0.7447
Kurtosis^			17.7249*	.	.	.	0.8032
P(Kurtosis)^			0.0*	.	.	.	0.2028
Replicate F			0.691	0.000	0.000	0.000	0.329
Replicate Prob(F)			0.5625	1.0000	1.0000	1.0000	0.8043
Treatment F			4596.803	0.000	0.000	0.000	22.430
Treatment Prob(F)			0.0001	1.0000	1.0000	1.0000	0.0001

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t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Missing data estimates are included in columns: Yates=14,16,17  
Excluded replicate 4 in column 15  
Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By					
Rating Date	6-27-2023	6-27-2023	6-27-2023	7-28-2023	7-28-2023
Rating Time					
SE Group No.	5	6	7	8	9
SE Name					
SE Description					
Part Rated	plant, p	plant, p	plant, p	plant, p	plant, p
Rating Type	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	1, W, Weed	3, W, Weed	4, W, Weed	2, W, Weed	1, W, Weed
Pest Code	AMBTR	IPOHE	ACCSS	DIGSA	AMBTR
Pest Scientific Name	Ambrosia trifida	Ipomoea hederac>	Acalypha sp.	Digitaria sangu>	Ambrosia trifida
Pest Name	Giant ragweed	ivy-leaf mornin>	Copperleaf	large crabgrass	Giant ragweed
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	40, 26	40, 26	40, 26	71, 57	71, 57
Trt-Eval Interval					
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1	72 DP-1	72 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes	AA			AL	AA
Number of Decimals					
Data Entry Date	10-9-2023	10-9-2023	10-9-2023	10-9-2023	10-9-2023
First Export Date					
Footnote Number					

Trt No.	Treatment Name	Rate	Appl Unit	Code	6 dAA	7	8	9 dAL	10 dAA
1	UNTREATED CHECK				0.0 c	0.0 c	0.0 b	0.0 b	0.0 c
2	STOREN	1900 g	Al/ha	A	80.5 b	57.5 ab	82.5 a	82.1 a	71.4 b
	AATREX 4L	840 g	Al/ha	A					
3	STOREN	2170 g	Al/ha	A	73.8 b	32.5 bc	71.3 a	74.2 a	58.0 b
	AATREX 4L	840 g	Al/ha	A					
4	ACURON 3.44 ZC	2890 g	Al/ha	A	66.4 b	38.8 abc	77.5 a	59.3 a	60.1 b
5	RESICORE XL	2280 g	Al/ha	A	80.5 b	30.0 bc	72.5 a	18.2 a	58.0 b
	AATREX 4L	840 g	Al/ha	A					
6	RESICORE XL	2740 g	Al/ha	A	71.4 b	28.8 bc	80.0 a	19.7 a	57.6 b
	AATREX 4L	840 g	Al/ha	A					
7	TRIVOLT	560 g	Al/ha	A	73.3 b	36.3 abc	72.5 a	61.2 a	67.8 b
	AATREX 4L	840 g	Al/ha	A					
8	TRIVOLT	640 g	Al/ha	A	71.5 b	48.8 ab	68.8 a	68.8 a	60.2 b
	AATREX 4L	840 g	Al/ha	A					
9	MAVERICK	428 g	Al/ha	A	78.2 b	62.5 ab	76.8 a	49.8 a	65.2 b
	AATREX 4L	840 g	Al/ha	A					
10	MAVERICK	571 g	Al/ha	A	63.9 b	55.0 ab	78.8 a	64.4 a	63.0 b
	AATREX 4L	840 g	Al/ha	A					

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Missing data estimates are included in columns: Yates=14,16,17  
Excluded replicate 4 in column 15  
Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By					
Rating Date	6-27-2023	6-27-2023	6-27-2023	7-28-2023	7-28-2023
Rating Time					
SE Group No.	5	6	7	8	9
SE Name					
SE Description					
Part Rated	plant, p	plant, p	plant, p	plant, p	plant, p
Rating Type	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	1, W, Weed	3, W, Weed	4, W, Weed	2, W, Weed	1, W, Weed
Pest Code	AMBTR	IPOHE	ACCSS	DIGSA	AMBTR
Pest Scientific Name	Ambrosia trifida	Ipomoea hederac>	Acalypha sp.	Digitaria sangu>	Ambrosia trifida
Pest Name	Giant ragweed	ivy-leaf mornin>	Copperleaf	large crabgrass	Giant ragweed
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	40, 26	40, 26	40, 26	71, 57	71, 57
Trt-Eval Interval					
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1	72 DP-1	72 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes	AA			AL	AA
Number of Decimals					
Data Entry Date	10-9-2023	10-9-2023	10-9-2023	10-9-2023	10-9-2023
First Export Date					
Footnote Number					

Trt No.	Treatment Name	Rate	Appl Code	6 dAA	7	8	9 dAL	10 dAA
11	STOREN	948 g AI/ha	A	100.0 a	83.8 a	100.0 a	98.7 a	98.1 a
	AATREX 4L	420 g AI/ha	A					
	AMSOL	2.5 % V/V	B					
	STOREN	948 g AI/ha	B					
	AATREX 4L	420 g AI/ha	B					
	ROUNDUP POWERMAX 3	1180 g AE/ha	B					
12	STOREN	1080 g AI/ha	A	99.7 a	86.3 a	100.0 a	97.7 a	99.4 a
	AATREX 4L	420 g AI/ha	A					
	AMSOL	2.5 % V/V	B					
	STOREN	1080 g AI/ha	B					
	AATREX 4L	420 g AI/ha	B					
	ROUNDUP POWERMAX 3	1180 g AE/ha	B					
13	STOREN	1080 g AI/ha	A	98.5 a	86.8 a	100.0 a	94.1 a	92.8 a
	AATREX 4L	420 g AI/ha	A					
	AMSOL	2.5 % V/V	B					
	NIS	0.25 % V/V	B					
	AATREX 4L	561 g AI/ha	B					
	HALEX GT 4.38 CS	2460 g AI/ha	B					
14	LEXAR EZ 3.7 ZC	1820 g AI/ha	A	100.0 a	84.3 a	100.0 a	98.7 a	99.0 a
	AMSOL	2.5 % V/V	B					
	NIS	0.25 % V/V	B					
	AATREX 4L	561 g AI/ha	B					
	ACURON GT	2260 g AI/ha	B					

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Missing data estimates are included in columns: Yates=14,16,17  
Excluded replicate 4 in column 15  
Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By					
Rating Date	6-27-2023	6-27-2023	6-27-2023	7-28-2023	7-28-2023
Rating Time					
SE Group No.	5	6	7	8	9
SE Name					
SE Description					
Part Rated	plant, p	plant, p	plant, p	plant, p	plant, p
Rating Type	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	1, W, Weed	3, W, Weed	4, W, Weed	2, W, Weed	1, W, Weed
Pest Code	AMBTR	IPOHE	ACCSS	DIGSA	AMBTR
Pest Scientific Name	Ambrosia trifida	Ipomoea hederac>	Acalypha sp.	Digitaria sangu>	Ambrosia trifida
Pest Name	Giant ragweed	ivy-leaf mornin>	Copperleaf	large crabgrass	Giant ragweed
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	40, 26	40, 26	40, 26	71, 57	71, 57
Trt-Eval Interval					
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1	72 DP-1	72 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes	AA			AL	AA
Number of Decimals					
Data Entry Date	10-9-2023	10-9-2023	10-9-2023	10-9-2023	10-9-2023
First Export Date					
Footnote Number					

  

Trt	Treatment	Rate	Appl	6	7	8	9	10
No.	Name	Rate Unit	Code	dAA			dAL	dAA
15	ACURON 3.44 ZC	1440 g Al/ha	A	99.7 a	81.8 a	100.0 a	98.5 a	91.5 a
	AMSOL	2.5 % V/V	B					
	NIS	0.25 % V/V	B					
	AATREX 4L	561 g Al/ha	B					
	HALEX GT 4.38 CS	2460 g Al/ha	B					
	LSD P=.05			4.71 - 19.04	30.24	30.89	40.99 - 67.93	7.52 - 19.44
	Standard Deviation			8.79t	21.19	21.64	0.35t	8.41t
	CV			13.62t	39.11	27.5	20.62t	14.51t
	Levene's F^			1.203	0.71	1.116	1.746	1.506
	Levene's Prob(F)			0.306	0.753	0.371	0.079	0.148
	Shapiro-Wilk^			0.9675	0.9901	0.9175*	0.6721*	0.9871
	P(Shapiro-Wilk)^			0.1094	0.9088	0.0006*	0.0*	0.7802
	Skewness^			0.1371	0.1619	-1.2401*	-2.3247*	0.2603
	P(Skewness)^			0.6663	0.6108	0.0002*	0.0*	0.4139
	Kurtosis^			0.261	0.5348	2.6023*	10.9892*	-0.0821
	P(Kurtosis)^			0.677	0.3946	0.0001*	0.0*	0.8956
	Replicate F			2.074	5.998	0.730	0.255	5.485
	Replicate Prob(F)			0.1181	0.0017	0.5398	0.8573	0.0028
	Treatment F			26.568	6.322	5.315	8.898	25.283
	Treatment Prob(F)			0.0001	0.0001	0.0001	0.0001	0.0001

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Missing data estimates are included in columns: Yates=14,16,17  
Excluded replicate 4 in column 15  
Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units



# University of Kentucky

Assessed By					
Rating Date	7-28-2023	7-28-2023	10-24-2023	10-24-2023	10-24-2023
Rating Time					
SE Group No.	10	11	13	14	15
SE Name					
SE Description					
Part Rated	plant, p	plant, p	plot, -	grain, C	grain, C
Rating Type	control	control	length	WEIGHT	CONMOI
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	ft, -, -	lb, -, -	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	3, W, Weed	4, W, Weed			
Pest Code	IPOHE	ACCSS			
Pest Scientific Name	Ipomoea hederac>	Acalypha sp.			
Pest Name	ivy-leaf mornin>	Copperleaf			
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	71, 57	71, 57	159, 145	159, 145	159, 145
Trt-Eval Interval					
Plant-Eval Interval	72 DP-1	72 DP-1	160 DP-1	160 DP-1	160 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell			
Data Reliability					
ARM Action Codes		AA			ER4
Number of Decimals					
Data Entry Date	10-9-2023	10-9-2023	12-8-2023	12-8-2023	12-8-2023
First Export Date					
Footnote Number					

Trt No.	Treatment Name	Rate	Appl Code	11	12 dAA	13	14	15
1	UNTREATED CHECK			0.0 e	0.0 d	27.55 a	11.735 f	14.30 a
2	STOREN	1900 g Al/ha	A	47.5 cd	60.9 c	27.38 a	33.041 de	13.53 a
	AATREX 4L	840 g Al/ha	A					
3	STOREN	2170 g Al/ha	A	47.5 cd	74.5 bc	27.33 a	35.295 cde	14.37 a
	AATREX 4L	840 g Al/ha	A					
4	ACURON 3.44 ZC	2890 g Al/ha	A	53.8 bcd	82.3 abc	27.35 a	35.174 cde	12.57 a
5	RESICORE XL	2280 g Al/ha	A	52.5 bcd	67.9 c	27.35 a	38.700 a-e	13.30 a
	AATREX 4L	840 g Al/ha	A					
6	RESICORE XL	2740 g Al/ha	A	33.8 d	55.1 c	27.25 a	32.030 e	13.77 a
	AATREX 4L	840 g Al/ha	A					
7	TRIVOLT	560 g Al/ha	A	57.5 bcd	63.0 c	27.30 a	33.835 de	12.93 a
	AATREX 4L	840 g Al/ha	A					
8	TRIVOLT	640 g Al/ha	A	55.0 bcd	70.2 c	27.33 a	36.068 b-e	12.27 a
	AATREX 4L	840 g Al/ha	A					
9	MAVERICK	428 g Al/ha	A	52.5 bcd	62.7 c	27.53 a	33.693 de	12.97 a
	AATREX 4L	840 g Al/ha	A					
10	MAVERICK	571 g Al/ha	A	62.5 bcd	72.9 bc	27.65 a	36.398 a-e	14.47 a
	AATREX 4L	840 g Al/ha	A					

Means followed by same letter or symbol do not significantly differ (P=0.05, Student-Newman-Keuls).  
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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Missing data estimates are included in columns: Yates=14,16,17  
Excluded replicate 4 in column 15  
Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By					
Rating Date	7-28-2023	7-28-2023	10-24-2023	10-24-2023	10-24-2023
Rating Time					
SE Group No.	10	11	13	14	15
SE Name					
SE Description					
Part Rated	plant, p	plant, p	plot, -	grain, C	grain, C
Rating Type	control	control	length	WEIGHT	CONMOI
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	ft, -, -	lb, -, -	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	3, W, Weed	4, W, Weed			
Pest Code	IPOHE	ACCSS			
Pest Scientific Name	Ipomoea hederac>	Acalypha sp.			
Pest Name	ivy-leaf mornin>	Copperleaf			
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	71, 57	71, 57	159, 145	159, 145	159, 145
Trt-Eval Interval					
Plant-Eval Interval	72 DP-1	72 DP-1	160 DP-1	160 DP-1	160 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell			
Data Reliability					
ARM Action Codes		AA			ER4
Number of Decimals					
Data Entry Date	10-9-2023	10-9-2023	12-8-2023	12-8-2023	12-8-2023
First Export Date					
Footnote Number					

Trt No.	Treatment Name	Rate Unit	Appl Code	11	12 dAA	13	14	15
11	STOREN	948 g AI/ha	A	93.0 a	96.8 ab	27.43 a	43.548 ab	13.73 a
	AATREX 4L	420 g AI/ha	A					
	AMSOL	2.5 % V/V	B					
	STOREN	948 g AI/ha	B					
	AATREX 4L	420 g AI/ha	B					
	ROUNDUP POWERMAX 3	1180 g AE/ha	B					
12	STOREN	1080 g AI/ha	A	94.3 a	99.4 a	27.15 a	44.160 a	13.80 a
	AATREX 4L	420 g AI/ha	A					
	AMSOL	2.5 % V/V	B					
	STOREN	1080 g AI/ha	B					
	AATREX 4L	420 g AI/ha	B					
	ROUNDUP POWERMAX 3	1180 g AE/ha	B					
13	STOREN	1080 g AI/ha	A	80.0 abc	96.3 ab	27.48 a	40.903 a-d	13.97 a
	AATREX 4L	420 g AI/ha	A					
	AMSOL	2.5 % V/V	B					
	NIS	0.25 % V/V	B					
	AATREX 4L	561 g AI/ha	B					
	HALEX GT 4.38 CS	2460 g AI/ha	B					
14	LEXAR EZ 3.7 ZC	1820 g AI/ha	A	94.8 a	98.5 a	27.33 a	42.673 abc	14.20 a
	AMSOL	2.5 % V/V	B					
	NIS	0.25 % V/V	B					
	AATREX 4L	561 g AI/ha	B					
	ACURON GT	2260 g AI/ha	B					

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Missing data estimates are included in columns: Yates=14,16,17  
Excluded replicate 4 in column 15  
Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By					
Rating Date	7-28-2023	7-28-2023	10-24-2023	10-24-2023	10-24-2023
Rating Time					
SE Group No.	10	11	13	14	15
SE Name					
SE Description					
Part Rated	plant, p	plant, p	plot, -	grain, C	grain, C
Rating Type	control	control	length	WEIGHT	CONMOI
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	ft, -, -	lb, -, -	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot
Calculation	NC	NC	NC	NC	NC
Number of Subsamples	1	1	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL	RR/LL	RR/LL
Crop Stage Scale					
Crop Stage Majority/Min/Max					
Crop Density					
Pest ID Code	3, W, Weed	4, W, Weed			
Pest Code	IPOHE	ACCSS			
Pest Scientific Name	Ipomoea hederac>	Acalypha sp.			
Pest Name	ivy-leaf mornin>	Copperleaf			
Pest Stage Majority/Min/Max					
Pest Density					
Rating Timing					
Days After First/Last Applic.	71, 57	71, 57	159, 145	159, 145	159, 145
Trt-Eval Interval					
Plant-Eval Interval	72 DP-1	72 DP-1	160 DP-1	160 DP-1	160 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell			
Data Reliability					
ARM Action Codes		AA			ER4
Number of Decimals					
Data Entry Date	10-9-2023	10-9-2023	12-8-2023	12-8-2023	12-8-2023
First Export Date					
Footnote Number					

Trt Treatment No. Name	Rate	Appl Code	11	12 dAA	13	14	15
15 ACURON 3.44 ZC	1440 g AI/ha	A	86.8 ab	95.4 ab	27.28 a	42.083 abc	13.67 a
AMSOL	2.5 % V/V	B					
NIS	0.25 % V/V	B					
AATREX 4L	561 g AI/ha	B					
HALEX GT 4.38 CS	2460 g AI/ha	B					
LSD P=.05			21.74	10.07 - 23.47	0.633	5.0862	1.615
Standard Deviation			15.24	10.16t	0.443	3.5590	0.966
CV			25.08	16.86t	1.62	9.9	7.11
Levene's F^			0.923	0.919	0.937	0.557	2.37*
Levene's Prob(F)			0.542	0.546	0.529	0.883	0.016*
Shapiro-Wilk^			0.9658	0.9811	0.9592*	0.9838	0.9682
P(Shapiro-Wilk)^			0.0904	0.4765	0.0429*	0.6324	0.1384
Skewness^			-0.2794	0.1733	-0.3078	-0.3689	-0.2426
P(Skewness)^			0.3807	0.586	0.3345	0.2564	0.458
Kurtosis^			1.6744*	1.2919*	-0.7842	0.6627	-0.5853
P(Kurtosis)^			0.0094*	0.0427*	0.2135	0.3003	0.3639
Replicate F			1.639	0.661	32.418	9.164	0.952
Replicate Prob(F)			0.1948	0.5805	0.0001	0.0001	0.3980
Treatment F			11.529	17.191	0.337	19.422	1.424
Treatment Prob(F)			0.0001	0.0001	0.9846	0.0001	0.2065

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
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Missing data estimates are included in columns: Yates=14,16,17  
Excluded replicate 4 in column 15  
Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By		
Rating Date	10-24-2023	10-24-2023
Rating Time		
SE Group No.	16	17
SE Name		
SE Description		
Part Rated	grain, C	grain, C
Rating Type	WEITES	YIELD
Rating Unit/Min/Max	%, 0, 100	BU, -, -
Sample Size	1 plot	1 A
Collection Basis	1 plot	1 plot
Reporting Basis	1 plot	
Calculation	NC	NC
Number of Subsamples	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL
Crop Stage Scale		
Crop Stage Majority/Min/Max		
Crop Density		
Pest ID Code		
Pest Code		
Pest Scientific Name		
Pest Name		
Pest Stage Majority/Min/Max		
Pest Density		
Rating Timing		
Days After First/Last Applic.	159, 145	159, 145
Trt-Eval Interval		
Plant-Eval Interval	160 DP-1	160 DP-1
Days After Emergence		
Pest Est.-Eval Interval		
Equipment		
EDC App		
Data Reliability		
ARM Action Codes	ET5	EC TY1
Number of Decimals		1
Data Entry Date	12-8-2023	
First Export Date		
Footnote Number		

Trt No.	Treatment Name	Rate	Appl Code	16	17
		Rate Unit			
1	UNTREATED CHECK			56.12 bc	50.4
2	STOREN	1900 g Al/ha	A	57.26 abc	191.3 d
	AATREX 4L	840 g Al/ha	A		
3	STOREN	2170 g Al/ha	A	58.65 abc	203.9 cd
	AATREX 4L	840 g Al/ha	A		
4	ACURON 3.44 ZC	2890 g Al/ha	A	55.92 c	207.3 bcd
5	RESICORE XL	2280 g Al/ha	A	55.63	224.8 a-d
	AATREX 4L	840 g Al/ha	A		
6	RESICORE XL	2740 g Al/ha	A	58.65 abc	186.2 d
	AATREX 4L	840 g Al/ha	A		
7	TRIVOLT	560 g Al/ha	A	57.25 abc	197.6 d
	AATREX 4L	840 g Al/ha	A		
8	TRIVOLT	640 g Al/ha	A	59.08 abc	212.8 a-d
	AATREX 4L	840 g Al/ha	A		
9	MAVERICK	428 g Al/ha	A	58.30 abc	195.4 d
	AATREX 4L	840 g Al/ha	A		
10	MAVERICK	571 g Al/ha	A	59.63 abc	208.5 bcd
	AATREX 4L	840 g Al/ha	A		

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Missing data estimates are included in columns: Yates=14,16,17  
Excluded replicate 4 in column 15  
Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By		
Rating Date	10-24-2023	10-24-2023
Rating Time		
SE Group No.	16	17
SE Name		
SE Description		
Part Rated	grain, C	grain, C
Rating Type	WEITES	YIELD
Rating Unit/Min/Max	%, 0, 100	BU, -, -
Sample Size	1 plot	1 A
Collection Basis	1 plot	1 plot
Reporting Basis	1 plot	
Calculation	NC	NC
Number of Subsamples	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL
Crop Stage Scale		
Crop Stage Majority/Min/Max		
Crop Density		
Pest ID Code		
Pest Code		
Pest Scientific Name		
Pest Name		
Pest Stage Majority/Min/Max		
Pest Density		
Rating Timing		
Days After First/Last Applic.	159, 145	159, 145
Trt-Eval Interval		
Plant-Eval Interval	160 DP-1	160 DP-1
Days After Emergence		
Pest Est.-Eval Interval		
Equipment		
EDC App		
Data Reliability		
ARM Action Codes	ET5	EC TY1
Number of Decimals		1
Data Entry Date	12-8-2023	
First Export Date		
Footnote Number		

Trt No.	Treatment Name	Rate	Unit	Appl Code	16	17
11	STOREN	948 g	Al/ha	A	60.50 ab	253.1 ab
	AATREX 4L	420 g	Al/ha	A		
	AMSOL	2.5 %	V/V	B		
	STOREN	948 g	Al/ha	B		
	AATREX 4L	420 g	Al/ha	B		
	ROUNDUP POWERMAX 3	1180 g	AE/ha	B		
12	STOREN	1080 g	Al/ha	A	61.43 a	258.0 a
	AATREX 4L	420 g	Al/ha	A		
	AMSOL	2.5 %	V/V	B		
	STOREN	1080 g	Al/ha	B		
	AATREX 4L	420 g	Al/ha	B		
	ROUNDUP POWERMAX 3	1180 g	AE/ha	B		
13	STOREN	1080 g	Al/ha	A	60.25 abc	235.4 a-d
	AATREX 4L	420 g	Al/ha	A		
	AMSOL	2.5 %	V/V	B		
	NIS	0.25 %	V/V	B		
	AATREX 4L	561 g	Al/ha	B		
	HALEX GT 4.38 CS	2460 g	Al/ha	B		
14	LEXAR EZ 3.7 ZC	1820 g	Al/ha	A	61.03 a	247.1 abc
	AMSOL	2.5 %	V/V	B		
	NIS	0.25 %	V/V	B		
	AATREX 4L	561 g	Al/ha	B		
	ACURON GT	2260 g	Al/ha	B		

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Missing data estimates are included in columns: Yates=14,16,17  
Excluded replicate 4 in column 15  
Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Assessed By		
Rating Date	10-24-2023	10-24-2023
Rating Time		
SE Group No.	16	17
SE Name		
SE Description		
Part Rated	grain, C	grain, C
Rating Type	WEITES	YIELD
Rating Unit/Min/Max	%, 0, 100	BU, -, -
Sample Size	1 plot	1 A
Collection Basis	1 plot	1 plot
Reporting Basis	1 plot	
Calculation	NC	NC
Number of Subsamples	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL
Crop Stage Scale		
Crop Stage Majority/Min/Max		
Crop Density		
Pest ID Code		
Pest Code		
Pest Scientific Name		
Pest Name		
Pest Stage Majority/Min/Max		
Pest Density		
Rating Timing		
Days After First/Last Applic.	159, 145	159, 145
Trt-Eval Interval		
Plant-Eval Interval	160 DP-1	160 DP-1
Days After Emergence		
Pest Est.-Eval Interval		
Equipment		
EDC App		
Data Reliability		
ARM Action Codes	ET5	EC TY1
Number of Decimals		1
Data Entry Date	12-8-2023	
First Export Date		
Footnote Number		

Trt No.	Treatment Name	Rate	Unit	Appl Code	16	17
15	ACURON 3.44 ZC	1440 g	Al/ha	A	59.98 abc	245.1 abc
	AMSOL	2.5 %	V/V	B		
	NIS	0.25 %	V/V	B		
	AATREX 4L	561 g	Al/ha	B		
	HALEX GT 4.38 CS	2460 g	Al/ha	B		
	LSD P=.05				2.630	29.83
	Standard Deviation				1.834	20.82
	CV				3.12	9.5
	Levene's F^				0.881	0.357
	Levene's Prob(F)				0.578	0.976
	Shapiro-Wilk^				0.9393*	0.9753
	P(Shapiro-Wilk)^				0.0096*	0.3262
	Skewness^				-0.979*	-0.4932
	P(Skewness)^				0.0053*	0.1451
	Kurtosis^				2.5297*	1.3176*
	P(Kurtosis)^				0.0004*	0.0499*
	Replicate F				3.246	4.017
	Replicate Prob(F)				0.0330	0.0143
	Treatment F				3.608	5.560
	Treatment Prob(F)				0.0011	0.0001

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Missing data estimates are included in columns: Yates=14,16,17  
Excluded replicate 4 in column 15  
Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023      Cooperator Trial ID:  
 Protocol ID: HBI001B4-2023US      Location: Cully Scott FS      Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne      Sponsor Contact: Mark Kitt      Conducted Under GEP: No  
 Investigator: Travis Legleiter      Trial Origin: P public institution trial

P = Pest is Part Rated  
 C = Crop is Part Rated

### Rating Type

phygen = phytotoxicity - general / injury  
 WEIGHT = weight  
 CONMOI = content - moisture  
 WEITES = weight - test  
 YIELD = yield

### Rating Unit/Min/Max

%, 0, 100 = percent  
 ft, , = foot  
 lb, , = pound  
 BU, , = bushel

plot = total plot  
 A = acre

plot = total plot

plot = total plot

### Calculation

NC = no calculation

### Crop ID Code

1, ZEAMD, BCOR, Zea mays indentata, Dent corn, P1170AM = RR/LL

### Pest ID Code

- 1, W, Weed, AMBTR, Ambrosia trifida, Giant ragweed, = N
- 2, W, Weed, DIGSA, Digitaria sanguinalis, large crabgrass, = N
- 3, W, Weed, IPOHE, Ipomoea hederacea, ivy-leaf morning glory, = N
- 4, W, Weed, ACCSS, Acalypha sp., Copperleaf, Hophornbeam Copperleaf (A. ostryifolia) = N

### Plant-Eval Interval

- 14 DP-1 = 1 ZEAMD 5-17-2023
- 22 DP-1 = 1 ZEAMD 5-17-2023
- 41 DP-1 = 1 ZEAMD 5-17-2023
- 72 DP-1 = 1 ZEAMD 5-17-2023
- 160 DP-1 = 1 ZEAMD 5-17-2023

### EDC App

Rating Shell = Data pulled from Excel Rating Shell

### ARM Action Codes

- AA = Automatic arcsine square root % transformation
- AL = Automatic log transformation of X+1
- ER4 = Excluded replicate 4
- ET5 = Excluded treatment 5
- EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table
- TY1 =  $(777.857142857143 / (5 * [13])) * [14] * (100 - [15]) / 84.5$

# University of Kentucky

**A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]**

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date			Oct-24-2023	Oct-24-2023
SE Group No.			16	17
Part Rated			grain, C	grain, C
Rating Type			WEITES	YIELD
Rating Unit/Min/Max			%, 0, 100	BU, -, -
Sample Size			1 plot	1 A
Collection Basis			1 plot	1 plot
Reporting Basis			1 plot	
Calculation			NC	NC
Number of Subsamples			1	1
Crop ID Code			1, ZEAMD	1, ZEAMD
BBCH Scale			BCOR	BCOR
Crop Scientific Name			Zea mays indent>	Zea mays indent>
Crop Name			Dent corn	Dent corn
Crop Variety			P1170AM	P1170AM
Crop Attributes			RR/LL	RR/LL
Pest ID Code				
Pest Code				
Pest Scientific Name				
Pest Name				
Days After First/Last Applic.			159, 145	159, 145
Trt-Eval Interval				
Plant-Eval Interval			160 DP-1	160 DP-1
EDC App				
ARM Action Codes			ET5	EC TY1
Number of Decimals				1
Data Entry Date			Dec-8-2023	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	16	17
1 UNTREATED CHECK		101	58.10	47.1
		213	55.20	48.7
		311	54.60	55.3
		403	56.59*	203.8*
		Mean =	56.12	50.4
2 STOREN	1900 g ai/ha	A 102	59.70	182.8
AATREX 4L	840 g ai/ha	A 208	54.70	194.8
		310	56.90	183.7
		409	57.73*	203.8*
		Mean =	57.26	191.3
3 STOREN	2170 g ai/ha	A 103	60.90	240.3
AATREX 4L	840 g ai/ha	A 206	59.90	204.1
		303	54.00	138.0
		406	59.80	233.2
		Mean =	58.65	203.9
4 ACURON 3.44 ZC	2890 g ai/ha	A 104	59.00	194.9
		209	49.50	200.3
		307	58.80	214.3
		404	56.39*	219.8*
		Mean =	55.92	207.3
5 RESICORE XL	2280 g ai/ha	A 105	48.80	231.6
AATREX 4L	840 g ai/ha	A 210	60.00	217.7
		315	51.90	182.2
		401	61.80	267.9
		Mean =	55.63	224.8

d=Means are reported in de-transformed data units



# University of Kentucky

**A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]**

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date			Oct-24-2023	Oct-24-2023
SE Group No.			16	17
Part Rated			grain, C	grain, C
Rating Type			WEITES	YIELD
Rating Unit/Min/Max			%, 0, 100	BU, -, -
Sample Size			1 plot	1 A
Collection Basis			1 plot	1 plot
Reporting Basis			1 plot	
Calculation			NC	NC
Number of Subsamples			1	1
Crop ID Code			1, ZEAMD	1, ZEAMD
BBCH Scale			BCOR	BCOR
Crop Scientific Name			Zea mays indent>	Zea mays indent>
Crop Name			Dent corn	Dent corn
Crop Variety			P1170AM	P1170AM
Crop Attributes			RR/LL	RR/LL
Pest ID Code				
Pest Code				
Pest Scientific Name				
Pest Name				
Days After First/Last Applic.			159, 145	159, 145
Trt-Eval Interval				
Plant-Eval Interval			160 DP-1	160 DP-1
EDC App				
ARM Action Codes			ET5	EC TY1
Number of Decimals				1
Data Entry Date			Dec-8-2023	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	16	17
6 RESICORE XL	2740 g ai/ha	A 106	58.00	203.8
AATREX 4L	840 g ai/ha	A 202	57.90	160.9
		309	58.10	168.2
		415	60.60	211.9
		Mean =	58.65	186.2
7 TRIVOLT	560 g ai/ha	A 107	59.70	221.4
AATREX 4L	840 g ai/ha	A 212	54.40	162.4
		306	55.20	189.5
		414	59.70	216.9
		Mean =	57.25	197.6
8 TRIVOLT	640 g ai/ha	A 108	59.30	223.4
AATREX 4L	840 g ai/ha	A 207	57.80	179.1
		305	60.20	221.2
		408	59.00	227.7
		Mean =	59.08	212.8
9 MAVERICK	428 g ai/ha	A 109	59.20	218.0
AATREX 4L	840 g ai/ha	A 215	57.20	180.1
		304	58.70	191.3
		411	58.10	192.3
		Mean =	58.30	195.4
10 MAVERICK	571 g ai/ha	A 110	59.40	225.6
AATREX 4L	840 g ai/ha	A 203	58.20	186.8
		313	60.90	214.8
		405	60.00	206.7
		Mean =	59.63	208.5

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date				Oct-24-2023	Oct-24-2023
SE Group No.				16	17
Part Rated				grain, C	grain, C
Rating Type				WEITES	YIELD
Rating Unit/Min/Max				%, 0, 100	BU, -, -
Sample Size				1 plot	1 A
Collection Basis				1 plot	1 plot
Reporting Basis				1 plot	
Calculation				NC	NC
Number of Subsamples				1	1
Crop ID Code				1, ZEAMD	1, ZEAMD
BBCH Scale				BCOR	BCOR
Crop Scientific Name				Zea mays indent>	Zea mays indent>
Crop Name				Dent corn	Dent corn
Crop Variety				P1170AM	P1170AM
Crop Attributes				RR/LL	RR/LL
Pest ID Code					
Pest Code					
Pest Scientific Name					
Pest Name					
Days After First/Last Applic.				159, 145	159, 145
Trt-Eval Interval					
Plant-Eval Interval				160 DP-1	160 DP-1
EDC App					
ARM Action Codes				ET5	EC TY1
Number of Decimals					1
Data Entry Date				Dec-8-2023	
Trt Treatment		Rate	Appl		
No. Name		Rate Unit	Code Plot	16	17
11 STOREN		948 g ai/ha	A 111	60.40	246.9
AATREX 4L		420 g ai/ha	A 211	60.10	237.8
AMSOL		2.5 % v/v	B 308	60.20	261.9
STOREN		948 g ai/ha	B 407	61.30	265.8
AATREX 4L		420 g ai/ha	B		
ROUNDUP POWERMAX 3		1180 g ae/ha	B		
			Mean =	60.50	253.1
12 STOREN		1080 g ai/ha	A 112	60.90	243.9
AATREX 4L		420 g ai/ha	A 204	61.20	249.5
AMSOL		2.5 % v/v	B 301	61.80	273.6
STOREN		1080 g ai/ha	B 402	61.80	265.1
AATREX 4L		420 g ai/ha	B		
ROUNDUP POWERMAX 3		1180 g ae/ha	B		
			Mean =	61.43	258.0
13 STOREN		1080 g ai/ha	A 113	60.80	238.8
AATREX 4L		420 g ai/ha	A 201	60.50	231.8
AMSOL		2.5 % v/v	B 314	60.80	231.5
NIS		0.25 % v/v	B 412	58.90	239.6
AATREX 4L		561 g ai/ha	B		
HALEX GT 4.38 CS		2460 g ai/ha	B		
			Mean =	60.25	235.4

d=Means are reported in de-transformed data units

# University of Kentucky

**A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]**

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date		Oct-24-2023	Oct-24-2023
SE Group No.		16	17
Part Rated		grain, C	grain, C
Rating Type		WEITES	YIELD
Rating Unit/Min/Max		%, 0, 100	BU, -, -
Sample Size		1 plot	1 A
Collection Basis		1 plot	1 plot
Reporting Basis		1 plot	
Calculation		NC	NC
Number of Subsamples		1	1
Crop ID Code		1, ZEAMD	1, ZEAMD
BBCH Scale		BCOR	BCOR
Crop Scientific Name		Zea mays indent>	Zea mays indent>
Crop Name		Dent corn	Dent corn
Crop Variety		P1170AM	P1170AM
Crop Attributes		RR/LL	RR/LL
Pest ID Code			
Pest Code			
Pest Scientific Name			
Pest Name			
Days After First/Last Applic.		159, 145	159, 145
Trt-Eval Interval			
Plant-Eval Interval		160 DP-1	160 DP-1
EDC App			
ARM Action Codes		ET5	EC TY1
Number of Decimals			1
Data Entry Date		Dec-8-2023	
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code Plot	
			16 17
14 LEXAR EZ 3.7 ZC	1820 g ai/ha	A 114	61.10 246.3
AMSOL	2.5 % v/v	B 214	60.50 236.1
NIS	0.25 % v/v	B 302	61.90 265.0
AATREX 4L	561 g ai/ha	B 413	60.60 240.9
ACURON GT	2260 g ai/ha	B	
		Mean =	61.03 247.1
15 ACURON 3.44 ZC	1440 g ai/ha	A 115	59.70 234.4
AMSOL	2.5 % v/v	B 205	60.80 272.2
NIS	0.25 % v/v	B 312	59.30 223.5
AATREX 4L	561 g ai/ha	B 410	60.10 250.3
HALEX GT 4.38 CS	2460 g ai/ha	B	
		Mean =	59.98 245.1

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023

Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023

Master Protocol ID:

Study Director: Scott Payne

Sponsor Contact: Mark Kitt

Conducted Under GEP: No

Investigator: Travis Legleiter

Trial Origin: P public institution trial

P = Pest is Part Rated

C = Crop is Part Rated

Rating Type

phygen = phytotoxicity - general / injury

WEIGHT = weight

CONMOI = content - moisture

WEITES = weight - test

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

ft, , = foot

lb, , = pound

BU, , = bushel

plot = total plot

A = acre

plot = total plot

plot = total plot

Calculation

NC = no calculation

Crop ID Code

1, ZEAMD, BCOR, Zea mays indentata, Dent corn, P1170AM, RR/LL = May-17-2023

Pest ID Code

1, W, Weed, AMBTR, Ambrosia trifida, Giant ragweed, = N

2, W, Weed, DIGSA, Digitaria sanguinalis, large crabgrass, = N

3, W, Weed, IPOHE, Ipomoea hederacea, ivy-leaf morning glory, = N

4, W, Weed, ACCSS, Acalypha sp., Copperleaf, Hophornbeam Copperleaf (A. ostryifolia) = N

Plant-Eval Interval

14 DP-1 = 1 ZEAMD May-17-2023

22 DP-1 = 1 ZEAMD May-17-2023

41 DP-1 = 1 ZEAMD May-17-2023

72 DP-1 = 1 ZEAMD May-17-2023

160 DP-1 = 1 ZEAMD May-17-2023

EDC App

Rating Shell = Data pulled from Excel Rating Shell

ARM Action Codes

AA = Automatic arcsine square root % transformation

AL = Automatic log transformation of X+1

ER4 = Excluded replicate 4

ET5 = Excluded treatment 5

EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table

TY1 =  $(777.857142857143 / (5 * [13])) * [14] * (100 - [15]) / 84.5$

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	May-31-2023	May-31-2023	Jun-8-2023
SE Group No.	1	12	2
Part Rated	plant, P	plant, C	plant, c
Rating Type	Control	phygen	phygen
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot
Calculation	NC	NC	NC
Number of Subsamples	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL
Pest ID Code	1, W, Weed		
Pest Code	AMBTR		
Pest Scientific Name	Ambrosia trifida		
Pest Name	Giant ragweed		
Days After First/Last Applic.	13, 13	13, 13	21, 7
Trt-Eval Interval	13 DA-A		
Plant-Eval Interval	14 DP-1	14 DP-1	22 DP-1
EDC App	Rating Shell		Rating Shell
ARM Action Codes			
Number of Decimals			
Data Entry Date	Jun-8-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
		1	2
			3
1 UNTREATED CHECK		0.0 b	0.0 a
2 STOREN	1900 g ai/ha A	100.0 a	0.0 a
AATREX 4L	840 g ai/ha A		
3 STOREN	2170 g ai/ha A	100.0 a	0.0 a
AATREX 4L	840 g ai/ha A		
4 ACURON 3.44 ZC	2890 g ai/ha A	100.0 a	0.0 a
5 RESICORE XL	2280 g ai/ha A	100.0 a	0.0 a
AATREX 4L	840 g ai/ha A		
6 RESICORE XL	2740 g ai/ha A	100.0 a	0.0 a
AATREX 4L	840 g ai/ha A		
7 TRIVOLT	560 g ai/ha A	100.0 a	0.0 a
AATREX 4L	840 g ai/ha A		
8 TRIVOLT	640 g ai/ha A	99.3 a	0.0 a
AATREX 4L	840 g ai/ha A		
9 MAVERICK	428 g ai/ha A	100.0 a	0.0 a
AATREX 4L	840 g ai/ha A		

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	May-31-2023	May-31-2023	Jun-8-2023
SE Group No.	1	12	2
Part Rated	plant, P	plant, C	plant, c
Rating Type	Control	phygen	phygen
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot
Calculation	NC	NC	NC
Number of Subsamples	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL
Pest ID Code	1, W, Weed		
Pest Code	AMBTR		
Pest Scientific Name	Ambrosia trifida		
Pest Name	Giant ragweed		
Days After First/Last Applic.	13, 13	13, 13	21, 7
Trt-Eval Interval	13 DA-A		
Plant-Eval Interval	14 DP-1	14 DP-1	22 DP-1
EDC App	Rating Shell		Rating Shell
ARM Action Codes			
Number of Decimals			
Data Entry Date	Jun-8-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
		1	2
10 MAVERICK	571 g ai/ha A	100.0 a	0.0 a
AATREX 4L	840 g ai/ha A		
11 STOREN	948 g ai/ha A	98.8 a	0.0 a
AATREX 4L	420 g ai/ha A		
AMSOL	2.5 % v/v B		
STOREN	948 g ai/ha B		
AATREX 4L	420 g ai/ha B		
ROUNDUP POWERMAX 3	1180 g ae/ha B		
12 STOREN	1080 g ai/ha A	100.0 a	0.0 a
AATREX 4L	420 g ai/ha A		
AMSOL	2.5 % v/v B		
STOREN	1080 g ai/ha B		
AATREX 4L	420 g ai/ha B		
ROUNDUP POWERMAX 3	1180 g ae/ha B		

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	May-31-2023	May-31-2023	Jun-8-2023
SE Group No.	1	12	2
Part Rated	plant, P	plant, C	plant, c
Rating Type	Control	phygen	phygen
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot
Calculation	NC	NC	NC
Number of Subsamples	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL
Pest ID Code	1, W, Weed		
Pest Code	AMBTR		
Pest Scientific Name	Ambrosia trifida		
Pest Name	Giant ragweed		
Days After First/Last Applic.	13, 13	13, 13	21, 7
Trt-Eval Interval	13 DA-A		
Plant-Eval Interval	14 DP-1	14 DP-1	22 DP-1
EDC App	Rating Shell		Rating Shell
ARM Action Codes			
Number of Decimals			
Data Entry Date	Jun-8-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
13 STOREN	1080 g ai/ha	A	
AATREX 4L	420 g ai/ha	A	
AMSOL	2.5 % v/v	B	
NIS	0.25 % v/v	B	
AATREX 4L	561 g ai/ha	B	
HALEX GT 4.38 CS	2460 g ai/ha	B	
14 LEXAR EZ 3.7 ZC	1820 g ai/ha	A	
AMSOL	2.5 % v/v	B	
NIS	0.25 % v/v	B	
AATREX 4L	561 g ai/ha	B	
ACURON GT	2260 g ai/ha	B	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	May-31-2023	May-31-2023	Jun-8-2023
SE Group No.	1	12	2
Part Rated	plant, P	plant, C	plant, c
Rating Type	Control	phygen	phygen
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot
Calculation	NC	NC	NC
Number of Subsamples	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL
Pest ID Code	1, W, Weed		
Pest Code	AMBTR		
Pest Scientific Name	Ambrosia trifida		
Pest Name	Giant ragweed		
Days After First/Last Applic.	13, 13	13, 13	21, 7
Trt-Eval Interval	13 DA-A		
Plant-Eval Interval	14 DP-1	14 DP-1	22 DP-1
EDC App	Rating Shell		Rating Shell
ARM Action Codes			
Number of Decimals			
Data Entry Date	Jun-8-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
	1	2	3
15 ACURON 3.44 ZC	1440 g ai/ha A		
AMSOL	2.5 % v/v B		
NIS	0.25 % v/v B		
AATREX 4L	561 g ai/ha B		
HALEX GT 4.38 CS	2460 g ai/ha B		
LSD P=.05	1.09	.	.
Standard Deviation	0.76	0.00	0.00
CV	0.82	0.0	0.0
Levene's F^	0.832	.	.
Levene's Prob(F)	0.632	.	.
Shapiro-Wilk^	0.572*	.	.
P(Shapiro-Wilk)^	0.0*	.	.
Skewness^	-3.2309*	.	.
P(Skewness)^	0.0*	.	.
Kurtosis^	17.7249*	.	.
P(Kurtosis)^	0.0*	.	.
Replicate F	0.691	0.000	0.000
Replicate Prob(F)	0.5625	1.0000	1.0000
Treatment F	4596.803	0.000	0.000

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units



# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	May-31-2023	May-31-2023	Jun-8-2023
SE Group No.	1	12	2
Part Rated	plant, P	plant, C	plant, c
Rating Type	Control	phygen	phygen
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot
Calculation	NC	NC	NC
Number of Subsamples	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL
Pest ID Code	1, W, Weed		
Pest Code	AMBTR		
Pest Scientific Name	Ambrosia trifida		
Pest Name	Giant ragweed		
Days After First/Last Applic.	13, 13	13, 13	21, 7
Trt-Eval Interval	13 DA-A		
Plant-Eval Interval	14 DP-1	14 DP-1	22 DP-1
EDC App	Rating Shell		Rating Shell
ARM Action Codes			
Number of Decimals			
Data Entry Date	Jun-8-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
	1	2	3
Treatment Prob(F)	0.0001	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

				Jun-27-2023	Jun-27-2023	Jun-27-2023
Rating Date				Jun-27-2023	Jun-27-2023	Jun-27-2023
SE Group No.				3	4	5
Part Rated				plant, c	plant, p	plant, p
Rating Type				phygen	control	control
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100
Sample Size				1 plot	1 plot	1 plot
Collection Basis				1 plot	1 plot	1 plot
Reporting Basis				1 plot	1 plot	1 plot
Calculation				NC	NC	NC
Number of Subsamples				1	1	1
Crop ID Code				1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale				BCOR	BCOR	BCOR
Crop Scientific Name				Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name				Dent corn	Dent corn	Dent corn
Crop Variety				P1170AM	P1170AM	P1170AM
Crop Attributes				RR/LL	RR/LL	RR/LL
Pest ID Code					2, W, Weed	1, W, Weed
Pest Code					DIGSA	AMBTR
Pest Scientific Name					Digitaria sangu>	Ambrosia trifida
Pest Name					large crabgrass	Giant ragweed
Days After First/Last Applic.				40, 26	40, 26	40, 26
Trt-Eval Interval						
Plant-Eval Interval				41 DP-1	41 DP-1	41 DP-1
EDC App				Rating Shell	Rating Shell	Rating Shell
ARM Action Codes						AA
Number of Decimals						
Data Entry Date				Oct-9-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Appl		4	5	6
No. Name	Rate Unit	Code				dAA
1 UNTREATED CHECK				0.0 a	0.0 d	0.0 c
2 STOREN	1900 g ai/ha	A		0.0 a	90.0 ab	80.5 b
AATREX 4L	840 g ai/ha	A				
3 STOREN	2170 g ai/ha	A		0.0 a	86.3 abc	73.8 b
AATREX 4L	840 g ai/ha	A				
4 ACURON 3.44 ZC	2890 g ai/ha	A		0.0 a	86.8 abc	66.4 b
5 RESICORE XL	2280 g ai/ha	A		0.0 a	73.8 bc	80.5 b
AATREX 4L	840 g ai/ha	A				
6 RESICORE XL	2740 g ai/ha	A		0.0 a	65.0 c	71.4 b
AATREX 4L	840 g ai/ha	A				
7 TRIVOLT	560 g ai/ha	A		0.0 a	80.0 abc	73.3 b
AATREX 4L	840 g ai/ha	A				
8 TRIVOLT	640 g ai/ha	A		0.0 a	78.8 abc	71.5 b
AATREX 4L	840 g ai/ha	A				
9 MAVERICK	428 g ai/ha	A		0.0 a	71.3 bc	78.2 b
AATREX 4L	840 g ai/ha	A				

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

				Jun-27-2023	Jun-27-2023	Jun-27-2023
Rating Date				3	4	5
SE Group No.						
Part Rated				plant, c	plant, p	plant, p
Rating Type				phygen	control	control
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100
Sample Size				1 plot	1 plot	1 plot
Collection Basis				1 plot	1 plot	1 plot
Reporting Basis				1 plot	1 plot	1 plot
Calculation				NC	NC	NC
Number of Subsamples				1	1	1
Crop ID Code				1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale				BCOR	BCOR	BCOR
Crop Scientific Name				Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name				Dent corn	Dent corn	Dent corn
Crop Variety				P1170AM	P1170AM	P1170AM
Crop Attributes				RR/LL	RR/LL	RR/LL
Pest ID Code					2, W, Weed	1, W, Weed
Pest Code					DIGSA	AMBTR
Pest Scientific Name					Digitaria sangu>	Ambrosia trifida
Pest Name					large crabgrass	Giant ragweed
Days After First/Last Applic.				40, 26	40, 26	40, 26
Trt-Eval Interval						
Plant-Eval Interval				41 DP-1	41 DP-1	41 DP-1
EDC App				Rating Shell	Rating Shell	Rating Shell
ARM Action Codes						AA
Number of Decimals						
Data Entry Date				Oct-9-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Appl		4	5	6
No. Name	Rate Unit	Code				dAA
10 MAVERICK	571 g ai/ha	A		0.0 a	72.5 bc	63.9 b
AATREX 4L	840 g ai/ha	A				
11 STOREN	948 g ai/ha	A		0.0 a	100.0 a	100.0 a
AATREX 4L	420 g ai/ha	A				
AMSOL	2.5 % v/v	B				
STOREN	948 g ai/ha	B				
AATREX 4L	420 g ai/ha	B				
ROUNDUP POWERMAX 3	1180 g ae/ha	B				
12 STOREN	1080 g ai/ha	A		0.0 a	100.0 a	99.7 a
AATREX 4L	420 g ai/ha	A				
AMSOL	2.5 % v/v	B				
STOREN	1080 g ai/ha	B				
AATREX 4L	420 g ai/ha	B				
ROUNDUP POWERMAX 3	1180 g ae/ha	B				

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

				Jun-27-2023	Jun-27-2023	Jun-27-2023
Rating Date				3	4	5
SE Group No.						
Part Rated				plant, c	plant, p	plant, p
Rating Type				phygen	control	control
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100
Sample Size				1 plot	1 plot	1 plot
Collection Basis				1 plot	1 plot	1 plot
Reporting Basis				1 plot	1 plot	1 plot
Calculation				NC	NC	NC
Number of Subsamples				1	1	1
Crop ID Code				1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale				BCOR	BCOR	BCOR
Crop Scientific Name				Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name				Dent corn	Dent corn	Dent corn
Crop Variety				P1170AM	P1170AM	P1170AM
Crop Attributes				RR/LL	RR/LL	RR/LL
Pest ID Code					2, W, Weed	1, W, Weed
Pest Code					DIGSA	AMBTR
Pest Scientific Name					Digitaria sangu>	Ambrosia trifida
Pest Name					large crabgrass	Giant ragweed
Days After First/Last Applic.				40, 26	40, 26	40, 26
Trt-Eval Interval						
Plant-Eval Interval				41 DP-1	41 DP-1	41 DP-1
EDC App				Rating Shell	Rating Shell	Rating Shell
ARM Action Codes						AA
Number of Decimals						
Data Entry Date				Oct-9-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Appl		4	5	6
No. Name	Rate Unit	Code				dAA
13 STOREN	1080 g ai/ha	A		0.0 a	99.3 a	98.5 a
AATREX 4L	420 g ai/ha	A				
AMSOL	2.5 % v/v	B				
NIS	0.25 % v/v	B				
AATREX 4L	561 g ai/ha	B				
HALEX GT 4.38 CS	2460 g ai/ha	B				
14 LEXAR EZ 3.7 ZC	1820 g ai/ha	A		0.0 a	101.3 a	100.0 a
AMSOL	2.5 % v/v	B				
NIS	0.25 % v/v	B				
AATREX 4L	561 g ai/ha	B				
ACURON GT	2260 g ai/ha	B				

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

				Jun-27-2023	Jun-27-2023	Jun-27-2023
Rating Date				3	4	5
SE Group No.				3	4	5
Part Rated				plant, c	plant, p	plant, p
Rating Type				phygen	control	control
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100
Sample Size				1 plot	1 plot	1 plot
Collection Basis				1 plot	1 plot	1 plot
Reporting Basis				1 plot	1 plot	1 plot
Calculation				NC	NC	NC
Number of Subsamples				1	1	1
Crop ID Code				1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale				BCOR	BCOR	BCOR
Crop Scientific Name				Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name				Dent corn	Dent corn	Dent corn
Crop Variety				P1170AM	P1170AM	P1170AM
Crop Attributes				RR/LL	RR/LL	RR/LL
Pest ID Code					2, W, Weed	1, W, Weed
Pest Code					DIGSA	AMBTR
Pest Scientific Name					Digitaria sangu>	Ambrosia trifida
Pest Name					large crabgrass	Giant ragweed
Days After First/Last Applic.				40, 26	40, 26	40, 26
Trt-Eval Interval						
Plant-Eval Interval				41 DP-1	41 DP-1	41 DP-1
EDC App				Rating Shell	Rating Shell	Rating Shell
ARM Action Codes						AA
Number of Decimals						
Data Entry Date				Oct-9-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Appl		4	5	6
No. Name	Rate Unit	Code				dAA
15 ACURON 3.44 ZC	1440 g ai/ha	A		0.0 a	100.0 a	99.7 a
AMSOL	2.5 % v/v	B				
NIS	0.25 % v/v	B				
AATREX 4L	561 g ai/ha	B				
HALEX GT 4.38 CS	2460 g ai/ha	B				
LSD P=.05				.	15.28	4.71 - 19.04
Standard Deviation				0.00	10.71	8.79t
CV				0.0	13.33	13.62t
Levene's F^				.	3.119*	1.203
Levene's Prob(F)				.	0.002*	0.306
Shapiro-Wilk^				.	0.9716	0.9675
P(Shapiro-Wilk)^				.	0.1744	0.1094
Skewness^				.	-0.1035	0.1371
P(Skewness)^				.	0.7447	0.6663
Kurtosis^				.	0.8032	0.261
P(Kurtosis)^				.	0.2028	0.677
Replicate F				0.000	0.329	2.074
Replicate Prob(F)				1.0000	0.8043	0.1181
Treatment F				0.000	22.430	26.568

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

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Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	Jun-27-2023	Jun-27-2023	Jun-27-2023
SE Group No.	3	4	5
Part Rated	plant, c	plant, p	plant, p
Rating Type	phygen	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot
Calculation	NC	NC	NC
Number of Subsamples	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL
Pest ID Code		2, W, Weed	1, W, Weed
Pest Code		DIGSA	AMBTR
Pest Scientific Name		Digitaria sangu>	Ambrosia trifida
Pest Name		large crabgrass	Giant ragweed
Days After First/Last Applic.	40, 26	40, 26	40, 26
Trt-Eval Interval			
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1
EDC App	Rating Shell	Rating Shell	Rating Shell
ARM Action Codes			AA
Number of Decimals			
Data Entry Date	Oct-9-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Rate	Rate
No. Name	Rate Unit	Rate Unit	Rate Unit
	4	5	6
			dAA
Treatment Prob(F)	1.0000	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	Jun-27-2023	Jun-27-2023	Jul-28-2023
SE Group No.	6	7	8
Part Rated	plant, p	plant, p	plant, p
Rating Type	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot
Calculation	NC	NC	NC
Number of Subsamples	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL
Pest ID Code	3, W, Weed	4, W, Weed	2, W, Weed
Pest Code	IPOHE	ACCSS	DIGSA
Pest Scientific Name	Ipomoea hederac>	Acalypha sp.	Digitaria sangu>
Pest Name	ivy-leaf mornin>	Copperleaf	large crabgrass
Days After First/Last Applic.	40, 26	40, 26	71, 57
Trt-Eval Interval			
Plant-Eval Interval	41 DP-1	41 DP-1	72 DP-1
EDC App	Rating Shell	Rating Shell	Rating Shell
ARM Action Codes			AL
Number of Decimals			
Data Entry Date	Oct-9-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
			7 8 9
			dAL
1 UNTREATED CHECK	0.0 c	0.0 b	0.0 b
2 STOREN AATREX 4L	1900 g ai/ha A 840 g ai/ha A	57.5 ab	82.5 a 82.1 a
3 STOREN AATREX 4L	2170 g ai/ha A 840 g ai/ha A	32.5 bc	71.3 a 74.2 a
4 ACURON 3.44 ZC	2890 g ai/ha A	38.8 abc	77.5 a 59.3 a
5 RESICORE XL AATREX 4L	2280 g ai/ha A 840 g ai/ha A	30.0 bc	72.5 a 18.2 a
6 RESICORE XL AATREX 4L	2740 g ai/ha A 840 g ai/ha A	28.8 bc	80.0 a 19.7 a
7 TRIVOLT AATREX 4L	560 g ai/ha A 840 g ai/ha A	36.3 abc	72.5 a 61.2 a
8 TRIVOLT AATREX 4L	640 g ai/ha A 840 g ai/ha A	48.8 ab	68.8 a 68.8 a
9 MAVERICK AATREX 4L	428 g ai/ha A 840 g ai/ha A	62.5 ab	76.8 a 49.8 a

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

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Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	Jun-27-2023	Jun-27-2023	Jul-28-2023
SE Group No.	6	7	8
Part Rated	plant, p	plant, p	plant, p
Rating Type	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot
Calculation	NC	NC	NC
Number of Subsamples	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL
Pest ID Code	3, W, Weed	4, W, Weed	2, W, Weed
Pest Code	IPOHE	ACCSS	DIGSA
Pest Scientific Name	Ipomoea hederac>	Acalypha sp.	Digitaria sangu>
Pest Name	ivy-leaf mornin>	Copperleaf	large crabgrass
Days After First/Last Applic.	40, 26	40, 26	71, 57
Trt-Eval Interval			
Plant-Eval Interval	41 DP-1	41 DP-1	72 DP-1
EDC App	Rating Shell	Rating Shell	Rating Shell
ARM Action Codes			AL
Number of Decimals			
Data Entry Date	Oct-9-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
			9
			dAL
10 MAVERICK	571 g ai/ha	A	
AATREX 4L	840 g ai/ha	A	
			64.4 a
11 STOREN	948 g ai/ha	A	
AATREX 4L	420 g ai/ha	A	
AMSOL	2.5 % v/v	B	
STOREN	948 g ai/ha	B	
AATREX 4L	420 g ai/ha	B	
ROUNDUP POWERMAX 3	1180 g ae/ha	B	
			98.7 a
12 STOREN	1080 g ai/ha	A	
AATREX 4L	420 g ai/ha	A	
AMSOL	2.5 % v/v	B	
STOREN	1080 g ai/ha	B	
AATREX 4L	420 g ai/ha	B	
ROUNDUP POWERMAX 3	1180 g ae/ha	B	
			97.7 a

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units



# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	Jun-27-2023	Jun-27-2023	Jul-28-2023
SE Group No.	6	7	8
Part Rated	plant, p	plant, p	plant, p
Rating Type	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot
Calculation	NC	NC	NC
Number of Subsamples	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL
Pest ID Code	3, W, Weed	4, W, Weed	2, W, Weed
Pest Code	IPOHE	ACCSS	DIGSA
Pest Scientific Name	Ipomoea hederac>	Acalypha sp.	Digitaria sangu>
Pest Name	ivy-leaf mornin>	Copperleaf	large crabgrass
Days After First/Last Applic.	40, 26	40, 26	71, 57
Trt-Eval Interval			
Plant-Eval Interval	41 DP-1	41 DP-1	72 DP-1
EDC App	Rating Shell	Rating Shell	Rating Shell
ARM Action Codes			AL
Number of Decimals			
Data Entry Date	Oct-9-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
			9
			dAL
13 STOREN	1080 g ai/ha	A	
AATREX 4L	420 g ai/ha	A	
AMSOL	2.5 % v/v	B	
NIS	0.25 % v/v	B	
AATREX 4L	561 g ai/ha	B	
HALEX GT 4.38 CS	2460 g ai/ha	B	
			86.8 a
			100.0 a
			94.1 a
14 LEXAR EZ 3.7 ZC	1820 g ai/ha	A	
AMSOL	2.5 % v/v	B	
NIS	0.25 % v/v	B	
AATREX 4L	561 g ai/ha	B	
ACURON GT	2260 g ai/ha	B	
			84.3 a
			100.0 a
			98.7 a

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	Jun-27-2023	Jun-27-2023	Jul-28-2023
SE Group No.	6	7	8
Part Rated	plant, p	plant, p	plant, p
Rating Type	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot
Calculation	NC	NC	NC
Number of Subsamples	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL
Pest ID Code	3, W, Weed	4, W, Weed	2, W, Weed
Pest Code	IPOHE	ACCSS	DIGSA
Pest Scientific Name	Ipomoea hederac>	Acalypha sp.	Digitaria sangu>
Pest Name	ivy-leaf mornin>	Copperleaf	large crabgrass
Days After First/Last Applic.	40, 26	40, 26	71, 57
Trt-Eval Interval			
Plant-Eval Interval	41 DP-1	41 DP-1	72 DP-1
EDC App	Rating Shell	Rating Shell	Rating Shell
ARM Action Codes			AL
Number of Decimals			
Data Entry Date	Oct-9-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
			7 8 9
15 ACURON 3.44 ZC	1440 g ai/ha	A	
AMSOL	2.5 % v/v	B	
NIS	0.25 % v/v	B	
AATREX 4L	561 g ai/ha	B	
HALEX GT 4.38 CS	2460 g ai/ha	B	
LSD P=.05	30.24	30.89	40.99 - 67.93
Standard Deviation	21.19	21.64	0.35t
CV	39.11	27.5	20.62t
Levene's F^	0.71	1.116	1.746
Levene's Prob(F)	0.753	0.371	0.079
Shapiro-Wilk^	0.9901	0.9175*	0.6721*
P(Shapiro-Wilk)^	0.9088	0.0006*	0.0*
Skewness^	0.1619	-1.2401*	-2.3247*
P(Skewness)^	0.6108	0.0002*	0.0*
Kurtosis^	0.5348	2.6023*	10.9892*
P(Kurtosis)^	0.3946	0.0001*	0.0*
Replicate F	5.998	0.730	0.255
Replicate Prob(F)	0.0017	0.5398	0.8573
Treatment F	6.322	5.315	8.898

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

**A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]**

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	Jun-27-2023	Jun-27-2023	Jul-28-2023
SE Group No.	6	7	8
Part Rated	plant, p	plant, p	plant, p
Rating Type	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot
Calculation	NC	NC	NC
Number of Subsamples	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL
Pest ID Code	3, W, Weed	4, W, Weed	2, W, Weed
Pest Code	IPOHE	ACCSS	DIGSA
Pest Scientific Name	Ipomoea hederac>	Acalypha sp.	Digitaria sangu>
Pest Name	ivy-leaf mornin>	Copperleaf	large crabgrass
Days After First/Last Applic.	40, 26	40, 26	71, 57
Trt-Eval Interval			
Plant-Eval Interval	41 DP-1	41 DP-1	72 DP-1
EDC App	Rating Shell	Rating Shell	Rating Shell
ARM Action Codes			AL
Number of Decimals			
Data Entry Date	Oct-9-2023	Oct-9-2023	Oct-9-2023
Trt Treatment No. Name	Rate	Appl	
	Rate Unit	Code	
Treatment Prob(F)	7	8	9
			dAL
	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date				Jul-28-2023	Jul-28-2023	Jul-28-2023
SE Group No.				9	10	11
Part Rated				plant, p	plant, p	plant, p
Rating Type				control	control	control
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100
Sample Size				1 plot	1 plot	1 plot
Collection Basis				1 plot	1 plot	1 plot
Reporting Basis				1 plot	1 plot	1 plot
Calculation				NC	NC	NC
Number of Subsamples				1	1	1
Crop ID Code				1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale				BCOR	BCOR	BCOR
Crop Scientific Name				Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name				Dent corn	Dent corn	Dent corn
Crop Variety				P1170AM	P1170AM	P1170AM
Crop Attributes				RR/LL	RR/LL	RR/LL
Pest ID Code				1, W, Weed	3, W, Weed	4, W, Weed
Pest Code				AMBTR	IPOHE	ACCSS
Pest Scientific Name				Ambrosia trifida	Ipomoea hederac>	Acalypha sp.
Pest Name				Giant ragweed	ivy-leaf mornin>	Copperleaf
Days After First/Last Applic.				71, 57	71, 57	71, 57
Trt-Eval Interval						
Plant-Eval Interval				72 DP-1	72 DP-1	72 DP-1
EDC App				Rating Shell	Rating Shell	Rating Shell
ARM Action Codes				AA		AA
Number of Decimals						
Data Entry Date				Oct-9-2023	Oct-9-2023	Oct-9-2023
Trt No.	Treatment Name	Rate	Appl Code	10	11	12
		Rate Unit		dAA		dAA
1	UNTREATED CHECK			0.0 c	0.0 e	0.0 d
2	STOREN AATREX 4L	1900 g ai/ha 840 g ai/ha	A A	71.4 b	47.5 cd	60.9 c
3	STOREN AATREX 4L	2170 g ai/ha 840 g ai/ha	A A	58.0 b	47.5 cd	74.5 bc
4	ACURON 3.44 ZC	2890 g ai/ha	A	60.1 b	53.8 bcd	82.3 abc
5	RESICORE XL AATREX 4L	2280 g ai/ha 840 g ai/ha	A A	58.0 b	52.5 bcd	67.9 c
6	RESICORE XL AATREX 4L	2740 g ai/ha 840 g ai/ha	A A	57.6 b	33.8 d	55.1 c
7	TRIVOLT AATREX 4L	560 g ai/ha 840 g ai/ha	A A	67.8 b	57.5 bcd	63.0 c
8	TRIVOLT AATREX 4L	640 g ai/ha 840 g ai/ha	A A	60.2 b	55.0 bcd	70.2 c
9	MAVERICK AATREX 4L	428 g ai/ha 840 g ai/ha	A A	65.2 b	52.5 bcd	62.7 c

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Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date				Jul-28-2023	Jul-28-2023	Jul-28-2023
SE Group No.				9	10	11
Part Rated				plant, p	plant, p	plant, p
Rating Type				control	control	control
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100
Sample Size				1 plot	1 plot	1 plot
Collection Basis				1 plot	1 plot	1 plot
Reporting Basis				1 plot	1 plot	1 plot
Calculation				NC	NC	NC
Number of Subsamples				1	1	1
Crop ID Code				1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale				BCOR	BCOR	BCOR
Crop Scientific Name				Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name				Dent corn	Dent corn	Dent corn
Crop Variety				P1170AM	P1170AM	P1170AM
Crop Attributes				RR/LL	RR/LL	RR/LL
Pest ID Code				1, W, Weed	3, W, Weed	4, W, Weed
Pest Code				AMBTR	IPOHE	ACCSS
Pest Scientific Name				Ambrosia trifida	Ipomoea hederac>	Acalypha sp.
Pest Name				Giant ragweed	ivy-leaf mornin>	Copperleaf
Days After First/Last Applic.				71, 57	71, 57	71, 57
Trt-Eval Interval						
Plant-Eval Interval				72 DP-1	72 DP-1	72 DP-1
EDC App				Rating Shell	Rating Shell	Rating Shell
ARM Action Codes				AA		AA
Number of Decimals						
Data Entry Date				Oct-9-2023	Oct-9-2023	Oct-9-2023
Trt No.	Treatment Name	Rate	Appl Code	10 dAA	11	12 dAA
10	MAVERICK	571 g ai/ha	A	63.0 b	62.5 bcd	72.9 bc
	AATREX 4L	840 g ai/ha	A			
11	STOREN	948 g ai/ha	A	98.1 a	93.0 a	96.8 ab
	AATREX 4L	420 g ai/ha	A			
	AMSOL	2.5 % v/v	B			
	STOREN	948 g ai/ha	B			
	AATREX 4L	420 g ai/ha	B			
	ROUNDUP POWERMAX 3	1180 g ae/ha	B			
12	STOREN	1080 g ai/ha	A	99.4 a	94.3 a	99.4 a
	AATREX 4L	420 g ai/ha	A			
	AMSOL	2.5 % v/v	B			
	STOREN	1080 g ai/ha	B			
	AATREX 4L	420 g ai/ha	B			
	ROUNDUP POWERMAX 3	1180 g ae/ha	B			

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Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

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# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

				Jul-28-2023	Jul-28-2023	Jul-28-2023
Rating Date				Jul-28-2023	Jul-28-2023	Jul-28-2023
SE Group No.				9	10	11
Part Rated				plant, p	plant, p	plant, p
Rating Type				control	control	control
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100
Sample Size				1 plot	1 plot	1 plot
Collection Basis				1 plot	1 plot	1 plot
Reporting Basis				1 plot	1 plot	1 plot
Calculation				NC	NC	NC
Number of Subsamples				1	1	1
Crop ID Code				1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale				BCOR	BCOR	BCOR
Crop Scientific Name				Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name				Dent corn	Dent corn	Dent corn
Crop Variety				P1170AM	P1170AM	P1170AM
Crop Attributes				RR/LL	RR/LL	RR/LL
Pest ID Code				1, W, Weed	3, W, Weed	4, W, Weed
Pest Code				AMBTR	IPOHE	ACCSS
Pest Scientific Name				Ambrosia trifida	Ipomoea hederac>	Acalypha sp.
Pest Name				Giant ragweed	ivy-leaf mornin>	Copperleaf
Days After First/Last Applic.				71, 57	71, 57	71, 57
Trt-Eval Interval						
Plant-Eval Interval				72 DP-1	72 DP-1	72 DP-1
EDC App				Rating Shell	Rating Shell	Rating Shell
ARM Action Codes				AA		AA
Number of Decimals						
Data Entry Date				Oct-9-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Appl		10	11	12
No. Name	Rate Unit	Code		dAA		dAA
13 STOREN	1080 g ai/ha	A		92.8 a	80.0 abc	96.3 ab
AATREX 4L	420 g ai/ha	A				
AMSOL	2.5 % v/v	B				
NIS	0.25 % v/v	B				
AATREX 4L	561 g ai/ha	B				
HALEX GT 4.38 CS	2460 g ai/ha	B				
14 LEXAR EZ 3.7 ZC	1820 g ai/ha	A		99.0 a	94.8 a	98.5 a
AMSOL	2.5 % v/v	B				
NIS	0.25 % v/v	B				
AATREX 4L	561 g ai/ha	B				
ACURON GT	2260 g ai/ha	B				

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date				Jul-28-2023	Jul-28-2023	Jul-28-2023
SE Group No.				9	10	11
Part Rated				plant, p	plant, p	plant, p
Rating Type				control	control	control
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100
Sample Size				1 plot	1 plot	1 plot
Collection Basis				1 plot	1 plot	1 plot
Reporting Basis				1 plot	1 plot	1 plot
Calculation				NC	NC	NC
Number of Subsamples				1	1	1
Crop ID Code				1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale				BCOR	BCOR	BCOR
Crop Scientific Name				Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name				Dent corn	Dent corn	Dent corn
Crop Variety				P1170AM	P1170AM	P1170AM
Crop Attributes				RR/LL	RR/LL	RR/LL
Pest ID Code				1, W, Weed	3, W, Weed	4, W, Weed
Pest Code				AMBTR	IPOHE	ACCSS
Pest Scientific Name				Ambrosia trifida	Ipomoea hederac>	Acalypha sp.
Pest Name				Giant ragweed	ivy-leaf mornin>	Copperleaf
Days After First/Last Applic.				71, 57	71, 57	71, 57
Trt-Eval Interval						
Plant-Eval Interval				72 DP-1	72 DP-1	72 DP-1
EDC App				Rating Shell	Rating Shell	Rating Shell
ARM Action Codes				AA		AA
Number of Decimals						
Data Entry Date				Oct-9-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Appl		10	11	12
No. Name	Rate Unit	Code		dAA		dAA
15 ACURON 3.44 ZC	1440 g ai/ha	A		91.5 a	86.8 ab	95.4 ab
AMSOL	2.5 % v/v	B				
NIS	0.25 % v/v	B				
AATREX 4L	561 g ai/ha	B				
HALEX GT 4.38 CS	2460 g ai/ha	B				
LSD P=.05				7.52 - 19.44	21.74	10.07 - 23.47
Standard Deviation				8.41t	15.24	10.16t
CV				14.51t	25.08	16.86t
Levene's F^				1.506	0.923	0.919
Levene's Prob(F)				0.148	0.542	0.546
Shapiro-Wilk^				0.9871	0.9658	0.9811
P(Shapiro-Wilk)^				0.7802	0.0904	0.4765
Skewness^				0.2603	-0.2794	0.1733
P(Skewness)^				0.4139	0.3807	0.586
Kurtosis^				-0.0821	1.6744*	1.2919*
P(Kurtosis)^				0.8956	0.0094*	0.0427*
Replicate F				5.485	1.639	0.661
Replicate Prob(F)				0.0028	0.1948	0.5805
Treatment F				25.283	11.529	17.191

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

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Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	Jul-28-2023	Jul-28-2023	Jul-28-2023
SE Group No.	9	10	11
Part Rated	plant, p	plant, p	plant, p
Rating Type	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot
Calculation	NC	NC	NC
Number of Subsamples	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL
Pest ID Code	1, W, Weed	3, W, Weed	4, W, Weed
Pest Code	AMBTR	IPOHE	ACCSS
Pest Scientific Name	Ambrosia trifida	Ipomoea hederac>	Acalypha sp.
Pest Name	Giant ragweed	ivy-leaf mornin>	Copperleaf
Days After First/Last Applic.	71, 57	71, 57	71, 57
Trt-Eval Interval			
Plant-Eval Interval	72 DP-1	72 DP-1	72 DP-1
EDC App	Rating Shell	Rating Shell	Rating Shell
ARM Action Codes	AA		AA
Number of Decimals			
Data Entry Date	Oct-9-2023	Oct-9-2023	Oct-9-2023
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
	10	11	12
	dAA		dAA
Treatment Prob(F)	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ ( $P=0.05$ , Student-Newman-Keuls).

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units



# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	Oct-24-2023	Oct-24-2023	Oct-24-2023
SE Group No.	13	14	15
Part Rated	plot, -	grain, C	grain, C
Rating Type	length	WEIGHT	CONMOI
Rating Unit/Min/Max	ft, -, -	lb, -, -	%, 0, 100
Sample Size	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot
Calculation	NC	NC	NC
Number of Subsamples	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL
Pest ID Code			
Pest Code			
Pest Scientific Name			
Pest Name			
Days After First/Last Applic.	159, 145	159, 145	159, 145
Trt-Eval Interval			
Plant-Eval Interval	160 DP-1	160 DP-1	160 DP-1
EDC App			
ARM Action Codes			ER4
Number of Decimals			
Data Entry Date	Dec-8-2023	Dec-8-2023	Dec-8-2023
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
1 UNTREATED CHECK			13
2 STOREN	1900 g ai/ha A		14
AATREX 4L	840 g ai/ha A		15
3 STOREN	2170 g ai/ha A		27.55 a
AATREX 4L	840 g ai/ha A		11.735 f
4 ACURON 3.44 ZC	2890 g ai/ha A		27.38 a
5 RESICORE XL	2280 g ai/ha A		33.041 de
AATREX 4L	840 g ai/ha A		35.295 cde
6 RESICORE XL	2740 g ai/ha A		27.35 a
AATREX 4L	840 g ai/ha A		35.174 cde
7 TRIVOLT	560 g ai/ha A		27.35 a
AATREX 4L	840 g ai/ha A		38.700 a-e
8 TRIVOLT	640 g ai/ha A		27.25 a
AATREX 4L	840 g ai/ha A		32.030 e
9 MAVERICK	428 g ai/ha A		27.30 a
AATREX 4L	840 g ai/ha A		33.835 de
			27.33 a
			36.068 b-e
			27.53 a
			33.693 de
			12.97 a

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

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Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	Oct-24-2023	Oct-24-2023	Oct-24-2023
SE Group No.	13	14	15
Part Rated	plot, -	grain, C	grain, C
Rating Type	length	WEIGHT	CONMOI
Rating Unit/Min/Max	ft, -, -	lb, -, -	%, 0, 100
Sample Size	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot
Calculation	NC	NC	NC
Number of Subsamples	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL
Pest ID Code			
Pest Code			
Pest Scientific Name			
Pest Name			
Days After First/Last Applic.	159, 145	159, 145	159, 145
Trt-Eval Interval			
Plant-Eval Interval	160 DP-1	160 DP-1	160 DP-1
EDC App			
ARM Action Codes			ER4
Number of Decimals			
Data Entry Date	Dec-8-2023	Dec-8-2023	Dec-8-2023
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
10 MAVERICK	571 g ai/ha A		13
AATREX 4L	840 g ai/ha A		14
			15
11 STOREN	948 g ai/ha A		27.65 a
AATREX 4L	420 g ai/ha A		36.398 a-e
AMSOL	2.5 % v/v B		14.47 a
STOREN	948 g ai/ha B		27.43 a
AATREX 4L	420 g ai/ha B		43.548 ab
ROUNDUP POWERMAX 3	1180 g ae/ha B		13.73 a
12 STOREN	1080 g ai/ha A		27.15 a
AATREX 4L	420 g ai/ha A		44.160 a
AMSOL	2.5 % v/v B		13.80 a
STOREN	1080 g ai/ha B		
AATREX 4L	420 g ai/ha B		
ROUNDUP POWERMAX 3	1180 g ae/ha B		

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units



# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	Oct-24-2023	Oct-24-2023	Oct-24-2023
SE Group No.	13	14	15
Part Rated	plot, -	grain, C	grain, C
Rating Type	length	WEIGHT	CONMOI
Rating Unit/Min/Max	ft, -, -	lb, -, -	%, 0, 100
Sample Size	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot
Calculation	NC	NC	NC
Number of Subsamples	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL
Pest ID Code			
Pest Code			
Pest Scientific Name			
Pest Name			
Days After First/Last Applic.	159, 145	159, 145	159, 145
Trt-Eval Interval			
Plant-Eval Interval	160 DP-1	160 DP-1	160 DP-1
EDC App			
ARM Action Codes			ER4
Number of Decimals			
Data Entry Date	Dec-8-2023	Dec-8-2023	Dec-8-2023
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
15 ACURON 3.44 ZC	1440 g ai/ha	A	13
AMSOL	2.5 % v/v	B	14
NIS	0.25 % v/v	B	15
AATREX 4L	561 g ai/ha	B	
HALEX GT 4.38 CS	2460 g ai/ha	B	
LSD P=.05	0.633	5.0862	1.615
Standard Deviation	0.443	3.5590	0.966
CV	1.62	9.9	7.11
Levene's F^	0.937	0.557	2.37*
Levene's Prob(F)	0.529	0.883	0.016*
Shapiro-Wilk^	0.9592*	0.9838	0.9682
P(Shapiro-Wilk)^	0.0429*	0.6324	0.1384
Skewness^	-0.3078	-0.3689	-0.2426
P(Skewness)^	0.3345	0.2564	0.458
Kurtosis^	-0.7842	0.6627	-0.5853
P(Kurtosis)^	0.2135	0.3003	0.3639
Replicate F	32.418	9.164	0.952
Replicate Prob(F)	0.0001	0.0001	0.3980
Treatment F	0.337	19.422	1.424

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

**A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]**

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	Oct-24-2023	Oct-24-2023	Oct-24-2023
SE Group No.	13	14	15
Part Rated	plot, -	grain, C	grain, C
Rating Type	length	WEIGHT	CONMOI
Rating Unit/Min/Max	ft, -, -	lb, -, -	%, 0, 100
Sample Size	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot
Calculation	NC	NC	NC
Number of Subsamples	1	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL	RR/LL
Pest ID Code			
Pest Code			
Pest Scientific Name			
Pest Name			
Days After First/Last Applic.	159, 145	159, 145	159, 145
Trt-Eval Interval			
Plant-Eval Interval	160 DP-1	160 DP-1	160 DP-1
EDC App			
ARM Action Codes			ER4
Number of Decimals			
Data Entry Date	Dec-8-2023	Dec-8-2023	Dec-8-2023
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
	13	14	15
Treatment Prob(F)	0.9846	0.0001	0.2065

Means followed by same letter or symbol do not significantly differ ( $P \leq .05$ , Student-Newman-Keuls).

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

			Oct-24-2023	Oct-24-2023
Rating Date			16	17
SE Group No.			16	17
Part Rated			grain, C	grain, C
Rating Type			WEITES	YIELD
Rating Unit/Min/Max			%, 0, 100	BU, -, -
Sample Size			1 plot	1 A
Collection Basis			1 plot	1 plot
Reporting Basis			1 plot	
Calculation			NC	NC
Number of Subsamples			1	1
Crop ID Code			1, ZEAMD	1, ZEAMD
BBCH Scale			BCOR	BCOR
Crop Scientific Name			Zea mays indent>	Zea mays indent>
Crop Name			Dent corn	Dent corn
Crop Variety			P1170AM	P1170AM
Crop Attributes			RR/LL	RR/LL
Pest ID Code				
Pest Code				
Pest Scientific Name				
Pest Name				
Days After First/Last Applic.			159, 145	159, 145
Trt-Eval Interval				
Plant-Eval Interval			160 DP-1	160 DP-1
EDC App				
ARM Action Codes			ET5	EC TY1
Number of Decimals				1
Data Entry Date			Dec-8-2023	
Trt Treatment	Rate	Appl	16	17
No. Name	Rate Unit	Code		
1 UNTREATED CHECK			56.12 bc	50.4
2 STOREN	1900 g ai/ha A		57.26 abc	191.3 d
AATREX 4L	840 g ai/ha A			
3 STOREN	2170 g ai/ha A		58.65 abc	203.9 cd
AATREX 4L	840 g ai/ha A			
4 ACURON 3.44 ZC	2890 g ai/ha A		55.92 c	207.3 bcd
5 RESICORE XL	2280 g ai/ha A		55.63	224.8 a-d
AATREX 4L	840 g ai/ha A			
6 RESICORE XL	2740 g ai/ha A		58.65 abc	186.2 d
AATREX 4L	840 g ai/ha A			
7 TRIVOLT	560 g ai/ha A		57.25 abc	197.6 d
AATREX 4L	840 g ai/ha A			
8 TRIVOLT	640 g ai/ha A		59.08 abc	212.8 a-d
AATREX 4L	840 g ai/ha A			
9 MAVERICK	428 g ai/ha A		58.30 abc	195.4 d
AATREX 4L	840 g ai/ha A			

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

**A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]**

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date		Oct-24-2023	Oct-24-2023
SE Group No.		16	17
Part Rated		grain, C	grain, C
Rating Type		WEITES	YIELD
Rating Unit/Min/Max		%, 0, 100	BU, -, -
Sample Size		1 plot	1 A
Collection Basis		1 plot	1 plot
Reporting Basis		1 plot	
Calculation		NC	NC
Number of Subsamples		1	1
Crop ID Code		1, ZEAMD	1, ZEAMD
BBCH Scale		BCOR	BCOR
Crop Scientific Name		Zea mays indent>	Zea mays indent>
Crop Name		Dent corn	Dent corn
Crop Variety		P1170AM	P1170AM
Crop Attributes		RR/LL	RR/LL
Pest ID Code			
Pest Code			
Pest Scientific Name			
Pest Name			
Days After First/Last Applic.		159, 145	159, 145
Trt-Eval Interval			
Plant-Eval Interval		160 DP-1	160 DP-1
EDC App			
ARM Action Codes		ET5	EC TY1
Number of Decimals			1
Data Entry Date		Dec-8-2023	
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
10 MAVERICK	571 g ai/ha	A	16
AATREX 4L	840 g ai/ha	A	17
			59.63 abc
208.5 bcd			
11 STOREN	948 g ai/ha	A	60.50 ab
AATREX 4L	420 g ai/ha	A	
AMSOL	2.5 % v/v	B	
STOREN	948 g ai/ha	B	
AATREX 4L	420 g ai/ha	B	
ROUNDUP POWERMAX 3	1180 g ae/ha	B	
			253.1 ab
12 STOREN	1080 g ai/ha	A	61.43 a
AATREX 4L	420 g ai/ha	A	
AMSOL	2.5 % v/v	B	
STOREN	1080 g ai/ha	B	
AATREX 4L	420 g ai/ha	B	
ROUNDUP POWERMAX 3	1180 g ae/ha	B	
			258.0 a

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

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Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

**A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]**

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date		Oct-24-2023	Oct-24-2023
SE Group No.		16	17
Part Rated		grain, C	grain, C
Rating Type		WEITES	YIELD
Rating Unit/Min/Max		%, 0, 100	BU, -, -
Sample Size		1 plot	1 A
Collection Basis		1 plot	1 plot
Reporting Basis		1 plot	
Calculation		NC	NC
Number of Subsamples		1	1
Crop ID Code		1, ZEAMD	1, ZEAMD
BBCH Scale		BCOR	BCOR
Crop Scientific Name		Zea mays indent>	Zea mays indent>
Crop Name		Dent corn	Dent corn
Crop Variety		P1170AM	P1170AM
Crop Attributes		RR/LL	RR/LL
Pest ID Code			
Pest Code			
Pest Scientific Name			
Pest Name			
Days After First/Last Applic.		159, 145	159, 145
Trt-Eval Interval			
Plant-Eval Interval		160 DP-1	160 DP-1
EDC App			
ARM Action Codes		ET5	EC TY1
Number of Decimals			1
Data Entry Date		Dec-8-2023	
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
13 STOREN	1080 g ai/ha	A	
AATREX 4L	420 g ai/ha	A	
AMSOL	2.5 % v/v	B	
NIS	0.25 % v/v	B	
AATREX 4L	561 g ai/ha	B	
HALEX GT 4.38 CS	2460 g ai/ha	B	
			60.25 abc
			235.4 a-d
14 LEXAR EZ 3.7 ZC	1820 g ai/ha	A	
AMSOL	2.5 % v/v	B	
NIS	0.25 % v/v	B	
AATREX 4L	561 g ai/ha	B	
ACURON GT	2260 g ai/ha	B	
			61.03 a
			247.1 abc

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

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Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units



# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023

Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023

Master Protocol ID:

Study Director: Scott Payne

Sponsor Contact: Mark Kitt

Conducted Under GEP: No

Investigator: Travis Legleiter

Trial Origin: P public institution trial

Rating Date		Oct-24-2023	Oct-24-2023
SE Group No.		16	17
Part Rated		grain, C	grain, C
Rating Type		WEITES	YIELD
Rating Unit/Min/Max		%, 0, 100	BU, -, -
Sample Size		1 plot	1 A
Collection Basis		1 plot	1 plot
Reporting Basis		1 plot	
Calculation		NC	NC
Number of Subsamples		1	1
Crop ID Code		1, ZEAMD	1, ZEAMD
BBCH Scale		BCOR	BCOR
Crop Scientific Name		Zea mays indent>	Zea mays indent>
Crop Name		Dent corn	Dent corn
Crop Variety		P1170AM	P1170AM
Crop Attributes		RR/LL	RR/LL
Pest ID Code			
Pest Code			
Pest Scientific Name			
Pest Name			
Days After First/Last Applic.		159, 145	159, 145
Trt-Eval Interval			
Plant-Eval Interval		160 DP-1	160 DP-1
EDC App			
ARM Action Codes		ET5	EC TY1
Number of Decimals			1
Data Entry Date		Dec-8-2023	
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
15 ACURON 3.44 ZC	1440 g ai/ha	A	
AMSOL	2.5 % v/v	B	
NIS	0.25 % v/v	B	
AATREX 4L	561 g ai/ha	B	
HALEX GT 4.38 CS	2460 g ai/ha	B	
LSD P=.05		2.630	29.83
Standard Deviation		1.834	20.82
CV		3.12	9.5
Levene's F^		0.881	0.357
Levene's Prob(F)		0.578	0.976
Shapiro-Wilk^		0.9393*	0.9753
P(Shapiro-Wilk)^		0.0096*	0.3262
Skewness^		-0.979*	-0.4932
P(Skewness)^		0.0053*	0.1451
Kurtosis^		2.5297*	1.3176*
P(Kurtosis)^		0.0004*	0.0499*
Replicate F		3.246	4.017
Replicate Prob(F)		0.0330	0.0143
Treatment F		3.608	5.560

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

**A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]**

Trial ID: USNG0H6502023  
 Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023  
 Master Protocol ID:  
 Study Director: Scott Payne Sponsor Contact: Mark Kitt Conducted Under GEP: No  
 Investigator: Travis Legleiter Trial Origin: P public institution trial

Rating Date	Oct-24-2023	Oct-24-2023
SE Group No.	16	17
Part Rated	grain, C	grain, C
Rating Type	WEITES	YIELD
Rating Unit/Min/Max	%, 0, 100	BU, -, -
Sample Size	1 plot	1 A
Collection Basis	1 plot	1 plot
Reporting Basis	1 plot	
Calculation	NC	NC
Number of Subsamples	1	1
Crop ID Code	1, ZEAMD	1, ZEAMD
BBCH Scale	BCOR	BCOR
Crop Scientific Name	Zea mays indent>	Zea mays indent>
Crop Name	Dent corn	Dent corn
Crop Variety	P1170AM	P1170AM
Crop Attributes	RR/LL	RR/LL
Pest ID Code		
Pest Code		
Pest Scientific Name		
Pest Name		
Days After First/Last Applic.	159, 145	159, 145
Trt-Eval Interval		
Plant-Eval Interval	160 DP-1	160 DP-1
EDC App		
ARM Action Codes	ET5	EC TY1
Number of Decimals		1
Data Entry Date	Dec-8-2023	
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
Treatment Prob(F)	16	17
	0.0011	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).

t=Mean descriptions are reported in transformed data units, and are not de-transformed.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Missing data estimates are included in columns: Yates=14,16,17

Excluded replicate 4 in column 15

Could not calculate LSD (% mean diff) for columns 2,3,4 because error mean square = 0.

^Calculated from residual.

d=Means are reported in de-transformed data units

# University of Kentucky

## A23980B vs Acuron and Competitors PRE and PRE followed by POST for Crop Safety, Weed Control and Yield (ATZ Universities) [B=Medium & Fine]

Trial ID: USNG0H6502023

Protocol ID: HBI001B4-2023US Location: Cully Scott FS Trial Year: 2023

Master Protocol ID:

Study Director: Scott Payne

Sponsor Contact: Mark Kitt

Conducted Under GEP: No

Investigator: Travis Legleiter

Trial Origin: P public institution trial

P = Pest is Part Rated

C = Crop is Part Rated

Rating Type

phygen = phytotoxicity - general / injury

WEIGHT = weight

CONMOI = content - moisture

WEITES = weight - test

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

ft, , = foot

lb, , = pound

BU, , = bushel

plot = total plot

A = acre

plot = total plot

plot = total plot

Calculation

NC = no calculation

Crop ID Code

1, ZEAMD, BCOR, Zea mays indentata, Dent corn, P1170AM, RR/LL = May-17-2023

Pest ID Code

1, W, Weed, AMBTR, Ambrosia trifida, Giant ragweed, = N

2, W, Weed, DIGSA, Digitaria sanguinalis, large crabgrass, = N

3, W, Weed, IPOHE, Ipomoea hederacea, ivy-leaf morning glory, = N

4, W, Weed, ACCSS, Acalypha sp., Copperleaf, Hophornbeam Copperleaf (A. ostryifolia) = N

Plant-Eval Interval

14 DP-1 = 1 ZEAMD May-17-2023

22 DP-1 = 1 ZEAMD May-17-2023

41 DP-1 = 1 ZEAMD May-17-2023

72 DP-1 = 1 ZEAMD May-17-2023

160 DP-1 = 1 ZEAMD May-17-2023

EDC App

Rating Shell = Data pulled from Excel Rating Shell

ARM Action Codes

AA = Automatic arcsine square root % transformation

AL = Automatic log transformation of X+1

ER4 = Excluded replicate 4

ET5 = Excluded treatment 5

EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table

TY1 =  $(777.857142857143 / (5 * [13])) * [14] * (100 - [15]) / 84.5$

# University of Kentucky

## AMV5233D in Enlist + LL soybean - Academic awareness.

Trial ID: 23HD055USDK29(23-15\_SOY-REC)      Cooperator Trial ID:  
 Protocol ID: 23HD055US      Location: KY      Trial Year: 2023  
 Project ID: 055    Project ID 2:    Project ID 3:  
 Study Director: Rich Zollinger    Sponsor Contact: Dan Kunkel, Ph.D.  
 Investigator: Travis Legleiter

Reps: 4		Plots: 6.67 by 30 feet		Mix Size: 2 L (total for 4 plots; minimum=1.0433 L, overage=1811 mL)												
Appl. Amount: 15 GAL/AC		Form Form		Form	Rate	Other	Other	Appl	Appl	Amt	Product	Rep				
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Code	Timing	to Measure	1	2	3	4
1	Liberty 280 SL	280 gA/L		SL	32 FL OZ/A		0.583 LB AI/A		B		EPOST	33.33 mL/mx	101	203	305	408
	AMS - Liquid	3.4 lba/gal		SL	3 LB AI/A				B		EPOST	117.6 mL/mx				
2	AMV5233D	2.57 LBA/GAL		SL	32 FL OZ/A		0.64 LB AI/A		B		EPOST	33.33 mL/mx	102	209	306	409
	COC	100 %		SL	1 % V/V				B		EPOST	20.0 mL/mx				
	AMS - Liquid	3.4 lba/gal		SL	3 LB AI/A				B		EPOST	117.6 mL/mx				
3	AMV5233D	2.57 LBA/GAL		SL	43 FL OZ/A		0.86 LB AI/A		B		EPOST	44.79 mL/mx	103	201	303	405
	COC	100 %		SL	1 % V/V				B		EPOST	20.0 mL/mx				
	AMS - Liquid	3.4 lba/gal		SL	3 LB AI/A				B		EPOST	117.6 mL/mx				
4	AMV5233D	2.57 LBA/GAL		SL	32 FL OZ/A		0.64 LB AI/A		B		EPOST	33.33 mL/mx	104	205	301	404
	COC	100 %		SL	1 % V/V				B		EPOST	20.0 mL/mx				
	AMS - Liquid	3.4 lba/gal		SL	3 LB AI/A				B		EPOST	117.6 mL/mx				
	AMV5233D	2.57 LBA/GAL		SL	32 FL OZ/A		0.65 LB AI/A		C		POST	33.33 mL/mx				
	COC	100 %		SL	1 % V/V				C		POST	20.0 mL/mx				
5	AMV5233D	2.57 LBA/GAL		SL	32 FL OZ/A		0.64 LB AI/A		B		EPOST	33.33 mL/mx	105	204	308	403
	Dual II Magnum 7.64 EC	7.64 LBA/GAL		EC	1.33 PT/A		1.27 LB AI/A		B		EPOST	22.17 mL/mx				
	AMS - Liquid	3.4 lba/gal		SL	3 LB AI/A				B		EPOST	117.6 mL/mx				
6	AMV5233D	2.57 LBA/GAL		SL	32 FL OZ/A		0.64 LB AI/A		B		EPOST	33.33 mL/mx	106	207	310	402
	Enlist Duo 3.3 SL	3.3 LBAE/GAL		SL	4.75 PT/A		1.96 LB AE/A		B		EPOST	79.17 mL/mx				
	AMS - Liquid	3.4 lba/gal		SL	3 LB AI/A				B		EPOST	117.6 mL/mx				
7	Dual II Magnum 7.64 EC	7.64 LBA/GAL		EC	1.33 PT/A		1.27 LB AI/A		A		PRE	22.17 mL/mx	107	208	302	410
	AMV5233D	2.57 LBA/GAL		SL	32 FL OZ/A		0.64 LB AI/A		C		POST	33.33 mL/mx				
	COC	100 %		SL	1 % V/V				C		POST	20.0 mL/mx				
	AMS - Liquid	3.4 lba/gal		SL	3 LB AI/A				C		POST	117.6 mL/mx				
8	Dual II Magnum 7.64 EC	7.64 LBA/GAL		EC	1.33 PT/A		1.27 LB AI/A		A		PRE	22.17 mL/mx	108	206	309	407
	AMV5233D	2.57 LBA/GAL		SL	32 FL OZ/A		0.64 LB AI/A		C		POST	33.33 mL/mx				
	Dual II Magnum 7.64 EC	7.64 LBA/GAL		EC	1.33 PT/A		1.27 LB AI/A		C		POST	22.17 mL/mx				
	COC	100 %		SL	1 % V/V				C		POST	20.0 mL/mx				
	AMS - Liquid	3.4 lba/gal		SL	3 LB AI/A				C		POST	117.6 mL/mx				
9	Dual II Magnum 7.64 EC	7.64 LBA/GAL		EC	1.33 PT/A		1.27 LB AI/A		A		PRE	22.17 mL/mx	109	210	307	401
	AMV5233D	2.57 LBA/GAL		SL	32 FL OZ/A		0.64 LB AI/A		C		POST	33.33 mL/mx				
	Enlist One 3.8 SL	3.8 LBA/GAL		SL	2 PT/A		0.95 LB AE/A		C		POST	33.33 mL/mx				
	COC	100 %		SL	1 % V/V				C		POST	20.0 mL/mx				
	AMS - Liquid	3.4 lba/gal		SL	3 LB AI/A				C		POST	117.6 mL/mx				
10	Dual II Magnum 7.64 EC	7.64 LBA/GAL		EC	1.33 PT/A		1.27 LB AI/A		A		PRE	22.17 mL/mx	110	202	304	406
	AMV5233D	2.57 LBA/GAL		SL	32 FL OZ/A		0.64 LB AI/A		C		POST	33.33 mL/mx				
	Enlist Duo 3.3 SL	3.3 LBAE/GAL		SL	4.75 PT/A		1.96 LB AE/A		C		POST	79.17 mL/mx				
	COC	100 %		SL	1 % V/V				C		POST	20.0 mL/mx				
	AMS - Liquid	3.4 lba/gal		SL	3 LB AI/A				C		POST	117.6 mL/mx				

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

# University of Kentucky

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
33.333 mL	Liberty	280 SL	280	gA/L	SL	
1,293.977 mL	AMS - Liquid		3.4	lba/gal	SL	
344.791 mL	AMV5233D		2.57	LBA/GAL	SL	
199.978 mL	COC		100	%	SL	
133.000 mL	Dual II Magnum	7.64 EC	7.64	LBA/GAL	EC	
158.333 mL	Enlist Duo	3.3 SL	3.3	LBAE/GAL	SL	
33.333 mL	Enlist One	3.8 SL	3.8	LBA/GAL	SL	

\* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

\* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

### General Trial Information

**Study Director:** Rich Zollinger

**Investigator:** Travis Legleiter **Title:** Assistant Extension Professor

**Status:** E established

**ARM Trial Created On:** 4-5-2023

### Trial Location

**City:** Princeton **Country:** USA United States

**State/Prov.:** Kentucky

**Postal Code:** 42445

### Regulations

**Conducted Under GLP:** No

**Conducted Under GEP:** No

### Contacts

**Role:** STYDIR study director

**Study Director:** Rich Zollinger

**Organization:** Amvac Chemical Co

**Mobile No.:** 509-209-0324

**E-mail:** richardz@amvac.com

**Role:** INVEST investigator

**Title:** Assistant Extension Professor

**Investigator:** Travis Legleiter

**Organization:** University of Kentucky

**Address 1:** 348 University Drive

**Phone No.:** 859-562-1323

**Country:** USA United States

**E-mail:** Travis.Legleiter@uky.edu

**City:** Princeton, KY

**Postal Code:** 42445

**Role:** SPONSR sponsor

**Title:** Eastern Region PD Director

**Sponsor:** Dan Kunkel, Ph.D.

**Organization:** AMVAC

**Mobile No.:** 732.823.8131

**Country:** USA United States

**E-mail:** DanielK@Amvac.com

**City:** Plainsboro

**State/Prov:** NJ

### Crop Description

**Crop 1:** C GLXMA Glycine max

Soybean

**BBCH Scale:** BSOY

**Entry Date:** 9-27-2023

**Stage Scale:** BBCH

**Variety:** NUTECH 39NO7E

**Attributes:** Enlist

**Planting Date:** 7-7-2023

**Planting Rate:** 139000 S/A

**Depth:** 1.25 IN

**Planting Method:** PLANTD planted

**Row Spacing:** 30 IN

# University of Kentucky

## Pest Description

- Pest 1 Type:** W **Code:** SIDSP *Sida spinosa* **Entry Date:** 9-28-2023  
**Common Name:** Prickly sida **Stage Scale:** BBCH
- Pest 2 Type:** W **Code:** ELEIN *Eleusine indica* **Entry Date:** 9-28-2023  
**Common Name:** Goosegrass **Stage Scale:** BBCH
- Pest 3 Type:** W **Code:** TRZAX *Triticum aestivum* **Entry Date:** 9-28-2023  
**Common Name:** Soft wheat **Stage Scale:** BBCH
- Pest 4 Type:** W **Code:** AMACH *Amaranthus hybridus* **Entry Date:** 9-28-2023  
**Common Name:** smooth pigweed **Stage Scale:** BBCH
- Pest 5 Type:** W **Code:** SORHA *Sorghum halepense* **Entry Date:** 9-28-2023  
**Common Name:** Johnson grass **Stage Scale:** BBCH
- Pest 6 Type:** W **Code:** DIGSA *Digitaria sanguinalis* **Entry Date:** 9-28-2023  
**Common Name:** large crabgrass **Stage Scale:** BBCH
- Pest 7 Type:** W **Code:** AMBTR *Ambrosia trifida* **Entry Date:** 9-28-2023  
**Common Name:** Giant ragweed **Stage Scale:** BBCH
- Pest 8 Type:** W **Code:** GERCA *Geranium carolinianum* **Entry Date:** 9-28-2023  
**Common Name:** Carolina geranium **Stage Scale:** BBCH
- Pest 9 Type:** W **Code:** IPOLA *Ipomoea lacunosa* **Entry Date:** 9-28-2023  
**Common Name:** pitted morning glory **Stage Scale:** BBCH
- Pest10 Type:** W **Code:** LOLMG *Lolium multiflorum gaudini* **Entry Date:** 9-28-2023  
**Common Name:** Annual ryegrass **Stage Scale:** BBCH
- Pest11 Type:** W **Code:** BROTE *Bromus tectorum* **Entry Date:** 9-28-2023  
**Common Name:** Cheatgrass **Stage Scale:** BBCH
- Pest12 Type:** W **Code:** ANVCR *Anoda cristata* **Entry Date:** 9-28-2023  
**Common Name:** Spurred anoda **Stage Scale:** BBCH
- Pest13 Type:** W **Code:** AMBEL *Ambrosia artemisiifolia* **Entry Date:** 9-28-2023  
**Common Name:** Common ragweed **Stage Scale:** BBCH
- Pest14 Type:** W **Code:** OXAST *Oxalis stricta* **Entry Date:** 9-28-2023  
**Common Name:** upright wood sorrel **Stage Scale:** BBCH

## Site and Design

**Treated Plot Width:** 6.67 FT **Site Type:** FIELD field  
**Treated Plot Length:** 30 FT **Experimental Unit:** 4 ROW row  
**Treated Plot Area:** 200.1 FT<sup>2</sup> **Tillage Type:** CONTIL conventional-till  
**Replications:** 4 **Treatments:** 10 **Plots:** 40 **Study Design:** RACOB� Randomized Complete Block (RCB)  
**Distance between Blocks:** 1 FT  
**Distance between 'Plot' Experimental Units:** 0.5 FT

## Maintenance

No.	Date	Type	Maintenance Product Name	Rate	Unit
1.	7-10-2023	HERB	Roundup Powermax	3 40	fl oz/a
2.	7-10-2023	HERB	Interline	32	fl oz/a
3.	7-10-2023	ADJ	AMS	2.5	% V/V

## Soil Description

**Description Name:** 201-AB  
**% Sand:** 7.2 **% OM:** 2.6 **Texture:** SIL silt loam  
**% Silt:** 77.9 **Soil Name:** Crider Silt loam  
**% Clay:** 14.9  
**pH:** 5.29 **CEC:** 13.81

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## Application Description

	A	B	C
Date	7-10-2023	7-28-2023	8-16-2023
Start Time	11:56 AM	9:31 AM	10:42 AM
Stop Time	12:09 AM	9:50 AM	10:59 AM
Interval to Prev. Appl.		18 DAYS	19 DAYS
Method	BROADC	BROADC	BROADC
Timing	PRE	POSPOS	POSPOS
Placement	BROSOI	BROFOL	BROFOL
Applied By	JLG	JLG	JLG
Entry Date	9-27-2023	9-27-2023	9-27-2023
Air Temperature Start, Stop	82.5, 80.1 F	86.3, 88 F	74, 75 F
% Relative Humidity Start, Stop	52.3, 55.3	71.9, 71.8	69, 61.3
Wind Velocity+Dir. Start	2.7 MPH, SW	3.3 MPH, NE	2 MPH, E
Wind Velocity+Dir. Stop	4.3 MPH, SW	2 MPH, NE	6 MPH, E
Wind Velocity+Dir. Max	9.6 MPH, SW	7.7 MPH, NE	7 MPH, E
Wet Leaves (Y/N)	N, no	Y, yes	Y, yes
Soil Temperature	71 F	74 F	
Soil Moisture	WET	WET	WET
% Cloud Cover	20	2	20

### Protocol Application Directions:

Please follow direction under the "Instructions" Tab numbers 6-7.

Please list the nozzle selection and include application details for B and C applications after completion of each application.

### Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY	GLXMA, BSOY
Stage Majority, Percent		V2, -	R1, -
Stage Minimum, Percent		V2, -	R1, -
Stage Maximum, Percent		V3, -	R1, -
Height Average		6.875 IN	18.5 IN
Height Minimum, Maximum		6.5, 7.25	15, 22

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## Pest Stage At Each Application

	<b>A</b>	<b>B</b>	<b>C</b>
<b>Pest 1 Code, Type, Scale</b>	SIDSP, W, BBCH	SIDSP, W, BBCH	SIDSP, W, BBCH
Height Average		1.5 IN	4.75 IN
Height Minimum, Maximum		0.5, 2.5	1, 8.5
Density Average		3.75 FT2	3.4 FT2
Density Minimum, Maximum		1, 4	1, 7
<b>Pest 2 Code, Type, Scale</b>	ELEIN, W, BBCH	ELEIN, W, BBCH	ELEIN, W, BBCH
Height Average		2.5 IN	4.875 IN
Height Minimum, Maximum		0.25, 4.75	0.25, 9.5
Density Average		8.43 FT2	4 FT2
Density Minimum, Maximum		4, 13	1, 7
<b>Pest 3 Code, Type, Scale</b>	TRZAX, W, BBCH	TRZAX, W, BBCH	TRZAX, W, BBCH
Height Average		6 IN	6 IN
Height Minimum, Maximum		2.5, 9.5	2, 10
Density Average		5.5 FT2	5.8 FT2
Density Minimum, Maximum		1, 13	1, 5
<b>Pest 4 Code, Type, Scale</b>	AMACH, W, BBCH	AMACH, W, BBCH	AMACH, W, BBCH
Height Average		0.375 IN	
Height Minimum, Maximum		0, 0.75	
Density Average		1 FT2	
Density Minimum, Maximum		0, 1	
<b>Pest 5 Code, Type, Scale</b>	SORHA, W, BBCH	SORHA, W, BBCH	SORHA, W, BBCH
Height Average		5.75 IN	
Height Minimum, Maximum		5, 6.5	
Density Average		1 FT2	
Density Minimum, Maximum		1, 1	
<b>Pest 6 Code, Type, Scale</b>	DIGSA, W, BBCH	DIGSA, W, BBCH	DIGSA, W, BBCH
Height Average		2.75 IN	3.125 IN
Height Minimum, Maximum		0.5, 5	1, 5.25
Density Average		12.33 FT2	8 FT2
Density Minimum, Maximum		3, 18	3, 13
<b>Pest 7 Code, Type, Scale</b>	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average		3 IN	10.25 IN
Height Minimum, Maximum		1.5, 4.5	0, 20.5
Density Average		1.66 FT2	1 FT2
Density Minimum, Maximum		1, 3	0, 1
<b>Pest 8 Code, Type, Scale</b>	GERCA, W, BBCH	GERCA, W, BBCH	GERCA, W, BBCH
Height Average		0.375 IN	
Height Minimum, Maximum		0.25, 0.5	
Density Average		1 FT2	
Density Minimum, Maximum		1, 1	
<b>Pest 9 Code, Type, Scale</b>	IPOLA, W, BBCH	IPOLA, W, BBCH	IPOLA, W, BBCH
Height Average		3.875 IN	3.875 IN
Height Minimum, Maximum		3.5, 4.25	2, 5.75
Density Average		2 FT2	2.2 FT2
Density Minimum, Maximum		0, 2	1, 6
<b>Pest10 Code, Type, Scale</b>	LOLMG, W, BBCH	LOLMG, W, BBCH	LOLMG, W, BBCH
Height Average		2.375 IN	
Height Minimum, Maximum		1, 3.75	
Density Average		16 FT2	
Density Minimum, Maximum		0, 16	
<b>Pest11 Code, Type, Scale</b>	BROTE, W, BBCH	BROTE, W, BBCH	BROTE, W, BBCH
Height Average		2.125 IN	
Height Minimum, Maximum		2, 2.25	
Density Average		11 FT2	
Density Minimum, Maximum		0, 11	
<b>Pest12 Code, Type, Scale</b>	ANVCR, W, BBCH	ANVCR, W, BBCH	ANVCR, W, BBCH
Height Average			0.25 IN
Height Minimum, Maximum			0, 0.5
Density Average			1 FT2
Density Minimum, Maximum			0, 1
<b>Pest13 Code, Type, Scale</b>	AMBEL, W, BBCH	AMBEL, W, BBCH	AMBEL, W, BBCH
Height Average			11.25 IN
Height Minimum, Maximum			8, 14.5
Density Average			2 FT2
Density Minimum, Maximum			1, 3
<b>Pest14 Code, Type, Scale</b>	OXAST, W, BBCH	OXAST, W, BBCH	OXAST, W, BBCH
Height Average			0.625 IN
Height Minimum, Maximum			0.25, 1
Density Average			3 FT2
Density Minimum, Maximum			0, 3



# University of Kentucky

## Application Equipment

	A	B	C
Equipment Name	FOLIAR	FOLIAR	FOLIAR
Equipment Type	BACCAI	BACCAI	BACCAI
Operation Pressure	40 PSI	40 PSI	40 PSI
Nozzle Model	XR11002	XR11002	XR11002
Nozzle Type	FLAFXR	FLAFXR	FLAFXR
Nozzle TradeName	XR TeeJet	XR TeeJet	XR TeeJet
Nozzle Tip Size, Color	02, Yellow	02, Yellow	02, Yellow
Nozzle Spacing	20.0 IN	20.0 IN	20.0 IN
Boom ID	ORANGE	ORANGE	ORANGE
Boom Length	6.7 FT	6.7 FT	6.7 FT
Boom Height	18.0 IN	18.0 IN	18.0 IN
Ground Speed	3 MPH	3 MPH	3 MPH
Carrier	WATER	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Overage	957.0 %	957.0 %	957.0 %
Mix Size	2.0 L	2.0 L	2.0 L
Propellant	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N)		Y, yes	Y, yes

### Protocol Equipment Comment:

See "Instruction" Tab #6 and #7 for different nozzle types required for B and C applications depending on whether the treatment contains an Enlist product.

### Treatment Appl. Comments

Trt No	Treatment Application Comment
6	ON SPRAY APPLICATION B, AIXR11002 NOZZLES WERE USED AT 32 PSI.
9	ON SPRAY APPLICATION C, AIXR11002 NOZZLES WERE USED AT 32 PSI.
10	ON SPRAY APPLICATION C, AIXR11002 NOZZLES WERE USED AT 32 PSI.

### Notes

Context	Date	By	Notes
STATUS	3-29-2023	Daniel Kunkel	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	9-27-2023	Travis Legleiter	Automatically added by ARM: Status changed to: E: changed by (EKYLET).
STATUS	9-27-2023	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

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## AMV5233D in Enlist + LL soybean - Academic awareness.

Trial ID: 23HD055USDK29(23-15\_SOY-REC)      Cooperator Trial ID:  
 Protocol ID: 23HD055US      Location: KY      Trial Year: 2023  
 Project ID: 055    Project ID 2:    Project ID 3:  
 Study Director: Rich Zollinger    Sponsor Contact: Dan Kunkel, Ph.D.  
 Investigator: Travis Legleiter

Rating Date	8-7-2023	8-7-2023	8-7-2023	8-7-2023	8-7-2023	9-1-2023
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	CONTROL	CONTRO	CONTROL	CONTROL	PHYGEN
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA					C, GLXMA
BBCH Scale	BSOY					BSOY
Crop Scientific Name	Glycine max					Glycine max
Crop Name	Soybean					Soybean
Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	
Pest Code		ELEIN	SIDSP	AMBTR	IPHOE	
Pest Scientific Name		Eleusine indica	Sida spinosa	Ambrosia trifida	Ipomoea hederac>	
Pest Name		Goosegrass	Prickly sida	Giant ragweed	ivy-leaf mornin>	
Pest Stage Scale		BBCH	BBCH	BBCH	BBCH	
Rating Timing						
Days After First/Last Applic.	28, 10	28, 10	28, 10	28, 10	28, 10	53, 16
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	53 DA-A
Plant-Eval Interval	31 DP-1	31 DP-1	31 DP-1	31 DP-1	31 DP-1	56 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes		AS	AA	AA		
Number of Decimals						
Data Entry Date	9-1-2023	9-1-2023	9-1-2023	9-1-2023	9-1-2023	9-1-2023

Trt No.	Treatment Name	Rate	Appl	1	2	3	4	5	6
		Rate Unit	Code Plot						
1	Liberty 280 SL	32 FL OZ/A	B 101	0.0	70.0	90.0	100.0	100.0	0.0
	AMS - Liquid	3 LB AI/A	B 203	0.0	70.0	90.0	100.0	90.0	0.0
			305	0.0	70.0	97.0	100.0	100.0	0.0
			408	0.0	25.0	50.0	70.0	70.0	0.0
			Mean =	0.0	56.6d	84.8d	97.9d	90.0	0.0
2	AMV5233D	32 FL OZ/A	B 102	0.0	100.0	95.0	100.0	100.0	0.0
	COC	1 % V/V	B 209	0.0	60.0	100.0	100.0	100.0	0.0
	AMS - Liquid	3 LB AI/A	B 306	0.0	97.0	100.0	100.0	100.0	0.0
			409	0.0	30.0	100.0	100.0	100.0	0.0
			Mean =	0.0	68.4d	99.7d	100.0d	100.0	0.0
3	AMV5233D	43 FL OZ/A	B 103	0.0	100.0	97.0	97.0	100.0	0.0
	COC	1 % V/V	B 201	0.0	97.0	95.0	100.0	100.0	0.0
	AMS - Liquid	3 LB AI/A	B 303	0.0	97.0	97.0	100.0	100.0	0.0
			405	0.0	97.0	100.0	100.0	100.0	0.0
			Mean =	0.0	97.7d	98.0d	99.8d	100.0	0.0
4	AMV5233D	32 FL OZ/A	B 104	0.0	90.0	100.0	100.0	97.0	0.0
	COC	1 % V/V	B 205	0.0	95.0	100.0	100.0	95.0	0.0
	AMS - Liquid	3 LB AI/A	B 301	0.0	90.0	100.0	97.0	100.0	0.0
	AMV5233D	32 FL OZ/A	C 404	0.0	97.0	97.0	100.0	100.0	0.0
	COC	1 % V/V	C						
	AMS - Liquid	3 LB AI/A	C						
			Mean =	0.0	93.0d	99.8d	99.8d	98.0	0.0
5	AMV5233D	32 FL OZ/A	B 105	0.0	95.0	100.0	100.0	95.0	0.0
	Dual II Magnum 7.64 EC	1.33 PT/A	B 204	0.0	90.0	80.0	100.0	80.0	0.0
	COC	1 % V/V	B 308	0.0	90.0	100.0	95.0	100.0	0.0
	AMS - Liquid	3 LB AI/A	B 403	0.0	100.0	100.0	100.0	100.0	0.0
			Mean =	0.0	93.7d	98.7d	99.7d	93.8	0.0
6	AMV5233D	32 FL OZ/A	B 106	0.0	95.0	100.0	100.0	95.0	0.0
	Enlist Duo 3.3 SL	4.75 PT/A	B 207	0.0	85.0	100.0	100.0	90.0	0.0
	COC	1 % V/V	B 310	0.0	87.0	100.0	100.0	100.0	0.0
	AMS - Liquid	3 LB AI/A	B 402	0.0	97.0	100.0	100.0	100.0	0.0
			Mean =	0.0	90.9d	100.0d	100.0d	96.3	0.0
7	Dual II Magnum 7.64 EC	1.33 PT/A	A 107	0.0	50.0	70.0	50.0	70.0	0.0
	AMV5233D	32 FL OZ/A	C 208	0.0	60.0	50.0	50.0	70.0	0.0
	COC	1 % V/V	C 302	0.0	60.0	70.0	40.0	70.0	0.0
	AMS - Liquid	3 LB AI/A	C 410	0.0	70.0	70.0	50.0	70.0	0.0
			Mean =	0.0	59.8d	65.2d	47.5d	70.0	0.0

d=Means are reported in de-transformed data units

# University of Kentucky

		8-7-2023	8-7-2023	8-7-2023	8-7-2023	8-7-2023	9-1-2023	
Rating Date		8-7-2023	8-7-2023	8-7-2023	8-7-2023	8-7-2023	9-1-2023	
Part Rated		PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, C	
Rating Type		PHYGEN	CONTROL	CONTRO	CONTROL	CONTROL	PHYGEN	
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	
Sample Size		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Collection Basis		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Reporting Basis		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples		1	1	1	1	1	1	
Crop Type, Code		C, GLXMA					C, GLXMA	
BBCH Scale		BSOY					BSOY	
Crop Scientific Name		Glycine max					Glycine max	
Crop Name		Soybean					Soybean	
Pest Type			W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code			ELEIN	SIDSP	AMBTR	IPHOE		
Pest Scientific Name			Eleusine indica	Sida spinosa	Ambrosia trifida	Ipomoea hederac>		
Pest Name			Goosegrass	Prickly sida	Giant ragweed	ivy-leaf mornin>		
Pest Stage Scale			BBCH	BBCH	BBCH	BBCH		
Rating Timing								
Days After First/Last Applic.		28, 10	28, 10	28, 10	28, 10	28, 10	53, 16	
Trt-Eval Interval		28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	53 DA-A	
Plant-Eval Interval		31 DP-1	31 DP-1	31 DP-1	31 DP-1	31 DP-1	56 DP-1	
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App		Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	
Data Reliability								
ARM Action Codes			AS	AA	AA			
Number of Decimals								
Data Entry Date		9-1-2023	9-1-2023	9-1-2023	9-1-2023	9-1-2023	9-1-2023	
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6
8 Dual II Magnum 7.64 EC	1.33 PT/A	A 108	0.0	50.0	70.0	50.0	70.0	0.0
AMV5233D	32 FL OZ/A	C 206	0.0	70.0	40.0	70.0	50.0	0.0
Dual II Magnum 7.64 EC	1.33 PT/A	C 309	0.0	20.0	70.0	50.0	70.0	0.0
COC	1 % V/V	C 407	0.0	70.0	25.0	25.0	70.0	0.0
AMS - Liquid	3 LB AI/A	C						
	Mean =		0.0	50.0d	51.2d	48.6d	65.0	0.0
9 Dual II Magnum 7.64 EC	1.33 PT/A	A 109	0.0	70.0	80.0	20.0	70.0	0.0
AMV5233D	32 FL OZ/A	C 210	0.0	60.0	80.0	70.0	70.0	0.0
Enlist One 3.8 SL	2 PT/A	C 307	0.0	70.0	50.0	70.0	70.0	0.0
COC	1 % V/V	C 401	0.0	40.0	50.0	25.0	70.0	0.0
AMS - Liquid	3 LB AI/A	C						
	Mean =		0.0	59.3d	65.8d	45.7d	70.0	0.0
10 Dual II Magnum 7.64 EC	1.33 PT/A	A 110	0.0	70.0	80.0	70.0	70.0	0.0
AMV5233D	32 FL OZ/A	C 202	0.0	70.0	70.0	50.0	70.0	0.0
Enlist Duo 3.3 SL	4.75 PT/A	C 304	0.0	50.0	50.0	70.0	70.0	0.0
COC	1 % V/V	C 406	0.0	50.0	50.0	50.0	70.0	0.0
AMS - Liquid	3 LB AI/A	C						
	Mean =		0.0	59.6d	63.0d	60.2d	70.0	0.0

d=Means are reported in de-transformed data units

# University of Kentucky

			9-1-2023	9-1-2023	9-1-2023	9-1-2023	9-7-2023	9-7-2023
Rating Date			9-1-2023	9-1-2023	9-1-2023	9-1-2023	9-7-2023	9-7-2023
Part Rated			PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type			CONTROL	CONTRO	CONTROL	CONTROL	CONTROL	CONTRO
Rating Unit/Min/Max			%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples			1	1	1	1	1	1
Crop Type, Code								
BBCH Scale								
Crop Scientific Name								
Crop Name								
Pest Type			W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code			ELEIN	SIDSP	AMBTR	IPOHE	ELEIN	SIDSP
Pest Scientific Name			Eleusine indica	Sida spinosa	Ambrosia trifida	Ipomoea hederac>	Eleusine indica	Sida spinosa
Pest Name			Goosegrass	Prickly sida	Giant ragweed	ivy-leaf mornin>	Goosegrass	Prickly sida
Pest Stage Scale			BBCH	BBCH	BBCH	BBCH	BBCH	BBCH
Rating Timing								
Days After First/Last Applic.			53, 16	53, 16	53, 16	53, 16	59, 22	59, 22
Trt-Eval Interval			53 DA-A	53 DA-A	53 DA-A	53 DA-A		
Plant-Eval Interval			56 DP-1	56 DP-1	56 DP-1	56 DP-1	62 DP-1	62 DP-1
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App			Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability								
ARM Action Codes				AA			AA	AA
Number of Decimals								
Data Entry Date			9-1-2023	9-1-2023	9-1-2023	9-1-2023	9-29-2023	9-29-2023

  

Trt	Treatment	Rate	Appl	9-1-2023			9-29-2023		
No.	Name	Rate Unit	Code Plot	7	8	9	10	11	12
1	Liberty 280 SL	32 FL OZ/A	B 101	25.0	50.0	100.0	80.0	50.0	70.0
	AMS - Liquid	3 LB AI/A	B 203	55.0	70.0	90.0	70.0	50.0	70.0
			B 305	50.0	70.0	60.0	80.0	60.0	80.0
			B 408	0.0	100.0	100.0	100.0	25.0	90.0
			Mean =	32.5	78.2d	87.5	82.5	46.0d	78.2d
2	AMV5233D	32 FL OZ/A	B 102	90.0	90.0	97.0	90.0	90.0	95.0
	COC AMS - Liquid	1 % V/V 3 LB AI/A	B 209	15.0	95.0	95.0	90.0	30.0	100.0
			B 306	87.0	87.0	95.0	95.0	80.0	90.0
			B 409	15.0	100.0	97.0	100.0	25.0	90.0
			Mean =	51.8	94.8d	96.0	93.8	57.9d	95.4d
3	AMV5233D	43 FL OZ/A	B 103	97.0	90.0	90.0	95.0	85.0	90.0
	COC AMS - Liquid	1 % V/V 3 LB AI/A	B 201	90.0	75.0	80.0	90.0	90.0	90.0
			B 303	97.0	90.0	80.0	90.0	100.0	97.0
			B 405	90.0	87.0	95.0	100.0	87.0	97.0
			Mean =	93.5	86.0d	86.3	93.8	92.8d	94.0d
4	AMV5233D	32 FL OZ/A	B 104	100.0	100.0	100.0	97.0	100.0	97.0
	COC AMS - Liquid AMV5233D COC AMS - Liquid	1 % V/V 3 LB AI/A 32 FL OZ/A 1 % V/V 3 LB AI/A	B 205	90.0	100.0	100.0	100.0	100.0	100.0
			B 301	100.0	100.0	100.0	100.0	100.0	100.0
			B 404	100.0	100.0	100.0	100.0	100.0	100.0
			Mean =	97.5	100.0d	100.0	99.3	100.0d	99.8d
5	AMV5233D	32 FL OZ/A	B 105	60.0	97.0	97.0	70.0	70.0	97.0
	Dual II Magnum 7.64 EC COC AMS - Liquid	1.33 PT/A 1 % V/V 3 LB AI/A	B 204	97.0	60.0	70.0	50.0	85.0	50.0
			B 308	87.0	95.0	90.0	92.0	80.0	90.0
			B 403	95.0	95.0	95.0	100.0	97.0	90.0
			Mean =	84.8	89.7d	88.0	78.0	84.6d	84.8d
6	AMV5233D	32 FL OZ/A	B 106	75.0	90.0	90.0	80.0	70.0	75.0
	Enlist Duo 3.3 SL COC AMS - Liquid	4.75 PT/A 1 % V/V 3 LB AI/A	B 207	85.0	80.0	90.0	80.0	80.0	90.0
			B 310	95.0	90.0	95.0	95.0	87.0	90.0
			B 402	90.0	95.0	95.0	85.0	97.0	90.0
			Mean =	86.3	89.3d	92.5	85.0	85.1d	86.8d
7	Dual II Magnum 7.64 EC	1.33 PT/A	A 107	85.0	90.0	95.0	95.0	80.0	95.0
	AMV5233D COC AMS - Liquid	32 FL OZ/A 1 % V/V 3 LB AI/A	C 208	70.0	85.0	85.0	95.0	90.0	95.0
			C 302	97.0	100.0	90.0	100.0	97.0	97.0
			C 410	97.0	97.0	95.0	100.0	97.0	90.0
			Mean =	87.3	95.1d	91.3	97.5	92.2d	94.5d

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	9-1-2023	9-1-2023	9-1-2023	9-1-2023	9-7-2023	9-7-2023		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	CONTROL	CONTRO	CONTROL	CONTROL	CONTROL	CONTROL		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1		
Crop Type, Code								
BBCH Scale								
Crop Scientific Name								
Crop Name								
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	ELEIN	SIDSP	AMBTR	IPHOE	ELEIN	SIDSP		
Pest Scientific Name	Eleusine indica	Sida spinosa	Ambrosia trifida	Ipomoea hederac>	Eleusine indica	Sida spinosa		
Pest Name	Goosegrass	Prickly sida	Giant ragweed	ivy-leaf mornin>	Goosegrass	Prickly sida		
Pest Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH		
Rating Timing								
Days After First/Last Applic.	53, 16	53, 16	53, 16	53, 16	59, 22	59, 22		
Trt-Eval Interval	53 DA-A	53 DA-A	53 DA-A	53 DA-A				
Plant-Eval Interval	56 DP-1	56 DP-1	56 DP-1	56 DP-1	62 DP-1	62 DP-1		
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability								
ARM Action Codes		AA			AA	AA		
Number of Decimals								
Data Entry Date	9-1-2023	9-1-2023	9-1-2023	9-1-2023	9-29-2023	9-29-2023		
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code Plot	7	8	9	10	11	12
8 Dual II Magnum 7.64 EC	1.33 PT/A	A 108	80.0	90.0	80.0	90.0	80.0	95.0
AMV5233D	32 FL OZ/A	C 206	90.0	90.0	97.0	97.0	85.0	90.0
Dual II Magnum 7.64 EC	1.33 PT/A	C 309	97.0	100.0	97.0	100.0	85.0	97.0
COC	1 % V/V	C 407	97.0	90.0	95.0	10.0	100.0	80.0
AMS - Liquid	3 LB AI/A	C						
	Mean =		91.0	94.3d	92.3	74.3	90.4d	91.5d
9 Dual II Magnum 7.64 EC	1.33 PT/A	A 109	100.0	100.0	90.0	100.0	90.0	97.0
AMV5233D	32 FL OZ/A	C 210	80.0	100.0	100.0	100.0	90.0	100.0
Enlist One 3.8 SL	2 PT/A	C 307	90.0	100.0	100.0	100.0	90.0	97.0
COC	1 % V/V	C 401	97.0	100.0	95.0	100.0	100.0	100.0
AMS - Liquid	3 LB AI/A	C						
	Mean =		91.8	100.0d	96.3	100.0	94.3d	99.2d
10 Dual II Magnum 7.64 EC	1.33 PT/A	A 110	100.0	100.0	97.0	100.0	100.0	97.0
AMV5233D	32 FL OZ/A	C 202	100.0	100.0	100.0	100.0	100.0	97.0
Enlist Duo 3.3 SL	4.75 PT/A	C 304	100.0	100.0	97.0	100.0	100.0	100.0
COC	1 % V/V	C 406	100.0	100.0	97.0	100.0	100.0	97.0
AMS - Liquid	3 LB AI/A	C						
	Mean =		100.0	100.0d	97.8	100.0	100.0d	98.3d

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	9-7-2023	9-7-2023
Part Rated	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT
Number of Subsamples	1	1
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Pest Type	W, Weed	W, Weed
Pest Code	AMBTR	IPOHE
Pest Scientific Name	Ambrosia trifida	Ipomoea hederac>
Pest Name	Giant ragweed	ivy-leaf mornin>
Pest Stage Scale	BBCH	BBCH
Rating Timing		
Days After First/Last Applic.	59, 22	59, 22
Trt-Eval Interval		
Plant-Eval Interval	62 DP-1	62 DP-1
Days After Emergence		
Pest Est.-Eval Interval		
Equipment		
EDC App	Rating Shell	Rating Shell
Data Reliability		
ARM Action Codes	ER2	AA
Number of Decimals		
Data Entry Date	9-29-2023	9-29-2023

Trt No.	Treatment	Rate	Appl	13	14
		Rate Unit	Code Plot		
1	Liberty 280 SL	32 FL OZ/A	B 101	90.0	90.0
	AMS - Liquid	3 LB AI/A	B 203		70.0
			305	80.0	90.0
			408	90.0	90.0
			Mean =	86.7	85.8d
2	AMV5233D	32 FL OZ/A	B 102	95.0	90.0
	COC	1 % V/V	B 209		100.0
	AMS - Liquid	3 LB AI/A	B 306	97.0	95.0
			409	80.0	80.0
			Mean =	90.7	93.7d
3	AMV5233D	43 FL OZ/A	B 103	90.0	90.0
	COC	1 % V/V	B 201		80.0
	AMS - Liquid	3 LB AI/A	B 303	90.0	97.0
			405	95.0	97.0
			Mean =	91.7	92.2d
4	AMV5233D	32 FL OZ/A	B 104	100.0	97.0
	COC	1 % V/V	B 205		100.0
	AMS - Liquid	3 LB AI/A	B 301	100.0	100.0
	AMV5233D	32 FL OZ/A	C 404	100.0	100.0
	COC	1 % V/V	C		
	AMS - Liquid	3 LB AI/A	C		
			Mean =	100.0	99.8d
5	AMV5233D	32 FL OZ/A	B 105	95.0	90.0
	Dual II Magnum 7.64 EC	1.33 PT/A	B 204		50.0
	COC	1 % V/V	B 308	85.0	97.0
	AMS - Liquid	3 LB AI/A	B 403	80.0	75.0
			Mean =	86.7	81.0d
6	AMV5233D	32 FL OZ/A	B 106	80.0	70.0
	Enlist Duo 3.3 SL	4.75 PT/A	B 207		80.0
	COC	1 % V/V	B 310	85.0	95.0
	AMS - Liquid	3 LB AI/A	B 402	95.0	80.0
			Mean =	86.7	82.4d
7	Dual II Magnum 7.64 EC	1.33 PT/A	A 107	95.0	97.0
	AMV5233D	32 FL OZ/A	C 208		95.0
	COC	1 % V/V	C 302	90.0	97.0
	AMS - Liquid	3 LB AI/A	C 410	97.0	97.0
			Mean =	94.0	96.5d

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	9-7-2023	9-7-2023
Part Rated	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT
Number of Subsamples	1	1
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Pest Type	W, Weed	W, Weed
Pest Code	AMBTR	IPOHE
Pest Scientific Name	Ambrosia trifida	Ipomoea hederac>
Pest Name	Giant ragweed	ivy-leaf mornin>
Pest Stage Scale	BBCH	BBCH
Rating Timing		
Days After First/Last Applic.	59, 22	59, 22
Trt-Eval Interval		
Plant-Eval Interval	62 DP-1	62 DP-1
Days After Emergence		
Pest Est.-Eval Interval		
Equipment		
EDC App	Rating Shell	Rating Shell
Data Reliability		
ARM Action Codes	ER2	AA
Number of Decimals		
Data Entry Date	9-29-2023	9-29-2023

Trt	Treatment	Rate	Unit	Appl			
No.	Name			Code	Plot	13	14
8	Dual II Magnum 7.64 EC	1.33	PT/A	A	108	80.0	95.0
	AMV5233D	32	FL OZ/A	C	206		90.0
	Dual II Magnum 7.64 EC	1.33	PT/A	C	309	97.0	97.0
	COC	1 %	V/V	C	407	100.0	100.0
	AMS - Liquid	3	LB AI/A	C			
				Mean =		92.3	96.8d
9	Dual II Magnum 7.64 EC	1.33	PT/A	A	109	90.0	97.0
	AMV5233D	32	FL OZ/A	C	210		100.0
	Enlist One 3.8 SL	2	PT/A	C	307	97.0	97.0
	COC	1 %	V/V	C	401	99.0	100.0
	AMS - Liquid	3	LB AI/A	C			
				Mean =		95.3	99.2d
10	Dual II Magnum 7.64 EC	1.33	PT/A	A	110	100.0	100.0
	AMV5233D	32	FL OZ/A	C	202		97.0
	Enlist Duo 3.3 SL	4.75	PT/A	C	304	100.0	100.0
	COC	1 %	V/V	C	406	100.0	100.0
	AMS - Liquid	3	LB AI/A	C			
				Mean =		100.0	99.8d

# University of Kentucky

AMV5233D in Enlist + LL soybean - Academic awareness.

Trial ID: 23HD055USDK29(23-15\_SOY-REC)      Cooperator Trial ID:  
 Protocol ID: 23HD055US      Location: KY      Trial Year: 2023  
 Project ID: 055    Project ID 2:    Project ID 3:  
 Study Director: Rich Zollinger    Sponsor Contact: Dan Kunkel, Ph.D.  
 Investigator: Travis Legleiter

Part Rated

PLANT = plant  
 C = Crop is Part Rated  
 P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury  
 CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

PLOT = total plot

PLOT = total plot

Crop Type Code

C = EPPO species (Bayer) codes  
 GLXMA, BSOY, Glycine max, Soybean = US

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

ELEIN, Eleusine indica, Goosegrass = US  
 SIDSP, Sida spinosa, Prickly sida = US  
 AMBTR, Ambrosia trifida, Giant ragweed = US  
 IPOHE, Ipomoea hederacea, ivy-leaf morning glory = US

Plant-Eval Interval

31 DP-1 = 1 GLXMA 7-7-2023  
 56 DP-1 = 1 GLXMA 7-7-2023  
 62 DP-1 = 1 GLXMA 7-7-2023

EDC App

Rating Shell = Data pulled from Excel Rating Shell

ARM Action Codes

AS = Automatic square root transformation of X+0.5  
 AA = Automatic arcsine square root % transformation  
 ER2 = Excluded replicate 2



# University of Kentucky

## AMV5233D in Enlist + LL soybean - Academic awareness.

Trial ID: 23HD055USDK29(23-15\_SOY-REC) Cooperator Trial ID:  
 Protocol ID: 23HD055US Location: KY Trial Year: 2023  
 Project ID: 055 Project ID 2: Project ID 3:  
 Study Director: Rich Zollinger Sponsor Contact: Dan Kunkel, Ph.D.  
 Investigator: Travis Legleiter

Rating Date	8-7-2023	8-7-2023	8-7-2023	8-7-2023	8-7-2023	9-1-2023	9-1-2023			
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, P			
Rating Type	PHYGEN	CONTROL	CONTRO	CONTROL	CONTROL	PHYGEN	CONTROL			
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100			
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1			
Crop Type, Code	C, GLXMA					C, GLXMA				
BBCH Scale	BSOY					BSOY				
Crop Scientific Name	Glycine max					Glycine max				
Crop Name	Soybean					Soybean				
Pest Type		W, Weed	W, Weed	W, Weed	W, Weed		W, Weed			
Pest Code		ELEIN	SIDSP	AMBTR	IPOHE		ELEIN			
Pest Scientific Name		Eleusine indica	Sida spinosa	Ambrosia trifida	Ipomoea hederac>		Eleusine indica			
Pest Name		Goosegrass	Prickly sida	Giant ragweed	ivy-leaf mornin>		Goosegrass			
Pest Stage Scale		BBCH	BBCH	BBCH	BBCH		BBCH			
Rating Timing										
Days After First/Last Applic.	28, 10	28, 10	28, 10	28, 10	28, 10	53, 16	53, 16			
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	53 DA-A	53 DA-A			
Plant-Eval Interval	31 DP-1	31 DP-1	31 DP-1	31 DP-1	31 DP-1	56 DP-1	56 DP-1			
Days After Emergence										
Pest Est.-Eval Interval										
Equipment										
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell			
Data Reliability										
ARM Action Codes		AS	AA	AA						
Number of Decimals										
Data Entry Date	9-1-2023	9-1-2023	9-1-2023	9-1-2023	9-1-2023	9-1-2023	9-1-2023			
Trt No.	Treatment Name	Rate Unit	Appl Code	1	2	3	4	5	6	7
					dAS	dAA	dAA			
1	Liberty 280 SL	32 FL OZ/A	B	0.0 a	56.6 ab	84.8 bc	97.9 a	90.0 a	0.0 a	32.5 b
	AMS - Liquid	3 LB AI/A	B							
2	AMV5233D	32 FL OZ/A	B	0.0 a	68.4 ab	99.7 a	100.0 a	100.0 a	0.0 a	51.8 b
	COC	1 % V/V	B							
	AMS - Liquid	3 LB AI/A	B							
3	AMV5233D	43 FL OZ/A	B	0.0 a	97.7 a	98.0 ab	99.8 a	100.0 a	0.0 a	93.5 a
	COC	1 % V/V	B							
	AMS - Liquid	3 LB AI/A	B							
4	AMV5233D	32 FL OZ/A	B	0.0 a	93.0 ab	99.8 a	99.8 a	98.0 a	0.0 a	97.5 a
	COC	1 % V/V	B							
	AMS - Liquid	3 LB AI/A	B							
	AMV5233D	32 FL OZ/A	C							
	COC	1 % V/V	C							
	AMS - Liquid	3 LB AI/A	C							
5	AMV5233D	32 FL OZ/A	B	0.0 a	93.7 ab	98.7 ab	99.7 a	93.8 a	0.0 a	84.8 a
	Dual II Magnum 7.64 EC	1.33 PT/A	B							
	COC	1 % V/V	B							
	AMS - Liquid	3 LB AI/A	B							
6	AMV5233D	32 FL OZ/A	B	0.0 a	90.9 ab	100.0 a	100.0 a	96.3 a	0.0 a	86.3 a
	Enlist Duo 3.3 SL	4.75 PT/A	B							
	COC	1 % V/V	B							
	AMS - Liquid	3 LB AI/A	B							
7	Dual II Magnum 7.64 EC	1.33 PT/A	A	0.0 a	59.8 ab	65.2 cd	47.5 b	70.0 b	0.0 a	87.3 a
	AMV5233D	32 FL OZ/A	C							
	COC	1 % V/V	C							
	AMS - Liquid	3 LB AI/A	C							
8	Dual II Magnum 7.64 EC	1.33 PT/A	A	0.0 a	50.0 b	51.2 d	48.6 b	65.0 b	0.0 a	91.0 a
	AMV5233D	32 FL OZ/A	C							
	Dual II Magnum 7.64 EC	1.33 PT/A	C							
	COC	1 % V/V	C							
	AMS - Liquid	3 LB AI/A	C							

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 Excluded replicate 2 in column 13  
 Could not calculate LSD (% mean diff) for columns 1,6 because error mean square = 0.  
 ^Calculated from residual.  
 d=Means are reported in de-transformed data units

# University of Kentucky

		8-7-2023	8-7-2023	8-7-2023	8-7-2023	8-7-2023	9-1-2023	9-1-2023	
Rating Date		8-7-2023	8-7-2023	8-7-2023	8-7-2023	8-7-2023	9-1-2023	9-1-2023	
Part Rated		PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, P	
Rating Type		PHYGEN	CONTROL	CONTRO	CONTROL	CONTROL	PHYGEN	CONTROL	
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	
Sample Size		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Collection Basis		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Reporting Basis		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples		1	1	1	1	1	1	1	
Crop Type, Code		C, GLXMA					C, GLXMA		
BBCH Scale		BSOY					BSOY		
Crop Scientific Name		Glycine max					Glycine max		
Crop Name		Soybean					Soybean		
Pest Type			W, Weed	W, Weed	W, Weed	W, Weed		W, Weed	
Pest Code			ELEIN	SIDSP	AMBTR	IPOHE		ELEIN	
Pest Scientific Name			Eleusine indica	Sida spinosa	Ambrosia trifida	Ipomoea hederac>		Eleusine indica	
Pest Name			Goosegrass	Prickly sida	Giant ragweed	ivy-leaf mornin>		Goosegrass	
Pest Stage Scale			BBCH	BBCH	BBCH	BBCH		BBCH	
Rating Timing									
Days After First/Last Applic.		28, 10	28, 10	28, 10	28, 10	28, 10	53, 16	53, 16	
Trt-Eval Interval		28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	53 DA-A	53 DA-A	
Plant-Eval Interval		31 DP-1	31 DP-1	31 DP-1	31 DP-1	31 DP-1	56 DP-1	56 DP-1	
Days After Emergence									
Pest Est.-Eval Interval									
Equipment									
EDC App		Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	
Data Reliability									
ARM Action Codes			AS	AA	AA				
Number of Decimals									
Data Entry Date		9-1-2023	9-1-2023	9-1-2023	9-1-2023	9-1-2023	9-1-2023	9-1-2023	
Trt Treatment	Rate	Appl	1	2	3	4	5	6	7
No. Name	Rate Unit	Code		dAS	dAA	dAA			
9 Dual II Magnum 7.64 EC	1.33 PT/A	A	0.0 a	59.3 ab	65.8 cd	45.7 b	70.0 b	0.0 a	91.8 a
AMV5233D	32 FL OZ/A	C							
Enlist One 3.8 SL	2 PT/A	C							
COC	1 % V/V	C							
AMS - Liquid	3 LB AI/A	C							
10 Dual II Magnum 7.64 EC	1.33 PT/A	A	0.0 a	59.6 ab	63.0 cd	60.2 b	70.0 b	0.0 a	100.0 a
AMV5233D	32 FL OZ/A	C							
Enlist Duo 3.3 SL	4.75 PT/A	C							
COC	1 % V/V	C							
AMS - Liquid	3 LB AI/A	C							
LSD P=.05				25.78 - 29.61	5.55 - 22.74	4.80 - 21.71	8.91		25.66
Standard Deviation			0.00	1.12t	9.39t	8.72t	6.14	0.00	17.69
CV			0.0	13.19t	13.36t	12.38t	7.2	0.0	21.67
Levene's F^				2.114	0.656	1.142	0.775		9.536*
Levene's Prob(F)				0.06	0.741	0.365	0.64		0.00*
Shapiro-Wilk^				0.9403*	0.959	0.9652	0.8563*		0.9566
P(Shapiro-Wilk)^				0.0353*	0.155	0.2506	0.0001*		0.1282
Skewness^				-0.714	-0.5806	-0.6772	-1.6658*		-0.0549
P(Skewness)^				0.0731	0.1422	0.0885	0.0001*		0.8881
Kurtosis^				1.2403	-0.1662	0.4269	5.0734*		1.1556
P(Kurtosis)^				0.1106	0.828	0.5774	0.0*		0.1363
Replicate F			0.000	0.977	1.398	1.714	2.103	0.000	1.090
Replicate Prob(F)			1.0000	0.4181	0.2647	0.1876	0.1233	1.0000	0.3701
Treatment F			0.000	3.707	13.707	25.195	22.654	0.000	6.094
Treatment Prob(F)			1.0000	0.0039	0.0001	0.0001	0.0001	1.0000	0.0001

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# University of Kentucky

Rating Date	9-1-2023	9-1-2023	9-1-2023	9-7-2023	9-7-2023	9-7-2023		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	CONTRO	CONTROL	CONTROL	CONTROL	CONTRO	CONTROL		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1		
Crop Type, Code								
BBCH Scale								
Crop Scientific Name								
Crop Name								
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	SIDSP	AMBTR	IPOHE	ELEIN	SIDSP	AMBTR		
Pest Scientific Name	Sida spinosa	Ambrosia trifida	Ipomoea hederac>	Eleusine indica	Sida spinosa	Ambrosia trifida		
Pest Name	Prickly sida	Giant ragweed	ivy-leaf mornin>	Goosegrass	Prickly sida	Giant ragweed		
Pest Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH		
Rating Timing								
Days After First/Last Applic.	53, 16	53, 16	53, 16	59, 22	59, 22	59, 22		
Trt-Eval Interval	53 DA-A	53 DA-A	53 DA-A					
Plant-Eval Interval	56 DP-1	56 DP-1	56 DP-1	62 DP-1	62 DP-1	62 DP-1		
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability								
ARM Action Codes	AA			AA	AA	ER2		
Number of Decimals								
Data Entry Date	9-1-2023	9-1-2023	9-1-2023	9-29-2023	9-29-2023	9-29-2023		
Trt Treatment	Rate	Appl	8	9	10	11	12	13
No. Name	Rate Unit	Code	dAA			dAA	dAA	
1 Liberty 280 SL	32 FL OZ/A B		78.2 b	87.5 a	82.5 a	46.0 c	78.2 d	86.7 a
AMS - Liquid	3 LB AI/A B							
2 AMV5233D	32 FL OZ/A B		94.8 ab	96.0 a	93.8 a	57.9 bc	95.4 a-d	90.7 a
COC	1 % V/V B							
AMS - Liquid	3 LB AI/A B							
3 AMV5233D	43 FL OZ/A B		86.0 b	86.3 a	93.8 a	92.8 a	94.0 a-d	91.7 a
COC	1 % V/V B							
AMS - Liquid	3 LB AI/A B							
4 AMV5233D	32 FL OZ/A B		100.0 a	100.0 a	99.3 a	100.0 a	99.8 a	100.0 a
COC	1 % V/V B							
AMS - Liquid	3 LB AI/A B							
AMV5233D	32 FL OZ/A C							
COC	1 % V/V C							
AMS - Liquid	3 LB AI/A B							
5 AMV5233D	32 FL OZ/A B		89.7 ab	88.0 a	78.0 a	84.6 ab	84.8 cd	86.7 a
Dual II Magnum 7.64 EC	1.33 PT/A B							
COC	1 % V/V B							
AMS - Liquid	3 LB AI/A B							
6 AMV5233D	32 FL OZ/A B		89.3 ab	92.5 a	85.0 a	85.1 ab	86.8 bcd	86.7 a
Enlist Duo 3.3 SL	4.75 PT/A B							
COC	1 % V/V B							
AMS - Liquid	3 LB AI/A B							
7 Dual II Magnum 7.64 EC	1.33 PT/A A		95.1 ab	91.3 a	97.5 a	92.2 a	94.5 a-d	94.0 a
AMV5233D	32 FL OZ/A C							
COC	1 % V/V C							
AMS - Liquid	3 LB AI/A C							
8 Dual II Magnum 7.64 EC	1.33 PT/A A		94.3 ab	92.3 a	74.3 a	90.4 a	91.5 a-d	92.3 a
AMV5233D	32 FL OZ/A C							
Dual II Magnum 7.64 EC	1.33 PT/A C							
COC	1 % V/V C							
AMS - Liquid	3 LB AI/A C							

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Excluded replicate 2 in column 13  
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d=Means are reported in de-transformed data units

# University of Kentucky

		9-1-2023	9-1-2023	9-1-2023	9-7-2023	9-7-2023	9-7-2023	
Rating Date		9-1-2023	9-1-2023	9-1-2023	9-7-2023	9-7-2023	9-7-2023	
Part Rated		PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	
Rating Type		CONTRO	CONTROL	CONTROL	CONTROL	CONTRO	CONTROL	
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	
Sample Size		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Collection Basis		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Reporting Basis		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples		1	1	1	1	1	1	
Crop Type, Code								
BBCH Scale								
Crop Scientific Name								
Crop Name								
Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	
Pest Code		SIDSP	AMBTR	IPOHE	ELEIN	SIDSP	AMBTR	
Pest Scientific Name		Sida spinosa	Ambrosia trifida	Ipomoea hederac>	Eleusine indica	Sida spinosa	Ambrosia trifida	
Pest Name		Prickly sida	Giant ragweed	ivy-leaf mornin>	Goosegrass	Prickly sida	Giant ragweed	
Pest Stage Scale		BBCH	BBCH	BBCH	BBCH	BBCH	BBCH	
Rating Timing								
Days After First/Last Applic.		53, 16	53, 16	53, 16	59, 22	59, 22	59, 22	
Trt-Eval Interval		53 DA-A	53 DA-A	53 DA-A				
Plant-Eval Interval		56 DP-1	56 DP-1	56 DP-1	62 DP-1	62 DP-1	62 DP-1	
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App		Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	
Data Reliability								
ARM Action Codes		AA			AA	AA	ER2	
Number of Decimals								
Data Entry Date		9-1-2023	9-1-2023	9-1-2023	9-29-2023	9-29-2023	9-29-2023	
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code	8 dAA	9	10	11 dAA	12 dAA	13
9 Dual II Magnum 7.64 EC	1.33 PT/A	A	100.0 a	96.3 a	100.0 a	94.3 a	99.2 ab	95.3 a
AMV5233D	32 FL OZ/A	C						
Enlist One 3.8 SL	2 PT/A	C						
COC	1 % V/V	C						
AMS - Liquid	3 LB AI/A	C						
10 Dual II Magnum 7.64 EC	1.33 PT/A	A	100.0 a	97.8 a	100.0 a	100.0 a	98.3 abc	100.0 a
AMV5233D	32 FL OZ/A	C						
Enlist Duo 3.3 SL	4.75 PT/A	C						
COC	1 % V/V	C						
AMS - Liquid	3 LB AI/A	C						
LSD P=.05			4.73 - 14.88	11.98	24.23	6.98 - 25.97	5.37 - 13.56	11.21
Standard Deviation			8.66t	8.26	16.70	10.56t	7.68t	6.54
CV			11.21t	8.9	18.48	15.03t	10.17t	7.08
Levene's F^			1.171	0.95	1.21	2.178	0.916	1.10
Levene's Prob(F)			0.348	0.499	0.325	0.053	0.525	0.393
Shapiro-Wilk^			0.9615	0.8924*	0.7598*	0.9781	0.9565	0.9295*
P(Shapiro-Wilk)^			0.1891	0.0012*	0.0*	0.6175	0.1268	0.0155*
Skewness^			0.4984	-1.5346*	-2.2217*	0.2263	-0.5024	-0.5693
P(Skewness)^			0.2062	0.0003*	0.0*	0.5627	0.2026	0.15
Kurtosis^			1.6923*	3.9555*	10.885*	1.0627	2.2164*	0.664
P(Kurtosis)^			0.0318*	0.0*	0.0*	0.1698	0.0058*	0.3875
Replicate F			2.998	1.162	0.413	1.044	0.532	0.274
Replicate Prob(F)			0.0481	0.3422	0.7449	0.3888	0.6641	0.7636
Treatment F			5.209	1.274	1.341	8.191	4.456	1.785
Treatment Prob(F)			0.0004	0.2955	0.2630	0.0001	0.0012	0.1412

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# University of Kentucky

Rating Date 9-7-2023  
 Part Rated PLANT, P  
 Rating Type CONTROL  
 Rating Unit/Min/Max %, 0, 100  
 Sample Size 1 PLOT  
 Collection Basis 1 PLOT  
 Reporting Basis 1 PLOT  
 Number of Subsamples 1  
 Crop Type, Code  
 BBCH Scale  
 Crop Scientific Name  
 Crop Name  
 Pest Type W, Weed  
 Pest Code IPOHE  
 Pest Scientific Name Ipomoea hederac>  
 Pest Name ivy-leaf mornin>  
 Pest Stage Scale BBCH  
 Rating Timing  
 Days After First/Last Applic. 59, 22  
 Trt-Eval Interval  
 Plant-Eval Interval 62 DP-1  
 Days After Emergence  
 Pest Est.-Eval Interval  
 Equipment  
 EDC App Rating Shell  
 Data Reliability  
 ARM Action Codes AA  
 Number of Decimals  
 Data Entry Date 9-29-2023

Trt No.	Treatment Name	Rate	Appl Unit	Code	14 dAA
1	Liberty 280 SL	32 FL OZ/A	B		85.8 bc
	AMS - Liquid	3 LB AI/A	B		
2	AMV5233D	32 FL OZ/A	B		93.7 abc
	COC	1 % V/V	B		
	AMS - Liquid	3 LB AI/A	B		
3	AMV5233D	43 FL OZ/A	B		92.2 abc
	COC	1 % V/V	B		
	AMS - Liquid	3 LB AI/A	B		
4	AMV5233D	32 FL OZ/A	B		99.8 a
	COC	1 % V/V	B		
	AMS - Liquid	3 LB AI/A	B		
	AMV5233D	32 FL OZ/A	C		
	COC	1 % V/V	C		
	AMS - Liquid	3 LB AI/A	C		
5	AMV5233D	32 FL OZ/A	B		81.0 c
	Dual II Magnum 7.64 EC	1.33 PT/A	B		
	COC	1 % V/V	B		
	AMS - Liquid	3 LB AI/A	B		
6	AMV5233D	32 FL OZ/A	B		82.4 c
	Enlist Duo 3.3 SL	4.75 PT/A	B		
	COC	1 % V/V	B		
	AMS - Liquid	3 LB AI/A	B		
7	Dual II Magnum 7.64 EC	1.33 PT/A	A		96.5 abc
	AMV5233D	32 FL OZ/A	C		
	COC	1 % V/V	C		
	AMS - Liquid	3 LB AI/A	C		
8	Dual II Magnum 7.64 EC	1.33 PT/A	A		96.8 abc
	AMV5233D	32 FL OZ/A	C		
	Dual II Magnum 7.64 EC	1.33 PT/A	C		
	COC	1 % V/V	C		
	AMS - Liquid	3 LB AI/A	C		

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 ^Calculated from residual.  
 d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date 9-7-2023  
 Part Rated PLANT, P  
 Rating Type CONTROL  
 Rating Unit/Min/Max %, 0, 100  
 Sample Size 1 PLOT  
 Collection Basis 1 PLOT  
 Reporting Basis 1 PLOT  
 Number of Subsamples 1  
 Crop Type, Code  
 BBCH Scale  
 Crop Scientific Name  
 Crop Name  
 Pest Type W, Weed  
 Pest Code IPOHE  
 Pest Scientific Name Ipomoea hederac>  
 Pest Name ivy-leaf mornin>  
 Pest Stage Scale BBCH  
 Rating Timing  
 Days After First/Last Applic. 59, 22  
 Trt-Eval Interval  
 Plant-Eval Interval 62 DP-1  
 Days After Emergence  
 Pest Est.-Eval Interval  
 Equipment  
 EDC App Rating Shell  
 Data Reliability  
 ARM Action Codes AA  
 Number of Decimals  
 Data Entry Date 9-29-2023

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	14 dAA
9	Dual II Magnum 7.64 EC	1.33	PT/A	A	99.2 ab
	AMV5233D	32	FL OZ/A	C	
	Enlist One 3.8 SL	2	PT/A	C	
	COC	1	% V/V	C	
	AMS - Liquid	3	LB AI/A	C	
10	Dual II Magnum 7.64 EC	1.33	PT/A	A	99.8 a
	AMV5233D	32	FL OZ/A	C	
	Enlist Duo 3.3 SL	4.75	PT/A	C	
	COC	1	% V/V	C	
	AMS - Liquid	3	LB AI/A	C	
	LSD P=.05				5.73 - 12.94
	Standard Deviation				7.99t
	CV				10.43t
	Levene's F^				1.385
	Levene's Prob(F)				0.239
	Shapiro-Wilk^				0.9848
	P(Shapiro-Wilk)^				0.8596
	Skewness^				0.2451
	P(Skewness)^				0.531
	Kurtosis^				0.775
	P(Kurtosis)^				0.314
	Replicate F				1.823
	Replicate Prob(F)				0.1668
	Treatment F				4.850
	Treatment Prob(F)				0.0007

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 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
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 d=Means are reported in de-transformed data units

# University of Kentucky

AMV5233D in Enlist + LL soybean - Academic awareness.

Trial ID: 23HD055USDK29(23-15\_SOY-REC)      Cooperator Trial ID:  
 Protocol ID: 23HD055US      Location: KY      Trial Year: 2023  
 Project ID: 055    Project ID 2:    Project ID 3:  
 Study Director: Rich Zollinger    Sponsor Contact: Dan Kunkel, Ph.D.  
 Investigator: Travis Legleiter

Part Rated

PLANT = plant  
 C = Crop is Part Rated  
 P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury  
 CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

PLOT = total plot

PLOT = total plot

Crop Type Code

C = EPPO species (Bayer) codes  
 GLXMA, BSOY, Glycine max, Soybean = US

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

ELEIN, Eleusine indica, Goosegrass = US  
 SIDSP, Sida spinosa, Prickly sida = US  
 AMBTR, Ambrosia trifida, Giant ragweed = US  
 IPOHE, Ipomoea hederacea, ivy-leaf morning glory = US

Plant-Eval Interval

31 DP-1 = 1 GLXMA 7-7-2023  
 56 DP-1 = 1 GLXMA 7-7-2023  
 62 DP-1 = 1 GLXMA 7-7-2023

EDC App

Rating Shell = Data pulled from Excel Rating Shell

ARM Action Codes

AS = Automatic square root transformation of X+0.5  
 AA = Automatic arcsine square root % transformation  
 ER2 = Excluded replicate 2

# University of Kentucky

AMV5233D + Impact in Enlist + LL corn.

Trial ID: 23HD061USDK46(23-16\_COR-REC)

Cooperator Trial ID:

Protocol ID: 23HD061US

Location: KY

Trial Year: 2023

Project ID: 061 Project ID 2: Project ID 3:

Study Director: Rich Zollinger Sponsor Contact: Dan Kunkel, Ph.D.

Investigator: Travis Legleiter

Reps: 4		Plots: 6.67 by 30 feet		Mix Size: 2 L (total for 4 plots; minimum=1.0433 L)											
Appl. Amount: 15 GAL/AC															
Trt	Treatment	Form	Form	Form	Rate	Other	Other	Appl	Appl	Amt	Product	Rep			
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Unit	Code	Timing	to Measure	1	2	3	4
1	Liberty 280 SL AMS - Liquid	280 g/L 3.4 lba/gal		SL SL	32 FL OZ/A 3 LB AI/A		0.583 LB AI/A 0.102		A A	EPOST EPOST	33.33 mL/mx 117.6 mL/mx	101	206	302	409
2	AMV5233D COC AMS - Liquid	2.57 LBA/GAL 100 % 3.4 lba/gal		SL SL SL	32 FL OZ/A 1 % V/V 3 LB AI/A		0.64 LB AI/A		A A A	EPOST EPOST EPOST	33.33 mL/mx 20.0 mL/mx 117.6 mL/mx	102	210	304	405
3	AMV5233D Dual II Magnum 7.64 EC COC AMS - Liquid	2.57 LBA/GAL 7.64 LBA/GAL 100 % 3.4 lba/gal		SL EC L SL	32 FL OZ/A 1.25 PT/A 0.5 % V/V 2.5 LB AI/A		0.64 LB AI/A 1.19 LB AI/A		A A A A	EPOST EPOST EPOST EPOST	33.33 mL/mx 20.83 mL/mx 9.999 mL/mx 98.03 mL/mx	103	205	301	406
4	AMV5233D Dual II Magnum 7.64 EC Atrazine 4 F COC AMS - Liquid	2.57 LBA/GAL 7.64 LBA/GAL 4 LBA/GAL 100 % 3.4 lba/gal		SL EC F L SL	32 FL OZ/A 1.25 PT/A 2 PT/A 0.5 % V/V 3 LB AI/A		0.64 LB AI/A 1.19 LB AI/A 1 LB AI/A		A A A A A	EPOST EPOST EPOST EPOST EPOST	33.33 mL/mx 20.83 mL/mx 33.33 mL/mx 9.999 mL/mx 117.6 mL/mx	104	201	310	402
5	AMV5233D Impact 2.8 SC Dual II Magnum 7.64 EC MSO AMS - Liquid	2.57 LBA/GAL 2.8 LBA/GAL 7.64 LBA/GAL 100 % 3.4 lba/gal		SL SC EC L SL	32 FL OZ/A 1 FL OZ/A 1.25 PT/A 0.5 % V/V 2.5 LB AI/A		0.64 LB AI/A 0.0219 LB AI/A 1.19 LB AI/A		A A A A A	EPOST EPOST EPOST EPOST EPOST	33.33 mL/mx 1.042 mL/mx 20.83 mL/mx 9.999 mL/mx 98.03 mL/mx	105	207	306	404
6	AMV5233D ImpactZ 4.26 SC Dual II Magnum 7.64 EC MSO AMS - Liquid	2.57 LBA/GAL 4.26 LBA/GAL 7.64 LBA/GAL 100 % 3.4 lba/gal		SL SC EC L SL	32 FL OZ/A 10.7 FL OZ/A 1.25 PT/A 0.5 % V/V 2.5 LB AI/A		0.64 LB AI/A 0.356 LB AI/A 1.19 LB AI/A		A A A A A	EPOST EPOST EPOST EPOST EPOST	33.33 mL/mx 11.15 mL/mx 20.83 mL/mx 9.999 mL/mx 98.03 mL/mx	106	208	305	410
7	AMV5233D Hornet 78.5 WG Dual II Magnum 7.64 EC COC AMS - Liquid	2.57 LBA/GAL 78.5 %AW/W 7.64 LBA/GAL 100 % 3.4 lba/gal		SL WG EC L SL	32 FL OZ/A 3 OZ/A 1.25 PT/A 0.5 % V/V 2.5 LB AI/A		0.64 LB AI/A 0.147 LB AI/A 1.19 LB AI/A		A A A A A	EPOST EPOST EPOST EPOST EPOST	33.33 mL/mx 2.996 g/mx 20.83 mL/mx 9.999 mL/mx 98.03 mL/mx	107	202	308	401
8	AMV5233D Impact Core 7.15 EC MSO AMS - Liquid	2.57 LBA/GAL 7.15 LB/GAL 100 % 3.4 lba/gal		SL EC L SL	32 FL OZ/A 24 FL OZ/A 0.5 % V/V 2.5 LB AI/A		0.64 LB AI/A 1.34 LB AI/A		A A A A	EPOST EPOST EPOST EPOST	33.33 mL/mx 25.0 mL/mx 9.999 mL/mx 98.03 mL/mx	108	209	307	408
9	AMV5233D Impact Core 7.15 EC Atrazine 4 F MSO AMS - Liquid	2.57 LBA/GAL 7.15 LB/GAL 4 LBA/GAL 100 % 3.4 lba/gal		SL EC F L SL	32 FL OZ/A 24 FL OZ/A 2 PT/A 0.5 % V/V 2.5 LB AI/A		0.64 LB AI/A 1.34 LB AI/A 1 LB AI/A		A A A A A	EPOST EPOST EPOST EPOST EPOST	33.33 mL/mx 25.0 mL/mx 33.33 mL/mx 9.999 mL/mx 98.03 mL/mx	109	204	303	407
10	AMV5233D Callisto 4 L Dual II Magnum 7.64 EC COC AMS - Liquid	2.57 LBA/GAL 4 LBA/GAL 7.64 LBA/GAL 100 % 3.4 lba/gal		SL L EC SL SL	32 FL OZ/A 3 FL OZ/A 1.25 PT/A 0.5 % V/V 2.5 LB AI/A		0.64 LB AI/A 0.094 LB AI/A 1.19 LB AI/A		A A A A A	EPOST EPOST EPOST EPOST EPOST	33.33 mL/mx 3.125 mL/mx 20.83 mL/mx 9.999 mL/mx 98.03 mL/mx	110	203	309	403

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:



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Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form	Conc	Form	Unit	Form	Type	Lot Code
33.333 mL		Liberty 280 SL	280		gA/L			SL	
1,039.103 mL		AMS - Liquid	3.4		lba/gal			SL	
300.000 mL		AMV5233D	2.57		LBA/GAL			SL	
29.997 mL		COC	100		%			SL	
125.000 mL		Dual II Magnum 7.64 EC	7.64		LBA/GAL			EC	
29.997 mL		COC	100		%			L	
66.667 mL		Atrazine 4 F	4		LBA/GAL			F	
1.042 mL		Impact 2.8 SC	2.8		LBA/GAL			SC	
39.996 mL		MSO	100		%			L	
11.146 mL		ImpactZ 4.26 SC	4.26		LBA/GAL			SC	
2.996 g		Hornet 78.5 WG	78.5		%AW/W			WG	
50.000 mL		Impact Core 7.15 EC	7.15		LB/GAL			EC	
3.125 mL		Callisto 4 L	4		LBA/GAL			L	

\* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

\* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

### General Trial Information

**Study Director:** Rich Zollinger  
**Investigator:** Travis Legleiter **Title:** Assistant Extension Professor

**Status:** E established

**ARM Trial Created On:** 4-5-2023

### Trial Location

**City:** Princeton **Country:** USA United States  
**State/Prov.:** Kentucky  
**Postal Code:** 42445

### Regulations

**Conducted Under GLP:** No  
**Conducted Under GEP:** No

### Contacts

**Role:** STYDIR study director  
**Study Director:** Rich Zollinger  
**Organization:** Amvac Chemical Co

**Mobile No.:** 509-209-0324  
**E-mail:** richardz@amvac.com

**Role:** INVEST investigator  
**Investigator:** Travis Legleiter **Title:** Assistant Extension Professor  
**Organization:** University of Kentucky  
**Address 1:** 348 University Drive  
**Country:** USA United States **Phone No.:** 859-562-1323  
**City:** Princeton, KY **E-mail:** Travis.Legleiter@uky.edu  
**Postal Code:** 42445

**Role:** SPONSR sponsor  
**Sponsor:** Dan Kunkel, Ph.D. **Title:** Eastern Region PD Director  
**Organization:** AMVAC

**Mobile No.:** 732.823.8131  
**Country:** USA United States **E-mail:** DanielK@Amvac.com  
**City:** Plainsboro **State/Prov:** NJ

### Crop Description

**Crop 1:** C ZEAMX Zea mays **Corn** **BBCH Scale:** BCOR  
**Entry Date:** 8-15-2023 **Stage Scale:** BBCH  
**Variety:** B06U78SXE  
**Attributes:** Enlist + Liberty Link trait  
**Planting Date:** 5-3-2023 **Planting Rate:** 32000 S/A  
**Planting Method:** PLANTD planted  
**Planting Equipment:** VP vacuum planter  
**Soil Temperature:** 63.8 F **Soil Moisture:** DRY dry

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## Pest Description

- Pest 1 Type:** W **Code:** AMACH *Amaranthus hybridus* **Entry Date:** 8-15-2023  
**Common Name:** smooth pigweed **Stage Scale:** BBCH
- Pest 2 Type:** W **Code:** ELEIN *Eleusine indica* **Entry Date:** 8-15-2023  
**Common Name:** Goosegrass **Stage Scale:** BBCH
- Pest 3 Type:** W **Code:** SIDSP *Sida spinosa* **Entry Date:** 8-15-2023  
**Common Name:** Prickly sida **Stage Scale:** BBCH
- Pest 4 Type:** W **Code:** AMBTR *Ambrosia trifida* **Entry Date:** 8-15-2023  
**Common Name:** Giant ragweed **Stage Scale:** BBCH
- Pest 5 Type:** W **Code:** EPHPT *Euphorbia prostrata* **Entry Date:** 8-15-2023  
**Common Name:** red caustic creeper **Stage Scale:** BBCH
- Pest 6 Type:** W **Code:** ERICA *Erigeron canadensis* **Entry Date:** 8-15-2023  
**Common Name:** mare's-tail **Stage Scale:** BBCH
- Pest 7 Type:** W **Code:** SOLXN *Solanum umbelliferum* **Entry Date:** 8-15-2023  
**Common Name:** Purple nightshade **Stage Scale:** BBCH
- Pest 8 Type:** W **Code:** DIGIS *Digitaria ischaemum* **Entry Date:** 8-15-2023  
**Common Name:** smooth crabgrass **Stage Scale:** BBCH
- Pest 9 Type:** W **Code:** VIOAR *Viola arvensis* **Entry Date:** 8-15-2023  
**Common Name:** Field pansy **Stage Scale:** BBCH
- Pest10 Type:** W **Code:** CYPES *Cyperus esculentus* **Entry Date:** 8-15-2023  
**Common Name:** Yellow nutsedge **Stage Scale:** BBCH
- Pest11 Type:** W **Code:** TAROF *Taraxacum officinale* **Entry Date:** 8-15-2023  
**Common Name:** dandelion **Stage Scale:** BBCH

## Site and Design

**Treated Plot Width:** 6.67 FT **Site Type:** FIELD field  
**Treated Plot Length:** 30 FT **Experimental Unit:** 4 ROW row  
**Treated Plot Area:** 200.1 FT2 **Tillage Type:** CONTIL conventional-till  
**Replications:** 4 **Treatments:** 10 **Plots:** 40 **Study Design:** RACOB� Randomized Complete Block (RCB)  
**Distance between Blocks:** 1 FT  
**Distance between 'Plot' Experimental Units:** 0.5 FT

## Maintenance

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Type	Rate	Unit
1.	4-17-2023	FERT	Potassium				30	lbs
2.	4-20-2023	FERT	Phosphorus				46	lbs
3.	4-20-2023	FERT	Nitrogen				18	lbs
4.	4-24-2023	FERT	Nitrogen				200	lbs
5.	4-19-2023	HERB	Roundup PowerMAX 3 4.8		LBAE/GAL	SL	30	fl oz
6.	4-19-2023	HERB	Interline				32	fl oz
7.	4-19-2023	HERB	AMS				2.5	v/v

## Soil Description

**Description Name:** 108-C3  
**% Sand:** 4.3 **% OM:** 2.7 **Texture:** SI silt  
**% Silt:** 84.7 **Soil Name:** Crider Silt Loam  
**% Clay:** 11.1  
**pH:** 6.88 **CEC:** 11.27

## Application Description

**A**

**Date:** 5-24-2023  
**Start Time:** 1:32 PM  
**Stop Time:** 2:05 PM  
**Method:** BROADC  
**Timing:** POSPOS  
**Placement:** BROFOL  
**Applied By:** JLG  
**Entry Date:** 8-15-2023  
**Air Temperature Start, Stop:** 80.8, 84.6 F  
**% Relative Humidity Start, Stop:** 36.9, 39.4  
**Wind Velocity+Dir. Start:** 3.3 MPH, SW  
**Wind Velocity+Dir. Stop:** 3.7 MPH, SW  
**Wet Leaves (Y/N):** N, no

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## Crop Stage At Each Application

**A**

Crop 1 Code, BBCH Scale ZEAMX, BCOR  
 Stage Majority, Percent V3, -  
 Stage Minimum, Percent V3, -  
 Stage Maximum, Percent V3, -  
 Height Average 9.5 IN  
 Height Minimum, Maximum 8.5, 10.5

## Pest Stage At Each Application

**A**

Pest 1 Code, Type, Scale AMACH, W, BBCH  
 Height Average 2.125 IN  
 Height Minimum, Maximum 0.25, 4  
 Density Average 4.4 FT2  
 Density Minimum, Maximum 1, 11  
 Pest 2 Code, Type, Scale ELEIN, W, BBCH  
 Height Average 3.25 IN  
 Height Minimum, Maximum 0.5, 6  
 Density Average 10 FT2  
 Density Minimum, Maximum 1, 22  
 Pest 3 Code, Type, Scale SIDSP, W, BBCH  
 Height Average 0.875 IN  
 Height Minimum, Maximum 0.25, 1.5  
 Density Average 2.57 FT2  
 Density Minimum, Maximum 1, 6  
 Pest 4 Code, Type, Scale AMBTR, W, BBCH  
 Height Average 2.75 IN  
 Height Minimum, Maximum 1, 4.5  
 Density Average 1.5 FT2  
 Density Minimum, Maximum 1, 2  
 Pest 5 Code, Type, Scale EPHPT, W, BBCH  
 Height Average 0.25 IN  
 Height Minimum, Maximum 0, 0.5  
 Density Average 1 FT2  
 Density Minimum, Maximum 0, 1  
 Pest 6 Code, Type, Scale ERICA, W, BBCH  
 Height Average 0.5 IN  
 Height Minimum, Maximum 0.25, 0.75  
 Density Average 3.5 FT2  
 Density Minimum, Maximum 1, 6  
 Pest 7 Code, Type, Scale SOLXN, W, BBCH  
 Height Average 0.375 IN  
 Height Minimum, Maximum 0.25, 0.5  
 Density Average 1 FT2  
 Density Minimum, Maximum 1, 1  
 Pest 8 Code, Type, Scale DIGIS, W, BBCH  
 Height Average 1 IN  
 Height Minimum, Maximum 0.5, 1.5  
 Density Average 1.5 FT2  
 Density Minimum, Maximum 1, 2  
 Pest 9 Code, Type, Scale VIOAR, W, BBCH  
 Height Average 4.25 IN  
 Height Minimum, Maximum 3, 5.5  
 Density Average 1.33 FT2  
 Density Minimum, Maximum 1, 2  
 Pest10 Code, Type, Scale CYPES, W, BBCH  
 Height Average 0.75 IN  
 Height Minimum, Maximum 0, 1.5  
 Density Average 2 FT2  
 Density Minimum, Maximum 0, 2  
 Pest11 Code, Type, Scale TAROF, W, BBCH  
 Height Average 0.25 IN  
 Height Minimum, Maximum 0, 0.5  
 Density Average 1 FT2  
 Density Minimum, Maximum 0, 1

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## Application Equipment

	<b>A</b>
<b>Equipment Name</b>	FOLIAR
<b>Equipment Type</b>	BACCAI
<b>Operation Pressure</b>	31 PSI
<b>Nozzle Model</b>	XR11002
<b>Nozzle Type</b>	FLAFXR
<b>Nozzle TradeName</b>	XR TeeJet
<b>Nozzle Tip Size, Color</b>	02, Yellow
<b>Nozzle Spacing</b>	20 IN
<b>Boom ID</b>	ORANGE
<b>Boom Length</b>	6.7 FT
<b>Boom Height</b>	18.0 IN
<b>Ground Speed</b>	3 MPH
<b>Carrier</b>	WATER
<b>Application Amount</b>	15 GAL/AC
<b>Mix Overage</b>	- %
<b>Mix Size</b>	2.0 L
<b>Propellant</b>	COMCO2

<b>Notes</b>			<b>Notes</b>
<b>Context</b>	<b>Date</b>	<b>By</b>	
STATUS 3-29-2023	Daniel Kunkel	Automatically added by ARM:	Trial Status updated to 'S' during trial creation.
STATUS 8-15-2023	Travis Legleiter	Automatically added by ARM:	Status changed to: E: changed by (EKYLET).
STATUS 8-15-2023	Travis Legleiter	Automatically added by ARM:	Trial Status updated to 'E' when Planting Date entered.

# University of Kentucky

## AMV5233D + Impact in Enlist + LL corn.

Trial ID: 23HD061USDK46(23-16\_COR-REC)

Cooperator Trial ID:

Protocol ID: 23HD061US

Location: KY

Trial Year: 2023

Project ID: 061 Project ID 2: Project ID 3:

Study Director: Rich Zollinger

Sponsor Contact: Dan Kunkel, Ph.D.

Investigator: Travis Legleiter

Rating Date	6-2-2023	6-8-2023	6-8-2023	6-8-2023	6-8-2023	6-8-2023	6-23-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1	1
Crop Type, Code	C, ZEAMX	C, ZEAMX					C, ZEAMX
BBCH Scale	BCOR	BCOR					BCOR
Crop Scientific Name	Zea mays	Zea mays					Zea mays
Crop Name	Corn	Corn					Corn
Pest Type			W, Weed	W, Weed	W, Weed	W, Weed	
Pest Code			DIGSA	AMBTR	AMACH	SISP	
Pest Scientific Name			Digitaria sangu	Ambrosia trifida	Amaranthus hybr>		
Pest Name			large crabgrass	Giant ragweed	smooth pigweed		
Pest Stage Scale			BBCH	BBCH	BBCH	BBCH	
Rating Timing							
Days After First/Last Applic.	9, 9	15, 15	15, 15	15, 15	15, 15	15, 15	30, 30
Trt-Eval Interval	9 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	30 DA-A
Plant-Eval Interval	30 DP-1	36 DP-1	36 DP-1	36 DP-1	36 DP-1	36 DP-1	51 DP-1
Days After Emergence							
Pest Est.-Eval Interval							
Equipment							
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability							
ARM Action Codes	ET5		AA				
Number of Decimals							
Data Entry Date	6-5-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023

Trt	Treatment	Rate	Appl	1	2	3	4	5	6	7
No.	Name	Rate Unit	Code Plot							
1	Liberty 280 SL	32 FL OZ/A	A 101	0.0	0.0	50.0	100.0	98.0	98.0	0.0
	AMS - Liquid	3 LB AI/A	A 206	0.0	0.0	90.0	100.0	100.0	100.0	0.0
			A 302	0.0	0.0	60.0	100.0	100.0	95.0	0.0
			A 409	0.0	0.0	50.0	90.0	100.0	100.0	0.0
			Mean =	0.0	0.0	63.9d	97.5	99.5	98.3	0.0
2	AMV5233D	32 FL OZ/A	A 102	0.0	0.0	100.0	98.0	98.0	100.0	0.0
	COC	1 % V/V	A 210	0.0	0.0	95.0	90.0	95.0	97.0	0.0
	AMS - Liquid	3 LB AI/A	A 304	0.0	0.0	100.0	100.0	100.0	100.0	0.0
			A 405	0.0	0.0	90.0	100.0	100.0	100.0	0.0
			Mean =	0.0	0.0	98.1d	97.0	98.3	99.3	0.0
3	AMV5233D	32 FL OZ/A	A 103	0.0	0.0	97.0	100.0	100.0	97.0	0.0
	Dual II Magnum 7.64 EC	1.25 PT/A	A 205	0.0	0.0	95.0	100.0	100.0	100.0	0.0
	COC	0.5 % V/V	A 301	0.0	0.0	70.0	95.0	100.0	100.0	0.0
	AMS - Liquid	2.5 LB AI/A	A 406	0.0	0.0	97.0	100.0	100.0	100.0	0.0
			Mean =	0.0	0.0	91.9d	98.8	100.0	99.3	0.0
4	AMV5233D	32 FL OZ/A	A 104	2.0	0.0	100.0	100.0	100.0	100.0	0.0
	Dual II Magnum 7.64 EC	1.25 PT/A	A 201	1.0	0.0	90.0	100.0	100.0	100.0	0.0
	Atrazine 4 F	2 PT/A	A 310	0.0	0.0	95.0	100.0	100.0	100.0	0.0
	COC	0.5 % V/V	A 402	2.0	0.0	87.0	100.0	100.0	100.0	0.0
	AMS - Liquid	3 LB AI/A	A							
			Mean =	1.3	0.0	94.8d	100.0	100.0	100.0	0.0
5	AMV5233D	32 FL OZ/A	A 105	5.0	0.0	100.0	98.0	100.0	100.0	0.0
	Impact 2.8 SC	1 FL OZ/A	A 207	2.0	0.0	100.0	99.0	100.0	100.0	0.0
	Dual II Magnum 7.64 EC	1.25 PT/A	A 306	1.0	0.0	97.0	97.0	100.0	100.0	0.0
	MSO	0.5 % V/V	A 404	0.0	0.0	97.0	100.0	100.0	100.0	0.0
	AMS - Liquid	2.5 LB AI/A	A							
			Mean =	2.0	0.0	99.2d	98.5	100.0	100.0	0.0
6	AMV5233D	32 FL OZ/A	A 106	0.0	0.0	100.0	98.0	100.0	100.0	0.0
	ImpactZ 4.26 SC	10.7 FL OZ/A	A 208	2.0	0.0	100.0	100.0	100.0	100.0	0.0
	Dual II Magnum 7.64 EC	1.25 PT/A	A 305	2.0	0.0	100.0	100.0	100.0	100.0	0.0
	MSO	0.5 % V/V	A 410	0.0	0.0	90.0	100.0	100.0	100.0	0.0
	AMS - Liquid	2.5 LB AI/A	A							
			Mean =	1.0	0.0	99.4d	99.5	100.0	100.0	0.0
7	AMV5233D	32 FL OZ/A	A 107	0.0	0.0	98.0	98.0	100.0	100.0	0.0
	Hornet 78.5 WG	3 OZ/A	A 202	0.0	0.0	95.0	98.0	100.0	100.0	0.0
	Dual II Magnum 7.64 EC	1.25 PT/A	A 308	0.0	0.0	100.0	100.0	100.0	100.0	0.0
	COC	0.5 % V/V	A 401	0.0	0.0	70.0	100.0	100.0	100.0	0.0
	AMS - Liquid	2.5 LB AI/A	A							
			Mean =	0.0	0.0	94.5d	99.0	100.0	100.0	0.0

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-2-2023	6-8-2023	6-8-2023	6-8-2023	6-8-2023	6-8-2023	6-23-2023		
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, C		
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1	1		
Crop Type, Code	C, ZEAMX	C, ZEAMX					C, ZEAMX		
BBCH Scale	BCOR	BCOR					BCOR		
Crop Scientific Name	Zea mays	Zea mays					Zea mays		
Crop Name	Corn	Corn					Corn		
Pest Type			W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code			DIGSA	AMBTR	AMACH	SISP			
Pest Scientific Name			Digitaria sangu>	Ambrosia trifida	Amaranthus hybr>				
Pest Name			large crabgrass	Giant ragweed	smooth pigweed				
Pest Stage Scale			BBCH	BBCH	BBCH	BBCH			
Rating Timing									
Days After First/Last Applic.	9, 9	15, 15	15, 15	15, 15	15, 15	15, 15	30, 30		
Trt-Eval Interval	9 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	30 DA-A		
Plant-Eval Interval	30 DP-1	36 DP-1	36 DP-1	36 DP-1	36 DP-1	36 DP-1	51 DP-1		
Days After Emergence									
Pest Est.-Eval Interval									
Equipment									
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability									
ARM Action Codes	ET5		AA						
Number of Decimals									
Data Entry Date	6-5-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023		
Trt Treatment	Rate	Appl	Rating Shell		Rating Shell		Rating Shell		
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6	7
8 AMV5233D	32 FL OZ/A A	108	1.0	0.0	100.0	97.0	100.0	100.0	0.0
Impact Core 7.15 EC	24 FL OZ/A A	209	0.0	0.0	100.0	95.0	100.0	100.0	0.0
MSO	0.5 % V/V A	307	0.0	0.0	100.0	100.0	100.0	100.0	0.0
AMS - Liquid	2.5 LB AI/A A	408	1.0	0.0	97.0	100.0	100.0	100.0	0.0
	Mean =		0.5	0.0	99.8d	98.0	100.0	100.0	0.0
9 AMV5233D	32 FL OZ/A A	109	2.0	0.0	100.0	100.0	100.0	100.0	0.0
Impact Core 7.15 EC	24 FL OZ/A A	204	5.0	0.0	100.0	100.0	100.0	100.0	0.0
Atrazine 4 F	2 PT/A A	303	5.0	0.0	100.0	100.0	100.0	100.0	0.0
MSO	0.5 % V/V A	407	5.0	0.0	100.0	100.0	100.0	100.0	0.0
AMS - Liquid	2.5 LB AI/A A								
	Mean =		4.3	0.0	100.0d	100.0	100.0	100.0	0.0
10 AMV5233D	32 FL OZ/A A	110	0.0	0.0	97.0	97.0	100.0	100.0	0.0
Callisto 4 L	3 FL OZ/A A	203	2.0	0.0	100.0	100.0	100.0	100.0	0.0
Dual II Magnum 7.64 EC	1.25 PT/A A	309	0.0	0.0	95.0	100.0	100.0	100.0	0.0
COC	0.5 % V/V A	403	0.0	0.0	80.0	100.0	100.0	100.0	0.0
AMS - Liquid	2.5 LB AI/A A								
	Mean =		0.5	0.0	95.4d	99.3	100.0	100.0	0.0

d=Means are reported in de-transformed data units

# University of Kentucky

			6-23-2023	6-23-2023	6-23-2023	6-23-2023	7-5-2023	7-5-2023	
Rating Date			6-23-2023	6-23-2023	6-23-2023	6-23-2023	7-5-2023	7-5-2023	
Part Rated			PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLATN, C	PLANT, P	
Rating Type			CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	
Rating Unit/Min/Max			% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	
Sample Size			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Collection Basis			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Reporting Basis			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples			1	1	1	1	1	1	
Crop Type, Code							C, ZEAMX		
BBCH Scale							BCOR		
Crop Scientific Name							Zea mays		
Crop Name							Corn		
Pest Type			W, Weed	W, Weed	W, Weed	W, Weed		W, Weed	
Pest Code			DIGSA	AMBTR	AMACH	SISP		DIGSA	
Pest Scientific Name			Digitaria sangu>	Ambrosia trifida	Amaranthus hybr>			Digitaria sangu>	
Pest Name			large crabgrass	Giant ragweed	smooth pigweed			large crabgrass	
Pest Stage Scale			BBCH	BBCH	BBCH	BBCH		BBCH	
Rating Timing									
Days After First/Last Applic.			30, 30	30, 30	30, 30	30, 30	42, 42	42, 42	
Trt-Eval Interval			30 DA-A	30 DA-A	30 DA-A	30 DA-A	42 DA-A	42 DA-A	
Plant-Eval Interval			51 DP-1	51 DP-1	51 DP-1	51 DP-1	63 DP-1	63 DP-1	
Days After Emergence									
Pest Est.-Eval Interval									
Equipment									
EDC App			Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	
Data Reliability									
ARM Action Codes				AA	EC			AA	
Number of Decimals									
Data Entry Date			9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023	
Trt No.	Treatment Name	Rate Unit	Appl Code Plot	8	9	10	11	12	13
1	Liberty 280 SL	32 FL OZ/A	A 101	0.0	100.0	80.0	75.0	0.0	50.0
	AMS - Liquid	3 LB AI/A	A 206	95.0	90.0	100.0	100.0	0.0	95.0
			A 302	25.0	100.0	100.0	100.0	0.0	25.0
			A 409	25.0	80.0	100.0	100.0	0.0	25.0
			Mean =	36.3	96.2d	95.0	93.8	0.0	50.9d
2	AMV5233D	32 FL OZ/A	A 102	97.0	97.0	100.0	100.0	0.0	90.0
	COC	1 % V/V	A 210	90.0	90.0	100.0	90.0	0.0	90.0
	AMS - Liquid	3 LB AI/A	A 304	97.0	100.0	100.0	100.0	0.0	97.0
			A 405	90.0	100.0	100.0	100.0	0.0	90.0
			Mean =	93.5	98.5d	100.0	97.5	0.0	92.1d
3	AMV5233D	32 FL OZ/A	A 103	97.0	97.0	100.0	100.0	0.0	95.0
	Dual II Magnum 7.64 EC	1.25 PT/A	A 205	90.0	90.0	100.0	100.0	0.0	90.0
	COC	0.5 % V/V	A 301	70.0	90.0	100.0	100.0	0.0	70.0
	AMS - Liquid	2.5 LB AI/A	A 406	100.0	100.0	100.0	100.0	0.0	97.0
			Mean =	89.3	95.9d	100.0	100.0	0.0	89.8d
4	AMV5233D	32 FL OZ/A	A 104	100.0	100.0	100.0	100.0	0.0	100.0
	Dual II Magnum 7.64 EC	1.25 PT/A	A 201	90.0	100.0	100.0	100.0	0.0	90.0
	Atrazine 4 F	2 PT/A	A 310	90.0	100.0	100.0	100.0	0.0	90.0
	COC	0.5 % V/V	A 402	85.0	100.0	100.0	100.0	0.0	85.0
	AMS - Liquid	3 LB AI/A	A						
			Mean =	91.3	100.0d	100.0	100.0	0.0	93.4d
5	AMV5233D	32 FL OZ/A	A 105	100.0	97.0	100.0	100.0	0.0	100.0
	Impact 2.8 SC	1 FL OZ/A	A 207	100.0	97.0	100.0	100.0	0.0	100.0
	Dual II Magnum 7.64 EC	1.25 PT/A	A 306	100.0	97.0	100.0	100.0	0.0	100.0
	MSO	0.5 % V/V	A 404	97.0	97.0	100.0	100.0	0.0	97.0
	AMS - Liquid	2.5 LB AI/A	A						
			Mean =	99.3	97.0d	100.0	100.0	0.0	99.8d
6	AMV5233D	32 FL OZ/A	A 106	100.0	97.0	100.0	100.0	0.0	100.0
	ImpactZ 4.26 SC	10.7 FL OZ/A	A 208	100.0	100.0	100.0	100.0	0.0	100.0
	Dual II Magnum 7.64 EC	1.25 PT/A	A 305	100.0	97.0	100.0	100.0	0.0	100.0
	MSO	0.5 % V/V	A 410	97.0	97.0	100.0	100.0	0.0	97.0
	AMS - Liquid	2.5 LB AI/A	A						
			Mean =	99.3	98.3d	100.0	100.0	0.0	99.8d
7	AMV5233D	32 FL OZ/A	A 107	100.0	97.0	100.0	100.0	0.0	100.0
	Hornet 78.5 WG	3 OZ/A	A 202	90.0	95.0	100.0	100.0	0.0	85.0
	Dual II Magnum 7.64 EC	1.25 PT/A	A 308	100.0	100.0	100.0	100.0	0.0	100.0
	COC	0.5 % V/V	A 401	50.0	100.0	100.0	100.0	0.0	50.0
	AMS - Liquid	2.5 LB AI/A	A						
			Mean =	85.0	99.0d	100.0	100.0	0.0	91.5d

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-23-2023	6-23-2023	6-23-2023	6-23-2023	7-5-2023	7-5-2023		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLATN, C	PLANT, P		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1		
Crop Type, Code					C, ZEAMX			
BBCH Scale					BCOR			
Crop Scientific Name					Zea mays			
Crop Name					Corn			
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed		W, Weed		
Pest Code	DIGSA	AMBTR	AMACH	SISP		DIGSA		
Pest Scientific Name	Digitaria sangu>	Ambrosia trifida	Amaranthus hybr>			Digitaria sangu>		
Pest Name	large crabgrass	Giant ragweed	smooth pigweed			large crabgrass		
Pest Stage Scale	BBCH	BBCH	BBCH	BBCH		BBCH		
Rating Timing								
Days After First/Last Applic.	30, 30	30, 30	30, 30	30, 30	42, 42	42, 42		
Trt-Eval Interval	30 DA-A	30 DA-A	30 DA-A	30 DA-A	42 DA-A	42 DA-A		
Plant-Eval Interval	51 DP-1	51 DP-1	51 DP-1	51 DP-1	63 DP-1	63 DP-1		
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability								
ARM Action Codes		AA	EC			AA		
Number of Decimals								
Data Entry Date	9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023		
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code Plot	8	9	10	11	12	13
8 AMV5233D	32 FL OZ/A A	108	100.0	97.0	100.0	100.0	0.0	100.0
Impact Core 7.15 EC	24 FL OZ/A A	209	95.0	95.0	100.0	100.0	0.0	95.0
MSO	0.5 % V/V A	307	100.0	95.0	100.0	100.0	0.0	100.0
AMS - Liquid	2.5 LB AI/A A	408	97.0	100.0	100.0	100.0	0.0	97.0
		Mean =	98.0	97.6d	100.0	100.0	0.0	99.0d
9 AMV5233D	32 FL OZ/A A	109	100.0	100.0	100.0	100.0	0.0	100.0
Impact Core 7.15 EC	24 FL OZ/A A	204	100.0	100.0	100.0	100.0	0.0	100.0
Atrazine 4 F	2 PT/A A	303	100.0	100.0	100.0	100.0	0.0	100.0
MSO	0.5 % V/V A	407	100.0	100.0	100.0	100.0	0.0	100.0
AMS - Liquid	2.5 LB AI/A A							
		Mean =	100.0	100.0d	100.0	100.0	0.0	100.0d
10 AMV5233D	32 FL OZ/A A	110	97.0	95.0	100.0	100.0	0.0	95.0
Callisto 4 L	3 FL OZ/A A	203	97.0	100.0	100.0	100.0	0.0	97.0
Dual II Magnum 7.64 EC	1.25 PT/A A	309	90.0	100.0	100.0	100.0	0.0	90.0
COC	0.5 % V/V A	403	85.0	100.0	100.0	100.0	0.0	80.0
AMS - Liquid	2.5 LB AI/A A							
		Mean =	92.3	99.7d	100.0	100.0	0.0	91.5d

d=Means are reported in de-transformed data units



# University of Kentucky

Rating Date	7-5-2023	7-5-2023	7-5-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	AMACH	SISP
Pest Scientific Name	Ambrosia trifida	Amaranthus hybr>	
Pest Name	Giant ragweed	smooth pigweed	
Pest Stage Scale	BBCH	BBCH	BBCH
Rating Timing			
Days After First/Last Applic.	42, 42	42, 42	42, 42
Trt-Eval Interval	42 DA-A	42 DA-A	42 DA-A
Plant-Eval Interval	63 DP-1	63 DP-1	63 DP-1
Days After Emergence			
Pest Est.-Eval Interval			
Equipment			
EDC App	Rating Shell	Rating Shell	Rating Shell
Data Reliability			
ARM Action Codes	AA	EC	
Number of Decimals			
Data Entry Date	9-25-2023	9-25-2023	9-25-2023

Trt No.	Treatment	Rate	Appl	14	15	16
	Name	Rate Unit	Code Plot			
1	Liberty 280 SL	32 FL OZ/A	A 101	90.0	80.0	80.0
	AMS - Liquid	3 LB AI/A	A 206	90.0	100.0	100.0
			A 302	100.0	100.0	100.0
			A 409	75.0	100.0	100.0
			Mean =	91.7d	95.0	95.0
2	AMV5233D	32 FL OZ/A	A 102	90.0	100.0	100.0
	COC	1 % V/V	A 210	90.0	100.0	90.0
	AMS - Liquid	3 LB AI/A	A 304	100.0	100.0	100.0
			A 405	95.0	100.0	100.0
			Mean =	95.4d	100.0	97.5
3	AMV5233D	32 FL OZ/A	A 103	95.0	100.0	100.0
	Dual II Magnum 7.64 EC	1.25 PT/A	A 205	90.0	100.0	100.0
	COC	0.5 % V/V	A 301	90.0	100.0	100.0
	AMS - Liquid	2.5 LB AI/A	A 406	100.0	100.0	100.0
			Mean =	95.4d	100.0	100.0
4	AMV5233D	32 FL OZ/A	A 104	100.0	100.0	100.0
	Dual II Magnum 7.64 EC	1.25 PT/A	A 201	100.0	100.0	100.0
	Atrazine 4 F	2 PT/A	A 310	100.0	100.0	100.0
	COC	0.5 % V/V	A 402	100.0	100.0	100.0
	AMS - Liquid	3 LB AI/A	A			
			Mean =	100.0d	100.0	100.0
5	AMV5233D	32 FL OZ/A	A 105	95.0	100.0	100.0
	Impact 2.8 SC	1 FL OZ/A	A 207	95.0	100.0	100.0
	Dual II Magnum 7.64 EC	1.25 PT/A	A 306	97.0	100.0	100.0
	MSO	0.5 % V/V	A 404	95.0	100.0	100.0
	AMS - Liquid	2.5 LB AI/A	A			
			Mean =	95.5d	100.0	100.0
6	AMV5233D	32 FL OZ/A	A 106	95.0	100.0	100.0
	ImpactZ 4.26 SC	10.7 FL OZ/A	A 208	100.0	100.0	100.0
	Dual II Magnum 7.64 EC	1.25 PT/A	A 305	97.0	100.0	100.0
	MSO	0.5 % V/V	A 410	97.0	100.0	100.0
	AMS - Liquid	2.5 LB AI/A	A			
			Mean =	98.0d	100.0	100.0
7	AMV5233D	32 FL OZ/A	A 107	95.0	100.0	100.0
	Hornet 78.5 WG	3 OZ/A	A 202	95.0	100.0	100.0
	Dual II Magnum 7.64 EC	1.25 PT/A	A 308	95.0	100.0	100.0
	COC	0.5 % V/V	A 401	100.0	100.0	100.0
	AMS - Liquid	2.5 LB AI/A	A			
			Mean =	97.2d	100.0	100.0

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	7-5-2023	7-5-2023	7-5-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	AMACH	SISP
Pest Scientific Name	Ambrosia trifida	Amaranthus hybr>	
Pest Name	Giant ragweed	smooth pigweed	
Pest Stage Scale	BBCH	BBCH	BBCH
Rating Timing			
Days After First/Last Applic.	42, 42	42, 42	42, 42
Trt-Eval Interval	42 DA-A	42 DA-A	42 DA-A
Plant-Eval Interval	63 DP-1	63 DP-1	63 DP-1
Days After Emergence			
Pest Est.-Eval Interval			
Equipment			
EDC App	Rating Shell	Rating Shell	Rating Shell
Data Reliability			
ARM Action Codes	AA	EC	
Number of Decimals			
Data Entry Date	9-25-2023	9-25-2023	9-25-2023

Trt	Treatment	Rate	Appl			
No.	Name	Rate Unit	Code Plot	14	15	16
8	AMV5233D	32 FL OZ/A	A 108	97.0	100.0	100.0
	Impact Core 7.15 EC	24 FL OZ/A	A 209	95.0	100.0	100.0
	MSO	0.5 % V/V	A 307	95.0	100.0	100.0
	AMS - Liquid	2.5 LB AI/A	A 408	100.0	100.0	100.0
			Mean =	97.6d	100.0	100.0
9	AMV5233D	32 FL OZ/A	A 109	100.0	100.0	100.0
	Impact Core 7.15 EC	24 FL OZ/A	A 204	100.0	100.0	100.0
	Atrazine 4 F	2 PT/A	A 303	100.0	100.0	100.0
	MSO	0.5 % V/V	A 407	100.0	100.0	100.0
	AMS - Liquid	2.5 LB AI/A	A			
			Mean =	100.0d	100.0	100.0
10	AMV5233D	32 FL OZ/A	A 110	95.0	100.0	100.0
	Callisto 4 L	3 FL OZ/A	A 203	97.0	100.0	100.0
	Dual II Magnum 7.64 EC	1.25 PT/A	A 309	100.0	100.0	100.0
	COC	0.5 % V/V	A 403	100.0	100.0	100.0
	AMS - Liquid	2.5 LB AI/A	A			
			Mean =	99.0d	100.0	100.0

# University of Kentucky

AMV5233D + Impact in Enlist + LL corn.

Trial ID: 23HD061USDK46(23-16\_COR-REC)      Cooperator Trial ID:  
 Protocol ID: 23HD061US      Location: KY      Trial Year: 2023  
 Project ID: 061    Project ID 2:    Project ID 3:  
 Study Director: Rich Zollinger    Sponsor Contact: Dan Kunkel, Ph.D.  
 Investigator: Travis Legleiter

Part Rated

PLANT = plant  
 C = Crop is Part Rated  
 P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury  
 CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

PLOT = total plot

PLOT = total plot

Crop Type Code

C = EPPO species (Bayer) codes  
 ZEAMX, BCOR, Zea mays, Corn = US

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

DIGSA, Digitaria sanguinalis, large crabgrass = US  
 AMBTR, Ambrosia trifida, Giant ragweed = US  
 AMACH, Amaranthus hybridus, smooth pigweed = US

Plant-Eval Interval

30 DP-1 = 1 ZEAMX 5-3-2023  
 36 DP-1 = 1 ZEAMX 5-3-2023  
 51 DP-1 = 1 ZEAMX 5-3-2023  
 63 DP-1 = 1 ZEAMX 5-3-2023

EDC App

Rating Shell = Data pulled from Excel Rating Shell

ARM Action Codes

ET5 = Excluded treatment 5  
 AA = Automatic arcsine square root % transformation  
 EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table

# University of Kentucky

**AMV5233D + Impact in Enlist + LL corn.**

Trial ID: 23HD061USDK46(23-16\_COR-REC)      Cooperator Trial ID:  
 Protocol ID: 23HD061US      Location: KY      Trial Year: 2023  
 Project ID: 061    Project ID 2:    Project ID 3:  
 Study Director: Rich Zollinger    Sponsor Contact: Dan Kunkel, Ph.D.  
 Investigator: Travis Legleiter

Rating Date	6-2-2023	6-8-2023	6-8-2023	6-8-2023	6-8-2023	6-8-2023	6-8-2023	6-23-2023		
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, C		
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1	1	1		
Crop Type, Code	C, ZEAMX	C, ZEAMX						C, ZEAMX		
BBCH Scale	BCOR	BCOR						BCOR		
Crop Scientific Name	Zea mays	Zea mays						Zea mays		
Crop Name	Corn	Corn						Corn		
Pest Type			W, Weed	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code			DIGSA	AMBTR	AMACH	SISP				
Pest Scientific Name			Digitaria sangu	Ambrosia trifida	Amaranthus hybr					
Pest Name			large crabgrass	Giant ragweed	smooth pigweed					
Pest Stage Scale			BBCH	BBCH	BBCH	BBCH				
Rating Timing										
Days After First/Last Applic.	9, 9	15, 15	15, 15	15, 15	15, 15	15, 15	15, 15	30, 30		
Trt-Eval Interval	9 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	30 DA-A		
Plant-Eval Interval	30 DP-1	36 DP-1	36 DP-1	36 DP-1	36 DP-1	36 DP-1	36 DP-1	51 DP-1		
Days After Emergence										
Pest Est.-Eval Interval										
Equipment										
EDC App		Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability										
ARM Action Codes		ET5		AA						
Number of Decimals										
Data Entry Date	6-5-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023		
Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6	7
		Rate Unit				dAA				
1	Liberty 280 SL	32 FL OZ/A	A	0.0 b	0.0 a	63.9 b	97.5 a	99.5 a	98.3 a	0.0 a
	AMS - Liquid	3 LB AI/A	A							
2	AMV5233D	32 FL OZ/A	A	0.0 b	0.0 a	98.1 a	97.0 a	98.3 a	99.3 a	0.0 a
	COC	1 % V/V	A							
	AMS - Liquid	3 LB AI/A	A							
3	AMV5233D	32 FL OZ/A	A	0.0 b	0.0 a	91.9 a	98.8 a	100.0 a	99.3 a	0.0 a
	Dual II Magnum 7.64 EC	1.25 PT/A	A							
	COC	0.5 % V/V	A							
	AMS - Liquid	2.5 LB AI/A	A							
4	AMV5233D	32 FL OZ/A	A	1.3 b	0.0 a	94.8 a	100.0 a	100.0 a	100.0 a	0.0 a
	Dual II Magnum 7.64 EC	1.25 PT/A	A							
	Atrazine 4 F	2 PT/A	A							
	COC	0.5 % V/V	A							
	AMS - Liquid	3 LB AI/A	A							
5	AMV5233D	32 FL OZ/A	A	2.0	0.0 a	99.2 a	98.5 a	100.0 a	100.0 a	0.0 a
	Impact 2.8 SC	1 FL OZ/A	A							
	Dual II Magnum 7.64 EC	1.25 PT/A	A							
	MSO	0.5 % V/V	A							
	AMS - Liquid	2.5 LB AI/A	A							
6	AMV5233D	32 FL OZ/A	A	1.0 b	0.0 a	99.4 a	99.5 a	100.0 a	100.0 a	0.0 a
	ImpactZ 4.26 SC	10.7 FL OZ/A	A							
	Dual II Magnum 7.64 EC	1.25 PT/A	A							
	MSO	0.5 % V/V	A							
	AMS - Liquid	2.5 LB AI/A	A							
7	AMV5233D	32 FL OZ/A	A	0.0 b	0.0 a	94.5 a	99.0 a	100.0 a	100.0 a	0.0 a
	Hornet 78.5 WG	3 OZ/A	A							
	Dual II Magnum 7.64 EC	1.25 PT/A	A							
	COC	0.5 % V/V	A							
	AMS - Liquid	2.5 LB AI/A	A							
8	AMV5233D	32 FL OZ/A	A	0.5 b	0.0 a	99.8 a	98.0 a	100.0 a	100.0 a	0.0 a
	Impact Core 7.15 EC	24 FL OZ/A	A							
	MSO	0.5 % V/V	A							
	AMS - Liquid	2.5 LB AI/A	A							

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 2,7,10,12,15 because error mean square = 0.  
 ^Calculated from residual.  
 d=Means are reported in de-transformed data units

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Rating Date	6-2-2023	6-8-2023	6-8-2023	6-8-2023	6-8-2023	6-8-2023	6-8-2023	6-23-2023		
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, C		
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1	1	1		
Crop Type, Code	C, ZEAMX	C, ZEAMX						C, ZEAMX		
BBCH Scale	BCOR	BCOR						BCOR		
Crop Scientific Name	Zea mays	Zea mays						Zea mays		
Crop Name	Corn	Corn						Corn		
Pest Type			W, Weed	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code			DIGSA	AMBTR	AMACH	SISP				
Pest Scientific Name			Digitaria sangu>	Ambrosia trifida	Amaranthus hybr>					
Pest Name			large crabgrass	Giant ragweed	smooth pigweed					
Pest Stage Scale			BBCH	BBCH	BBCH	BBCH				
Rating Timing										
Days After First/Last Applic.	9, 9	15, 15	15, 15	15, 15	15, 15	15, 15	15, 15	30, 30		
Trt-Eval Interval	9 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	30 DA-A		
Plant-Eval Interval	30 DP-1	36 DP-1	36 DP-1	36 DP-1	36 DP-1	36 DP-1	36 DP-1	51 DP-1		
Days After Emergence										
Pest Est.-Eval Interval										
Equipment										
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability										
ARM Action Codes	ET5		AA							
Number of Decimals										
Data Entry Date	6-5-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023		
Trt	Treatment	Rate	Appl	1	2	3	4	5	6	7
No.	Name	Rate Unit	Code			dAA				
9	AMV5233D	32 FL OZ/A	A	4.3 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a	0.0 a
	Impact Core 7.15 EC	24 FL OZ/A	A							
	Atrazine 4 F	2 PT/A	A							
	MSO	0.5 % V/V	A							
	AMS - Liquid	2.5 LB AI/A	A							
10	AMV5233D	32 FL OZ/A	A	0.5 b	0.0 a	95.4 a	99.3 a	100.0 a	100.0 a	0.0 a
	Callisto 4 L	3 FL OZ/A	A							
	Dual II Magnum 7.64 EC	1.25 PT/A	A							
	COC	0.5 % V/V	A							
	AMS - Liquid	2.5 LB AI/A	A							
LSD P=.05				1.19	.	4.29 - 18.27	3.88	1.17	1.49	.
Standard Deviation				0.82	0.00	8.24t	2.67	0.81	1.03	0.00
CV				98.15	0.0	10.46t	2.7	0.81	1.03	0.0
Levene's F^				1.633	.	0.932	0.686	2.516*	1.718	.
Levene's Prob(F)				0.162	.	0.512	0.716	0.028*	0.128	.
Shapiro-Wilk^				0.9717	.	0.9686	0.8465*	0.705*	0.777*	.
P(Shapiro-Wilk)^				0.4737	.	0.324	0.0*	0.0*	0.0*	.
Skewness^				-0.5436	.	0.0574	-1.7772*	-1.8604*	-1.679*	.
P(Skewness)^				0.1921	.	0.883	0.0*	0.0*	0.0001*	.
Kurtosis^				0.8425	.	0.61	4.1341*	10.253*	5.1305*	.
P(Kurtosis)^				0.2993	.	0.4269	0.0*	0.0*	0.0*	.
Replicate F				0.720	0.000	4.596	0.276	1.057	0.528	0.000
Replicate Prob(F)				0.5500	1.0000	0.0100	0.8424	0.3838	0.6671	1.0000
Treatment F				11.118	0.000	6.511	0.576	1.905	1.315	0.000
Treatment Prob(F)				0.0001	1.0000	0.0001	0.8045	0.0944	0.2751	1.0000

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^Calculated from residual.  
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			6-23-2023	6-23-2023	6-23-2023	6-23-2023	7-5-2023	7-5-2023
Rating Date			6-23-2023	6-23-2023	6-23-2023	6-23-2023	7-5-2023	7-5-2023
Part Rated			PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLATN, C	PLANT, P
Rating Type			CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max			% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples			1	1	1	1	1	1
Crop Type, Code							C, ZEAMX	
BBCH Scale							BCOR	
Crop Scientific Name							Zea mays	
Crop Name							Corn	
Pest Type			W, Weed	W, Weed	W, Weed	W, Weed		W, Weed
Pest Code			DIGSA	AMBTR	AMACH	SISP		DIGSA
Pest Scientific Name			Digitaria sangu>	Ambrosia trifida	Amaranthus hybr>			Digitaria sangu>
Pest Name			large crabgrass	Giant ragweed	smooth pigweed			large crabgrass
Pest Stage Scale			BBCH	BBCH	BBCH	BBCH		BBCH
Rating Timing								
Days After First/Last Applic.			30, 30	30, 30	30, 30	30, 30	42, 42	42, 42
Trt-Eval Interval			30 DA-A	30 DA-A	30 DA-A	30 DA-A	42 DA-A	42 DA-A
Plant-Eval Interval			51 DP-1	51 DP-1	51 DP-1	51 DP-1	63 DP-1	63 DP-1
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App			Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability				AA	EC			AA
ARM Action Codes								
Number of Decimals								
Data Entry Date			9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023
Trt Treatment	Rate	Appl	8	9	10	11	12	13
No. Name	Rate Unit	Code		dAA				dAA
1	Liberty 280 SL	32 FL OZ/A A	36.3 b	96.2 a	95.0	93.8 a	0.0 a	50.9 b
	AMS - Liquid	3 LB AI/A A						
2	AMV5233D	32 FL OZ/A A	93.5 a	98.5 a	100.0 a	97.5 a	0.0 a	92.1 a
	COC	1 % V/V A						
	AMS - Liquid	3 LB AI/A A						
3	AMV5233D	32 FL OZ/A A	89.3 a	95.9 a	100.0 a	100.0 a	0.0 a	89.8 a
	Dual II Magnum 7.64 EC	1.25 PT/A A						
	COC	0.5 % V/V A						
	AMS - Liquid	2.5 LB AI/A A						
4	AMV5233D	32 FL OZ/A A	91.3 a	100.0 a	100.0 a	100.0 a	0.0 a	93.4 a
	Dual II Magnum 7.64 EC	1.25 PT/A A						
	Atrazine 4 F	2 PT/A A						
	COC	0.5 % V/V A						
	AMS - Liquid	3 LB AI/A A						
5	AMV5233D	32 FL OZ/A A	99.3 a	97.0 a	100.0 a	100.0 a	0.0 a	99.8 a
	Impact 2.8 SC	1 FL OZ/A A						
	Dual II Magnum 7.64 EC	1.25 PT/A A						
	MSO	0.5 % V/V A						
	AMS - Liquid	2.5 LB AI/A A						
6	AMV5233D	32 FL OZ/A A	99.3 a	98.3 a	100.0 a	100.0 a	0.0 a	99.8 a
	ImpactZ 4.26 SC	10.7 FL OZ/A A						
	Dual II Magnum 7.64 EC	1.25 PT/A A						
	MSO	0.5 % V/V A						
	AMS - Liquid	2.5 LB AI/A A						
7	AMV5233D	32 FL OZ/A A	85.0 a	99.0 a	100.0 a	100.0 a	0.0 a	91.5 a
	Hornet 78.5 WG	3 OZ/A A						
	Dual II Magnum 7.64 EC	1.25 PT/A A						
	COC	0.5 % V/V A						
	AMS - Liquid	2.5 LB AI/A A						
8	AMV5233D	32 FL OZ/A A	98.0 a	97.6 a	100.0 a	100.0 a	0.0 a	99.0 a
	Impact Core 7.15 EC	24 FL OZ/A A						
	MSO	0.5 % V/V A						
	AMS - Liquid	2.5 LB AI/A A						

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^Calculated from residual.  
d=Means are reported in de-transformed data units

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			6-23-2023	6-23-2023	6-23-2023	6-23-2023	7-5-2023	7-5-2023
Rating Date			6-23-2023	6-23-2023	6-23-2023	6-23-2023	7-5-2023	7-5-2023
Part Rated			PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLATN, C	PLANT, P
Rating Type			CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max			%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples			1	1	1	1	1	1
Crop Type, Code							C, ZEAMX	
BBCH Scale							BCOR	
Crop Scientific Name							Zea mays	
Crop Name							Corn	
Pest Type			W, Weed	W, Weed	W, Weed	W, Weed		W, Weed
Pest Code			DIGSA	AMBTR	AMACH	SISP		DIGSA
Pest Scientific Name			Digitaria sangu>	Ambrosia trifida	Amaranthus hybr>			Digitaria sangu>
Pest Name			large crabgrass	Giant ragweed	smooth pigweed			large crabgrass
Pest Stage Scale			BBCH	BBCH	BBCH	BBCH		BBCH
Rating Timing								
Days After First/Last Applic.			30, 30	30, 30	30, 30	30, 30	42, 42	42, 42
Trt-Eval Interval			30 DA-A	30 DA-A	30 DA-A	30 DA-A	42 DA-A	42 DA-A
Plant-Eval Interval			51 DP-1	51 DP-1	51 DP-1	51 DP-1	63 DP-1	63 DP-1
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App			Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability								
ARM Action Codes				AA	EC			AA
Number of Decimals								
Data Entry Date			9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023	9-25-2023
Trt Treatment	Rate	Appl	8	9	10	11	12	13
No. Name	Rate Unit	Code		dAA				dAA
9	AMV5233D	32 FL OZ/A A	100.0 a	100.0 a	100.0 a	100.0 a	0.0 a	100.0 a
	Impact Core 7.15 EC	24 FL OZ/A A						
	Atrazine 4 F	2 PT/A A						
	MSO	0.5 % V/V A						
	AMS - Liquid	2.5 LB AI/A A						
10	AMV5233D	32 FL OZ/A A	92.3 a	99.7 a	100.0 a	100.0 a	0.0 a	91.5 a
	Callisto 4 L	3 FL OZ/A A						
	Dual II Magnum 7.64 EC	1.25 PT/A A						
	COC	0.5 % V/V A						
	AMS - Liquid	2.5 LB AI/A A						
LSD P=.05			23.05	3.12 - 4.05	.	6.26	.	7.29 - 25.86
Standard Deviation			15.89	7.01t	0.00	4.31	0.00	10.80t
CV			17.97	8.4t	0.0	4.35	0.0	14.19t
Levene's F^			1.905	2.376*	.	0.736	.	1.837
Levene's Prob(F)			0.09	0.036*	.	0.674	.	0.102
Shapiro-Wilk^			0.8308*	0.9724	.	0.6668*	.	0.9478
P(Shapiro-Wilk)^			0.0*	0.4287	.	0.0*	.	0.0638
Skewness^			0.8433*	-0.2665	.	-2.7779*	.	0.7007
P(Skewness)^			0.0357*	0.4958	.	0.0*	.	0.0784
Kurtosis^			7.0355*	0.955	.	13.4883*	.	2.3022*
P(Kurtosis)^			0.0*	0.2163	.	0.0*	.	0.0043*
Replicate F			0.994	0.861	0.000	0.751	0.000	2.440
Replicate Prob(F)			0.4106	0.4730	1.0000	0.5314	1.0000	0.0861
Treatment F			5.710	1.490	0.000	0.900	0.000	5.732
Treatment Prob(F)			0.0002	0.2018	1.0000	0.5385	1.0000	0.0002

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Could not calculate LSD (% mean diff) for columns 2,7,10,12,15 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

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Rating Date	7-5-2023	7-5-2023	7-5-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	AMACH	SISP
Pest Scientific Name	Ambrosia trifida	Amaranthus hybr>	
Pest Name	Giant ragweed	smooth pigweed	
Pest Stage Scale	BBCH	BBCH	BBCH
Rating Timing			
Days After First/Last Applic.	42, 42	42, 42	42, 42
Trt-Eval Interval	42 DA-A	42 DA-A	42 DA-A
Plant-Eval Interval	63 DP-1	63 DP-1	63 DP-1
Days After Emergence			
Pest Est.-Eval Interval			
Equipment			
EDC App	Rating Shell	Rating Shell	Rating Shell
Data Reliability			
ARM Action Codes	AA	EC	
Number of Decimals			
Data Entry Date	9-25-2023	9-25-2023	9-25-2023

Trt No.	Treatment Name	Rate	Appl Code	14 dAA	15	16
1	Liberty 280 SL	32 FL OZ/A	A	91.7 b	95.0	95.0 a
	AMS - Liquid	3 LB AI/A	A			
2	AMV5233D	32 FL OZ/A	A	95.4 ab	100.0 a	97.5 a
	COC	1 % V/V	A			
	AMS - Liquid	3 LB AI/A	A			
3	AMV5233D	32 FL OZ/A	A	95.4 ab	100.0 a	100.0 a
	Dual II Magnum 7.64 EC	1.25 PT/A	A			
	COC	0.5 % V/V	A			
	AMS - Liquid	2.5 LB AI/A	A			
4	AMV5233D	32 FL OZ/A	A	100.0 a	100.0 a	100.0 a
	Dual II Magnum 7.64 EC	1.25 PT/A	A			
	Atrazine 4 F	2 PT/A	A			
	COC	0.5 % V/V	A			
	AMS - Liquid	3 LB AI/A	A			
5	AMV5233D	32 FL OZ/A	A	95.5 ab	100.0 a	100.0 a
	Impact 2.8 SC	1 FL OZ/A	A			
	Dual II Magnum 7.64 EC	1.25 PT/A	A			
	MSO	0.5 % V/V	A			
	AMS - Liquid	2.5 LB AI/A	A			
6	AMV5233D	32 FL OZ/A	A	98.0 ab	100.0 a	100.0 a
	ImpactZ 4.26 SC	10.7 FL OZ/A	A			
	Dual II Magnum 7.64 EC	1.25 PT/A	A			
	MSO	0.5 % V/V	A			
	AMS - Liquid	2.5 LB AI/A	A			
7	AMV5233D	32 FL OZ/A	A	97.2 ab	100.0 a	100.0 a
	Hornet 78.5 WG	3 OZ/A	A			
	Dual II Magnum 7.64 EC	1.25 PT/A	A			
	COC	0.5 % V/V	A			
	AMS - Liquid	2.5 LB AI/A	A			
8	AMV5233D	32 FL OZ/A	A	97.6 ab	100.0 a	100.0 a
	Impact Core 7.15 EC	24 FL OZ/A	A			
	MSO	0.5 % V/V	A			
	AMS - Liquid	2.5 LB AI/A	A			

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Could not calculate LSD (% mean diff) for columns 2,7,10,12,15 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units



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Rating Date	7-5-2023	7-5-2023	7-5-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	AMACH	SISP
Pest Scientific Name	Ambrosia trifida	Amaranthus hybr>	
Pest Name	Giant ragweed	smooth pigweed	
Pest Stage Scale	BBCH	BBCH	BBCH
Rating Timing			
Days After First/Last Applic.	42, 42	42, 42	42, 42
Trt-Eval Interval	42 DA-A	42 DA-A	42 DA-A
Plant-Eval Interval	63 DP-1	63 DP-1	63 DP-1
Days After Emergence			
Pest Est.-Eval Interval			
Equipment			
EDC App	Rating Shell	Rating Shell	Rating Shell
Data Reliability			
ARM Action Codes	AA	EC	
Number of Decimals			
Data Entry Date	9-25-2023	9-25-2023	9-25-2023
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
9	AMV5233D	32 FL OZ/A A	100.0 a
	Impact Core 7.15 EC	24 FL OZ/A A	
	Atrazine 4 F	2 PT/A A	
	MSO	0.5 % V/V A	
	AMS - Liquid	2.5 LB AI/A A	
10	AMV5233D	32 FL OZ/A A	99.0 ab
	Callisto 4 L	3 FL OZ/A A	
	Dual II Magnum 7.64 EC	1.25 PT/A A	
	COC	0.5 % V/V A	
	AMS - Liquid	2.5 LB AI/A A	
LSD P=.05			2.84 - 6.78
Standard Deviation			6.68t
CV			8.21t
Levene's F^			0.755
Levene's Prob(F)			0.657
Shapiro-Wilk^			0.9468
P(Shapiro-Wilk)^			0.0591
Skewness^			0.3257
P(Skewness)^			0.4059
Kurtosis^			1.3585
P(Kurtosis)^			0.0815
Replicate F			1.384
Replicate Prob(F)			0.2689
Treatment F			2.647
Treatment Prob(F)			0.0243

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Could not calculate LSD (% mean diff) for columns 2,7,10,12,15 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

AMV5233D + Impact in Enlist + LL corn.

Trial ID: 23HD061USDK46(23-16\_COR-REC)      Cooperator Trial ID:  
 Protocol ID: 23HD061US      Location: KY      Trial Year: 2023  
 Project ID: 061    Project ID 2:    Project ID 3:  
 Study Director: Rich Zollinger    Sponsor Contact: Dan Kunkel, Ph.D.  
 Investigator: Travis Legleiter

Part Rated

PLANT = plant  
 C = Crop is Part Rated  
 P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury  
 CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

PLOT = total plot

PLOT = total plot

Crop Type Code

C = EPPO species (Bayer) codes  
 ZEAMX, BCOR, Zea mays, Corn = US

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

DIGSA, Digitaria sanguinalis, large crabgrass = US  
 AMBTR, Ambrosia trifida, Giant ragweed = US  
 AMACH, Amaranthus hybridus, smooth pigweed = US

Plant-Eval Interval

30 DP-1 = 1 ZEAMX 5-3-2023  
 36 DP-1 = 1 ZEAMX 5-3-2023  
 51 DP-1 = 1 ZEAMX 5-3-2023  
 63 DP-1 = 1 ZEAMX 5-3-2023

EDC App

Rating Shell = Data pulled from Excel Rating Shell

ARM Action Codes

ET5 = Excluded treatment 5  
 AA = Automatic arcsine square root % transformation  
 EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table

# University of Kentucky

## Anthem Maxx Programs for Residual Weed Control in Corn

Trial ID: USA-23-033(23-17-COR-REC)      Cooperator Trial ID:  
 Protocol ID: USA-23-033      Location:      Trial Year: 2023  
 Project ID:      Project ID 2:      Project ID 3:  
 Study Director: Todd Cogdill      Sponsor Contact:  
 Investigator: Travis Legleiter

Reps: 4      Plots: 10 by 30 feet  
 Appl. Amount: 15 GAL/AC      Mix Size: 2 L (total for 4 plots; minimum=1.564 L, overage=436 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Appl Code	Appl Amt	Product Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	UNTREATED CHECK									101	205	311	405
2	ANTHEM MAXX	4.3 LB/GAL	SC		4 FL OZ/A		A	4.167 mL/mx		102	210	304	410
	CALLISTO	4 LB/GAL	SC		6 FL OZ/A		A	6.25 mL/mx					
	ATRAZINE 4L (SC)	4 LB/GAL	SC		1 QT/A		A	33.33 mL/mx					
3	ANTHEM MAXX	4.3 LB/GAL	SC		4 FL OZ/A		B	4.167 mL/mx		103	207	312	406
	CALLISTO	4 LB/GAL	SC		3 FL OZ/A		B	3.125 mL/mx					
	ATRAZINE 4L (SC)	4 LB/GAL	SC		1 QT/A		B	33.33 mL/mx					
	ROUNDUP POWERMAX	5.5 LB/GAL	SL		22 FL OZ/A		B	22.92 mL/mx					
	AMS - Liquid	3.4 lba/gal	SL		8.50 LB AI/100	GAL	B	49.99 mL/mx					
	INDUCE	90 %	SL		0.25 % V/V		B	4.999 mL/mx					
4	ANTHEM MAXX	4.3 LB/GAL	SC		3 FL OZ/A		A	3.125 mL/mx		104	214	303	401
	CALLISTO	4 LB/GAL	SC		3 FL OZ/A		A	3.125 mL/mx					
	ATRAZINE 4L (SC)	4 LB/GAL	SC		1 QT/A		A	33.33 mL/mx					
	ANTHEM MAXX	4.3 LB/GAL	SC		2.50 FL OZ/A		C	2.604 mL/mx					
	CALLISTO	4 LB/GAL	SC		3 FL OZ/A		C	3.125 mL/mx					
	ATRAZINE 4L (SC)	4 LB/GAL	SC		0.50 QT/A		C	16.67 mL/mx					
	ROUNDUP POWERMAX	5.5 LB/GAL	SL		22 FL OZ/A		C	22.92 mL/mx					
	AMS - Liquid	3.4 lba/gal	SL		8.50 LB AI/100	GAL	C	49.99 mL/mx					
	INDUCE	90 %	SL		0.25 % V/V		C	4.999 mL/mx					
5	TRIVOLT	3.65 LB/GAL	SC		12 FL OZ/A		A	12.5 mL/mx		105	206	305	412
6	MAVERICK	2.05 LB/GAL	SC		18 FL OZ/A		A	18.75 mL/mx		106	203	306	403
7	ACURON FLEXI	3.26 LB/GAL	SC		2 QT/A		A	66.67 mL/mx		107	213	302	411
	ZIDUA SC	4.17 LB/GAL	SC		2.50 FL OZ/A		A	2.604 mL/mx					
8	VERDICT	5.57 LB/GAL	EC		10 FL OZ/A		A	10.42 mL/mx		108	204	301	408
	ARMEZON PRO	5.35 LB/GAL	EC		16 FL OZ/A		C	16.67 mL/mx					
	ATRAZINE 4L (SC)	4 LB/GAL	SC		0.50 QT/A		C	16.67 mL/mx					
	ROUNDUP POWERMAX	5.5 LB/GAL	SL		22 FL OZ/A		C	22.92 mL/mx					
	AMS - Liquid	3.4 lba/gal	SL		8.50 LB AI/100	GAL	C	49.99 mL/mx					
	INDUCE	90 %	SL		0.25 % V/V		C	4.999 mL/mx					
9	LEXAR EZ	3.704 LB/GAL	SC		1.75 QT/A		A	58.33 mL/mx		109	202	309	413
	ACURON GT	4.295 LB/GAL	ZC		3.75 PT/A		C	62.5 mL/mx					
	AMS - Liquid	3.4 lba/gal	SL		8.50 LB AI/100	GAL	C	49.99 mL/mx					
	INDUCE	90 %	SL		0.25 % V/V		C	4.999 mL/mx					
10	KEYSTONE NXT	5.6 LB/GAL	SE		2 QT/A		A	66.67 mL/mx		110	201	310	407
	RESICORE	3.29 LB/GAL	SE		1.25 QT/A		C	41.67 mL/mx					
	ROUNDUP POWERMAX	5.5 LB/GAL	SL		22 FL OZ/A		C	22.92 mL/mx					
	AMS - Liquid	3.4 lba/gal	SL		8.50 LB AI/100	GAL	C	49.99 mL/mx					
	INDUCE	90 %	SL		0.25 % V/V		C	4.999 mL/mx					
11	ANTHEM MAXX	4.3 LB/GAL	SC		4 FL OZ/A		A	4.167 mL/mx		111	209	313	404
12	DUAL II MAGNUM (7.64EC)	7.64 LB/GAL	EC		16 FL OZ/A		A	16.67 mL/mx		112	211	307	402
13	HARNESS	7 LB/GAL	EC		32 FL OZ/A		A	33.33 mL/mx		113	212	308	414
14	OUTLOOK (6EC)	6 LB/GAL	EC		14 FL OZ/A		A	14.58 mL/mx		114	208	314	409

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

# University of Kentucky

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form	Conc	Form	Unit	Form	Type	Lot Code
18.229	mL	ANTHEM MAXX	4.3		LB/GAL			SC	
15.625	mL	CALLISTO	4		LB/GAL			SC	
133.333	mL	ATRAZINE 4L (SC)	4		LB/GAL			SC	
91.667	mL	ROUNDUP POWERMAX	5.5		LB/GAL			SL	
249.973	mL	AMS - Liquid	3.4		lba/gal			SL	
24.997	mL	INDUCE	90		%			SL	
12.500	mL	TRIVOLT	3.65		LB/GAL			SC	
18.750	mL	MAVERICK	2.05		LB/GAL			SC	
66.666	mL	ACURON FLEXI	3.26		LB/GAL			SC	
2.604	mL	ZIDUA SC	4.17		LB/GAL			SC	
10.417	mL	VERDICT	5.57		LB/GAL			EC	
16.667	mL	ARMEZON PRO	5.35		LB/GAL			EC	
58.333	mL	LEXAR EZ	3.704		LB/GAL			SC	
62.500	mL	ACURON GT	4.295		LB/GAL			ZC	
66.666	mL	KEYSTONE NXT	5.6		LB/GAL			SE	
41.667	mL	RESICORE	3.29		LB/GAL			SE	
16.667	mL	DUAL II MAGNUM (7.64EC)	7.64		LB/GAL			EC	
33.333	mL	HARNESS	7		LB/GAL			EC	
14.583	mL	OUTLOOK (6EC)	6		LB/GAL			EC	

\* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

\* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

## General Trial Information

**Study Director:** Todd Cogdill

**Investigator:** Travis Legleiter **Title:** Assistant Extension Professor

**Discipline:** H herbicide

**Status:** E established

**ARM Trial Created On:** 4-5-2023

## Trial Location

**City:** Princeton **Country:** USA United States

**State/Prov.:** Kentucky **County:** Caldwell

**Postal Code:** 42445

## Regulations

**Conducted Under GLP:** No

**Conducted Under GEP:** No

## Contacts

**Role:** STYDIR study director

**Study Director:** Todd Cogdill

**Role:** INVEST investigator

**Title:** Assistant Extension Professor

**Investigator:** Travis Legleiter

**Organization:** University of Kentucky

**Address 1:** 348 University Drive

**Phone No.:** 859-562-1323

**Country:** USA United States

**E-mail:** Travis.Legleiter@uky.edu

**City:** Princeton, KY

**Postal Code:** 42445

## Crop Description

**Crop 1:** C ZEAMX Zea mays Corn

**Stage Scale:** BBCH

**BBCH Scale:** BCOR

**Variety:** P1170AM

**Attributes:** RR/LL

**Planting Date:** 5-3-2023

**Planting Rate:** 32000 S/A

**Depth:** 2 IN

**Planting Method:** PLANTD planted

**Row Spacing:** 30 IN

**Planting Equipment:** VP vacuum planter

**Soil Temperature:** 63.8 F

**Soil Moisture:** DRY dry

**Harvested Width:** 5 FT

**% Standard Moisture:** 15.5

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## Pest Description

- Pest 1 Type:** W **Code:** AMBTR *Ambrosia trifida*  
**Common Name:** Giant ragweed **Stage Scale:** BBCH
- Pest 2 Type:** W **Code:** DIGSA *Digitaria sanguinalis*  
**Common Name:** large crabgrass **Stage Scale:** BBCH
- Pest 3 Type:** W **Code:** SIDSP *Sida spinosa*  
**Common Name:** Prickly sida **Stage Scale:** BBCH
- Pest 4 Type:** W **Code:** IPOHE *Ipomoea hederacea*  
**Common Name:** ivy-leaf morning glory **Stage Scale:** BBCH
- Pest 5 Type:** W **Code:** AMACH *Amaranthus hybridus*  
**Common Name:** smooth pigweed **Stage Scale:** BBCH
- Pest 6 Type:** W **Code:** ABUTH *Abutilon theophrasti*  
**Common Name:** velvetleaf **Stage Scale:** BBCH

## Site and Design

**Treated Plot Width:** 10 FT **Site Type:** FIELD field  
**Treated Plot Length:** 30 FT **Experimental Unit:** 1 PLOT plot  
**Treated Plot Area:** 300.0 FT<sup>2</sup> **Tillage Type:** NOTILL no-till  
**Replications:** 4 **Treatments:** 14 **Plots:** 56 **Study Design:** RACOBL Randomized Complete Block (RCB)

## Maintenance

No.	Date	Type	Maintenance Product Name	Rate	Unit	Comment
1.	4-19-2023	HERB	Roundup Powermax 3	30	FL OZ/A	
2.	4-19-2023	HERB	Interline	32	FL OZ/A	
3.	4-19-2023	ADJ	AMS	2.5	% V/V	
4.	4-19-2023	FERT	Potassium	46		lbs
5.	4-19-2023	FERT	Nitrogen	18		lbs
6.	9-24-2023	FERT	Nitrogen	200		lbs

**Comment:** Brand names of adjuvants used: Induce and Amsol.

## Soil Description

**Description Name:** 108 C1&2  
**% Sand:** 4.8 **% OM:** 2.7 **Texture:** SIL silt loam  
**% Silt:** 82.1 **Soil Name:** Crider Silt Loam  
**% Clay:** 13.1  
**pH:** 6.01 **CEC:** 13.13

## Application Description

	A	B	C
<b>Date</b>	5-4-2023	5-15-2023	5-26-2023
<b>Stop Time</b>	2:46 PM	12:38 PM	3:43 PM
<b>Interval to Prev. Appl.</b>		11 DAYS	11 DAYS
<b>Method</b>	SPRAY	SPRAY	SPRAY
<b>Timing</b>	PREPRE	EAPOCR	POSPOS
<b>Placement</b>	BROADC	BROADC	BROADC
<b>Applied By</b>	JLG	JLG	JLG
<b>Air Temperature Start, Stop</b>	61.9, 64 F	85.7, 79.9 F	76, 77 F
<b>% Relative Humidity Start, Stop</b>	69, 66.3	57.3, 66.7	33.3, 33.6
<b>Wind Velocity+Dir. Start</b>	2 MPH, SW	0.9 MPH, S	6.1 MPH, SW
<b>Wind Velocity+Dir. Stop</b>	1 MPH, WNW	4 MPH, S	8.4 MPH, SW
<b>Wind Velocity+Dir. Max</b>	5 MPH, -	6.4 MPH, -	
<b>Wet Leaves (Y/N)</b>	N, no		
<b>Soil Temperature</b>	60 F		
<b>Soil Moisture</b>		WET	
<b>% Cloud Cover</b>	95	100	

## Crop Stage At Each Application

	A	B	C
<b>Crop 1 Code, BBCH Scale</b>	ZEAMX, BCOR	ZEAMX, BCOR	ZEAMX, BCOR
<b>Stage Majority, Percent</b>		12, -	14, -
<b>Stage Minimum, Percent</b>		12, -	14, -
<b>Stage Maximum, Percent</b>		12, -	14, -
<b>Height Average</b>		5.5 IN	15 IN
<b>Height Minimum, Maximum</b>		4.5, 6.5	14, 16

# University of Kentucky

## Pest Stage At Each Application

	A	B	C
<b>Pest 1 Code, Type, Scale</b>	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
<b>Height Average</b>		2 IN	
<b>Height Minimum, Maximum</b>		1.5, 2.5	
<b>Density Average</b>		1.33 FT2	
<b>Density Minimum, Maximum</b>		1, 2	
<b>Pest 2 Code, Type, Scale</b>	DIGSA, W, BBCH	DIGSA, W, BBCH	DIGSA, W, BBCH
<b>Height Average</b>		1.125 IN	
<b>Height Minimum, Maximum</b>		0.25, 2	
<b>Density Average</b>		6.75 FT2	
<b>Density Minimum, Maximum</b>		2, 16	
<b>Pest 3 Code, Type, Scale</b>	SIDSP, W, BBCH	SIDSP, W, BBCH	SIDSP, W, BBCH
<b>Height Average</b>		0.625 IN	
<b>Height Minimum, Maximum</b>		0.5, 0.75	
<b>Density Average</b>		8.25 FT2	
<b>Density Minimum, Maximum</b>		1, 24	
<b>Pest 4 Code, Type, Scale</b>	IPOHE, W, BBCH	IPOHE, W, BBCH	IPOHE, W, BBCH
<b>Height Average</b>		0.375 IN	
<b>Height Minimum, Maximum</b>		0, 0.75	
<b>Density Average</b>		1 FT2	
<b>Density Minimum, Maximum</b>		0, 1	
<b>Pest 5 Code, Type, Scale</b>	AMACH, W, BBCH	AMACH, W, BBCH	AMACH, W, BBCH
<b>Height Average</b>		0.5 IN	
<b>Height Minimum, Maximum</b>		0.25, 0.75	
<b>Density Average</b>		10.5 FT2	
<b>Density Minimum, Maximum</b>		4, 17	
<b>Pest 6 Code, Type, Scale</b>	ABUTH, W, BBCH	ABUTH, W, BBCH	ABUTH, W, BBCH
<b>Height Average</b>		0.875 IN	
<b>Height Minimum, Maximum</b>		0, 1.75	
<b>Density Average</b>		2 FT2	
<b>Density Minimum, Maximum</b>		0, 2	

## Application Equipment

	A	B	C
<b>Equipment Type</b>	BACCAI	BACCAI	BACCAI
<b>Operation Pressure</b>	35 PSI	35 PSI	33 PSI
<b>Nozzle Model</b>	XR11002	XR11002	XR11002
<b>Nozzle Type</b>	FLAFXR	FLAFXR	FLAFXR
<b>Nozzle TradeName</b>	XR TeeJet	XR TeeJet	XR TeeJet
<b>Nozzle Tip Size, Color</b>	02, Yellow	02, Yellow	02, Yellow
<b>Nozzle Spacing</b>	20.0 IN	20.0 IN	20.0 IN
<b>Boom ID</b>	BLUE	BLUE	WHITE
<b>Boom Length</b>	10.0 FT	10.0 FT	10.0 FT
<b>Boom Height</b>	18.0 IN	18.0 IN	18.0 FT
<b>Ground Speed</b>	3 MPH	3 MPH	3 MPH
<b>Application Amount</b>	15 GAL/AC	15 GAL/AC	15 GAL/AC
<b>Mix Overage</b>	436.0 mL	436.0 mL	436.0 mL
<b>Mix Size</b>	2 L	2 L	2 L
<b>Propellant</b>	COMCO2	COMCO2	COMCO2

## Notes

Context	Date	By	Notes
STATUS	4-5-2023	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	8-15-2023	Travis Legleiter	Automatically added by ARM: Status changed to: E: changed by (EKYLET).
STATUS	8-15-2023	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

# University of Kentucky

## Anthem Maxx Programs for Residual Weed Control in Corn

Trial ID: USA-23-033(23-17-COR-REC)      Cooperator Trial ID:  
 Protocol ID: USA-23-033      Location:      Trial Year: 2023  
 Project ID:      Project ID 2:      Project ID 3:  
 Study Director: Todd Cogdill      Sponsor Contact:  
 Investigator: Travis Legleiter

Rating Date	5-12-2023	5-12-2023	5-12-2023	5-17-2023	5-17-2023
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, C	PLANT, P
Rating Type	phygen	control	control	phygen	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code	C, ZEAMX			C, ZEAMX	
BBCH Scale	BCOR			BCOR	
Crop Scientific Name	Zea mays			Zea mays	
Crop Name	Corn			Corn	
Pest Type		W, Weed	W, Weed		W, Weed
Pest Code		AMBTR	IPOHE		AMBTR
Pest Scientific Name		Ambrosia trifida	Ipomoea hederac>		Ambrosia trifida
Pest Name		Giant ragweed	ivy-leaf mornin>		Giant ragweed
Rating Timing					
Days After First/Last Applic.	8, 8	8, 8	8, 8	13, 2	13, 2
Trt-Eval Interval					
Plant-Eval Interval	9 DP-1	9 DP-1	9 DP-1	14 DP-1	14 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes					AL
Number of Decimals					

Trt	Treatment	Rate	Appl	Code	Plot	1	2	3	4	5
1	UNTREATED CHECK				101	0.0	0.0	0.0	0.0	0.0
					205	0.0	0.0	0.0	0.0	0.0
					311	0.0	0.0	0.0	0.0	0.0
					405	0.0	0.0	0.0	0.0	0.0
					Mean =	0.0	0.0	0.0	0.0	0.0d
2	ANTHEM MAXX	4 FL OZ/A	A		102	0.0	97.0	100.0	0.0	90.0
	CALLISTO	6 FL OZ/A	A		210	0.0	97.0	97.0	0.0	90.0
	ATRAZINE 4L (SC)	1 QT/A	A		304	0.0	97.0	100.0	0.0	97.0
					410	0.0	90.0	100.0	0.0	90.0
					Mean =	0.0	95.3	99.3	0.0	91.7d
3	ANTHEM MAXX	4 FL OZ/A	B		103	0.0	0.0	0.0	0.0	80.0
	CALLISTO	3 FL OZ/A	B		207	0.0	0.0	0.0	0.0	0.0
	ATRAZINE 4L (SC)	1 QT/A	B		312	0.0	0.0	0.0	0.0	50.0
	ROUNDUP POWERMAX	22 FL OZ/A	B		406	0.0	0.0	0.0	0.0	90.0
	AMS - Liquid	8.50 LB AI/100 GAL	B							
	INDUCE	0.25 % V/V	B							
					Mean =	0.0	0.0	0.0	0.0	23.8d
4	ANTHEM MAXX	3 FL OZ/A	A		104	0.0	100.0	95.0	0.0	90.0
	CALLISTO	3 FL OZ/A	A		214	0.0	90.0	95.0	0.0	70.0
	ATRAZINE 4L (SC)	1 QT/A	A		303	0.0	95.0	100.0	0.0	90.0
	ANTHEM MAXX	2.50 FL OZ/A	C		401	0.0	97.0	100.0	0.0	85.0
	CALLISTO	3 FL OZ/A	C							
	ATRAZINE 4L (SC)	0.50 QT/A	C							
	ROUNDUP POWERMAX	22 FL OZ/A	C							
	AMS - Liquid	8.50 LB AI/100 GAL	C							
	INDUCE	0.25 % V/V	C							
					Mean =	0.0	95.5	97.5	0.0	83.3d
5	TRIVOLT	12 FL OZ/A	A		105	0.0	100.0	100.0	0.0	95.0
					206	0.0	98.0	100.0	0.0	85.0
					305	0.0	100.0	100.0	0.0	97.0
					412	0.0	97.0	100.0	0.0	80.0
					Mean =	0.0	98.8	100.0	0.0	89.0d
6	MAVERICK	18 FL OZ/A	A		106	0.0	100.0	97.0	0.0	80.0
					203	0.0	95.0	97.0	0.0	90.0
					306	0.0	97.0	100.0	0.0	90.0
					403	0.0	100.0	100.0	0.0	95.0
					Mean =	0.0	98.0	98.5	0.0	88.6d
7	ACURON FLEXI	2 QT/A	A		107	0.0	97.0	97.0	0.0	80.0
	ZIDUA SC	2.50 FL OZ/A	A		213	0.0	95.0	95.0	0.0	80.0
					302	0.0	95.0	100.0	0.0	95.0
					411	0.0	85.0	100.0	0.0	80.0
					Mean =	0.0	93.0	98.0	0.0	83.5d

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	5-12-2023	5-12-2023	5-12-2023	5-17-2023	5-17-2023
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, C	PLANT, P
Rating Type	phygen	control	control	phygen	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code	C, ZEAMX			C, ZEAMX	
BBCH Scale	BCOR			BCOR	
Crop Scientific Name	Zea mays			Zea mays	
Crop Name	Corn			Corn	
Pest Type		W, Weed	W, Weed		W, Weed
Pest Code		AMBTR	IPOHE		AMBTR
Pest Scientific Name		Ambrosia trifida	Ipomoea hederac>		Ambrosia trifida
Pest Name		Giant ragweed	ivy-leaf mornin>		Giant ragweed
Rating Timing					
Days After First/Last Applic.	8, 8	8, 8	8, 8	13, 2	13, 2
Trt-Eval Interval					
Plant-Eval Interval	9 DP-1	9 DP-1	9 DP-1	14 DP-1	14 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes					AL
Number of Decimals					

Trt No.	Treatment Name	Rate	Appl Code	Plot	1	2	3	4	5
8	VERDICT	10 FL OZ/A	A	108	0.0	97.0	100.0	0.0	80.0
	ARMEZON PRO	16 FL OZ/A	C	204	0.0	100.0	100.0	0.0	90.0
	ATRAZINE 4L (SC)	0.50 QT/A	C	301	0.0	97.0	100.0	0.0	85.0
	ROUNDUP POWERMAX	22 FL OZ/A	C	408	0.0	100.0	100.0	0.0	98.0
	AMS - Liquid	8.50 LB AI/100 GAL	C						
	INDUCE	0.25 % V/V	C						
				Mean =	0.0	98.5	100.0	0.0	88.0d
9	LEXAR EZ	1.75 QT/A	A	109	0.0	90.0	90.0	0.0	90.0
	ACURON GT	3.75 PT/A	C	202	0.0	100.0	98.0	0.0	98.0
	AMS - Liquid	8.50 LB AI/100 GAL	C	309	0.0	100.0	97.0	0.0	95.0
	INDUCE	0.25 % V/V	C	413	0.0	100.0	100.0	0.0	95.0
				Mean =	0.0	97.5	96.3	0.0	94.5d
10	KEYSTONE NXT	2 QT/A	A	110	0.0	97.0	90.0	0.0	90.0
	RESICORE	1.25 QT/A	C	201	0.0	97.0	100.0	0.0	95.0
	ROUNDUP POWERMAX	22 FL OZ/A	C	310	0.0	95.0	95.0	0.0	50.0
	AMS - Liquid	8.50 LB AI/100 GAL	C	407	0.0	97.0	100.0	0.0	96.0
	INDUCE	0.25 % V/V	C						
				Mean =	0.0	96.5	96.3	0.0	80.1d
11	ANTHEM MAXX	4 FL OZ/A	A	111	0.0	95.0	95.0	0.0	50.0
				209	0.0	97.0	100.0	0.0	90.0
				313	0.0	60.0	95.0	0.0	50.0
				404	0.0	97.0	100.0	0.0	97.0
				Mean =	0.0	87.3	97.5	0.0	68.4d
12	DUAL II MAGNUM (7.64EC)	16 FL OZ/A	A	112	0.0	90.0	100.0	0.0	50.0
				211	0.0	85.0	85.0	0.0	0.0
				307	0.0	98.0	98.0	0.0	70.0
				402	0.0	100.0	98.0	0.0	80.0
				Mean =	0.0	93.3	95.3	0.0	22.3d
13	HARNESS	32 FL OZ/A	A	113	0.0	97.0	100.0	0.0	70.0
				212	0.0	85.0	97.0	0.0	0.0
				308	0.0	98.0	100.0	0.0	75.0
				414	0.0	80.0	90.0	0.0	20.0
				Mean =	0.0	90.0	96.8	0.0	17.3d
14	OUTLOOK (6EC)	14 FL OZ/A	A	114	0.0	90.0	100.0	0.0	50.0
				208	0.0	95.0	100.0	0.0	60.0
				314	0.0	90.0	95.0	0.0	20.0
				409	0.0	98.0	98.0	0.0	95.0
				Mean =	0.0	93.3	98.3	0.0	49.0d

d=Means are reported in de-transformed data units



# University of Kentucky

Rating Date	5-17-2023	5-17-2023	6-2-2023	6-2-2023	6-2-2023
Part Rated	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	control	control	phygen	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code			C, ZEAMX		
BBCH Scale			BCOR		
Crop Scientific Name			Zea mays		
Crop Name			Corn		
Pest Type	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	IPOHE	AMACH		AMBTR	IPOHE
Pest Scientific Name	Ipomoea hederac>	Amaranthus hybr>		Ambrosia trifida	Ipomoea hederac>
Pest Name	ivy-leaf mornin>	smooth pigweed		Giant ragweed	ivy-leaf mornin>
Rating Timing					
Days After First/Last Applic.	13, 2	13, 2	29, 7	29, 7	29, 7
Trt-Eval Interval					
Plant-Eval Interval	14 DP-1	14 DP-1	30 DP-1	30 DP-1	30 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes	AS				
Number of Decimals					

Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code Plot	6	7	8	9	10	
1	UNTREATED CHECK		101	0.0	0.0	0.0	0.0	0.0	
			205	0.0	0.0	0.0	0.0	0.0	
			311	0.0	0.0	0.0	0.0	0.0	
			405	0.0	0.0	0.0	0.0	0.0	
			Mean =	0.0d	0.0	0.0	0.0	0.0	
2	ANTHEM MAXX	4 FL OZ/A	A 102	100.0	100.0	0.0	80.0	100.0	
	CALLISTO	6 FL OZ/A	A 210	80.0	100.0	0.0	60.0	80.0	
	ATRAZINE 4L (SC)	1 QT/A	A 304	100.0	100.0	0.0	80.0	100.0	
			410	90.0	100.0	0.0	87.0	90.0	
			Mean =	92.3d	100.0	0.0	76.8	92.5	
3	ANTHEM MAXX	4 FL OZ/A	B 103	95.0	95.0	0.0	100.0	100.0	
	CALLISTO	3 FL OZ/A	B 207	0.0	0.0	0.0	95.0	100.0	
	ATRAZINE 4L (SC)	1 QT/A	B 312	70.0	70.0	0.0	90.0	100.0	
	ROUNDUP POWERMAX	22 FL OZ/A	B 406	100.0	100.0	0.0	100.0	100.0	
	AMS - Liquid	8.50 LB AI/100 GAL	B						
	INDUCE	0.25 % V/V	B						
			Mean =	51.7d	66.3	0.0	96.3	100.0	
4	ANTHEM MAXX	3 FL OZ/A	A 104	100.0	10.0	0.0	100.0	100.0	
	CALLISTO	3 FL OZ/A	A 214	90.0	95.0	0.0	100.0	100.0	
	ATRAZINE 4L (SC)	1 QT/A	A 303	100.0	100.0	0.0	100.0	100.0	
	ANTHEM MAXX	2.50 FL OZ/A	C 401	100.0	100.0	0.0	100.0	100.0	
	CALLISTO	3 FL OZ/A	C						
	ATRAZINE 4L (SC)	0.50 QT/A	C						
	ROUNDUP POWERMAX	22 FL OZ/A	C						
	AMS - Liquid	8.50 LB AI/100 GAL	C						
	INDUCE	0.25 % V/V	C						
			Mean =	97.5d	76.3	0.0	100.0	100.0	
5	TRIVOLT	12 FL OZ/A	A 105	100.0	100.0	0.0	70.0	100.0	
			206	97.0	97.0	0.0	75.0	97.0	
			305	100.0	100.0	0.0	90.0	100.0	
			412	97.0	100.0	0.0	60.0	95.0	
			Mean =	98.5d	99.3	0.0	73.8	98.0	
6	MAVERICK	18 FL OZ/A	A 106	100.0	100.0	0.0	60.0	90.0	
			203	97.0	97.0	0.0	80.0	97.0	
			306	100.0	100.0	0.0	60.0	100.0	
			403	95.0	100.0	0.0	80.0	90.0	
			Mean =	98.0d	99.3	0.0	70.0	94.3	
7	ACURON FLEXI	2 QT/A	A 107	100.0	100.0	0.0	80.0	97.0	
	ZIDUA SC	2.50 FL OZ/A	A 213	95.0	95.0	0.0	70.0	90.0	
			302	100.0	100.0	0.0	80.0	100.0	
			411	100.0	100.0	0.0	60.0	90.0	
			Mean =	98.7d	98.8	0.0	72.5	94.3	

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	5-17-2023	5-17-2023	6-2-2023	6-2-2023	6-2-2023
Part Rated	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	control	control	phygen	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code			C, ZEAMX		
BBCH Scale			BCOR		
Crop Scientific Name			Zea mays		
Crop Name			Corn		
Pest Type	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	IPOHE	AMACH		AMBTR	IPOHE
Pest Scientific Name	Ipomoea hederac>	Amaranthus hybr>		Ambrosia trifida	Ipomoea hederac>
Pest Name	ivy-leaf mornin>	smooth pigweed		Giant ragweed	ivy-leaf mornin>
Rating Timing					
Days After First/Last Applic.	13, 2	13, 2	29, 7	29, 7	29, 7
Trt-Eval Interval					
Plant-Eval Interval	14 DP-1	14 DP-1	30 DP-1	30 DP-1	30 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes	AS				
Number of Decimals					

Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code Plot	6	7	8	9	10	
8	VERDICT	10 FL OZ/A	A 108	90.0	90.0	0.0	100.0	100.0	
	ARMEZON PRO	16 FL OZ/A	C 204	100.0	100.0	0.0	100.0	100.0	
	ATRAZINE 4L (SC)	0.50 QT/A	C 301	100.0	100.0	0.0	100.0	100.0	
	ROUNDUP POWERMAX	22 FL OZ/A	C 408	100.0	100.0	0.0	100.0	100.0	
	AMS - Liquid	8.50 LB AI/100 GAL	C						
	INDUCE	0.25 % V/V	C						
			Mean =	97.5d	97.5	0.0	100.0	100.0	
9	LEXAR EZ	1.75 QT/A	A 109	100.0	100.0	0.0	97.0	100.0	
	ACURON GT	3.75 PT/A	C 202	100.0	100.0	0.0	100.0	100.0	
	AMS - Liquid	8.50 LB AI/100 GAL	C 309	100.0	100.0	0.0	100.0	100.0	
	INDUCE	0.25 % V/V	C 413	100.0	100.0	0.0	100.0	100.0	
				Mean =	100.0d	100.0	0.0	99.3	100.0
10	KEYSTONE NXT	2 QT/A	A 110	95.0	95.0	0.0	100.0	100.0	
	RESICORE	1.25 QT/A	C 201	100.0	100.0	0.0	100.0	100.0	
	ROUNDUP POWERMAX	22 FL OZ/A	C 310	90.0	90.0	0.0	100.0	100.0	
	AMS - Liquid	8.50 LB AI/100 GAL	C 407	100.0	100.0	0.0	100.0	100.0	
	INDUCE	0.25 % V/V	C						
			Mean =	96.2d	96.3	0.0	100.0	100.0	
11	ANTHEM MAXX	4 FL OZ/A	A 111	50.0	95.0	0.0	0.0	90.0	
			209	95.0	95.0	0.0	70.0	95.0	
			313	90.0	95.0	0.0	50.0	100.0	
			404	100.0	100.0	0.0	20.0	95.0	
			Mean =	82.4d	96.3	0.0	35.0	95.0	
12	DUAL II MAGNUM (7.64EC)	16 FL OZ/A	A 112	80.0	95.0	0.0	0.0	95.0	
			211	95.0	95.0	0.0	0.0	95.0	
			307	100.0	100.0	0.0	50.0	95.0	
			402	100.0	100.0	0.0	20.0	50.0	
			Mean =	93.6d	97.5	0.0	17.5	83.8	
13	HARNESS	32 FL OZ/A	A 113	95.0	95.0	0.0	50.0	95.0	
			212	90.0	90.0	0.0	0.0	95.0	
			308	100.0	100.0	0.0	50.0	95.0	
			414	90.0	90.0	0.0	0.0	50.0	
			Mean =	93.7d	93.8	0.0	25.0	83.8	
14	OUTLOOK (6EC)	14 FL OZ/A	A 114	80.0	95.0	0.0	25.0	90.0	
			208	90.0	90.0	0.0	90.0	97.0	
			314	70.0	90.0	0.0	25.0	50.0	
			409	90.0	100.0	0.0	65.0	85.0	
			Mean =	82.3d	93.8	0.0	51.3	80.5	

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-2-2023	6-2-2023	6-8-2023	6-8-2023	6-8-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	control	control	phygen	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code			C, ZEAMX		
BBCH Scale			BCOR		
Crop Scientific Name			Zea mays		
Crop Name			Corn		
Pest Type	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	AMACH	SORHA		AMBTR	IPOHE
Pest Scientific Name	Amaranthus hybr>	Sorghum halepen>		Ambrosia trifida	Ipomoea hederac>
Pest Name	smooth pigweed	Johnson grass		Giant ragweed	ivy-leaf mornin>
Rating Timing					
Days After First/Last Applic.	29, 7	29, 7	35, 13	35, 13	35, 13
Trt-Eval Interval					
Plant-Eval Interval	30 DP-1	30 DP-1	36 DP-1	36 DP-1	36 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes				ER3	
Number of Decimals					

Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	11	12	13	14	15
1	UNTREATED CHECK		101	0.0	0.0	0.0	0.0	0.0
			205	0.0	0.0	0.0	0.0	0.0
			311	0.0	0.0	0.0	0.0	0.0
			405	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	0.0
2	ANTHEM MAXX	4 FL OZ/A	A 102	100.0	80.0	0.0	90.0	90.0
	CALLISTO	6 FL OZ/A	A 210	90.0	0.0	0.0	70.0	70.0
	ATRAZINE 4L (SC)	1 QT/A	A 304	100.0	95.0	0.0	100.0	100.0
			410	95.0	50.0	0.0	85.0	95.0
			Mean =	96.3	56.3	0.0	81.7	88.8
3	ANTHEM MAXX	4 FL OZ/A	B 103	100.0	95.0	0.0	100.0	100.0
	CALLISTO	3 FL OZ/A	B 207	100.0	100.0	0.0	95.0	100.0
	ATRAZINE 4L (SC)	1 QT/A	B 312	100.0	100.0	0.0	100.0	97.0
	ROUNDUP POWERMAX	22 FL OZ/A	B 406	100.0	100.0	0.0	95.0	100.0
	AMS - Liquid	8.50 LB AI/100 GAL	B					
	INDUCE	0.25 % V/V	B					
			Mean =	100.0	98.8	0.0	96.7	99.3
4	ANTHEM MAXX	3 FL OZ/A	A 104	100.0	97.0	0.0	100.0	100.0
	CALLISTO	3 FL OZ/A	A 214	100.0	100.0	0.0	0.0	100.0
	ATRAZINE 4L (SC)	1 QT/A	A 303	100.0	100.0	0.0	100.0	100.0
	ANTHEM MAXX	2.50 FL OZ/A	C 401	100.0	100.0	0.0	100.0	100.0
	CALLISTO	3 FL OZ/A	C					
	ATRAZINE 4L (SC)	0.50 QT/A	C					
	ROUNDUP POWERMAX	22 FL OZ/A	C					
	AMS - Liquid	8.50 LB AI/100 GAL	C					
	INDUCE	0.25 % V/V	C					
			Mean =	100.0	99.3	0.0	66.7	100.0
5	TRIVOLT	12 FL OZ/A	A 105	90.0	100.0	0.0	70.0	95.0
			206	97.0	100.0	0.0	60.0	85.0
			305	100.0	20.0	0.0	90.0	90.0
			412	60.0	100.0	0.0	70.0	95.0
			Mean =	86.8	80.0	0.0	66.7	91.3
6	MAVERICK	18 FL OZ/A	A 106	90.0	95.0	0.0	75.0	90.0
			203	97.0	100.0	0.0	75.0	95.0
			306	100.0	50.0	0.0	80.0	80.0
			403	98.0	90.0	0.0	80.0	80.0
			Mean =	96.3	83.8	0.0	76.7	86.3
7	ACURON FLEXI	2 QT/A	A 107	100.0	80.0	0.0	80.0	95.0
	ZIDUA SC	2.50 FL OZ/A	A 213	100.0	100.0	0.0	80.0	100.0
			302	100.0	100.0	0.0	100.0	100.0
			411	95.0	80.0	0.0	50.0	95.0
			Mean =	98.8	90.0	0.0	70.0	97.5

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-2-2023	6-2-2023	6-8-2023	6-8-2023	6-8-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	control	control	phygen	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code			C, ZEAMX		
BBCH Scale			BCOR		
Crop Scientific Name			Zea mays		
Crop Name			Corn		
Pest Type	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	AMACH	SORHA		AMBTR	IPOHE
Pest Scientific Name	Amaranthus hybr>	Sorghum halepen>		Ambrosia trifida	Ipomoea hederac>
Pest Name	smooth pigweed	Johnson grass		Giant ragweed	ivy-leaf mornin>
Rating Timing					
Days After First/Last Applic.	29, 7	29, 7	35, 13	35, 13	35, 13
Trt-Eval Interval					
Plant-Eval Interval	30 DP-1	30 DP-1	36 DP-1	36 DP-1	36 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes				ER3	
Number of Decimals					

Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	11	12	13	14	15
8	VERDICT	10 FL OZ/A	A 108	100.0	97.0	0.0	100.0	100.0
	ARMEZON PRO	16 FL OZ/A	C 204	100.0	100.0	0.0	100.0	100.0
	ATRAZINE 4L (SC)	0.50 QT/A	C 301	100.0	100.0	0.0		100.0
	ROUNDUP POWERMAX	22 FL OZ/A	C 408	100.0	95.0	0.0	100.0	100.0
	AMS - Liquid	8.50 LB AI/100 GAL	C					
	INDUCE	0.25 % V/V	C					
			Mean =	100.0	98.0	0.0	100.0	100.0
9	LEXAR EZ	1.75 QT/A	A 109	100.0	100.0	0.0	100.0	100.0
	ACURON GT	3.75 PT/A	C 202	100.0	100.0	0.0	100.0	100.0
	AMS - Liquid	8.50 LB AI/100 GAL	C 309	100.0	100.0	0.0		100.0
	INDUCE	0.25 % V/V	C 413	100.0	100.0	0.0	100.0	100.0
			Mean =	100.0	100.0	0.0	100.0	100.0
10	KEYSTONE NXT	2 QT/A	A 110	100.0	97.0	0.0	100.0	97.0
	RESICORE	1.25 QT/A	C 201	100.0	100.0	0.0	100.0	100.0
	ROUNDUP POWERMAX	22 FL OZ/A	C 310	100.0	97.0	0.0		100.0
	AMS - Liquid	8.50 LB AI/100 GAL	C 407	100.0	100.0	0.0	100.0	100.0
	INDUCE	0.25 % V/V	C					
			Mean =	100.0	98.5	0.0	100.0	99.3
11	ANTHEM MAXX	4 FL OZ/A	A 111	95.0	90.0	0.0	0.0	95.0
			209	97.0	25.0	0.0	70.0	90.0
			313	100.0	100.0	0.0		95.0
			404	97.0	100.0	0.0	0.0	90.0
			Mean =	97.3	78.8	0.0	23.3	92.5
12	DUAL II MAGNUM (7.64EC)	16 FL OZ/A	A 112	90.0	100.0	0.0	10.0	90.0
			211	50.0	100.0	0.0	0.0	50.0
			307	90.0	20.0	0.0		90.0
			402	70.0	90.0	0.0	0.0	80.0
			Mean =	75.0	77.5	0.0	3.3	77.5
13	HARNESS	32 FL OZ/A	A 113	80.0	100.0	0.0	50.0	80.0
			212	95.0	100.0	0.0	0.0	90.0
			308	80.0	50.0	0.0		90.0
			414	50.0	100.0	0.0	0.0	90.0
			Mean =	76.3	87.5	0.0	16.7	87.5
14	OUTLOOK (6EC)	14 FL OZ/A	A 114	50.0	100.0	0.0	20.0	50.0
			208	90.0	70.0	0.0	80.0	95.0
			314	50.0	100.0	0.0		50.0
			409	75.0	60.0	0.0	60.0	60.0
			Mean =	66.3	82.5	0.0	53.3	63.8

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-8-2023	6-8-2023	6-8-2023	6-23-2023	6-23-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMACH	SIDSP	SORHA	AMBTR	IPOHE
Pest Scientific Name	Amaranthus hybr>	Sida spinosa	Sorghum halepen>	Ambrosia trifida	Ipomoea hederac>
Pest Name	smooth pigweed	Prickly sida	Johnson grass	Giant ragweed	ivy-leaf mornin>
Rating Timing					
Days After First/Last Applic.	35, 13	35, 13	35, 13	50, 28	50, 28
Trt-Eval Interval					
Plant-Eval Interval	36 DP-1	36 DP-1	36 DP-1	51 DP-1	51 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes	AS	ER3		AA	
Number of Decimals					

  

Trt Treatment	Rate	Appl	16		17		18		19		20	
No. Name	Rate Unit	Code Plot										
1 UNTREATED CHECK		101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		205	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		311	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		405	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0d	0.0	0.0	0.0	0.0	0.0d	0.0	0.0	0.0	0.0
2 ANTHEM MAXX	4 FL OZ/A	A 102	95.0	90.0	70.0	50.0	90.0	50.0	90.0	90.0	90.0	90.0
CALLISTO	6 FL OZ/A	A 210	90.0	70.0	20.0	50.0	80.0	50.0	80.0	80.0	80.0	80.0
ATRAZINE 4L (SC)	1 QT/A	A 304	100.0	100.0	70.0	70.0	100.0	70.0	100.0	100.0	100.0	100.0
		410	95.0	80.0	50.0	50.0	97.0	50.0	97.0	97.0	97.0	97.0
		Mean =	95.0d	80.0	52.5	55.1d	91.8	55.1d	91.8	91.8	91.8	91.8
3 ANTHEM MAXX	4 FL OZ/A	B 103	100.0	100.0	100.0	100.0	97.0	100.0	100.0	100.0	100.0	100.0
CALLISTO	3 FL OZ/A	B 207	100.0	100.0	95.0	80.0	100.0	80.0	100.0	100.0	100.0	100.0
ATRAZINE 4L (SC)	1 QT/A	B 312	100.0	100.0	100.0	75.0	97.0	75.0	97.0	97.0	97.0	97.0
ROUNDUP POWERMAX	22 FL OZ/A	B 406	100.0	100.0	85.0	90.0	100.0	90.0	100.0	100.0	100.0	100.0
AMS - Liquid	8.50 LB AI/100 GAL	B										
INDUCE	0.25 % V/V	B										
		Mean =	100.0d	100.0	95.0	89.7d	98.5	89.7d	98.5	98.5	98.5	98.5
4 ANTHEM MAXX	3 FL OZ/A	A 104	100.0	100.0	100.0	100.0	97.0	100.0	100.0	100.0	100.0	100.0
CALLISTO	3 FL OZ/A	A 214	100.0	100.0	100.0	97.0	97.0	100.0	97.0	97.0	97.0	97.0
ATRAZINE 4L (SC)	1 QT/A	A 303	100.0	100.0	100.0	100.0	97.0	100.0	100.0	100.0	100.0	100.0
ANTHEM MAXX	2.50 FL OZ/A	C 401	100.0	100.0	100.0	100.0	97.0	100.0	100.0	100.0	100.0	100.0
CALLISTO	3 FL OZ/A	C										
ATRAZINE 4L (SC)	0.50 QT/A	C										
ROUNDUP POWERMAX	22 FL OZ/A	C										
AMS - Liquid	8.50 LB AI/100 GAL	C										
INDUCE	0.25 % V/V	C										
		Mean =	100.0d	100.0	100.0	99.8d	97.0	99.8d	97.0	97.0	97.0	97.0
5 TRIVOLT	12 FL OZ/A	A 105	95.0	80.0	100.0	50.0	90.0	100.0	50.0	90.0	90.0	90.0
		206	85.0	90.0	95.0	25.0	100.0	25.0	100.0	100.0	100.0	100.0
		305	90.0		25.0	70.0	90.0	70.0	90.0	90.0	90.0	90.0
		412	60.0	50.0	100.0	50.0	70.0	50.0	70.0	70.0	70.0	70.0
		Mean =	81.9d	73.3	80.0	48.6d	87.5	48.6d	87.5	87.5	87.5	87.5
6 MAVERICK	18 FL OZ/A	A 106	100.0	80.0	100.0	50.0	90.0	100.0	50.0	90.0	90.0	90.0
		203	100.0	90.0	100.0	50.0	90.0	100.0	50.0	90.0	90.0	90.0
		306	95.0		50.0	0.0	90.0	50.0	0.0	90.0	90.0	90.0
		403	90.0	20.0	80.0	50.0	90.0	80.0	50.0	90.0	90.0	90.0
		Mean =	96.2d	63.3	82.5	30.9d	90.0	30.9d	90.0	90.0	90.0	90.0
7 ACURON FLEXI	2 QT/A	A 107	100.0	100.0	70.0	50.0	100.0	50.0	100.0	100.0	100.0	100.0
ZIDUA SC	2.50 FL OZ/A	A 213	100.0	90.0	100.0	50.0	100.0	50.0	100.0	100.0	100.0	100.0
		302	100.0		100.0	80.0	100.0	80.0	100.0	100.0	100.0	100.0
		411	95.0	70.0	90.0	20.0	100.0	20.0	100.0	100.0	100.0	100.0
		Mean =	98.7d	86.7	90.0	50.0d	87.5	50.0d	87.5	87.5	87.5	87.5

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-8-2023	6-8-2023	6-8-2023	6-23-2023	6-23-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMACH	SIDSP	SORHA	AMBTR	IPOHE
Pest Scientific Name	Amaranthus hybr>	Sida spinosa	Sorghum halepen>	Ambrosia trifida	Ipomoea hederac>
Pest Name	smooth pigweed	Prickly sida	Johnson grass	Giant ragweed	ivy-leaf mornin>
Rating Timing					
Days After First/Last Applic.	35, 13	35, 13	35, 13	50, 28	50, 28
Trt-Eval Interval					
Plant-Eval Interval	36 DP-1	36 DP-1	36 DP-1	51 DP-1	51 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes	AS	ER3		AA	
Number of Decimals					

Trt	Treatment	Rate	Appl		16	17	18	19	20
No.	Name	Rate Unit	Code Plot						
8	VERDICT	10 FL OZ/A	A 108		100.0	100.0	100.0	97.0	95.0
	ARMEZON PRO	16 FL OZ/A	C 204		100.0	100.0	100.0	100.0	100.0
	ATRAZINE 4L (SC)	0.50 QT/A	C 301		100.0		100.0	97.0	97.0
	ROUNDUP POWERMAX	22 FL OZ/A	C 408		100.0	100.0	100.0	100.0	97.0
	AMS - Liquid	8.50 LB AI/100 GAL	C						
	INDUCE	0.25 % V/V	C						
			Mean =		100.0d	100.0	100.0	99.2d	97.3
9	LEXAR EZ	1.75 QT/A	A 109		100.0	100.0	100.0	100.0	98.0
	ACURON GT	3.75 PT/A	C 202		100.0	100.0	100.0	100.0	100.0
	AMS - Liquid	8.50 LB AI/100 GAL	C 309		100.0		100.0	100.0	97.0
	INDUCE	0.25 % V/V	C 413		100.0	100.0	100.0	97.0	97.0
			Mean =		100.0d	100.0	100.0	99.8d	98.0
10	KEYSTONE NXT	2 QT/A	A 110		100.0	100.0	100.0	100.0	70.0
	RESICORE	1.25 QT/A	C 201		100.0	100.0	100.0	100.0	97.0
	ROUNDUP POWERMAX	22 FL OZ/A	C 310		100.0		99.0	100.0	90.0
	AMS - Liquid	8.50 LB AI/100 GAL	C 407		100.0	100.0	97.0	100.0	97.0
	INDUCE	0.25 % V/V	C						
			Mean =		100.0d	100.0	99.0	100.0d	88.5
11	ANTHEM MAXX	4 FL OZ/A	A 111		95.0	0.0	90.0	0.0	90.0
			209		95.0	70.0	10.0	50.0	90.0
			313		100.0		95.0	25.0	90.0
			404		90.0	60.0	90.0	50.0	90.0
			Mean =		95.0d	43.3	71.3	25.0d	90.0
12	DUAL II MAGNUM (7.64EC)	16 FL OZ/A	A 112		80.0	0.0	95.0	0.0	90.0
			211		25.0	0.0	95.0	0.0	90.0
			307		90.0		25.0	50.0	90.0
			402		90.0	10.0	70.0	25.0	90.0
			Mean =		67.8d	3.3	71.3	10.3d	90.0
13	HARNESS	32 FL OZ/A	A 113		80.0	0.0	95.0	0.0	90.0
			212		90.0	0.0	90.0	0.0	90.0
			308		80.0		70.0	50.0	90.0
			414		90.0	0.0	95.0	0.0	50.0
			Mean =		84.9d	0.0	87.5	3.8d	80.0
14	OUTLOOK (6EC)	14 FL OZ/A	A 114		90.0	20.0	95.0	0.0	70.0
			208		95.0	60.0	0.0	70.0	90.0
			314		70.0		80.0	0.0	20.0
			409		50.0	25.0	20.0	50.0	80.0
			Mean =		75.1d	35.0	48.8	18.5d	65.0

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-23-2023	6-23-2023	6-23-2023	6-30-2023	6-30-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMACH	SIDSP	SORHA	AMBTR	IPOHE
Pest Scientific Name	Amaranthus hybr>	Sida spinosa	Sorghum halepen>	Ambrosia trifida	Ipomoea hederac>
Pest Name	smooth pigweed	Prickly sida	Johnson grass	Giant ragweed	ivy-leaf mornin>
Rating Timing					
Days After First/Last Applic.	50, 28	50, 28	50, 28	57, 35	57, 35
Trt-Eval Interval					
Plant-Eval Interval	51 DP-1	51 DP-1	51 DP-1	58 DP-1	58 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes		AS			
Number of Decimals					

  

Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	21	22	23	24	25
1	UNTREATED CHECK		101	0.0	0.0	0.0	0.0	0.0
			205	0.0	0.0	0.0	0.0	0.0
			311	0.0	0.0	0.0	0.0	0.0
			405	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0d	0.0	0.0	0.0
2	ANTHEM MAXX	4 FL OZ/A	A 102	100.0	100.0	50.0	.	.
	CALLISTO	6 FL OZ/A	A 210	90.0	90.0	50.0	.	.
	ATRAZINE 4L (SC)	1 QT/A	A 304	100.0	90.0	80.0	.	.
			410	100.0	90.0	50.0	.	.
			Mean =	97.5	92.5d	57.5	.	.
3	ANTHEM MAXX	4 FL OZ/A	B 103	100.0	100.0	97.0	97.0	97.0
	CALLISTO	3 FL OZ/A	B 207	100.0	100.0	100.0	90.0	80.0
	ATRAZINE 4L (SC)	1 QT/A	B 312	100.0	100.0	100.0	50.0	80.0
	ROUNDUP POWERMAX	22 FL OZ/A	B 406	100.0	100.0	85.0	100.0	90.0
	AMS - Liquid	8.50 LB AI/100 GAL	B					
	INDUCE	0.25 % V/V	B					
			Mean =	100.0	100.0d	95.5	84.3	86.8
4	ANTHEM MAXX	3 FL OZ/A	A 104	100.0	100.0	100.0	100.0	97.0
	CALLISTO	3 FL OZ/A	A 214	100.0	100.0	100.0	100.0	80.0
	ATRAZINE 4L (SC)	1 QT/A	A 303	100.0	100.0	100.0	97.0	95.0
	ANTHEM MAXX	2.50 FL OZ/A	C 401	100.0	100.0	100.0	100.0	90.0
	CALLISTO	3 FL OZ/A	C					
	ATRAZINE 4L (SC)	0.50 QT/A	C					
	ROUNDUP POWERMAX	22 FL OZ/A	C					
	AMS - Liquid	8.50 LB AI/100 GAL	C					
	INDUCE	0.25 % V/V	C					
			Mean =	100.0	100.0d	100.0	99.3	90.5
5	TRIVOLT	12 FL OZ/A	A 105	100.0	50.0	90.0	.	.
			206	100.0	100.0	100.0	.	.
			305	100.0	90.0	50.0	.	.
			412	90.0	50.0	90.0	.	.
			Mean =	97.5	70.7d	82.5	.	.
6	MAVERICK	18 FL OZ/A	A 106	100.0	50.0	90.0	.	.
			203	100.0	100.0	80.0	.	.
			306	90.0	50.0	0.0	.	.
			403	90.0	20.0	90.0	.	.
			Mean =	95.0	51.2d	65.0	.	.
7	ACURON FLEXI	2 QT/A	A 107	100.0	95.0	50.0	.	.
	ZIDUA SC	2.50 FL OZ/A	A 213	100.0	80.0	100.0	.	.
			302	100.0	95.0	90.0	.	.
			411	90.0	70.0	50.0	.	.
			Mean =	97.5	84.7d	72.5	.	.

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-23-2023	6-23-2023	6-23-2023	6-30-2023	6-30-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMACH	SIDSP	SORHA	AMBTR	IPOHE
Pest Scientific Name	Amaranthus hybr>	Sida spinosa	Sorghum halepen>	Ambrosia trifida	Ipomoea hederac>
Pest Name	smooth pigweed	Prickly sida	Johnson grass	Giant ragweed	ivy-leaf mornin>
Rating Timing					
Days After First/Last Applic.	50, 28	50, 28	50, 28	57, 35	57, 35
Trt-Eval Interval					
Plant-Eval Interval	51 DP-1	51 DP-1	51 DP-1	58 DP-1	58 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes		AS			
Number of Decimals					

Trt	Treatment	Rate	Appl		21	22	23	24	25
No.	Name	Rate Unit	Code Plot						
8	VERDICT	10 FL OZ/A	A 108		100.0	100.0	100.0	97.0	97.0
	ARMEZON PRO	16 FL OZ/A	C 204		100.0	100.0	100.0	100.0	97.0
	ATRAZINE 4L (SC)	0.50 QT/A	C 301		100.0	100.0	100.0	97.0	90.0
	ROUNDUP POWERMAX	22 FL OZ/A	C 408		100.0	100.0	100.0	100.0	90.0
	AMS - Liquid	8.50 LB AI/100 GAL	C						
	INDUCE	0.25 % V/V	C						
			Mean =		100.0	100.0d	100.0	98.5	93.5
9	LEXAR EZ	1.75 QT/A	A 109		100.0	100.0	100.0	97.0	95.0
	ACURON GT	3.75 PT/A	C 202		100.0	100.0	100.0	100.0	90.0
	AMS - Liquid	8.50 LB AI/100 GAL	C 309		100.0	100.0	100.0	100.0	95.0
	INDUCE	0.25 % V/V	C 413		100.0	100.0	100.0	95.0	97.0
			Mean =		100.0	100.0d	100.0	98.0	94.3
10	KEYSTONE NXT	2 QT/A	A 110		100.0	100.0	100.0	97.0	50.0
	RESICORE	1.25 QT/A	C 201		100.0	97.0	100.0	100.0	90.0
	ROUNDUP POWERMAX	22 FL OZ/A	C 310		100.0	100.0	100.0	95.0	70.0
	AMS - Liquid	8.50 LB AI/100 GAL	C 407		100.0	100.0	100.0	100.0	90.0
	INDUCE	0.25 % V/V	C						
			Mean =		100.0	99.2d	100.0	98.0	75.0
11	ANTHEM MAXX	4 FL OZ/A	A 111		90.0	0.0	90.0	.	.
			209		90.0	90.0	50.0	.	.
			313		100.0	100.0	100.0	.	.
			404		90.0	25.0	90.0	.	.
			Mean =		92.5	39.5d	82.5	.	.
12	DUAL II MAGNUM (7.64EC)	16 FL OZ/A	A 112		90.0	0.0	90.0	.	.
			211		90.0	0.0	80.0	.	.
			307		90.0	90.0	0.0	.	.
			402		80.0	50.0	80.0	.	.
			Mean =		87.5	19.8d	62.5	.	.
13	HARNESS	32 FL OZ/A	A 113		90.0	0.0	90.0	.	.
			212		90.0	0.0	90.0	.	.
			308		90.0	20.0	50.0	.	.
			414		90.0	0.0	90.0	.	.
			Mean =		90.0	2.3d	80.0	.	.
14	OUTLOOK (6EC)	14 FL OZ/A	A 114		90.0	0.0	90.0	.	.
			208		80.0	60.0	20.0	.	.
			314		90.0	20.0	50.0	.	.
			409		80.0	0.0	50.0	.	.
			Mean =		85.0	11.3d	52.5	.	.

d=Means are reported in de-transformed data units



# University of Kentucky

Rating Date	6-30-2023	6-30-2023	6-30-2023	10-23-2023	10-23-2023	10-23-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLOT, -	GRAIN, C	GRAIN, C
Rating Type	control	control	control	LENGTH	WEIGHT	MOICON
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	FT, -, -	lb, -, -	lb, -, -
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code				C, ZEAMX	C, ZEAMX	C, ZEAMX
BBCH Scale				BCOR	BCOR	BCOR
Crop Scientific Name				Zea mays	Zea mays	Zea mays
Crop Name				Corn	Corn	Corn
Pest Type	W, Weed	W, Weed	W, Weed			
Pest Code	AMACH	SIDSP	SORHA			
Pest Scientific Name	Amaranthus hybr>	Sida spinosa	Sorghum halepense>			
Pest Name	smooth pigweed	Prickly sida	Johnson grass			
Rating Timing						
Days After First/Last Applic.	57, 35	57, 35	57, 35	172, 150	172, 150	172, 150
Trt-Eval Interval						
Plant-Eval Interval	58 DP-1	58 DP-1	58 DP-1	173 DP-1	173 DP-1	173 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell			
Data Reliability						
ARM Action Codes						AS
Number of Decimals						

Trt	Treatment	Rate	Appl	Code	Plot	26	27	28	29	30	31
1	UNTREATED CHECK				101	0.0	0.0	0.0	26.20	2.360	13.80
					205	0.0	0.0	0.0	26.00	1.190	12.20
					311	0.0	0.0	0.0	27.10	0.080	13.47*
					405	0.0	0.0	0.0	26.20	8.950	13.70
					Mean =	0.0	0.0	0.0	26.38	2.413d	13.29
2	ANTHEM MAXX	4 FL OZ/A	A		102	.	.	.	27.50	26.610	13.60
	CALLISTO	6 FL OZ/A	A		210	.	.	.	27.10	13.780	14.50
	ATRAZINE 4L (SC)	1 QT/A	A		304	.	.	.	26.90	21.980	14.60
					410	.	.	.	26.70	15.750	14.10
					Mean =	.	.	.	27.05	19.209d	14.20
3	ANTHEM MAXX	4 FL OZ/A	B		103	100.0	100.0	97.0	26.20	35.550	13.40
	CALLISTO	3 FL OZ/A	B		207	90.0	97.0	90.0	26.40	29.410	13.70
	ATRAZINE 4L (SC)	1 QT/A	B		312	90.0	80.0	90.0	25.90	26.660	13.40
	ROUNDUP POWERMAX	22 FL OZ/A	B		406	100.0	100.0	70.0	26.40	29.090	13.90
	AMS - Liquid	8.50 LB AI/100 GAL	B								
	INDUCE	0.25 % V/V	B								
					Mean =	95.0	94.3	86.8	26.23	30.093d	13.60
4	ANTHEM MAXX	3 FL OZ/A	A		104	100.0	100.0	100.0	26.70	33.400	13.50
	CALLISTO	3 FL OZ/A	A		214	100.0	100.0	100.0	26.50	38.770	13.20
	ATRAZINE 4L (SC)	1 QT/A	A		303	100.0	100.0	100.0	27.00	32.110	13.80
	ANTHEM MAXX	2.50 FL OZ/A	C		401	100.0	100.0	70.0	27.40	38.390	13.80
	CALLISTO	3 FL OZ/A	C								
	ATRAZINE 4L (SC)	0.50 QT/A	C								
	ROUNDUP POWERMAX	22 FL OZ/A	C								
	AMS - Liquid	8.50 LB AI/100 GAL	C								
	INDUCE	0.25 % V/V	C								
					Mean =	100.0	100.0	92.5	26.90	35.607d	13.58
5	TRIVOLT	12 FL OZ/A	A		105	.	.	.	27.00	15.070	13.30
					206	.	.	.	26.80	9.220	13.40
					305	.	.	.	26.80	15.830	14.30
					412	.	.	.	27.00	16.410	12.20
					Mean =	.	.	.	26.90	13.972d	13.30
6	MAVERICK	18 FL OZ/A	A		106	.	.	.	26.80	8.410	12.90
					203	.	.	.	27.00	16.720	13.70
					306	.	.	.	27.10	7.180	13.70
					403	.	.	.	27.00	13.430	13.60
					Mean =	.	.	.	26.98	11.125d	13.48
7	ACURON FLEXI	2 QT/A	A		107	.	.	.	26.70	13.590	13.40
	ZIDUA SC	2.50 FL OZ/A	A		213	.	.	.	26.80	17.620	13.60
					302	.	.	.	26.50	26.390	13.50
					411	.	.	.	27.80	9.250	12.30
					Mean =	.	.	.	26.95	16.143d	13.20

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-30-2023	6-30-2023	6-30-2023	10-23-2023	10-23-2023	10-23-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLOT, -	GRAIN, C	GRAIN, C
Rating Type	control	control	control	LENGTH	WEIGHT	MOICON
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	FT, -, -	lb, -, -	lb, -, -
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code				C, ZEAMX	C, ZEAMX	C, ZEAMX
BBCH Scale				BCOR	BCOR	BCOR
Crop Scientific Name				Zea mays	Zea mays	Zea mays
Crop Name				Corn	Corn	Corn
Pest Type	W, Weed	W, Weed	W, Weed			
Pest Code	AMACH	SIDSP	SORHA			
Pest Scientific Name	Amaranthus hybr>	Sida spinosa	Sorghum halepen>			
Pest Name	smooth pigweed	Prickly sida	Johnson grass			
Rating Timing						
Days After First/Last Applic.	57, 35	57, 35	57, 35	172, 150	172, 150	172, 150
Trt-Eval Interval						
Plant-Eval Interval	58 DP-1	58 DP-1	58 DP-1	173 DP-1	173 DP-1	173 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell			
Data Reliability						
ARM Action Codes						AS
Number of Decimals						

Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code Plot	26	27	28	29	30	31
8	VERDICT	10 FL OZ/A	A 108	100.0	100.0	100.0	26.60	38.650	13.60
	ARMEZON PRO	16 FL OZ/A	C 204	100.0	100.0	98.0	27.50	36.350	14.20
	ATRAZINE 4L (SC)	0.50 QT/A	C 301	100.0	97.0	100.0	26.40	38.170	13.90
	ROUNDUP POWERMAX	22 FL OZ/A	C 408	100.0	100.0	100.0	26.80	29.020	13.80
	AMS - Liquid	8.50 LB AI/100 GAL	C						
	INDUCE	0.25 % V/V	C						
			Mean =	100.0	99.3	99.5	26.83	35.438d	13.88
9	LEXAR EZ	1.75 QT/A	A 109	100.0	100.0	100.0	26.60	37.530	13.50
	ACURON GT	3.75 PT/A	C 202	100.0	97.0	100.0	27.00	36.410	13.80
	AMS - Liquid	8.50 LB AI/100 GAL	C 309	100.0	100.0	100.0	27.20	32.760	14.10
	INDUCE	0.25 % V/V	C 413	100.0	100.0	100.0	26.80	37.500	13.30
				Mean =	100.0	99.3	100.0	26.90	36.023d
10	KEYSTONE NXT	2 QT/A	A 110	100.0	100.0	100.0	26.60	36.990	14.60
	RESICORE	1.25 QT/A	C 201	100.0	100.0	97.0	27.00	35.950	13.80
	ROUNDUP POWERMAX	22 FL OZ/A	C 310	97.0	97.0	97.0	27.20	36.610	13.80
	AMS - Liquid	8.50 LB AI/100 GAL	C 407	100.0	100.0	90.0	26.90	32.490	13.60
	INDUCE	0.25 % V/V	C						
			Mean =	99.3	99.3	96.0	26.93	35.487d	13.95
11	ANTHEM MAXX	4 FL OZ/A	A 111	.	.	.	26.80	1.930	15.40
			209	.	.	.	26.40	8.060	14.40
			313	.	.	.	27.10	14.440	13.90
			404	.	.	.	26.30	5.540	15.50
			Mean =	.	.	.	26.65	6.800d	14.80
12	DUAL II MAGNUM (7.64EC)	16 FL OZ/A	A 112	.	.	.	26.60	1.090	11.30
			211	.	.	.	26.50	0.000	12.70*
			307	.	.	.	27.30	8.290	13.80
			402	.	.	.	26.60	8.640	13.70
			Mean =	.	.	.	26.75	3.456d	12.88
13	HARNESS	32 FL OZ/A	A 113	.	.	.	27.00	2.960	13.80
			212	.	.	.	27.10	0.920	11.30
			308	.	.	.	27.10	22.370	14.00
			414	.	.	.	27.50	0.080	12.94*
			Mean =	.	.	.	27.18	4.118d	13.01
14	OUTLOOK (6EC)	14 FL OZ/A	A 114	.	.	.	27.10	4.120	15.80
			208	.	.	.	26.50	17.220	14.00
			314	.	.	.	26.30	4.240	13.10
			409	.	.	.	26.90	10.720	13.50
			Mean =	.	.	.	26.70	8.329d	14.10

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	10-23-2023	10-23-2023
Part Rated	GRAIN, C	GRAIN, C
Rating Type	WEITES	YIELD
Rating Unit/Min/Max	lb, -, -	BU, -, -
Number of Subsamples	1	1
Crop Type, Code	C, ZEAMX	C, ZEAMX
BBCH Scale	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays
Crop Name	Corn	Corn
Pest Type		
Pest Code		
Pest Scientific Name		
Pest Name		
Rating Timing		
Days After First/Last Applic.	172, 150	172, 150
Trt-Eval Interval		
Plant-Eval Interval	173 DP-1	173 DP-1
Days After Emergence		
Pest Est.-Eval Interval		
Equipment		
EDC App		
Data Reliability		
ARM Action Codes		AS TY1
Number of Decimals		1

Trt No.	Treatment	Rate	Appl Code	Plot	32	33
1	UNTREATED CHECK			101	59.00	14.3
				205	31.60	7.4
				311	52.53*	0.5
				405	59.90	54.3
				Mean =	50.76	13.6d
2	ANTHEM MAXX	4 FL OZ/A	A	102	58.30	153.9
	CALLISTO	6 FL OZ/A	A	210	53.30	80.0
	ATRAZINE 4L (SC)	1 QT/A	A	304	56.00	128.5
				410	53.50	93.3
				Mean =	55.28	112.1d
3	ANTHEM MAXX	4 FL OZ/A	B	103	60.10	216.3
	CALLISTO	3 FL OZ/A	B	207	58.70	177.0
	ATRAZINE 4L (SC)	1 QT/A	B	312	51.70	164.1
	ROUNDUP POWERMAX	22 FL OZ/A	B	406	59.30	174.7
	AMS - Liquid	8.50 LB AI/100 GAL	B			
	INDUCE	0.25 % V/V	B			
				Mean =	57.45	182.5d
4	ANTHEM MAXX	3 FL OZ/A	A	104	60.00	199.2
	CALLISTO	3 FL OZ/A	A	214	59.90	233.8
	ATRAZINE 4L (SC)	1 QT/A	A	303	60.60	188.7
	ANTHEM MAXX	2.50 FL OZ/A	C	401	60.70	222.4
	CALLISTO	3 FL OZ/A	C			
	ATRAZINE 4L (SC)	0.50 QT/A	C			
	ROUNDUP POWERMAX	22 FL OZ/A	C			
	AMS - Liquid	8.50 LB AI/100 GAL	C			
	INDUCE	0.25 % V/V	C			
				Mean =	60.30	210.6d
5	TRIVOLT	12 FL OZ/A	A	105	57.10	89.1
				206	55.80	54.9
				305	56.50	93.2
				412	43.00	98.2
				Mean =	53.10	82.9d
6	MAVERICK	18 FL OZ/A	A	106	53.00	50.3
				203	58.10	98.4
				306	56.90	42.1
				403	58.20	79.1
				Mean =	56.55	65.6d
7	ACURON FLEXI	2 QT/A	A	107	53.50	81.2
	ZIDUA SC	2.50 FL OZ/A	A	213	52.60	104.6
				302	59.20	158.6
				411	48.40	53.7
				Mean =	53.43	95.9d

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	10-23-2023	10-23-2023
Part Rated	GRAIN, C	GRAIN, C
Rating Type	WEITES	YIELD
Rating Unit/Min/Max	lb, -, -	BU, -, -
Number of Subsamples	1	1
Crop Type, Code	C, ZEAMX	C, ZEAMX
BBCH Scale	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays
Crop Name	Corn	Corn
Pest Type		
Pest Code		
Pest Scientific Name		
Pest Name		
Rating Timing		
Days After First/Last Applic.	172, 150	172, 150
Trt-Eval Interval		
Plant-Eval Interval	173 DP-1	173 DP-1
Days After Emergence		
Pest Est.-Eval Interval		
Equipment		
EDC App		
Data Reliability		
ARM Action Codes		AS TY1
Number of Decimals		1

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	32	33
8	VERDICT	10 FL OZ/A		A	108	59.30	231.1
	ARMEZON PRO	16 FL OZ/A		C	204	59.30	208.8
	ATRAZINE 4L (SC)	0.50 QT/A		C	301	60.60	229.2
	ROUNDUP POWERMAX	22 FL OZ/A		C	408	58.60	171.8
	AMS - Liquid	8.50 LB AI/100 GAL		C			
	INDUCE	0.25 % V/V		C			
				Mean =		59.45	209.5d
9	LEXAR EZ	1.75 QT/A		A	109	59.70	224.7
	ACURON GT	3.75 PT/A		C	202	60.70	214.0
	AMS - Liquid	8.50 LB AI/100 GAL		C	309	58.60	190.5
	INDUCE	0.25 % V/V		C	413	59.70	223.4
					Mean =		59.68
10	KEYSTONE NXT	2 QT/A		A	110	59.60	218.6
	RESICORE	1.25 QT/A		C	201	60.50	211.3
	ROUNDUP POWERMAX	22 FL OZ/A		C	310	58.20	213.6
	AMS - Liquid	8.50 LB AI/100 GAL		C	407	59.60	192.1
	INDUCE	0.25 % V/V		C			
				Mean =		59.48	208.8d
11	ANTHEM MAXX	4 FL OZ/A		A	111	47.70	11.2
					209	56.80	48.1
					313	49.20	84.5
					404	53.50	32.8
					Mean =		51.80
12	DUAL II MAGNUM (7.64EC)	16 FL OZ/A		A	112	28.70	6.7
					211	44.61*	0.0
					307	55.70	48.2
					402	60.60	51.6
					Mean =		47.40
13	HARNESS	32 FL OZ/A		A	113	59.90	17.4
					212	24.40	5.5
					308	58.40	130.7
					414	48.48*	0.5
					Mean =		47.80
14	OUTLOOK (6EC)	14 FL OZ/A		A	114	59.70	23.6
					208	55.60	102.9
					314	61.70	25.8
					409	57.10	63.5
					Mean =		58.53

d=Means are reported in de-transformed data units

# University of Kentucky

## Anthem Maxx Programs for Residual Weed Control in Corn

Trial ID: USA-23-033(23-17-COR-REC)      Cooperator Trial ID:  
 Protocol ID: USA-23-033      Location:      Trial Year: 2023  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Todd Cogdill      Sponsor Contact:  
 Investigator: Travis Legleiter

### Part Rated

PLANT = plant  
 PLOT = plot  
 GRAIN = grain  
 C = Crop is Part Rated  
 P = Pest is Part Rated

### Rating Type

phygen = phytotoxicity - general / injury  
 LENGTH = length  
 WEIGHT = weight  
 MOICON = moisture content  
 WEITES = weight - test  
 YIELD = yield

### Rating Unit/Min/Max

%, 0, 100 = percent  
 FT, , = foot  
 lb, , = pound  
 BU, , = bushel

### Crop Type Code

C = EPP0 species (Bayer) codes  
 ZEAMX, BCOR, Zea mays, Corn = US

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US  
 IPOHE, Ipomoea hederacea, ivy-leaf morning glory = US  
 AMACH, Amaranthus hybridus, smooth pigweed = US  
 SORHA, Sorghum halepense, Johnson grass = US  
 SIDSP, Sida spinosa, Prickly sida = US

### Plant-Eval Interval

9 DP-1 = 1 ZEAMX 5-3-2023  
 14 DP-1 = 1 ZEAMX 5-3-2023  
 30 DP-1 = 1 ZEAMX 5-3-2023  
 36 DP-1 = 1 ZEAMX 5-3-2023  
 51 DP-1 = 1 ZEAMX 5-3-2023  
 58 DP-1 = 1 ZEAMX 5-3-2023  
 173 DP-1 = 1 ZEAMX 5-3-2023

### EDC App

Rating Shell = Data pulled from Excel Rating Shell

### ARM Action Codes

AL = Automatic log transformation of X+1  
 AS = Automatic square root transformation of X+0.5  
 ER3 = Excluded replicate 3  
 AA = Automatic arcsine square root % transformation  
 TY1 =  $(777.857142857143 / ((5 * [29])) * [30] * (100 - @MVAVGREP([31])) / 84.5$

# University of Kentucky

## Anthem Maxx Programs for Residual Weed Control in Corn

Trial ID: USA-23-033(23-17-COR-REC)      Cooperator Trial ID:  
 Protocol ID: USA-23-033      Location:      Trial Year: 2023  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Todd Cogdill      Sponsor Contact:  
 Investigator: Travis Legleiter

Rating Date	5-12-2023	5-12-2023	5-12-2023	5-17-2023	5-17-2023	5-17-2023
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	phygen	control	control	phygen	control	control
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, ZEAMX			C, ZEAMX		
BBCH Scale	BCOR			BCOR		
Crop Scientific Name	Zea mays			Zea mays		
Crop Name	Corn			Corn		
Pest Type		W, Weed	W, Weed		W, Weed	W, Weed
Pest Code		AMBTR	IPOHE		AMBTR	IPOHE
Pest Scientific Name		Ambrosia trifida	Ipomoea hederac>		Ambrosia trifida	Ipomoea hederac>
Pest Name		Giant ragweed	ivy-leaf mornin>		Giant ragweed	ivy-leaf mornin>
Rating Timing						
Days After First/Last Applic.	8, 8	8, 8	8, 8	13, 2	13, 2	13, 2
Trt-Eval Interval						
Plant-Eval Interval	9 DP-1	9 DP-1	9 DP-1	14 DP-1	14 DP-1	14 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes					AL	AS
Number of Decimals						

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6
		Rate Unit						dAL	dAS
1	UNTREATED CHECK			0.0 a	0.0 b	0.0 b	0.0 a	0.0 b	0.0 b
2	ANTHEM MAXX	4 FL OZ/A	A	0.0 a	95.3 a	99.3 a	0.0 a	91.7 a	92.3 a
	CALLISTO	6 FL OZ/A	A						
	ATRAZINE 4L (SC)	1 QT/A	A						
3	ANTHEM MAXX	4 FL OZ/A	B	0.0 a	0.0 b	0.0 b	0.0 a	23.8 a	51.7 a
	CALLISTO	3 FL OZ/A	B						
	ATRAZINE 4L (SC)	1 QT/A	B						
	ROUNDUP POWERMAX	22 FL OZ/A	B						
	AMS - Liquid	8.50 LB AI/100 GAL	B						
	INDUCE	0.25 % V/V	B						
4	ANTHEM MAXX	3 FL OZ/A	A	0.0 a	95.5 a	97.5 a	0.0 a	83.3 a	97.5 a
	CALLISTO	3 FL OZ/A	A						
	ATRAZINE 4L (SC)	1 QT/A	A						
	ANTHEM MAXX	2.50 FL OZ/A	C						
	CALLISTO	3 FL OZ/A	C						
	ATRAZINE 4L (SC)	0.50 QT/A	C						
	ROUNDUP POWERMAX	22 FL OZ/A	C						
	AMS - Liquid	8.50 LB AI/100 GAL	C						
	INDUCE	0.25 % V/V	C						
5	TRIVOLT	12 FL OZ/A	A	0.0 a	98.8 a	100.0 a	0.0 a	89.0 a	98.5 a
6	MAVERICK	18 FL OZ/A	A	0.0 a	98.0 a	98.5 a	0.0 a	88.6 a	98.0 a
7	ACURON FLEXI	2 QT/A	A	0.0 a	93.0 a	98.0 a	0.0 a	83.5 a	98.7 a
	ZIDUA SC	2.50 FL OZ/A	A						
8	VERDICT	10 FL OZ/A	A	0.0 a	98.5 a	100.0 a	0.0 a	88.0 a	97.5 a
	ARMEZON PRO	16 FL OZ/A	C						
	ATRAZINE 4L (SC)	0.50 QT/A	C						
	ROUNDUP POWERMAX	22 FL OZ/A	C						
	AMS - Liquid	8.50 LB AI/100 GAL	C						
	INDUCE	0.25 % V/V	C						
9	LEXAR EZ	1.75 QT/A	A	0.0 a	97.5 a	96.3 a	0.0 a	94.5 a	100.0 a
	ACURON GT	3.75 PT/A	C						
	AMS - Liquid	8.50 LB AI/100 GAL	C						
	INDUCE	0.25 % V/V	C						
10	KEYSTONE NXT	2 QT/A	A	0.0 a	96.5 a	96.3 a	0.0 a	80.1 a	96.2 a
	RESICORE	1.25 QT/A	C						
	ROUNDUP POWERMAX	22 FL OZ/A	C						
	AMS - Liquid	8.50 LB AI/100 GAL	C						
	INDUCE	0.25 % V/V	C						
11	ANTHEM MAXX	4 FL OZ/A	A	0.0 a	87.3 a	97.5 a	0.0 a	68.4 a	82.4 a

Means followed by same letter or symbol do not significantly differ (P=0.05, Student-Newman-Keuls).  
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Missing data estimates are included in columns: Yates=31,32  
 Excluded replicate 3 in column 14; 3 in 17  
 Could not calculate LSD (% mean diff) for columns 1,4,8,13 because error mean square = 0.  
 ^Calculated from residual.  
 d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	5-12-2023	5-12-2023	5-12-2023	5-17-2023	5-17-2023	5-17-2023
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	phygen	control	control	phygen	control	control
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, ZEAMX			C, ZEAMX		
BBCH Scale	BCOR			BCOR		
Crop Scientific Name	Zea mays			Zea mays		
Crop Name	Corn			Corn		
Pest Type		W, Weed	W, Weed		W, Weed	W, Weed
Pest Code		AMBTR	IPOHE		AMBTR	IPOHE
Pest Scientific Name		Ambrosia trifida	Ipomoea hederac>		Ambrosia trifida	Ipomoea hederac>
Pest Name		Giant ragweed	ivy-leaf mornin>		Giant ragweed	ivy-leaf mornin>
Rating Timing						
Days After First/Last Applic.	8, 8	8, 8	8, 8	13, 2	13, 2	13, 2
Trt-Eval Interval						
Plant-Eval Interval	9 DP-1	9 DP-1	9 DP-1	14 DP-1	14 DP-1	14 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes					AL	AS
Number of Decimals						

Trt No.	Treatment Name	Rate Unit	Appl Code	1	2	3	4	5 dAL	6 dAS
12	DUAL II MAGNUM (7.64EC)	16 FL OZ/A	A	0.0 a	93.3 a	95.3 a	0.0 a	22.3 a	93.6 a
13	HARNESS	32 FL OZ/A	A	0.0 a	90.0 a	96.8 a	0.0 a	17.3 a	93.7 a
14	OUTLOOK (6EC)	14 FL OZ/A	A	0.0 a	93.3 a	98.3 a	0.0 a	49.0 a	82.3 a
	LSD P=.05			.	9.40	4.63	.	51.45 - 70.36	29.32 - 32.91
	Standard Deviation			0.00	6.57	3.24	0.00	0.41t	1.26t
	CV			0.0	8.09	3.86	0.0	24.56t	14.16t
	Levene's F^			.	1.226	1.296	.	0.867	1.476
	Levene's Prob(F)			.	0.296	0.253	.	0.591	0.167
	Shapiro-Wilk^			.	0.8496*	0.9187*	.	0.8437*	0.653*
	P(Shapiro-Wilk)^			.	0.0*	0.0011*	.	0.0*	0.0*
	Skewness^			.	-1.9473*	-1.2052*	.	-1.3644*	-3.0604*
	P(Skewness)^			.	0.0*	0.0005*	.	0.0001*	0.0*
	Kurtosis^			.	8.3225*	2.7339*	.	3.3811*	19.748*
	P(Kurtosis)^			.	0.0*	0.0*	.	0.0*	0.0*
	Replicate F			0.000	0.231	0.862	0.000	2.889	1.010
	Replicate Prob(F)			1.0000	0.8743	0.4691	1.0000	0.0476	0.3985
	Treatment F			0.000	110.617	482.410	0.000	7.028	15.326
	Treatment Prob(F)			1.0000	0.0001	0.0001	1.0000	0.0001	0.0001

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Missing data estimates are included in columns: Yates=31,32  
Excluded replicate 3 in column 14; 3 in 17  
Could not calculate LSD (% mean diff) for columns 1,4,8,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	5-17-2023	6-2-2023	6-2-2023	6-2-2023	6-2-2023
Part Rated	PLANT, P	PLANT, C	PLANT, P	PLANT, P	PLANT, P
Rating Type	control	phygen	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code		C, ZEAMX			
BBCH Scale		BCOR			
Crop Scientific Name		Zea mays			
Crop Name		Corn			
Pest Type	W, Weed		W, Weed	W, Weed	W, Weed
Pest Code	AMACH		AMBTR	IPOHE	AMACH
Pest Scientific Name	Amaranthus hybr>		Ambrosia trifida	Ipomoea hederac>	Amaranthus hybr>
Pest Name	smooth pigweed		Giant ragweed	ivy-leaf mornin>	smooth pigweed
Rating Timing					
Days After First/Last Applic.	13, 2	29, 7	29, 7	29, 7	29, 7
Trt-Eval Interval					
Plant-Eval Interval	14 DP-1	30 DP-1	30 DP-1	30 DP-1	30 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl	7	8	9	10	11
No.	Name	Rate Unit	Code					
1	UNTREATED CHECK			0.0 b	0.0 a	0.0 e	0.0 b	0.0 c
2	ANTHEM MAXX	4 FL OZ/A	A	100.0 a	0.0 a	76.8 ab	92.5 a	96.3 a
	CALLISTO	6 FL OZ/A	A					
	ATRAZINE 4L (SC)	1 QT/A	A					
3	ANTHEM MAXX	4 FL OZ/A	B	66.3 a	0.0 a	96.3 a	100.0 a	100.0 a
	CALLISTO	3 FL OZ/A	B					
	ATRAZINE 4L (SC)	1 QT/A	B					
	ROUNDUP POWERMAX	22 FL OZ/A	B					
	AMS - Liquid	8.50 LB AI/100 GAL	B					
	INDUCE	0.25 % V/V	B					
4	ANTHEM MAXX	3 FL OZ/A	A	76.3 a	0.0 a	100.0 a	100.0 a	100.0 a
	CALLISTO	3 FL OZ/A	A					
	ATRAZINE 4L (SC)	1 QT/A	A					
	ANTHEM MAXX	2.50 FL OZ/A	C					
	CALLISTO	3 FL OZ/A	C					
	ATRAZINE 4L (SC)	0.50 QT/A	C					
	ROUNDUP POWERMAX	22 FL OZ/A	C					
	AMS - Liquid	8.50 LB AI/100 GAL	C					
	INDUCE	0.25 % V/V	C					
5	TRIVOLT	12 FL OZ/A	A	99.3 a	0.0 a	73.8 ab	98.0 a	86.8 a
6	MAVERICK	18 FL OZ/A	A	99.3 a	0.0 a	70.0 ab	94.3 a	96.3 a
7	ACURON FLEXI	2 QT/A	A	98.8 a	0.0 a	72.5 ab	94.3 a	98.8 a
	ZIDUA SC	2.50 FL OZ/A	A					
8	VERDICT	10 FL OZ/A	A	97.5 a	0.0 a	100.0 a	100.0 a	100.0 a
	ARMEZON PRO	16 FL OZ/A	C					
	ATRAZINE 4L (SC)	0.50 QT/A	C					
	ROUNDUP POWERMAX	22 FL OZ/A	C					
	AMS - Liquid	8.50 LB AI/100 GAL	C					
	INDUCE	0.25 % V/V	C					
9	LEXAR EZ	1.75 QT/A	A	100.0 a	0.0 a	99.3 a	100.0 a	100.0 a
	ACURON GT	3.75 PT/A	C					
	AMS - Liquid	8.50 LB AI/100 GAL	C					
	INDUCE	0.25 % V/V	C					
10	KEYSTONE NXT	2 QT/A	A	96.3 a	0.0 a	100.0 a	100.0 a	100.0 a
	RESICORE	1.25 QT/A	C					
	ROUNDUP POWERMAX	22 FL OZ/A	C					
	AMS - Liquid	8.50 LB AI/100 GAL	C					
	INDUCE	0.25 % V/V	C					
11	ANTHEM MAXX	4 FL OZ/A	A	96.3 a	0.0 a	35.0 cd	95.0 a	97.3 a

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Missing data estimates are included in columns: Yates=31,32  
Excluded replicate 3 in column 14; 3 in 17  
Could not calculate LSD (% mean diff) for columns 1,4,8,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units



# University of Kentucky

Rating Date	5-17-2023	6-2-2023	6-2-2023	6-2-2023	6-2-2023
Part Rated	PLANT, P	PLANT, C	PLANT, P	PLANT, P	PLANT, P
Rating Type	control	phygen	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code		C, ZEAMX			
BBCH Scale		BCOR			
Crop Scientific Name		Zea mays			
Crop Name		Corn			
Pest Type	W, Weed		W, Weed	W, Weed	W, Weed
Pest Code	AMACH		AMBTR	IPOHE	AMACH
Pest Scientific Name	Amaranthus hybr>		Ambrosia trifida	Ipomoea hederac>	Amaranthus hybr>
Pest Name	smooth pigweed		Giant ragweed	ivy-leaf mornin>	smooth pigweed
Rating Timing					
Days After First/Last Applic.	13, 2	29, 7	29, 7	29, 7	29, 7
Trt-Eval Interval					
Plant-Eval Interval	14 DP-1	30 DP-1	30 DP-1	30 DP-1	30 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl	7	8	9	10	11
No.	Name	Unit	Code					
12	DUAL II MAGNUM (7.64EC)	16 FL OZ/A	A	97.5 a	0.0 a	17.5 de	83.8 a	75.0 ab
13	HARNESS	32 FL OZ/A	A	93.8 a	0.0 a	25.0 cde	83.8 a	76.3 ab
14	OUTLOOK (6EC)	14 FL OZ/A	A	93.8 a	0.0 a	51.3 bc	80.5 a	66.3 b
	LSD P=.05			24.79	.	24.27	14.97	14.86
	Standard Deviation			17.33	0.00	16.97	10.47	10.39
	CV			19.98	0.0	25.9	11.99	12.2
	Levene's F^			1.518	.	7.542*	0.60	3.092*
	Levene's Prob(F)			0.151	.	0.00*	0.84	0.003*
	Shapiro-Wilk^			0.6542*	.	0.9626	0.8007*	0.8591*
	P(Shapiro-Wilk)^			0.0*	.	0.0796	0.0*	0.0*
	Skewness^			-2.4539*	.	0.209	-1.9213*	-0.7815*
	P(Skewness)^			0.0*	.	0.5261	0.0*	0.0205*
	Kurtosis^			11.4951*	.	0.752	5.099*	2.634*
	P(Kurtosis)^			0.0*	.	0.2487	0.0*	0.0001*
	Replicate F			0.972	0.000	0.624	1.751	0.898
	Replicate Prob(F)			0.4156	1.0000	0.6040	0.1726	0.4510
	Treatment F			9.599	0.000	16.334	24.711	26.998
	Treatment Prob(F)			0.0001	1.0000	0.0001	0.0001	0.0001

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Missing data estimates are included in columns: Yates=31,32  
Excluded replicate 3 in column 14; 3 in 17  
Could not calculate LSD (% mean diff) for columns 1,4,8,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-2-2023	6-8-2023	6-8-2023	6-8-2023	6-8-2023		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	control	phygen	control	control	control		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1		
Crop Type, Code		C, ZEAMX					
BBCH Scale		BCOR					
Crop Scientific Name		Zea mays					
Crop Name		Corn					
Pest Type	W, Weed		W, Weed	W, Weed	W, Weed		
Pest Code	SORHA		AMBTR	IPOHE	AMACH		
Pest Scientific Name	Sorghum halepen>		Ambrosia trifida	Ipomoea hederac>	Amaranthus hybr>		
Pest Name	Johnson grass		Giant ragweed	ivy-leaf mornin>	smooth pigweed		
Rating Timing							
Days After First/Last Applic.	29, 7	35, 13	35, 13	35, 13	35, 13		
Trt-Eval Interval							
Plant-Eval Interval	30 DP-1	36 DP-1	36 DP-1	36 DP-1	36 DP-1		
Days After Emergence							
Pest Est.-Eval Interval							
Equipment							
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability							
ARM Action Codes			ER3		AS		
Number of Decimals							
Trt Treatment No. Name	Rate Rate Unit	Appl Code	12	13	14	15	16 dAS
1 UNTREATED CHECK			0.0 b	0.0 a	0.0 d	0.0 c	0.0 b
2 ANTHEM MAXX	4 FL OZ/A	A	56.3 a	0.0 a	81.7 ab	88.8 a	95.0 a
CALLISTO	6 FL OZ/A	A					
ATRAZINE 4L (SC)	1 QT/A	A					
3 ANTHEM MAXX	4 FL OZ/A	B	98.8 a	0.0 a	96.7 a	99.3 a	100.0 a
CALLISTO	3 FL OZ/A	B					
ATRAZINE 4L (SC)	1 QT/A	B					
ROUNDUP POWERMAX	22 FL OZ/A	B					
AMS - Liquid	8.50 LB AI/100 GAL	B					
INDUCE	0.25 % V/V	B					
4 ANTHEM MAXX	3 FL OZ/A	A	99.3 a	0.0 a	66.7 abc	100.0 a	100.0 a
CALLISTO	3 FL OZ/A	A					
ATRAZINE 4L (SC)	1 QT/A	A					
ANTHEM MAXX	2.50 FL OZ/A	C					
CALLISTO	3 FL OZ/A	C					
ATRAZINE 4L (SC)	0.50 QT/A	C					
ROUNDUP POWERMAX	22 FL OZ/A	C					
AMS - Liquid	8.50 LB AI/100 GAL	C					
INDUCE	0.25 % V/V	C					
5 TRIVOLT	12 FL OZ/A	A	80.0 a	0.0 a	66.7 abc	91.3 a	81.9 a
6 MAVERICK	18 FL OZ/A	A	83.8 a	0.0 a	76.7 abc	86.3 a	96.2 a
7 ACURON FLEXI	2 QT/A	A	90.0 a	0.0 a	70.0 abc	97.5 a	98.7 a
ZIDUA SC	2.50 FL OZ/A	A					
8 VERDICT	10 FL OZ/A	A	98.0 a	0.0 a	100.0 a	100.0 a	100.0 a
ARMEZON PRO	16 FL OZ/A	C					
ATRAZINE 4L (SC)	0.50 QT/A	C					
ROUNDUP POWERMAX	22 FL OZ/A	C					
AMS - Liquid	8.50 LB AI/100 GAL	C					
INDUCE	0.25 % V/V	C					
9 LEXAR EZ	1.75 QT/A	A	100.0 a	0.0 a	100.0 a	100.0 a	100.0 a
ACURON GT	3.75 PT/A	C					
AMS - Liquid	8.50 LB AI/100 GAL	C					
INDUCE	0.25 % V/V	C					
10 KEYSTONE NXT	2 QT/A	A	98.5 a	0.0 a	100.0 a	99.3 a	100.0 a
RESICORE	1.25 QT/A	C					
ROUNDUP POWERMAX	22 FL OZ/A	C					
AMS - Liquid	8.50 LB AI/100 GAL	C					
INDUCE	0.25 % V/V	C					
11 ANTHEM MAXX	4 FL OZ/A	A	78.8 a	0.0 a	23.3 bcd	92.5 a	95.0 a

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Missing data estimates are included in columns: Yates=31,32  
Excluded replicate 3 in column 14; 3 in 17  
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^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-2-2023	6-8-2023	6-8-2023	6-8-2023	6-8-2023		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	control	phygen	control	control	control		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1		
Crop Type, Code		C, ZEAMX					
BBCH Scale		BCOR					
Crop Scientific Name		Zea mays					
Crop Name		Corn					
Pest Type	W, Weed		W, Weed	W, Weed	W, Weed		
Pest Code	SORHA		AMBTR	IPHOE	AMACH		
Pest Scientific Name	Sorghum halepen>		Ambrosia trifida	Ipomoea hederac>	Amaranthus hybr>		
Pest Name	Johnson grass		Giant ragweed	ivy-leaf mornin>	smooth pigweed		
Rating Timing							
Days After First/Last Applic.	29, 7	35, 13	35, 13	35, 13	35, 13		
Trt-Eval Interval							
Plant-Eval Interval	30 DP-1	36 DP-1	36 DP-1	36 DP-1	36 DP-1		
Days After Emergence							
Pest Est.-Eval Interval							
Equipment							
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability							
ARM Action Codes			ER3		AS		
Number of Decimals							
Trt Treatment	Rate	Appl	12	13	14	15	16
No. Name	Unit	Code					dAS
12 DUAL II MAGNUM (7.64EC)	16 FL OZ/A	A	77.5 a	0.0 a	3.3 d	77.5 a	67.8 a
13 HARNESS	32 FL OZ/A	A	87.5 a	0.0 a	16.7 cd	87.5 a	84.9 a
14 OUTLOOK (6EC)	14 FL OZ/A	A	82.5 a	0.0 a	53.3 a-d	63.8 b	75.1 a
LSD P=.05			34.00	.	39.33	13.21	18.21 - 19.72
Standard Deviation			23.77	0.00	23.43	9.24	0.73t
CV			29.44	0.0	38.37	10.93	8.09t
Levene's F^			1.055	.	1.869	1.807	1.798
Levene's Prob(F)			0.422	.	0.063	0.074	0.076
Shapiro-Wilk^			0.9094*	.	0.948*	0.8198*	0.7373*
P(Shapiro-Wilk)^			0.0005*	.	0.0173*	0.0*	0.0*
Skewness^			-1.022*	.	-0.4374	0.2538	-2.2751*
P(Skewness)^			0.0029*	.	0.1871	0.4417	0.0*
Kurtosis^			1.6532*	.	1.6497*	6.8822*	12.218*
P(Kurtosis)^			0.0131*	.	0.0133*	0.0*	0.0*
Replicate F			0.937	0.000	0.159	0.042	0.678
Replicate Prob(F)			0.4319	1.0000	0.8535	0.9885	0.5709
Treatment F			4.860	0.000	7.205	32.758	45.374
Treatment Prob(F)			0.0001	1.0000	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
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Missing data estimates are included in columns: Yates=31,32  
Excluded replicate 3 in column 14; 3 in 17  
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^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-8-2023	6-8-2023	6-23-2023	6-23-2023	6-23-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	SIDSP	SORHA	AMBTR	IPHOE	AMACH
Pest Scientific Name	Sida spinosa	Sorghum halepense	Ambrosia trifida	Ipomoea hederacea	Amaranthus hybridus
Pest Name	Prickly sida	Johnson grass	Giant ragweed	ivy-leaf mornin	smooth pigweed
Rating Timing					
Days After First/Last Applic.	35, 13	35, 13	50, 28	50, 28	50, 28
Trt-Eval Interval					
Plant-Eval Interval	36 DP-1	36 DP-1	51 DP-1	51 DP-1	51 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes	ER3		AA		
Number of Decimals					

Trt	Treatment	Rate	Appl	17	18	19	20	21
No.	Name	Rate Unit	Code			dAA		
1	UNTREATED CHECK			0.0 d	0.0 b	0.0 e	0.0 c	0.0 e
2	ANTHEM MAXX	4 FL OZ/A	A	80.0 ab	52.5 a	55.1 bc	91.8 ab	97.5 a
	CALLISTO	6 FL OZ/A	A					
	ATRAZINE 4L (SC)	1 QT/A	A					
3	ANTHEM MAXX	4 FL OZ/A	B	100.0 a	95.0 a	89.7 ab	98.5 a	100.0 a
	CALLISTO	3 FL OZ/A	B					
	ATRAZINE 4L (SC)	1 QT/A	B					
	ROUNDUP POWERMAX	22 FL OZ/A	B					
	AMS - Liquid	8.50 LB AI/100 GAL	B					
	INDUCE	0.25 % V/V	B					
4	ANTHEM MAXX	3 FL OZ/A	A	100.0 a	100.0 a	99.8 a	97.0 a	100.0 a
	CALLISTO	3 FL OZ/A	A					
	ATRAZINE 4L (SC)	1 QT/A	A					
	ANTHEM MAXX	2.50 FL OZ/A	C					
	CALLISTO	3 FL OZ/A	C					
	ATRAZINE 4L (SC)	0.50 QT/A	C					
	ROUNDUP POWERMAX	22 FL OZ/A	C					
	AMS - Liquid	8.50 LB AI/100 GAL	C					
	INDUCE	0.25 % V/V	C					
5	TRIVOLT	12 FL OZ/A	A	73.3 ab	80.0 a	48.6 bcd	87.5 ab	97.5 a
6	MAVERICK	18 FL OZ/A	A	63.3 abc	82.5 a	30.9 cde	90.0 ab	95.0 ab
7	ACURON FLEXI	2 QT/A	A	86.7 a	90.0 a	50.0 bcd	87.5 ab	97.5 a
	ZIDUA SC	2.50 FL OZ/A	A					
8	VERDICT	10 FL OZ/A	A	100.0 a	100.0 a	99.2 a	97.3 a	100.0 a
	ARMEZON PRO	16 FL OZ/A	C					
	ATRAZINE 4L (SC)	0.50 QT/A	C					
	ROUNDUP POWERMAX	22 FL OZ/A	C					
	AMS - Liquid	8.50 LB AI/100 GAL	C					
	INDUCE	0.25 % V/V	C					
9	LEXAR EZ	1.75 QT/A	A	100.0 a	100.0 a	99.8 a	98.0 a	100.0 a
	ACURON GT	3.75 PT/A	C					
	AMS - Liquid	8.50 LB AI/100 GAL	C					
	INDUCE	0.25 % V/V	C					
10	KEYSTONE NXT	2 QT/A	A	100.0 a	99.0 a	100.0 a	88.5 ab	100.0 a
	RESICORE	1.25 QT/A	C					
	ROUNDUP POWERMAX	22 FL OZ/A	C					
	AMS - Liquid	8.50 LB AI/100 GAL	C					
	INDUCE	0.25 % V/V	C					
11	ANTHEM MAXX	4 FL OZ/A	A	43.3 bc	71.3 a	25.0 cde	90.0 ab	92.5 abc

Means followed by same letter or symbol do not significantly differ (P=0.05, Student-Newman-Keuls).  
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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Missing data estimates are included in columns: Yates=31,32  
Excluded replicate 3 in column 14; 3 in 17  
Could not calculate LSD (% mean diff) for columns 1,4,8,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-8-2023	6-8-2023	6-23-2023	6-23-2023	6-23-2023		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	control	control	control	control	control		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1		
Crop Type, Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	SIDSP	SORHA	AMBTR	IPOHE	AMACH		
Pest Scientific Name	Sida spinosa	Sorghum halepen>	Ambrosia trifida	Ipomoea hederac>	Amaranthus hybr>		
Pest Name	Prickly sida	Johnson grass	Giant ragweed	ivy-leaf mornin>	smooth pigweed		
Rating Timing							
Days After First/Last Applic.	35, 13	35, 13	50, 28	50, 28	50, 28		
Trt-Eval Interval							
Plant-Eval Interval	36 DP-1	36 DP-1	51 DP-1	51 DP-1	51 DP-1		
Days After Emergence							
Pest Est.-Eval Interval							
Equipment							
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability							
ARM Action Codes	ER3		AA				
Number of Decimals							
Trt Treatment	Rate	Appl	17	18	19	20	21
No. Name	Unit	Code			dAA		
12 DUAL II MAGNUM (7.64EC)	16 FL OZ/A	A	3.3 d	71.3 a	10.3 cde	90.0 ab	87.5 cd
13 HARNESS	32 FL OZ/A	A	0.0 d	87.5 a	3.8 de	80.0 ab	90.0 bcd
14 OUTLOOK (6EC)	14 FL OZ/A	A	35.0 cd	48.8 a	18.5 cde	65.0 b	85.0 d
LSD P=.05			28.32	33.33	15.36 - 27.99	17.24	4.89
Standard Deviation			16.87	23.30	16.14t	12.05	3.42
CV			26.69	30.27	33.34t	14.54	3.85
Levene's F^			0.651	1.683	1.702	1.378	0.994
Levene's Prob(F)			0.797	0.101	0.096	0.21	0.474
Shapiro-Wilk^			0.9579*	0.9261*	0.982	0.7949*	0.9662
P(Shapiro-Wilk)^			0.0483*	0.0021*	0.5633	0.0*	0.1179
Skewness^			0.0078	-0.8934*	-0.086	-1.8601*	-0.3816
P(Skewness)^			0.9812	0.0085*	0.7939	0.0*	0.2489
Kurtosis^			1.8632*	1.1492	0.5672	6.4519*	0.1475
P(Kurtosis)^			0.0055*	0.0803	0.383	0.0*	0.8199
Replicate F			1.549	1.237	0.443	0.313	3.416
Replicate Prob(F)			0.2313	0.3095	0.7237	0.8159	0.0266
Treatment F			16.594	5.728	14.611	17.746	232.153
Treatment Prob(F)			0.0001	0.0001	0.0001	0.0001	0.0001

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Missing data estimates are included in columns: Yates=31,32  
Excluded replicate 3 in column 14; 3 in 17  
Could not calculate LSD (% mean diff) for columns 1,4,8,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-23-2023	6-23-2023	6-30-2023	6-30-2023	6-30-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	SIDSP	SORHA	AMBTR	IPOHE	AMACH
Pest Scientific Name	Sida spinosa	Sorghum halepense	Ambrosia trifida	Ipomoea hederac	Amaranthus hybr
Pest Name	Prickly sida	Johnson grass	Giant ragweed	ivy-leaf mornin	smooth pigweed
Rating Timing					
Days After First/Last Applic.	50, 28	50, 28	57, 35	57, 35	57, 35
Trt-Eval Interval					
Plant-Eval Interval	51 DP-1	51 DP-1	58 DP-1	58 DP-1	58 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes	AS				
Number of Decimals					

Trt	Treatment	Rate	Appl	22	23	24	25	26
No.	Name	Rate Unit	Code	dAS				
1	UNTREATED CHECK			0.0 e	0.0 b	0.0 b	0.0 b	0.0 b
2	ANTHEM MAXX	4 FL OZ/A	A	92.5 a	57.5 a			
	CALLISTO	6 FL OZ/A	A					
	ATRAZINE 4L (SC)	1 QT/A	A					
3	ANTHEM MAXX	4 FL OZ/A	B	100.0 a	95.5 a	84.3 a	86.8 a	95.0 a
	CALLISTO	3 FL OZ/A	B					
	ATRAZINE 4L (SC)	1 QT/A	B					
	ROUNDUP POWERMAX	22 FL OZ/A	B					
	AMS - Liquid	8.50 LB AI/100 GAL	B					
	INDUCE	0.25 % V/V	B					
4	ANTHEM MAXX	3 FL OZ/A	A	100.0 a	100.0 a	99.3 a	90.5 a	100.0 a
	CALLISTO	3 FL OZ/A	A					
	ATRAZINE 4L (SC)	1 QT/A	A					
	ANTHEM MAXX	2.50 FL OZ/A	C					
	CALLISTO	3 FL OZ/A	C					
	ATRAZINE 4L (SC)	0.50 QT/A	C					
	ROUNDUP POWERMAX	22 FL OZ/A	C					
	AMS - Liquid	8.50 LB AI/100 GAL	C					
	INDUCE	0.25 % V/V	C					
5	TRIVOLT	12 FL OZ/A	A	70.7 a	82.5 a			
6	MAVERICK	18 FL OZ/A	A	51.2 ab	65.0 a			
7	ACURON FLEXI	2 QT/A	A	84.7 a	72.5 a			
	ZIDUA SC	2.50 FL OZ/A	A					
8	VERDICT	10 FL OZ/A	A	100.0 a	100.0 a	98.5 a	93.5 a	100.0 a
	ARMEZON PRO	16 FL OZ/A	C					
	ATRAZINE 4L (SC)	0.50 QT/A	C					
	ROUNDUP POWERMAX	22 FL OZ/A	C					
	AMS - Liquid	8.50 LB AI/100 GAL	C					
	INDUCE	0.25 % V/V	C					
9	LEXAR EZ	1.75 QT/A	A	100.0 a	100.0 a	98.0 a	94.3 a	100.0 a
	ACURON GT	3.75 PT/A	C					
	AMS - Liquid	8.50 LB AI/100 GAL	C					
	INDUCE	0.25 % V/V	C					
10	KEYSTONE NXT	2 QT/A	A	99.2 a	100.0 a	98.0 a	75.0 a	99.3 a
	RESICORE	1.25 QT/A	C					
	ROUNDUP POWERMAX	22 FL OZ/A	C					
	AMS - Liquid	8.50 LB AI/100 GAL	C					
	INDUCE	0.25 % V/V	C					
11	ANTHEM MAXX	4 FL OZ/A	A	39.5 abc	82.5 a			

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Missing data estimates are included in columns: Yates=31,32  
Excluded replicate 3 in column 14; 3 in 17  
Could not calculate LSD (% mean diff) for columns 1,4,8,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-23-2023	6-23-2023	6-30-2023	6-30-2023	6-30-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	SIDSP	SORHA	AMBTR	IPOHE	AMACH
Pest Scientific Name	Sida spinosa	Sorghum halepen>	Ambrosia trifida	Ipomoea hederac>	Amaranthus hybr>
Pest Name	Prickly sida	Johnson grass	Giant ragweed	ivy-leaf mornin>	smooth pigweed
Rating Timing					
Days After First/Last Applic.	50, 28	50, 28	57, 35	57, 35	57, 35
Trt-Eval Interval					
Plant-Eval Interval	51 DP-1	51 DP-1	58 DP-1	58 DP-1	58 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes	AS				
Number of Decimals					

Trt	Treatment	Rate	Appl	22	23	24	25	26
No.	Name	Unit	Code	dAS				
12	DUAL II MAGNUM (7.64EC)	16 FL OZ/A	A	19.8 bcd	62.5 a			
13	HARNESS	32 FL OZ/A	A	2.3 de	80.0 a			
14	OUTLOOK (6EC)	14 FL OZ/A	A	11.3 cde	52.5 a			
	LSD P=.05			17.46 - 48.80	31.30	14.17	15.00	3.57
	Standard Deviation			1.98t	21.89	9.40	9.95	2.37
	CV			27.42t	29.17	11.8	13.57	2.87
	Levene's F^			4.323*	0.88	1.341	3.39*	42.269*
	Levene's Prob(F)			0.00*	0.579	0.292	0.025*	0.00*
	Shapiro-Wilk^			0.9606	0.9385*	0.7915*	0.9358	0.9033*
	P(Shapiro-Wilk)^			0.0648	0.0067*	0.0002*	0.1316	0.0253*
	Skewness^			-0.0671	-0.8902*	-1.84*	-0.7856	0.0128
	P(Skewness)^			0.8383	0.0088*	0.0013*	0.1307	0.9799
	Kurtosis^			1.2081	1.4429*	7.5315*	2.8297*	1.2329
	P(Kurtosis)^			0.0664	0.0293*	0.0*	0.008*	0.2183
	Replicate F			2.912	1.267	1.291	0.232	1.357
	Replicate Prob(F)			0.0464	0.2990	0.3138	0.8726	0.2937
	Treatment F			11.460	6.268	70.382	54.082	1166.539
	Treatment Prob(F)			0.0001	0.0001	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Missing data estimates are included in columns: Yates=31,32  
Excluded replicate 3 in column 14; 3 in 17  
Could not calculate LSD (% mean diff) for columns 1,4,8,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-30-2023	6-30-2023	10-23-2023	10-23-2023	10-23-2023	10-23-2023	10-23-2023	
Part Rated	PLANT, P	PLANT, P	PLOT, -	GRAIN, C	GRAIN, C	GRAIN, C	GRAIN, C	
Rating Type	control	control	LENGTH	WEIGHT	MOICON	WEITES	WEITES	
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	FT, -, -	lb, -, -	lb, -, -	lb, -, -	lb, -, -	
Number of Subsamples	1	1	1	1	1	1	1	
Crop Type, Code			C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	
BBCH Scale			BCOR	BCOR	BCOR	BCOR	BCOR	
Crop Scientific Name			Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	
Crop Name			Corn	Corn	Corn	Corn	Corn	
Pest Type	W, Weed	W, Weed						
Pest Code	SIDSP	SORHA						
Pest Scientific Name	Sida spinosa	Sorghum halepen>						
Pest Name	Prickly sida	Johnson grass						
Rating Timing								
Days After First/Last Applic.	57, 35	57, 35	172, 150	172, 150	172, 150	172, 150	172, 150	
Trt-Eval Interval								
Plant-Eval Interval	58 DP-1	58 DP-1	173 DP-1	173 DP-1	173 DP-1	173 DP-1	173 DP-1	
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App	Rating Shell	Rating Shell						
Data Reliability								
ARM Action Codes				AS				
Number of Decimals								
Trt Treatment	Rate	Appl	27	28	29	30	31	32
No. Name	Rate Unit	Code				dAS		
1	UNTREATED CHECK		0.0 b	0.0 b	26.38 ab	2.413 e	13.29 a	50.76 a
2	ANTHEM MAXX	A			27.05 ab	19.209 abc	14.20 a	55.28 a
	CALLISTO	A						
	ATRAZINE 4L (SC)	A						
3	ANTHEM MAXX	B	94.3 a	86.8 a	26.23 b	30.093 ab	13.60 a	57.45 a
	CALLISTO	B						
	ATRAZINE 4L (SC)	B						
	ROUNDUP POWERMAX	B						
	AMS - Liquid	B						
	INDUCE	B						
4	ANTHEM MAXX	A	100.0 a	92.5 a	26.90 ab	35.607 a	13.58 a	60.30 a
	CALLISTO	A						
	ATRAZINE 4L (SC)	A						
	ANTHEM MAXX	C						
	CALLISTO	C						
	ATRAZINE 4L (SC)	C						
	ROUNDUP POWERMAX	C						
	AMS - Liquid	C						
	INDUCE	C						
5	TRIVOLT	A			26.90 ab	13.972 cd	13.30 a	53.10 a
6	MAVERICK	A			26.98 ab	11.125 cde	13.48 a	56.55 a
7	ACURON FLEXI	A			26.95 ab	16.143 bc	13.20 a	53.43 a
	ZIDUA SC	A						
8	VERDICT	A	99.3 a	99.5 a	26.83 ab	35.438 a	13.88 a	59.45 a
	ARMEZON PRO	C						
	ATRAZINE 4L (SC)	C						
	ROUNDUP POWERMAX	C						
	AMS - Liquid	C						
	INDUCE	C						
9	LEXAR EZ	A	99.3 a	100.0 a	26.90 ab	36.023 a	13.68 a	59.68 a
	ACURON GT	C						
	AMS - Liquid	C						
	INDUCE	C						
10	KEYSTONE NXT	A	99.3 a	96.0 a	26.93 ab	35.487 a	13.95 a	59.48 a
	RESICORE	C						
	ROUNDUP POWERMAX	C						
	AMS - Liquid	C						
	INDUCE	C						
11	ANTHEM MAXX	A			26.65 ab	6.800 cde	14.80 a	51.80 a

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Missing data estimates are included in columns: Yates=31,32  
Excluded replicate 3 in column 14; 3 in 17  
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^Calculated from residual.  
d=Means are reported in de-transformed data units



# University of Kentucky

Rating Date	6-30-2023	6-30-2023	10-23-2023	10-23-2023	10-23-2023	10-23-2023
Part Rated	PLANT, P	PLANT, P	PLOT, -	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	control	control	LENGTH	WEIGHT	MOICON	WEITES
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	FT, -, -	lb, -, -	lb, -, -	lb, -, -
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code			C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX
BBCH Scale			BCOR	BCOR	BCOR	BCOR
Crop Scientific Name			Zea mays	Zea mays	Zea mays	Zea mays
Crop Name			Corn	Corn	Corn	Corn
Pest Type	W, Weed	W, Weed				
Pest Code	SIDSP	SORHA				
Pest Scientific Name	Sida spinosa	Sorghum halepen>				
Pest Name	Prickly sida	Johnson grass				
Rating Timing						
Days After First/Last Applic.	57, 35	57, 35	172, 150	172, 150	172, 150	172, 150
Trt-Eval Interval						
Plant-Eval Interval	58 DP-1	58 DP-1	173 DP-1	173 DP-1	173 DP-1	173 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell				
Data Reliability						
ARM Action Codes				AS		
Number of Decimals						

Trt	Treatment	Rate	Appl	27	28	29	30	31	32
No.	Name	Unit	Code				dAS		
12	DUAL II MAGNUM (7.64EC)	16 FL OZ/A	A			26.75 ab	3.456 e	12.88 a	47.40 a
13	HARNESS	32 FL OZ/A	A			27.18 a	4.118 de	13.01 a	47.80 a
14	OUTLOOK (6EC)	14 FL OZ/A	A			26.70 ab	8.329 cde	14.10 a	58.53 a
LSD	P=.05			5.79	10.15	0.515	5.6209 - 13.2049	1.103	11.017
Standard Deviation				3.84	6.73	0.360	0.8492t	0.769	7.682
CV				4.68	8.51	1.34	20.92t	5.64	13.95
Levene's F^				0.86	0.337	0.582	1.485	0.619	0.966
Levene's Prob(F)				0.526	0.884	0.855	0.164	0.824	0.50
Shapiro-Wilk^				0.7904*	0.9236	0.951*	0.9702	0.9733	0.8961*
P(Shapiro-Wilk)^				0.0002*	0.0703	0.0236*	0.1794	0.2792	0.0002*
Skewness^				-1.8435*	-0.6999	0.7215*	0.5881	-0.436	-1.1831*
P(Skewness)^				0.0012*	0.176	0.0318*	0.078	0.201	0.0009*
Kurtosis^				7.1034*	1.3171	0.1862	1.1757	0.5679	2.8846*
P(Kurtosis)^				0.0*	0.1895	0.7738	0.0737	0.3952	0.0*
Replicate F				1.719	3.374	0.489	0.588	0.554	0.911
Replicate Prob(F)				0.2058	0.0465	0.6922	0.6268	0.6490	0.4454
Treatment F				439.317	134.717	2.013	14.739	1.805	1.327
Treatment Prob(F)				0.0001	0.0001	0.0461	0.0001	0.0806	0.2431

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
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Missing data estimates are included in columns: Yates=31,32  
Excluded replicate 3 in column 14; 3 in 17  
Could not calculate LSD (% mean diff) for columns 1,4,8,13 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date 10-23-2023  
 Part Rated GRAIN, C  
 Rating Type YIELD  
 Rating Unit/Min/Max BU, -, -  
 Number of Subsamples 1  
 Crop Type, Code C, ZEAMX  
 BBCH Scale BCOR  
 Crop Scientific Name Zea mays  
 Crop Name Corn  
 Pest Type  
 Pest Code  
 Pest Scientific Name  
 Pest Name  
 Rating Timing  
 Days After First/Last Applic. 172, 150  
 Trt-Eval Interval  
 Plant-Eval Interval 173 DP-1  
 Days After Emergence  
 Pest Est.-Eval Interval  
 Equipment  
 EDC App  
 Data Reliability  
 ARM Action Codes AS TY1  
 Number of Decimals 1

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	33 dAS
1	UNTREATED CHECK				13.6 d
2	ANTHEM MAXX	4 FL OZ/A		A	112.1 ab
	CALLISTO	6 FL OZ/A		A	
	ATRAZINE 4L (SC)	1 QT/A		A	
3	ANTHEM MAXX	4 FL OZ/A		B	182.5 a
	CALLISTO	3 FL OZ/A		B	
	ATRAZINE 4L (SC)	1 QT/A		B	
	ROUNDUP POWERMAX	22 FL OZ/A		B	
	AMS - Liquid	8.50 LB AI/100 GAL		B	
	INDUCE	0.25 % V/V		B	
4	ANTHEM MAXX	3 FL OZ/A		A	210.6 a
	CALLISTO	3 FL OZ/A		A	
	ATRAZINE 4L (SC)	1 QT/A		A	
	ANTHEM MAXX	2.50 FL OZ/A		C	
	CALLISTO	3 FL OZ/A		C	
	ATRAZINE 4L (SC)	0.50 QT/A		C	
	ROUNDUP POWERMAX	22 FL OZ/A		C	
	AMS - Liquid	8.50 LB AI/100 GAL		C	
	INDUCE	0.25 % V/V		C	
5	TRIVOLT	12 FL OZ/A		A	82.9 bc
6	MAVERICK	18 FL OZ/A		A	65.6 bcd
7	ACURON FLEXI	2 QT/A		A	95.9 ab
	ZIDUA SC	2.50 FL OZ/A		A	
8	VERDICT	10 FL OZ/A		A	209.5 a
	ARMEZON PRO	16 FL OZ/A		C	
	ATRAZINE 4L (SC)	0.50 QT/A		C	
	ROUNDUP POWERMAX	22 FL OZ/A		C	
	AMS - Liquid	8.50 LB AI/100 GAL		C	
	INDUCE	0.25 % V/V		C	
9	LEXAR EZ	1.75 QT/A		A	212.9 a
	ACURON GT	3.75 PT/A		C	
	AMS - Liquid	8.50 LB AI/100 GAL		C	
	INDUCE	0.25 % V/V		C	
10	KEYSTONE NXT	2 QT/A		A	208.8 a
	RESICORE	1.25 QT/A		C	
	ROUNDUP POWERMAX	22 FL OZ/A		C	
	AMS - Liquid	8.50 LB AI/100 GAL		C	
	INDUCE	0.25 % V/V		C	
11	ANTHEM MAXX	4 FL OZ/A		A	39.8 bcd

Means followed by same letter or symbol do not significantly differ (P=0.05, Student-Newman-Keuls).  
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Missing data estimates are included in columns: Yates=31,32  
 Excluded replicate 3 in column 14; 3 in 17  
 Could not calculate LSD (% mean diff) for columns 1,4,8,13 because error mean square = 0.  
 ^Calculated from residual.  
 d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date 10-23-2023  
 Part Rated GRAIN, C  
 Rating Type YIELD  
 Rating Unit/Min/Max BU, -, -  
 Number of Subsamples 1  
 Crop Type, Code C, ZEAMX  
 BBCH Scale BCOR  
 Crop Scientific Name Zea mays  
 Crop Name Corn  
 Pest Type  
 Pest Code  
 Pest Scientific Name  
 Pest Name  
 Rating Timing  
 Days After First/Last Applic. 172, 150  
 Trt-Eval Interval  
 Plant-Eval Interval 173 DP-1  
 Days After Emergence  
 Pest Est.-Eval Interval  
 Equipment  
 EDC App  
 Data Reliability  
 ARM Action Codes AS TY1  
 Number of Decimals 1

Trt No.	Treatment Name	Rate	Unit	Appl Code	33 dAS
12	DUAL II MAGNUM (7.64EC)	16 FL OZ/A		A	18.8 d
13	HARNESS	32 FL OZ/A		A	22.4 cd
14	OUTLOOK (6EC)	14 FL OZ/A		A	49.2 bcd
LSD P=.05					33.45 - 81.84
Standard Deviation					2.19t
CV					22.65t
Levene's F^					1.654
Levene's Prob(F)					0.108
Shapiro-Wilk^					0.974
P(Shapiro-Wilk)^					0.2671
Skewness^					0.4948
P(Skewness)^					0.1365
Kurtosis^					1.211
P(Kurtosis)^					0.0657
Replicate F					0.527
Replicate Prob(F)					0.6665
Treatment F					13.887
Treatment Prob(F)					0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Missing data estimates are included in columns: Yates=31,32  
 Excluded replicate 3 in column 14; 3 in 17  
 Could not calculate LSD (% mean diff) for columns 1,4,8,13 because error mean square = 0.  
 ^Calculated from residual.  
 d=Means are reported in de-transformed data units

# University of Kentucky

## Anthem Maxx Programs for Residual Weed Control in Corn

Trial ID: USA-23-033(23-17-COR-REC)      Cooperator Trial ID:  
 Protocol ID: USA-23-033      Location:      Trial Year: 2023  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Todd Cogdill      Sponsor Contact:  
 Investigator: Travis Legleiter

### Part Rated

PLANT = plant  
 PLOT = plot  
 GRAIN = grain  
 C = Crop is Part Rated  
 P = Pest is Part Rated

### Rating Type

phygen = phytotoxicity - general / injury  
 LENGTH = length  
 WEIGHT = weight  
 MOICON = moisture content  
 WEITES = weight - test  
 YIELD = yield

### Rating Unit/Min/Max

%, 0, 100 = percent  
 FT, , = foot  
 lb, , = pound  
 BU, , = bushel

### Crop Type Code

C = EPPO species (Bayer) codes  
 ZEAMX, BCOR, Zea mays, Corn = US

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US  
 IPOHE, Ipomoea hederacea, ivy-leaf morning glory = US  
 AMACH, Amaranthus hybridus, smooth pigweed = US  
 SORHA, Sorghum halepense, Johnson grass = US  
 SIDSP, Sida spinosa, Prickly sida = US

### Plant-Eval Interval

9 DP-1 = 1 ZEAMX 5-3-2023  
 14 DP-1 = 1 ZEAMX 5-3-2023  
 30 DP-1 = 1 ZEAMX 5-3-2023  
 36 DP-1 = 1 ZEAMX 5-3-2023  
 51 DP-1 = 1 ZEAMX 5-3-2023  
 58 DP-1 = 1 ZEAMX 5-3-2023  
 173 DP-1 = 1 ZEAMX 5-3-2023

### EDC App

Rating Shell = Data pulled from Excel Rating Shell

### ARM Action Codes

AL = Automatic log transformation of X+1  
 AS = Automatic square root transformation of X+0.5  
 ER3 = Excluded replicate 3  
 AA = Automatic arcsine square root % transformation  
 TY1 =  $(777.857142857143 / ((5 * [29])) * [30] * (100 - @MVAVGREP([31])) / 84.5$

# University of Kentucky

## Reviton University Exposure Trial

Trial ID: 23-20 SOY-REC      Cooperator Trial ID:  
 Protocol ID: 2023-F-US05      Location: UKREC      Trial Year: 2023  
 Project ID: Project ID 2: Project ID 3:  
 Study Director:      Sponsor Contact:  
 Investigator: Travis Legleiter

Reps: 4		Plots: 10 by 30 feet		Mix Size: 2 L (total for 4 plots; minimum=1.564 L, overage=436 mL)												
Trt	Treatment	Form	Form	Form	Rate	Other	Other	Appl	Appl	Amt	Product	Rep				
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Code	Timing	to Measure	1	2	3	4
1	Reviton	2.83 lba/gal	SC	1 FL OZ/A	0.0221 lba/a	A	Burndown	1.042 mL/mx	101	204	302	403				
	Roundup PowerMax	4.5 LBAE/GAL	SL	22 FL OZ/A	0.77 lba/a	A	Burndown	22.92 mL/mx								
	Helmet MTZ	6.5 LBA/GAL	EC	2.1 PT/A	1.7 lba/a	A	Burndown	35.0 mL/mx								
	AMS - Liquid	3.4 lba/gal	SL	2.5 % V/V	8.5 lba/100gal	A	Burndown	49.99 mL/mx								
	MSO	100 %	SL	1 % V/V		A	Burndown	20.0 mL/mx								
2	Reviton	2.83 lba/gal	SC	1 FL OZ/A	0.0221 lba/a	A	Burndown	1.042 mL/mx	102	201	304	402				
	Roundup PowerMax	4.5 LBAE/GAL	SL	22 FL OZ/A	0.77 lba/a	A	Burndown	22.92 mL/mx								
	Zone Elite	7 lba/gal	L	32 FL OZ/A	1.75 lba/a	A	Burndown	33.33 mL/mx								
	AMS - Liquid	3.4 lba/gal	SL	2.5 % V/V	8.5 lba/100gal	A	Burndown	49.99 mL/mx								
	MSO	100 %	SL	1 % V/V		A	Burndown	20.0 mL/mx								
3	Reviton	2.83 lba/gal	SC	1 FL OZ/A	0.0221 lba/a	A	Burndown	1.042 mL/mx	103	202	303	401				
	Roundup PowerMax	4.5 LBAE/GAL	SL	22 FL OZ/A	0.77 lba/a	A	Burndown	22.92 mL/mx								
	Helmet MTZ	6.5 LBA/GAL	EC	2.1 PT/A	1.7 lba/a	A	Burndown	35.0 mL/mx								
	Lo-Vol 2,4-D	3.48 LBA/GAL	L	1 PT/A	0.435 lba/a	A	Burndown	16.67 mL/mx								
	AMS - Liquid	3.4 lba/gal	SL	2.5 % V/V	8.5 lba/100gal	A	Burndown	49.99 mL/mx								
	MSO	100 %	SL	1 % V/V		A	Burndown	20.0 mL/mx								
4	Untreated								104	203	301	404				

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form	Conc	Form	Unit	Form	Type	Lot Code
3.125 mL		Reviton	2.83	lba/gal	SC				
68.750 mL		Roundup PowerMax	4.5	LBAE/GAL	SL				
70.000 mL		Helmet MTZ	6.5	LBA/GAL	EC				
149.984 mL		AMS - Liquid	3.4	lba/gal	SL				
59.993 mL		MSO	100	%	SL				
33.333 mL		Zone Elite	7	lba/gal	L				
16.667 mL		Lo-Vol 2,4-D	3.48	LBA/GAL	L				

\* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).  
 \* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

### General Trial Information

Investigator: Travis Legleiter      Title: Assistant Extension Professor

Status: E established

ARM Trial Created On: 4-7-2023

### Trial Location

City: Princeton      Country: USA United States  
 State/Prov.: Kentucky      Country: Caldwell  
 Postal Code: 42445

### Regulations

Conducted Under GLP: No

Conducted Under GEP: No

Role: INVEST investigator

Title: Assistant Extension Professor

Investigator: Travis Legleiter

Organization: University of Kentucky

Address 1: 348 University Drive

Phone No.: 859-562-1323

Country: USA United States

E-mail: Travis.Legleiter@uky.edu

City: Princeton, KY

Postal Code: 42445

### Crop Description

Crop 1: C GLXMA Glycine max Soybean

BBCH Scale: BSOY

Entry Date: 8-15-2023

Stage Scale: BBCH

Variety: Asgrow 43XF2

Attributes: RR/2XtendFlex

Planting Date: 5-24-2023

Planting Rate: 140000 S/A

Depth: 1.25 IN

Planting Method: PLANTD planted

Planting Equipment: VP vacuum planter

# University of Kentucky

## Pest Description

- Pest 1 Type:** W **Code:** GERCA **Geranium carolinianum** **Entry Date:** 8-15-2023  
**Common Name:** Carolina geranium **Stage Scale:** BBCH
- Pest 2 Type:** W **Code:** THLAR **Thlaspi arvense** **Entry Date:** 8-15-2023  
**Common Name:** Field pennycress **Stage Scale:** BBCH
- Pest 3 Type:** W **Code:** LAMAM **Lamium amplexicaule** **Entry Date:** 8-15-2023  
**Common Name:** Henbit deadnettle **Stage Scale:** BBCH
- Pest 4 Type:** W **Code:** VIOAR **Viola arvensis** **Entry Date:** 8-15-2023  
**Common Name:** Field pansy **Stage Scale:** BBCH
- Pest 5 Type:** W **Code:** CERVU **Cerastium fontanum vulgare** **Entry Date:** 8-15-2023  
**Common Name:** common mouse-ear chickweed **Stage Scale:** BBCH
- Pest 6 Type:** W **Code:** LOLMG **Lolium multiflorum gaudini** **Entry Date:** 8-15-2023  
**Common Name:** Annual ryegrass **Stage Scale:** BBCH
- Pest 7 Type:** W **Code:** OXAST **Oxalis stricta** **Entry Date:** 8-15-2023  
**Common Name:** upright wood sorrel **Stage Scale:** BBCH
- Pest 8 Type:** W **Code:** LAMPU **Lamium purpureum** **Entry Date:** 8-15-2023  
**Common Name:** purple deadnettle **Stage Scale:** BBCH
- Pest 9 Type:** W **Code:** ALLVI **Allium vineale** **Entry Date:** 8-15-2023  
**Common Name:** Field garlic **Stage Scale:** BBCH
- Pest10 Type:** W **Code:** BROTE **Bromus tectorum** **Entry Date:** 8-15-2023  
**Common Name:** Cheatgrass **Stage Scale:** BBCH
- Pest11 Type:** W **Code:** SENGL **Packera glabella** **Entry Date:** 8-15-2023  
**Common Name:** Cressleaf groundsel **Stage Scale:** BBCH

## Site and Design

**Treated Plot Width:** 10 FT **Site Type:** FIELD field  
**Treated Plot Length:** 30 FT **Experimental Unit:** 1 PLOT plot  
**Treated Plot Area:** 300.0 FT2 **Tillage Type:** NOTILL no-till  
**Replications:** 4 **Treatments:** 4 **Plots:** 16 **Study Design:** RACOB� Randomized Complete Block (RCB)  
**Distance between Blocks:** 1 FT  
**Distance between 'Plot' Experimental Units:** 0.5 FT

## Maintenance

No.	Date	Type	Product Name	Rate	Unit
1.	4-17-2023	FERT	Potassium	30	lbs
2.	4-20-2023	FERT	Nitrogen	18	lbs
3.	4-20-2023	FERT	Phosphorus	46	lbs

## Soil Description

**Description Name:** K200A  
**% Sand:** 6.1 **% OM:** 3 **Texture:** SI silt  
**% Silt:** 83.4  
**% Clay:** 10.4  
**pH:** 6.09 **CEC:** 13.18

## Application Description

**A**

**Date:** 4-14-2023  
**Start Time:** 4:31 PM  
**Stop Time:** 4:39 PM  
**Method:** SPRAY  
**Placement:** foliar  
**Applied By:** JLG  
**Entry Date:** 5-12-2023  
**Air Temperature Start, Stop:** 80.7, 81 F  
**% Relative Humidity Start, Stop:** 47.7, 42.5  
**Wind Velocity+Dir. Start:** 1.1 MPH, N  
**Wind Velocity+Dir. Stop:** 1.3 MPH, N  
**Wind Velocity+Dir. Max:** 5 MPH, N  
**Wet Leaves (Y/N):** N, no  
**Soil Moisture:** dry  
**% Cloud Cover:** 80

## Crop Stage At Each Application

**A**

**Crop 1 Code, BBCH Scale:** GLXMA, BSOY

# University of Kentucky

## Pest Stage At Each Application

	<b>A</b>
<b>Pest 1 Code, Type, Scale</b>	GERCA, W, BBCH
Height Average	2.625 IN
Height Minimum, Maximum	1.5, 3.75
Density Average	3 ft2
Density Minimum, Maximum	0, 3
<b>Pest 2 Code, Type, Scale</b>	THLAR, W, BBCH
Height Average	5.5 IN
Height Minimum, Maximum	2, 9
Density Average	4 ft2
Density Minimum, Maximum	1, 7
<b>Pest 3 Code, Type, Scale</b>	LAMAM, W, BBCH
Height Average	2.25 IN
Height Minimum, Maximum	0, 2.25
Density Average	2 ft2
Density Minimum, Maximum	0, 2.25
<b>Pest 4 Code, Type, Scale</b>	VIOAR, W, BBCH
Height Average	1.75 IN
Height Minimum, Maximum	1.25, 2.25
Density Average	5 ft2
Density Minimum, Maximum	3, 8
<b>Pest 5 Code, Type, Scale</b>	CERVU, W, BBCH
Height Average	5.25 IN
Height Minimum, Maximum	0, 5.25
Density Average	6 ft2
Density Minimum, Maximum	0, 6
<b>Pest 6 Code, Type, Scale</b>	LOLMG, W, BBCH
Height Average	0.875 IN
Height Minimum, Maximum	0.25, 1.5
Density Average	2.5 ft2
Density Minimum, Maximum	1, 4
<b>Pest 7 Code, Type, Scale</b>	OXAST, W, BBCH
Height Average	0.75 IN
Height Minimum, Maximum	0.5, 1
Density Average	6 ft2
Density Minimum, Maximum	0, 6
<b>Pest 8 Code, Type, Scale</b>	LAMPU, W, BBCH
Height Average	2.75 IN
Height Minimum, Maximum	2, 3.5
Density Average	2.5 ft2
Density Minimum, Maximum	1, 4
<b>Pest 9 Code, Type, Scale</b>	ALLVI, W, BBCH
Height Average	12 IN
Height Minimum, Maximum	0, 12
Density Average	2 ft2
Density Minimum, Maximum	0, 2
<b>Pest10 Code, Type, Scale</b>	BROTE, W, BBCH
Height Average	3 IN
Height Minimum, Maximum	0, 3
Density Average	1 ft2
Density Minimum, Maximum	0, 1
<b>Pest11 Code, Type, Scale</b>	SENGL, W, BBCH
Height Average	3.375 IN
Height Minimum, Maximum	2.25, 4.5
Density Average	5 ft2
Density Minimum, Maximum	0, 5

## Application Equipment

	<b>A</b>
<b>Equipment Type</b>	BACCAI
<b>Operation Pressure</b>	35 PSI
<b>Nozzle Model</b>	XR11002
<b>Nozzle Type</b>	FLAFXR
<b>Nozzle TradeName</b>	XR TeeJet
<b>Nozzle Tip Size, Color</b>	02, Yellow
<b>Nozzle Spacing</b>	20.0 IN
<b>Boom ID</b>	BLUE
<b>Boom Length</b>	10.0 FT
<b>Boom Height</b>	18.0 IN
<b>Ground Speed</b>	3 MPH
<b>Carrier</b>	WATER
<b>Application Amount</b>	15 GAL/AC
<b>Mix Overage</b>	436.0 mL
<b>Mix Size</b>	2.0 L
<b>Propellant</b>	COMCO2

## Notes

<b>Context</b>	<b>Date</b>	<b>By</b>	<b>Notes</b>
STATUS 4-7-2023		Travis Legleiter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS 5-12-2023		Travis Legleiter	Automatically added by ARM: Status changed to: E: changed by (EKYLET).
STATUS 5-12-2023		Travis Legleiter	Automatically added by ARM: Trial Status updated to 'E' when Application Date entered.

# University of Kentucky

## Reviton University Exposure Trial

Trial ID: 23-20 SOY-REC  
 Protocol ID: 2023-F-US05 Location: UKREC  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Sponsor Contact:  
 Investigator: Travis Legleiter

Cooperator Trial ID:  
 Trial Year: 2023

Rating Date	4-20-2023	4-20-2023	4-20-2023	4-28-2023	4-28-2023
Part Rated	plant, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	GERCA	CERVU	LAMPU	GERCA	CERVU
Pest Scientific Name	Geranium caroli>	Cerastium fonta>	Lamium purpureum	Geranium caroli>	Cerastium fonta>
Pest Name	Carolina gerani>	common mouse-ea>	purple deadnett>	Carolina gerani>	common mouse-ea>
Pest Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH
Rating Timing					
Days After First/Last Applic.	6, 6	6, 6	6, 6	14, 14	14, 14
Trt-Eval Interval	6 DA-A	6 DA-A	6 DA-A	14 DA-A	14 DA-A
Plant-Eval Interval	-34 DP-1	-34 DP-1	-34 DP-1	-26 DP-1	-26 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes				EC	ET3
Number of Decimals					
Data Entry Date	5-12-2023	5-12-2023	5-12-2023	5-12-2023	5-12-2023

Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	1	2	3	4	5
1 Reviton	1 FL OZ/A	A 101	50.0	50.0	20.0	80.0	100.0
Roundup PowerMax	22 FL OZ/A	A 204	60.0	40.0	20.0	100.0	100.0
Helmet MTZ	2.1 PT/A	A 302	60.0	20.0	20.0	100.0	100.0
AMS - Liquid	2.5 % V/V	A 403	70.0	20.0	20.0	100.0	100.0
MSO	1 % V/V	A					
		Mean =	60.0	32.5	20.0	95.0	100.0
2 Reviton	1 FL OZ/A	A 102	50.0	50.0	20.0	100.0	100.0
Roundup PowerMax	22 FL OZ/A	A 201	60.0	20.0	20.0	100.0	100.0
Zone Elite	32 FL OZ/A	A 304	50.0	10.0	10.0	95.0	100.0
AMS - Liquid	2.5 % V/V	A 402	70.0	20.0	20.0	95.0	100.0
MSO	1 % V/V	A					
		Mean =	57.5	25.0	17.5	97.5	100.0
3 Reviton	1 FL OZ/A	A 103	50.0	50.0	20.0	100.0	100.0
Roundup PowerMax	22 FL OZ/A	A 202	60.0	30.0	20.0	100.0	100.0
Helmet MTZ	2.1 PT/A	A 303	70.0	20.0	20.0	100.0	100.0
Lo-Vol 2,4-D	1 PT/A	A 401	70.0	20.0	20.0	100.0	100.0
AMS - Liquid	2.5 % V/V	A					
MSO	1 % V/V	A					
		Mean =	62.5	30.0	20.0	100.0	100.0
4 Untreated		104	0.0	0.0	0.0	0.0	0.0
		203	0.0	0.0	0.0	0.0	0.0
		301	0.0	0.0	0.0	0.0	0.0
		404	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0	0.0	0.0	0.0

d=Means are reported in de-transformed data units



# University of Kentucky

Rating Date	4-28-2023	4-28-2023	4-28-2023	5-4-2023	5-4-2023		
Part Rated	PLAN, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Number of Subsamples	1	1	1	1	1		
Crop Type, Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	LAMPU	ERICA	THLAR	GERCA	CERVU		
Pest Scientific Name	Lamium purpureum	Erigeron canadensis	Thlaspi arvense	Geranium carolinianum	Cerastium fontinale		
Pest Name	purple deadnett	mare's-tail	Field pennycress	Carolina gerani	common mouse-ear		
Pest Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH		
Rating Timing							
Days After First/Last Applic.	14, 14	14, 14	14, 14	20, 20	20, 20		
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	20 DA-A	20 DA-A		
Plant-Eval Interval	-26 DP-1	-26 DP-1	-26 DP-1	-20 DP-1	-20 DP-1		
Days After Emergence							
Pest Est.-Eval Interval							
Equipment							
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability							
ARM Action Codes	ET3	AS	ET3	EC	ET3		
Number of Decimals							
Data Entry Date	5-12-2023	5-12-2023	5-12-2023	5-12-2023	5-12-2023		
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	6	7	8	9	10
1 Reviton	1 FL OZ/A	A 101	100.0	95.0	100.0	80.0	100.0
Roundup PowerMax	22 FL OZ/A	A 204	100.0	100.0	100.0	100.0	100.0
Helmet MTZ	2.1 PT/A	A 302	100.0	100.0	100.0	100.0	100.0
AMS - Liquid	2.5 % V/V	A 403	100.0	100.0	100.0	100.0	100.0
MSO	1 % V/V	A					
		Mean =	100.0	98.7d	100.0	95.0	100.0
2 Reviton	1 FL OZ/A	A 102	100.0	90.0	100.0	90.0	100.0
Roundup PowerMax	22 FL OZ/A	A 201	100.0	90.0	100.0	90.0	100.0
Zone Elite	32 FL OZ/A	A 304	100.0	90.0	100.0	100.0	100.0
AMS - Liquid	2.5 % V/V	A 402	100.0	95.0	100.0	100.0	100.0
MSO	1 % V/V	A					
		Mean =	100.0	91.2d	100.0	95.0	100.0
3 Reviton	1 FL OZ/A	A 103	100.0	100.0	100.0	100.0	100.0
Roundup PowerMax	22 FL OZ/A	A 202	100.0	100.0	100.0	100.0	100.0
Helmet MTZ	2.1 PT/A	A 303	100.0	100.0	100.0	100.0	100.0
Lo-Vol 2,4-D	1 PT/A	A 401	100.0	100.0	100.0	100.0	100.0
AMS - Liquid	2.5 % V/V	A					
MSO	1 % V/V	A					
		Mean =	100.0	100.0d	100.0	100.0	100.0
4 Untreated		104	0.0	0.0	0.0	0.0	0.0
		203	0.0	0.0	0.0	0.0	0.0
		301	0.0	0.0	0.0	0.0	0.0
		404	0.0	0.0	0.0	0.0	0.0
		Mean =	0.0	0.0d	0.0	0.0	0.0

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	5-4-2023	5-4-2023	5-4-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	LAMPU	ERICA	THLAR
Pest Scientific Name	Lamium purpureum	Erigeron canad>	Thlaspi arvense
Pest Name	purple deadnett>	mare's-tail	Field pennycress
Pest Stage Scale	BBCH	BBCH	BBCH
Rating Timing			
Days After First/Last Applic.	20, 20	20, 20	20, 20
Trt-Eval Interval	20 DA-A	20 DA-A	20 DA-A
Plant-Eval Interval	-20 DP-1	-20 DP-1	-20 DP-1
Days After Emergence			
Pest Est.-Eval Interval			
Equipment			
EDC App	Rating Shell	Rating Shell	Rating Shell
Data Reliability			
ARM Action Codes	ET3		ET3
Number of Decimals			
Data Entry Date	5-12-2023	5-12-2023	5-12-2023

Trt	Treatment	Rate	Unit	Appl	Code	Plot	11	12	13
1	Reviton	1 FL OZ/A	A	A	101		100.0	90.0	100.0
	Roundup PowerMax	22 FL OZ/A	A	A	204		100.0	97.0	100.0
	Helmet MTZ	2.1 PT/A	A	A	302		100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A	A	403		100.0	100.0	100.0
	MSO	1 % V/V	A	A					
					Mean =		100.0	96.8	100.0
2	Reviton	1 FL OZ/A	A	A	102		100.0	50.0	100.0
	Roundup PowerMax	22 FL OZ/A	A	A	201		100.0	70.0	100.0
	Zone Elite	32 FL OZ/A	A	A	304		100.0	90.0	100.0
	AMS - Liquid	2.5 % V/V	A	A	402		100.0	90.0	100.0
	MSO	1 % V/V	A	A					
					Mean =		100.0	75.0	100.0
3	Reviton	1 FL OZ/A	A	A	103		100.0	100.0	100.0
	Roundup PowerMax	22 FL OZ/A	A	A	202		100.0	100.0	100.0
	Helmet MTZ	2.1 PT/A	A	A	303		100.0	100.0	100.0
	Lo-Vol 2,4-D	1 PT/A	A	A	401		100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A	A					
	MSO	1 % V/V	A	A					
					Mean =		100.0	100.0	100.0
4	Untreated				104		0.0	0.0	0.0
					203		0.0	0.0	0.0
					301		0.0	0.0	0.0
					404		0.0	0.0	0.0
					Mean =		0.0	0.0	0.0

d=Means are reported in de-transformed data units

# University of Kentucky

## Reviton University Exposure Trial

Trial ID: 23-20 SOY-REC  
 Protocol ID: 2023-F-US05      Location: UKREC  
 Project ID: Project ID 2: Project ID 3:  
 Study Director:                      Sponsor Contact:  
 Investigator: Travis Legleiter

### Part Rated

PLANT = plant  
 P = Pest is Part Rated

### Rating Type

CONTRO = control / burndown or knockdown

### Rating Unit/Min/Max

%, 0, 100 = percent

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

GERCA, Geranium carolinianum, Carolina geranium = US  
 LAMPU, Lamium purpureum, purple deadnettle = US  
 ERICA, Erigeron canadensis, mare's-tail = US  
 THLAR, Thlaspi arvense, Field pennycress = US

### Pest Stage Scale

BBCH = BBCH uniform plant stages

### Plant-Eval Interval

-34 DP-1 = 1 GLXMA 5-24-2023  
 -26 DP-1 = 1 GLXMA 5-24-2023  
 -20 DP-1 = 1 GLXMA 5-24-2023

### EDC App

Rating Shell = Data pulled from Excel Rating Shell

### ARM Action Codes

EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table  
 ET3 = Excluded treatment 3  
 AS = Automatic square root transformation of X+0.5

# University of Kentucky

## Primary/Core PRE soil residual trial-conventional tillage South

Trial ID: 23-21  
 Protocol ID: VUSA2023MAVERICHMD68.04 Location: Cooperator Trial ID:  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: John Cranmer Sponsor Contact:  
 Investigator: Sara Carter

Reps: 4		Plots: 10 by 35 feet		Mix Size: 2.2 L (total for 4 plots; minimum=1.825 L)												
Appl. Amount: 15 GAL/AC																
Trt	Treatment	Form	Form	Form	Rate	Other	Other	Appl	Appl	Amt	Product	Rep				
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Code	Timing	to Measure	1	2	3	4
1	CHECK UNTREATED												101	202	306	402
2	ACURON HERBICIDE	3.44 LB/GAL	SC		2 QT/A		2 QT/A	A		PREPRE		73.33 mL/mx	102	205	301	412
	ROUNDUP POWER MAX 3(SALT)	5.88 LB/GAL	SL		1 LB AI/A		1 LB AI/A	B		POSPOS		24.94 mL/mx				
	INDUCE	100 %W/W	SF		0.25 % V/V		0.25 % V/V	B		POSPOS		5.499 g/mx				
	DRY AMMONIUM SULFATE	100 %W/W	SG		3 LB/A		3 LB/A	B		POSPOS		52.72 g/mx				
3	BICEP II MAGNUM	5.5 LB/GAL	SC		2.1 QT/A		2.1 QT/A	A		PREPRE		77.0 mL/mx	103	210	312	407
	ROUNDUP POWER MAX 3(SALT)	5.88 LB/GAL	SL		1 LB AI/A		1 LB AI/A	B		POSPOS		24.94 mL/mx				
	INDUCE	100 %W/W	SF		0.25 % V/V		0.25 % V/V	B		POSPOS		5.499 g/mx				
	DRY AMMONIUM SULFATE	100 %W/W	SG		3 LB/A		3 LB/A	B		POSPOS		52.72 g/mx				
4	RESICORE XL	3.26 LB/GAL	ZC		64 FL OZ/A		64 FL OZ/A	A		PREPRE		73.33 mL/mx	104	212	304	410
	ROUNDUP POWER MAX 3(SALT)	5.88 LB/GAL	SL		1 LB AI/A		1 LB AI/A	B		POSPOS		24.94 mL/mx				
	INDUCE	100 %W/W	SF		0.25 % V/V		0.25 % V/V	B		POSPOS		5.499 g/mx				
	DRY AMMONIUM SULFATE	100 %W/W	SG		3 LB/A		3 LB/A	B		POSPOS		52.72 g/mx				
5	MAVERICK HERBICIDE	2.04 LB/GAL	SC		24 FL OZ/A		24 FL OZ/A	A		PREPRE		27.5 mL/mx	105	204	303	404
	ROUNDUP POWER MAX 3(SALT)	5.88 LB/GAL	SL		1 LB AI/A		1 LB AI/A	B		POSPOS		24.94 mL/mx				
	INDUCE	100 %W/W	SF		0.25 % V/V		0.25 % V/V	B		POSPOS		5.499 g/mx				
	DRY AMMONIUM SULFATE	100 %W/W	SG		3 LB/A		3 LB/A	B		POSPOS		52.72 g/mx				
6	MAVERICK HERBICIDE	2.04 LB/GAL	SC		18 FL OZ/A		18 FL OZ/A	A		PREPRE		20.62 mL/mx	106	211	309	403
	MAVERICK HERBICIDE	2.04 LB/GAL	SC		14 FL OZ/A		14 FL OZ/A	B		POSPOS		16.04 mL/mx				
	ROUNDUP POWER MAX 3(SALT)	5.88 LB/GAL	SL		28 LB AI/A		28 LB AI/A	B		POSPOS		698.3 mL/mx				
	INDUCE	100 %W/W	SF		0.25 % V/V		0.25 % V/V	B		POSPOS		5.499 g/mx				
	DRY AMMONIUM SULFATE	100 %W/W	SG		3 LB/A		3 LB/A	B		POSPOS		52.72 g/mx				
7	MAVERICK HERBICIDE	2.04 LB/GAL	SC		24 FL OZ/A		24 FL OZ/A	A		PREPRE		27.5 mL/mx	107	203	305	401
	AATREX	4 LB/GAL	SC		0.75 LB AI/A		0.75 LB AI/A	A		PREPRE		27.5 mL/mx				
	ROUNDUP POWER MAX 3(SALT)	5.88 LB/GAL	SL		1 LB AI/A		1 LB AI/A	B		POSPOS		24.94 mL/mx				
	INDUCE	100 %W/W	SF		0.25 % V/V		0.25 % V/V	B		POSPOS		5.499 g/mx				
	DRY AMMONIUM SULFATE	100 %W/W	SG		3 LB/A		3 LB/A	B		POSPOS		52.72 g/mx				
8	ZIDUA		SC		4.64 FL OZ/A			A		PRE		5.317 mL/mx	108	207	302	406
	CALLISTO	4	SC		5.8 FL OZ/A			A		PRE		6.646 mL/mx				
	STINGER	3	EC		0.31 PT/A			A		PRE		5.683 mL/mx				
	AATREX	4	F		1.25 PT/A			A		PRE		22.92 mL/mx				
	ROUNDUP POWERMAX	4.5	SL		32 FL OZ/A			B		POS		36.67 mL/mx				
	INDUCE				0.25 % V/V			B		POS		5.499 mL/mx				
	AMS	100	SG		3 LB/A			B		POS		52.72 g/mx				
9	ACURON	3.44	ZC		1.5 QT/A			A		PRE		55.0 mL/mx	109	206	307	408
	ACURON	3.44	ZC		1.5 QT/A			B		POS		55.0 mL/mx				
	ROUNDUP POWERMAX	4.5	SL		32 FL OZ/A			B		POS		36.67 mL/mx				
	AMS	100	SG		3 LB/A			B		POS		52.72 g/mx				
10	BICEP II MAGNUM	5.5	L		1.5 QT/A			A		PRE		55.0 mL/mx	110	209	308	409
	ACURON GT	514.35 gA/L	ZC		3.75 QT/A			B		POS		137.5 mL/mx				
	INDUCE				0.25 % V/V			B		POS		5.499 mL/mx				
	AMS	100	SG		3 LB/A			B		POS		52.72 g/mx				
11	RESICORE XL	390.27 GAE/L	ZC		1.25 QT/A			A		PRE		45.83 mL/mx	111	208	310	411
	AATREX	4	F		0.624 PT/A			A		PRE		11.44 mL/mx				
	RESICORE XL	390.27 GAE/L	ZC		1.25 QT/A			B		POS		45.83 mL/mx				
	AATREX	4	F		0.624 PT/A			B		POS		11.44 mL/mx				
	ROUNDUP POWERMAX	4.5	SL		32 FL OZ/A			B		POS		36.67 mL/mx				
	AMS	100	SG		3 LB/A			B		POS		52.72 g/mx				

# University of Kentucky

Reps: 4 Plots: 10 by 35 feet  
 Appl. Amount: 15 GAL/AC Mix Size: 2.2 L (total for 4 plots; minimum=1.825 L)

No. Name	Form		Form		Rate		Other		Appl Code	Appl Timing	Amt to Measure	Rep			
	Conc	Unit	Type	Rate	Rate	Rate	Rate	Unit				1	2	3	4
12 TRIVOLT	489.9	GAL	SC	12 OZ/A					A	PRE	13.75 mL/mx	112	201	311	405
AATREX	4		F	1 PT/A					A	PRE	18.33 mL/mx				
DIFLEXX DUO	194		SC	24 OZ/A					B	POS	27.5 mL/mx				
AATREX	4		F	1 PT/A					B	POS	18.33 mL/mx				
ROUNDUP POWERMAX	4.5		SL	32 OZ/A					B	POS	36.67 mL/mx				
CLASS ACT RIDION			L	1 % V/V					B	POS	22.0 mL/mx				

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
73.333 mL		ACURON HERBICIDE	3.44	LB/GAL	SC	
823.040 mL		ROUNDUP POWER MAX 3(SALT)	5.88	LB/GAL	SL	
32.996 g		INDUCE	100	%W/W	SF	
316.340 g		DRY AMMONIUM SULFATE	100	%W/W	SG	
77.000 mL		BICEP II MAGNUM	5.5	LB/GAL	SC	
73.333 mL		RESICORE XL	3.26	LB/GAL	ZC	
91.667 mL		MAVERICK HERBICIDE	2.04	LB/GAL	SC	
27.497 mL		AATREX	4	LB/GAL	SC	
5.317 mL		ZIDUA			SC	
6.646 mL		CALLISTO	4		SC	
5.683 mL		STINGER	3		EC	
82.463 mL		AATREX	4		F	
146.667 mL		ROUNDUP POWERMAX	4.5		SL	
10.999 mL		INDUCE				
210.893 g		AMS	100		SG	
110.000 mL		ACURON	3.44		ZC	
55.000 mL		BICEP II MAGNUM	5.5		L	
137.500 mL		ACURON GT	514.35	gAL	ZC	
91.666 mL		RESICORE XL	390.27	GAE/L	ZC	
13.750 mL		TRIVOLT	489.9	GA/L	SC	
27.500 mL		DIFLEXX DUO	194		SC	
21.998 mL		CLASS ACT RIDION			L	

\* 'Per area' calculations based on application amount= 15 GPA, mix size= 2.2 L (mix size basis).

\* 'Per volume' calculations use spray volume= 15 GPA, mix size= 2.2 L.

### General Trial Information

**Study Director:** John Cranmer **Title:** FMD Specialist  
**Investigator:** Sara Carter **Title:** RESEARCH SPECIALIST

**Discipline:** H herbicide  
**Status:** I one-year/interim

**ARM Trial Created On:** 4-21-2023 **Reliability:** GOOD good quality  
**Initiation Date:** 5-3-2023 **Planned Completion Date:** 10-31-2023  
**Interim Report Due:** 10-1-2022 **Final Report Due:** 1-1-2023

### Trial Location

**City:** LEXINGTON **Country:** USA United States  
**State/Prov.:** KENTUCKY  
**Postal Code:** 40511

### Regulations

**Conducted Under GLP:** No  
**Conducted Under GEP:** No

No.	Guideline	Discipline	Description
1.	ADM-C-PUB CO		Confidentiality - Public Trial - No Secrecy Agreement Required

### Contacts

**Role:** STYDIR study director  
**Study Director:** John Cranmer **Title:** FMD Specialist  
**Organization:** Valent USA  
**Address 1:** 2228 Glengate Circle **Phone No.:** 919-280-6677  
**Country:** USA United States **E-mail:** John.Cranmer@Valent.com  
**City:** Morrisville **State/Prov:** NC **Postal Code:** 275560  
**Role:** INVEST investigator  
**Investigator:** Sara Carter **Title:** RESEARCH SPECIALIST  
**Organization:** UNIVERSITY OF KENTUCKY **Org. Type:** UNIVERSITY  
**Address 1:** 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710  
**Country:** USA United States **E-mail:** sara.carter@uky.edu  
**City:** LEXINGTON **State/Prov:** KY **Postal Code:** 40546-0312

# University of Kentucky

## Crop Description

**Crop 1:** C ZEAMX Zea mays Corn **BBCH Scale:** BCOR  
**Stage Scale:** BBCH  
**Variety:** DKC 111-35  
**Attributes:** RR/LL  
**Planting Date:** 5-3-2023 **Planting Rate:** 32000 S/A  
**Depth:** 1.5 in  
**Rows per Plot:** 6 **Planting Method:** PLANTD planted  
**Row Spacing:** 30 in **Planting Equipment:** FE field equipment  
**Seed Bed:** SMOOTH smooth  
**Soil Temperature:** 58.6 f **Soil Moisture:** GOOD good  
**Emergence Date:** 5-11-2023  
**Harvested Width:** 5 FT  
**Harvested Length:** 30 FT  
**% Standard Moisture:** 15.5

## Pest Description

**Pest 1 Type:** W **Code:** IPOSS Ipomoea sp.  
**Common Name:** Morning glory **Stage Scale:** BBCH  
**Pest 2 Type:** W **Code:** AMBTR Ambrosia trifida  
**Common Name:** Giant ragweed **Stage Scale:** BBCH

## Site and Design

**Treated Plot Width:** 10 FT **Site Type:** FIELD field  
**Treated Plot Length:** 35 FT  
**Treated Plot Area:** 350.0 FT<sup>2</sup> **Tillage Type:** CONTIL conventional-till  
**Replications:** 4 **Treatments:** 12 **Plots:** 48 **Study Design:** RACOBL Randomized Complete Block (RCB)

## Soil Description

**Description Name:** MAURY  
**% Sand:** 6 **% OM:** 2.6 **Texture:** SIL silt loam  
**% Silt:** 62 **Soil Name:** MAURY SILT LOAM  
**% Clay:** 32 **Fert. Level:** E excellent  
**pH:** 6.4 **CEC:** 18  
**Soil Drainage:** E excellent

## Weather Conditions

**Overall Moisture Conditions:** WEWEDR wet-wet-dry **Irrigation Type:** RAIN rain  
**Weather Station Name:** Lexington **Distance:** 7 mi

## Application Description

	A	B
<b>Date</b>	5-4-2023	6-16-2023
<b>Stop Time</b>	5:25 PM	2:15 PM
<b>Interval to Prev. Appl.</b>		43 DAYS
<b>Standard Method</b>	PREE	POST
<b>Method</b>	SPRAY	SPRAY
<b>Timing</b>	PREPRE	POSPOS
<b>Placement</b>	BROSOI	BROFOL
<b>Mixed/Prepared By</b>	Sara	Sara
<b>Applied By</b>	Sara	Sara
<b>Air Temperature Start, Stop</b>	66, - F	72, - f
<b>% Relative Humidity Start, Stop</b>	36, -	51.4, -
<b>Wind Velocity+Dir. Start</b>	7 MPH, NW	10.5 MPH, ENE
<b>Wet Leaves (Y/N)</b>	N, no	
<b>Soil Temperature</b>	58.6 F	73.2 F
<b>Soil Moisture</b>	GOOD	GOOD
<b>Soil Surface Condition</b>	SMOOTH	SMOOTH
<b>% Cloud Cover</b>	65	10

## Protocol Application Directions:

Two application per plot/Two application timings

## Crop Stage At Each Application

	A	B
<b>Crop 1 Code, BBCH Scale</b>	ZEAMX, BCOR	ZEAMX, BCOR
<b>Days after Emergence</b>	-7	36
<b>Height Average</b>		8 IN

## Pest Stage At Each Application

	A	B
<b>Pest 1 Code, Type, Scale</b>	IPOSS, W, BBCH	IPOSS, W, BBCH
<b>Height Average</b>		2 IN
<b>Pest 2 Code, Type, Scale</b>	AMBTR, W, BBCH	AMBTR, W, BBCH
<b>Height Average</b>		6 IN

# University of Kentucky

## Application Equipment

	A	B
Equipment Name	BACKPACK	BACKPACK
Equipment Type	BELSPR	BELSPR
Operation Pressure	30 PSI	30 PSI
Nozzle Model	8002 DG	8002 DG
Nozzle Type	FLAT FAN	FLAT FAN
Nozzle Spacing	20 IN	20 IN
Boom Length	10 FT	10 FT
Boom Height	30 IN	30 IN
Boom Flow Rate	- IN	- IN
Ground Speed	4 MPH	4 MPH
Carrier	WATER	WATER
Application Amount	15 GPA	15 GPA
Mix Size	2.2 liters	2.2 liters
Propellant	CO2	CO2

### Instructions:

1. Make postemergence applications 42 days after PREE application.

**Yield Required:** Y

### Cropping Considerations:

Place trial in area of moderate weed pressure. Start clean (tillage).

### Data to Collect:

Efficacy: 28, 42 and 56 DAT Crop Tolerance: 14, 28, and 42 DAT

# University of Kentucky

## Primary/Core PRE soil residual trial-conventional tillage South

Trial ID: 23-21  
 Protocol ID: VUSA2023MAVERICHMD68.04 Location: Cooperator Trial ID:  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: John Cranmer Sponsor Contact:  
 Investigator: Sara Carter

Rating Date	5-18-2023	6-1-2023	6-1-2023	6-1-2023	6-15-2023	6-15-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, C	PLANT, P
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	% , 0, 10	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 10	% , 0, 100
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, ZEAMX	C, ZEAMX			C, ZEAMX	
BBCH Scale	BCOR	BCOR			BCOR	
Crop Scientific Name	Zea mays	Zea mays			Zea mays	
Crop Name	Corn	Corn			Corn	
Pest Type			W, Weed	W, Weed		W, Weed
Pest Code			IPOSS	AMBTR		IPOSS
Pest Scientific Name			Ipomoea sp.	Ambrosia trifida		Ipomoea sp.
Pest Name			Morning glory	Giant ragweed		Morning glory
Rating Timing						
Days After First/Last Applic.	14, 14	28, 28	28, 28	28, 28	42, 42	42, 42
Trt-Eval Interval						
Plant-Eval Interval	15 DP-1	29 DP-1	29 DP-1	29 DP-1	43 DP-1	43 DP-1
Days After Emergence	7 DE-1	21 DE-1	21 DE-1	21 DE-1	35 DE-1	35 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	1	2	3	4	5	6
1	CHECK UNTREATED				101	0.0	0.0	0.0	0.0	0.0	0.0
					202	0.0	0.0	0.0	0.0	0.0	0.0
					306	0.0	0.0	0.0	0.0	0.0	0.0
					402	0.0	0.0	0.0	0.0	0.0	0.0
					Mean =	0.0	0.0	0.0	0.0	0.0	0.0
2	ACURON HERBICIDE	2 QT/A	A	102	0.0	0.0	92.0	90.0	0.0	92.0	
		ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B	205	0.0	0.0	95.0	95.0	0.0	95.0
		INDUCE	0.25 % V/V	B	301	0.0	0.0	95.0	95.0	0.0	95.0
		DRY AMMONIUM SULFATE	3 LB/A	B	412	0.0	0.0	95.0	95.0	0.0	95.0
					Mean =	0.0	0.0	94.3	93.8	0.0	94.3
3	BICEP II MAGNUM	2.1 QT/A	A	103	0.0	0.0	50.0	50.0	0.0	55.0	
		ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B	210	0.0	0.0	65.0	45.0	0.0	55.0
		INDUCE	0.25 % V/V	B	312	0.0	0.0	60.0	50.0	0.0	60.0
		DRY AMMONIUM SULFATE	3 LB/A	B	407	0.0	0.0	65.0	65.0	0.0	65.0
					Mean =	0.0	0.0	60.0	52.5	0.0	58.8
4	RESICORE XL	64 FL OZ/A	A	104	0.0	0.0	95.0	95.0	0.0	95.0	
		ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B	212	0.0	0.0	95.0	95.0	0.0	92.0
		INDUCE	0.25 % V/V	B	304	0.0	0.0	95.0	95.0	0.0	92.0
		DRY AMMONIUM SULFATE	3 LB/A	B	410	0.0	0.0	95.0	95.0	0.0	95.0
					Mean =	0.0	0.0	95.0	95.0	0.0	93.5
5	MAVERICK HERBICIDE	24 FL OZ/A	A	105	0.0	0.0	100.0	95.0	0.0	98.0	
		ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B	204	0.0	0.0	95.0	95.0	0.0	92.0
		INDUCE	0.25 % V/V	B	303	0.0	0.0	98.0	95.0	0.0	95.0
		DRY AMMONIUM SULFATE	3 LB/A	B	404	0.0	0.0	95.0	95.0	0.0	95.0
					Mean =	0.0	0.0	97.0	95.0	0.0	95.0
6	MAVERICK HERBICIDE	18 FL OZ/A	A	106	0.0	0.0	95.0	80.0	0.0	95.0	
		MAVERICK HERBICIDE	14 FL OZ/A	B	211	0.0	0.0	95.0	85.0	0.0	92.0
		ROUNDUP POWER MAX 3(SALT)	28 LB AI/A	B	309	0.0	0.0	95.0	85.0	0.0	92.0
		INDUCE	0.25 % V/V	B	403	0.0	0.0	98.0	80.0	0.0	95.0
		DRY AMMONIUM SULFATE	3 LB/A	B							
			Mean =	0.0	0.0	95.8	82.5	0.0	93.5		
7	MAVERICK HERBICIDE	24 FL OZ/A	A	107	0.0	0.0	98.0	95.0	0.0	95.0	
		AATREX	0.75 LB AI/A	A	203	0.0	0.0	95.0	95.0	0.0	95.0
		ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B	305	0.0	0.0	98.0	95.0	0.0	95.0
		INDUCE	0.25 % V/V	B	401	0.0	0.0	95.0	98.0	0.0	95.0
		DRY AMMONIUM SULFATE	3 LB/A	B							
			Mean =	0.0	0.0	96.5	95.8	0.0	95.0		
8	ZIDUA	4.64 FL OZ/A	A	108	0.0	0.0	100.0	95.0	0.0	98.0	
		CALLISTO	5.8 FL OZ/A	A	207	0.0	0.0	98.0	95.0	0.0	95.0
		STINGER	0.31 PT/A	A	302	0.0	0.0	100.0	95.0	0.0	95.0
		AATREX	1.25 PT/A	A	406	0.0	0.0	98.0	92.0	0.0	95.0
		ROUNDUP POWERMAX	32 FL OZ/A	B							
		INDUCE	0.25 % V/V	B							
			AMS	3 LB/A	B						
			Mean =	0.0	0.0	99.0	94.3	0.0	95.8		



# University of Kentucky

Rating Date	5-18-2023	6-1-2023	6-1-2023	6-1-2023	6-15-2023	6-15-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, C	PLANT, P
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	% , 0, 10	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 10	% , 0, 100
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, ZEAMX	C, ZEAMX			C, ZEAMX	
BBCH Scale	BCOR	BCOR			BCOR	
Crop Scientific Name	Zea mays	Zea mays			Zea mays	
Crop Name	Corn	Corn			Corn	
Pest Type			W, Weed	W, Weed		W, Weed
Pest Code			IPOSS	AMBTR		IPOSS
Pest Scientific Name			Ipomoea sp.	Ambrosia trifida		Ipomoea sp.
Pest Name			Morning glory	Giant ragweed		Morning glory
Rating Timing						
Days After First/Last Applic.	14, 14	28, 28	28, 28	28, 28	42, 42	42, 42
Trt-Eval Interval						
Plant-Eval Interval	15 DP-1	29 DP-1	29 DP-1	29 DP-1	43 DP-1	43 DP-1
Days After Emergence	7 DE-1	21 DE-1	21 DE-1	21 DE-1	35 DE-1	35 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	1	2	3	4	5	6
9	ACURON	1.5 QT/A	A	109		0.0	0.0	98.0	92.0	0.0	95.0
	ACURON	1.5 QT/A	B	206		0.0	0.0	95.0	95.0	0.0	95.0
	ROUNDUP POWERMAX	32 FL OZ/A	B	307		0.0	0.0	95.0	95.0	0.0	95.0
	AMS	3 LB/A	B	408		0.0	0.0	95.0	92.0	0.0	95.0
					Mean =		0.0	0.0	95.8	93.5	0.0
10	BICEP II MAGNUM	1.5 QT/A	A	110		0.0	0.0	90.0	60.0	0.0	90.0
	ACURON GT	3.75 QT/A	B	209		0.0	0.0	95.0	65.0	0.0	85.0
	INDUCE	0.25 % V/V	B	308		0.0	0.0	95.0	65.0	0.0	90.0
	AMS	3 LB/A	B	409		0.0	0.0	90.0	65.0	0.0	85.0
					Mean =		0.0	0.0	92.5	63.8	0.0
11	RESICORE XL	1.25 QT/A	A	111		0.0	0.0	85.0	85.0	0.0	85.0
	AATREX	0.624 PT/A	A	208		0.0	0.0	90.0	90.0	0.0	85.0
	RESICORE XL	1.25 QT/A	B	310		0.0	0.0	90.0	85.0	0.0	85.0
	AATREX	0.624 PT/A	B	411		0.0	0.0	95.0	85.0	0.0	85.0
	ROUNDUP POWERMAX	32 FL OZ/A	B								
	AMS	3 LB/A	B								
				Mean =		0.0	0.0	90.0	86.3	0.0	85.0
12	TRIVOLT	12 OZ/A	A	112		0.0	0.0	98.0	95.0	0.0	95.0
	AATREX	1 PT/A	A	201		0.0	0.0	98.0	95.0	0.0	95.0
	DIFLEXX DUO	24 OZ/A	B	311		0.0	0.0	95.0	95.0	0.0	95.0
	AATREX	1 PT/A	B	405		0.0	0.0	98.0	95.0	0.0	95.0
	ROUNDUP POWERMAX	32 OZ/A	B								
	CLASS ACT RIDION	1 % V/V	B								
				Mean =		0.0	0.0	97.3	95.0	0.0	95.0

# University of Kentucky

Rating Date	6-15-2023	6-29-2023	6-29-2023	10-27-2023	10-27-2023	10-27-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	CONTRO	CONTRO	CONTRO	YIELD	MOICON	WEITES
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	lb/plot, -, -	% , 0, 100	
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code				C, ZEAMX	C, ZEAMX	
BBCH Scale				BCOR	BCOR	
Crop Scientific Name				Zea mays	Zea mays	
Crop Name				Corn	Corn	
Pest Type	W, Weed	W, Weed	W, Weed			
Pest Code	AMBTR	IPOSS	AMBTR			
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Ambrosia trifida			
Pest Name	Giant ragweed	Morning glory	Giant ragweed			
Rating Timing						
Days After First/Last Applic.	42, 42	56, 13	56, 13	176, 133	176, 133	176, 133
Trt-Eval Interval						
Plant-Eval Interval	43 DP-1	57 DP-1	57 DP-1	177 DP-1	177 DP-1	177 DP-1
Days After Emergence	35 DE-1	49 DE-1	49 DE-1	169 DE-1	169 DE-1	169 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	7	8	9	10	11	12	13
1	CHECK UNTREATED				101	0.0	0.0	0.0	0.0	0.200	0.060	0.00
					202	0.0	0.0	0.0	0.0	0.020	0.020	0.00
					306	0.0	0.0	0.0	0.0	0.350	0.060	0.00
					402	0.0	0.0	0.0	0.0	0.460	0.040	0.00
					Mean =		0.0	0.0	0.0	0.0	0.258	0.045
2	ACURON HERBICIDE	2 QT/A	A	102	85.0	100.0	100.0	100.0	38.100	14.500	65.40	
		ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B	205	90.0	100.0	100.0	100.0	37.240	14.400	65.30
		INDUCE	0.25 % V/V	B	301	90.0	100.0	100.0	100.0	34.610	14.300	65.40
		DRY AMMONIUM SULFATE	3 LB/A	B	412	90.0	100.0	100.0	100.0	40.430	13.900	65.00
					Mean =		88.8	100.0	100.0	37.595	14.275	65.28
3	BICEP II MAGNUM	2.1 QT/A	A	103	50.0	100.0	100.0	100.0	35.380	14.200	65.20	
		ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B	210	50.0	100.0	100.0	100.0	39.160	14.400	65.40
		INDUCE	0.25 % V/V	B	312	50.0	100.0	100.0	100.0	36.350	14.000	64.20
		DRY AMMONIUM SULFATE	3 LB/A	B	407	55.0	100.0	100.0	100.0	38.130	14.500	65.50
					Mean =		51.3	100.0	100.0	37.255	14.275	65.08
4	RESICORE XL	64 FL OZ/A	A	104	90.0	100.0	100.0	100.0	40.730	14.500	65.40	
		ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B	212	95.0	100.0	100.0	100.0	40.210	14.000	64.50
		INDUCE	0.25 % V/V	B	304	95.0	100.0	100.0	100.0	42.850	14.500	65.40
		DRY AMMONIUM SULFATE	3 LB/A	B	410	90.0	100.0	100.0	100.0	42.850	14.100	65.50
					Mean =		92.5	100.0	100.0	41.660	14.275	65.20
5	MAVERICK HERBICIDE	24 FL OZ/A	A	105	95.0	100.0	100.0	100.0	36.760	14.500	64.90	
		ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B	204	95.0	100.0	100.0	100.0	35.260	14.400	65.50
		INDUCE	0.25 % V/V	B	303	90.0	100.0	100.0	100.0	40.780	14.300	65.40
		DRY AMMONIUM SULFATE	3 LB/A	B	404	90.0	100.0	100.0	100.0	39.250	14.500	65.40
					Mean =		92.5	100.0	100.0	38.013	14.425	65.30
6	MAVERICK HERBICIDE	18 FL OZ/A	A	106	80.0	100.0	100.0	100.0	40.960	14.200	64.90	
		MAVERICK HERBICIDE	14 FL OZ/A	B	211	80.0	100.0	100.0	100.0	38.500	14.200	65.30
		ROUNDUP POWER MAX 3(SALT)	28 LB AI/A	B	309	80.0	100.0	100.0	100.0	40.760	14.600	65.50
		INDUCE	0.25 % V/V	B	403	80.0	100.0	100.0	100.0	38.370	14.400	65.60
		DRY AMMONIUM SULFATE	3 LB/A	B								
			Mean =		80.0	100.0	100.0	39.648	14.350	65.33		
7	MAVERICK HERBICIDE	24 FL OZ/A	A	107	90.0	100.0	100.0	100.0	36.610	14.100	65.50	
		AATREX	0.75 LB AI/A	A	203	90.0	100.0	100.0	100.0	38.290	14.300	65.60
		ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B	305	90.0	100.0	100.0	100.0	39.650	14.200	64.90
		INDUCE	0.25 % V/V	B	401	95.0	100.0	100.0	100.0	39.110	14.600	65.30
		DRY AMMONIUM SULFATE	3 LB/A	B								
			Mean =		91.3	100.0	100.0	38.415	14.300	65.33		
8	ZIDUA	4.64 FL OZ/A	A	108	90.0	100.0	100.0	100.0	36.930	14.400	64.90	
		CALLISTO	5.8 FL OZ/A	A	207	95.0	100.0	100.0	42.620	14.600	65.30	
		STINGER	0.31 PT/A	A	302	95.0	100.0	100.0	42.430	14.500	65.30	
		AATREX	1.25 PT/A	A	406	90.0	100.0	100.0	41.940	14.000	64.80	
		ROUNDUP POWERMAX	32 FL OZ/A	B								
		INDUCE	0.25 % V/V	B								
		AMS	3 LB/A	B								
			Mean =		92.5	100.0	100.0	40.980	14.375	65.08		

# University of Kentucky

Rating Date	6-15-2023	6-29-2023	6-29-2023	10-27-2023	10-27-2023	10-27-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	CONTRO	CONTRO	CONTRO	YIELD	MOICON	WEITES
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	lb/plot, -, -	% , 0, 100	
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code				C, ZEAMX	C, ZEAMX	
BBCH Scale				BCOR	BCOR	
Crop Scientific Name				Zea mays	Zea mays	
Crop Name				Corn	Corn	
Pest Type	W, Weed	W, Weed	W, Weed			
Pest Code	AMBTR	IPOSS	AMBTR			
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Ambrosia trifida			
Pest Name	Giant ragweed	Morning glory	Giant ragweed			
Rating Timing						
Days After First/Last Applic.	42, 42	56, 13	56, 13	176, 133	176, 133	176, 133
Trt-Eval Interval						
Plant-Eval Interval	43 DP-1	57 DP-1	57 DP-1	177 DP-1	177 DP-1	177 DP-1
Days After Emergence	35 DE-1	49 DE-1	49 DE-1	169 DE-1	169 DE-1	169 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	7	8	9	10	11	12	13
9	ACURON	1.5 QT/A	A	109		90.0	100.0	100.0	41.190	14.300	65.60	
	ACURON	1.5 QT/A	B	206		90.0	100.0	100.0	40.690	14.200	64.80	
	ROUNDUP POWERMAX	32 FL OZ/A	B	307		95.0	100.0	100.0	44.180	14.600	65.40	
	AMS	3 LB/A	B	408		92.0	100.0	100.0	38.120	14.200	65.50	
					Mean =		91.8	100.0	100.0	41.045	14.325	65.33
10	BICEP II MAGNUM	1.5 QT/A	A	110		60.0	100.0	100.0	38.380	14.400	65.30	
	ACURON GT	3.75 QT/A	B	209		60.0	100.0	100.0	38.280	14.500	65.30	
	INDUCE	0.25 % V/V	B	308		60.0	100.0	100.0	37.510	14.400	65.30	
	AMS	3 LB/A	B	409		60.0	100.0	100.0	35.180	14.400	65.50	
					Mean =		60.0	100.0	100.0	37.338	14.425	65.35
11	RESICORE XL	1.25 QT/A	A	111		85.0	100.0	100.0	38.210	14.400	65.40	
	AATREX	0.624 PT/A	A	208		85.0	100.0	100.0	40.220	14.500	65.50	
	RESICORE XL	1.25 QT/A	B	310		85.0	100.0	100.0	40.070	14.300	65.40	
	AATREX	0.624 PT/A	B	411		85.0	100.0	100.0	41.430	14.200	65.00	
	ROUNDUP POWERMAX	32 FL OZ/A	B									
AMS	3 LB/A	B										
				Mean =		85.0	100.0	100.0	39.983	14.350	65.33	
12	TRIVOLT	12 OZ/A	A	112		90.0	100.0	100.0	41.450	14.000	64.90	
	AATREX	1 PT/A	A	201		90.0	100.0	100.0	44.270	14.500	65.50	
	DIFLEXX DUO	24 OZ/A	B	311		95.0	100.0	100.0	38.290	14.300	64.90	
	AATREX	1 PT/A	B	405		90.0	100.0	100.0	37.430	14.100	65.10	
	ROUNDUP POWERMAX	32 OZ/A	B									
	CLASS ACT RIDION	1 % V/V	B									
				Mean =		91.3	100.0	100.0	40.360	14.225	65.10	

# University of Kentucky

Rating Date 10-27-2023  
 Part Rated GRAIN, C  
 Rating Type YIELD  
 Rating Unit/Min/Max BU, -, -  
 Number of Subsamples 1  
 Crop Type, Code C, ZEAMX  
 BBCH Scale BCOR  
 Crop Scientific Name Zea mays  
 Crop Name Corn  
 Pest Type  
 Pest Code  
 Pest Scientific Name  
 Pest Name  
 Rating Timing  
 Days After First/Last Applic. 176, 133  
 Trt-Eval Interval  
 Plant-Eval Interval 177 DP-1  
 Days After Emergence 169 DE-1  
 Pest Est.-Eval Interval  
 EDC App  
 Data Reliability  
 ARM Action Codes TY1  
 Number of Decimals 1

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	14
1	CHECK UNTREATED				101	1.2
					202	0.1
					306	2.1
					402	2.8
					Mean =	1.6
2	ACURON HERBICIDE	2 QT/A		A	102	199.9
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A		B	205	195.6
	INDUCE	0.25 % V/V		B	301	182.0
	DRY AMMONIUM SULFATE	3 LB/A		B	412	213.6
					Mean =	197.8
3	BICEP II MAGNUM	2.1 QT/A		A	103	186.3
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A		B	210	205.7
	INDUCE	0.25 % V/V		B	312	191.8
	DRY AMMONIUM SULFATE	3 LB/A		B	407	200.1
					Mean =	196.0
4	RESICORE XL	64 FL OZ/A		A	104	213.7
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A		B	212	212.2
	INDUCE	0.25 % V/V		B	304	224.8
	DRY AMMONIUM SULFATE	3 LB/A		B	410	225.9
					Mean =	219.2
5	MAVERICK HERBICIDE	24 FL OZ/A		A	105	192.9
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A		B	204	185.2
	INDUCE	0.25 % V/V		B	303	214.5
	DRY AMMONIUM SULFATE	3 LB/A		B	404	205.9
					Mean =	199.6
6	MAVERICK HERBICIDE	18 FL OZ/A		A	106	215.7
	MAVERICK HERBICIDE	14 FL OZ/A		B	211	202.7
	ROUNDUP POWER MAX 3(SALT)	28 LB AI/A		B	309	213.6
	INDUCE	0.25 % V/V		B	403	201.6
	DRY AMMONIUM SULFATE	3 LB/A		B		
					Mean =	208.4
7	MAVERICK HERBICIDE	24 FL OZ/A		A	107	193.0
	AATREX	0.75 LB AI/A		A	203	201.4
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A		B	305	208.8
	INDUCE	0.25 % V/V		B	401	205.0
	DRY AMMONIUM SULFATE	3 LB/A		B		
					Mean =	202.0
8	ZIDUA	4.64 FL OZ/A		A	108	194.0
	CALLISTO	5.8 FL OZ/A		A	207	223.4
	STINGER	0.31 PT/A		A	302	222.6
	AATREX	1.25 PT/A		A	406	221.3
	ROUNDUP POWERMAX	32 FL OZ/A		B		
	INDUCE	0.25 % V/V		B		
	AMS	3 LB/A		B		
					Mean =	215.3

# University of Kentucky

Rating Date 10-27-2023  
 Part Rated GRAIN, C  
 Rating Type YIELD  
 Rating Unit/Min/Max BU, -, -  
 Number of Subsamples 1  
 Crop Type, Code C, ZEAMX  
 BBCH Scale BCOR  
 Crop Scientific Name Zea mays  
 Crop Name Corn  
 Pest Type  
 Pest Code  
 Pest Scientific Name  
 Pest Name  
 Rating Timing  
 Days After First/Last Applic. 176, 133  
 Trt-Eval Interval  
 Plant-Eval Interval 177 DP-1  
 Days After Emergence 169 DE-1  
 Pest Est.-Eval Interval  
 EDC App  
 Data Reliability  
 ARM Action Codes TY1  
 Number of Decimals 1

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	14
9	ACURON	1.5 QT/A		A	109	216.6
	ACURON	1.5 QT/A		B	206	214.3
	ROUNDUP POWERMAX	32 FL OZ/A		B	307	231.5
	AMS	3 LB/A		B	408	200.7
					Mean =	215.8
10	BICEP II MAGNUM	1.5 QT/A		A	110	201.6
	ACURON GT	3.75 QT/A		B	209	200.9
	INDUCE	0.25 % V/V		B	308	197.0
	AMS	3 LB/A		B	409	184.8
					Mean =	196.1
11	RESICORE XL	1.25 QT/A		A	111	200.7
	AATREX	0.624 PT/A		A	208	211.0
	RESICORE XL	1.25 QT/A		B	310	210.7
	AATREX	0.624 PT/A		B	411	218.1
	ROUNDUP POWERMAX	32 FL OZ/A		B		
	AMS	3 LB/A		B		
				Mean =	210.2	
12	TRIVOLT	12 OZ/A		A	112	218.8
	AATREX	1 PT/A		A	201	232.3
	DIFLEXX DUO	24 OZ/A		B	311	201.4
	AATREX	1 PT/A		B	405	197.3
	ROUNDUP POWERMAX	32 OZ/A		B		
	CLASS ACT RIDION	1 % V/V		B		
				Mean =	212.4	

# University of Kentucky

## Primary/Core PRE soil residual trial-conventional tillage South

Trial ID: 23-21  
 Protocol ID: VUSA2023MAVERICHMD68.04 Location: Cooperator Trial ID:  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: John Cranmer Sponsor Contact:  
 Investigator: Sara Carter

### Part Rated

PLANT = plant  
 GRAIN = grain  
 C = Crop is Part Rated  
 P = Pest is Part Rated

### Rating Type

PHYGEN = phytotoxicity - general / injury  
 CONTRO = control / burndown or knockdown  
 YIELD = yield  
 MOICON = moisture content  
 WEITES = weight - test

### Rating Unit/Min/Max

%, 0, 100 = percent  
 lb/plot, , = pounds per plot  
 BU, , = bushel

### Crop Type Code

C = EPPO species (Bayer) codes  
 ZEAMX, BCOR, Zea mays, Corn = US

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

IPOSS, Ipomoea sp., Morning glory = US  
 AMBTR, Ambrosia trifida, Giant ragweed = US

### Plant-Eval Interval

15 DP-1 = 1 ZEAMX 5-3-2023  
 29 DP-1 = 1 ZEAMX 5-3-2023  
 43 DP-1 = 1 ZEAMX 5-3-2023  
 57 DP-1 = 1 ZEAMX 5-3-2023  
 177 DP-1 = 1 ZEAMX 5-3-2023

### ARM Action Codes

TY1 = 5.18571429\*[11]\*(100-[12])/84.5

# University of Kentucky

## Primary/Core PRE soil residual trial-conventional tillage South

Trial ID: 23-21  
 Protocol ID: VUSA2023MAVERICHMD68.04 Location: Cooperator Trial ID:  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: John Cranmer Sponsor Contact:  
 Investigator: Sara Carter

Rating Date	5-18-2023	6-1-2023	6-1-2023	6-1-2023	6-15-2023	6-15-2023	6-15-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 10	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 10	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1	1	1
Crop Type, Code	C, ZEAMX	C, ZEAMX			C, ZEAMX		
BBCH Scale	BCOR	BCOR			BCOR		
Crop Scientific Name	Zea mays	Zea mays			Zea mays		
Crop Name	Corn	Corn			Corn		
Pest Type			W, Weed	W, Weed		W, Weed	W, Weed
Pest Code			IPOSS	AMBTR		IPOSS	AMBTR
Pest Scientific Name			Ipomoea sp.	Ambrosia trifida		Ipomoea sp.	Ambrosia trifida
Pest Name			Morning glory	Giant ragweed		Morning glory	Giant ragweed
Rating Timing							
Days After First/Last Applic.	14, 14	28, 28	28, 28	28, 28	42, 42	42, 42	42, 42
Trt-Eval Interval							
Plant-Eval Interval	15 DP-1	29 DP-1	29 DP-1	29 DP-1	43 DP-1	43 DP-1	43 DP-1
Days After Emergence	7 DE-1	21 DE-1	21 DE-1	21 DE-1	35 DE-1	35 DE-1	35 DE-1
Pest Est.-Eval Interval							
EDC App							
Data Reliability							
ARM Action Codes							
Number of Decimals							

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5	6	7
1	CHECK UNTREATED				0.0 a	0.0 a	0.0 d	0.0 e	0.0 a	0.0 d	0.0 f
2	ACURON HERBICIDE	2 QT/A	A		0.0 a	0.0 a	94.3 ab	93.8 a	0.0 a	94.3 a	88.8 a
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B								
	INDUCE	0.25 % V/V	B								
	DRY AMMONIUM SULFATE	3 LB/A	B								
3	BICEP II MAGNUM	2.1 QT/A	A		0.0 a	0.0 a	60.0 c	52.5 d	0.0 a	58.8 c	51.3 e
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B								
	INDUCE	0.25 % V/V	B								
	DRY AMMONIUM SULFATE	3 LB/A	B								
4	RESICORE XL	64 FL OZ/A	A		0.0 a	0.0 a	95.0 ab	95.0 a	0.0 a	93.5 a	92.5 a
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B								
	INDUCE	0.25 % V/V	B								
	DRY AMMONIUM SULFATE	3 LB/A	B								
5	MAVERICK HERBICIDE	24 FL OZ/A	A		0.0 a	0.0 a	97.0 a	95.0 a	0.0 a	95.0 a	92.5 a
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B								
	INDUCE	0.25 % V/V	B								
	DRY AMMONIUM SULFATE	3 LB/A	B								
6	MAVERICK HERBICIDE	18 FL OZ/A	A		0.0 a	0.0 a	95.8 ab	82.5 b	0.0 a	93.5 a	80.0 c
	MAVERICK HERBICIDE	14 FL OZ/A	B								
	ROUNDUP POWER MAX 3(SALT)	28 LB AI/A	B								
	INDUCE	0.25 % V/V	B								
	DRY AMMONIUM SULFATE	3 LB/A	B								
7	MAVERICK HERBICIDE	24 FL OZ/A	A		0.0 a	0.0 a	96.5 a	95.8 a	0.0 a	95.0 a	91.3 a
	AATREX	0.75 LB AI/A	A								
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B								
	INDUCE	0.25 % V/V	B								
	DRY AMMONIUM SULFATE	3 LB/A	B								
8	ZIDUA	4.64 FL OZ/A	A		0.0 a	0.0 a	99.0 a	94.3 a	0.0 a	95.8 a	92.5 a
	CALLISTO	5.8 FL OZ/A	A								
	STINGER	0.31 PT/A	A								
	AATREX	1.25 PT/A	A								
	ROUNDUP POWERMAX	32 FL OZ/A	B								
	INDUCE	0.25 % V/V	B								
	AMS	3 LB/A	B								
9	ACURON	1.5 QT/A	A		0.0 a	0.0 a	95.8 ab	93.5 a	0.0 a	95.0 a	91.8 a
	ACURON	1.5 QT/A	B								
	ROUNDUP POWERMAX	32 FL OZ/A	B								
	AMS	3 LB/A	B								
10	BICEP II MAGNUM	1.5 QT/A	A		0.0 a	0.0 a	92.5 ab	63.8 c	0.0 a	87.5 b	60.0 d
	ACURON GT	3.75 QT/A	B								
	INDUCE	0.25 % V/V	B								
	AMS	3 LB/A	B								

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,5,8,9,10 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	5-18-2023	6-1-2023	6-1-2023	6-1-2023	6-15-2023	6-15-2023	6-15-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 10	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 10	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1	1	1
Crop Type, Code	C, ZEAMX	C, ZEAMX			C, ZEAMX		
BBCH Scale	BCOR	BCOR			BCOR		
Crop Scientific Name	Zea mays	Zea mays			Zea mays		
Crop Name	Corn	Corn			Corn		
Pest Type			W, Weed	W, Weed		W, Weed	W, Weed
Pest Code			IPOSS	AMBTR		IPOSS	AMBTR
Pest Scientific Name			Ipomoea sp.	Ambrosia trifida		Ipomoea sp.	Ambrosia trifida
Pest Name			Morning glory	Giant ragweed		Morning glory	Giant ragweed
Rating Timing							
Days After First/Last Applic.	14, 14	28, 28	28, 28	28, 28	42, 42	42, 42	42, 42
Trt-Eval Interval							
Plant-Eval Interval	15 DP-1	29 DP-1	29 DP-1	29 DP-1	43 DP-1	43 DP-1	43 DP-1
Days After Emergence	7 DE-1	21 DE-1	21 DE-1	21 DE-1	35 DE-1	35 DE-1	35 DE-1
Pest Est.-Eval Interval							
EDC App							
Data Reliability							
ARM Action Codes							
Number of Decimals							

Trt	Treatment	Rate	Appl	1	2	3	4	5	6	7
No.	Name	Rate Unit	Code							
11	RESICORE XL	1.25 QT/A	A	0.0 a	0.0 a	90.0 b	86.3 b	0.0 a	85.0 b	85.0 b
	AATREX	0.624 PT/A	A							
	RESICORE XL	1.25 QT/A	B							
	AATREX	0.624 PT/A	B							
	ROUNDUP POWERMAX	32 FL OZ/A	B							
	AMS	3 LB/A	B							
12	TRIVOLT	12 OZ/A	A	0.0 a	0.0 a	97.3 a	95.0 a	0.0 a	95.0 a	91.3 a
	AATREX	1 PT/A	A							
	DIFLEXX DUO	24 OZ/A	B							
	AATREX	1 PT/A	B							
	ROUNDUP POWERMAX	32 OZ/A	B							
	CLASS ACT RIDION	1 % V/V	B							
LSD P=.05						4.09	4.34		2.80	3.05
Standard Deviation				0.00	0.00	2.84	3.02	0.00	1.95	2.12
CV				0.0	0.0	3.37	3.82	0.0	2.36	2.78
Levene's F^						1.856	1.622		3.505*	1.807
Levene's Prob(F)						0.08	0.134		0.002*	0.089
Shapiro-Wilk^						0.93*	0.8089*		0.9445*	0.965
P(Shapiro-Wilk)^						0.0068*	0.0*		0.0242*	0.1604
Skewness^						-0.7282*	1.4884*		0.4463	0.3836
P(Skewness)^						0.0451*	0.0001*		0.2134	0.2838
Kurtosis^						3.4725*	10.3548*		2.6248*	-0.4819
P(Kurtosis)^						0.0*	0.0*		0.0004*	0.4917
Replicate F				0.000	0.000	0.681	1.047	0.000	1.604	1.336
Replicate Prob(F)				1.0000	1.0000	0.5699	0.3849	1.0000	0.2072	0.2793
Treatment F				0.000	0.000	403.730	357.757	0.000	823.728	680.529
Treatment Prob(F)				1.0000	1.0000	0.0001	0.0001	1.0000	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,5,8,9,10 because error mean square = 0.  
 ^Calculated from residual.



# University of Kentucky

Rating Date	6-29-2023	6-29-2023	10-27-2023	10-27-2023	10-27-2023	10-27-2023
Part Rated	PLANT, P	PLANT, P	GRAIN, C	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	CONTRO	CONTRO	YIELD	MOICON	WEITES	YIELD
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	lb/plot, -, -	% , 0, 100		BU, -, -
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code			C, ZEAMX	C, ZEAMX		C, ZEAMX
BBCH Scale			BCOR	BCOR		BCOR
Crop Scientific Name			Zea mays	Zea mays		Zea mays
Crop Name			Corn	Corn		Corn
Pest Type	W, Weed	W, Weed				
Pest Code	IPOSS	AMBTR				
Pest Scientific Name	Ipomoea sp.	Ambrosia trifida				
Pest Name	Morning glory	Giant ragweed				
Rating Timing						
Days After First/Last Applic.	56, 13	56, 13	176, 133	176, 133	176, 133	176, 133
Trt-Eval Interval						
Plant-Eval Interval	57 DP-1	57 DP-1	177 DP-1	177 DP-1	177 DP-1	177 DP-1
Days After Emergence	49 DE-1	49 DE-1	169 DE-1	169 DE-1	169 DE-1	169 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						TY1
Number of Decimals						1

Trt No.	Treatment Name	Rate	Unit	Appl Code	8	9	10	11	12	13	14
1	CHECK UNTREATED				0.0 b	0.0 b		0.258 b	0.045 b	0.00 b	1.6 b
2	ACURON HERBICIDE	2 QT/A	A		100.0 a	100.0 a		37.595 a	14.275 a	65.28 a	197.8 a
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B								
	INDUCE	0.25 % V/V	B								
	DRY AMMONIUM SULFATE	3 LB/A	B								
3	BICEP II MAGNUM	2.1 QT/A	A		100.0 a	100.0 a		37.255 a	14.275 a	65.08 a	196.0 a
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B								
	INDUCE	0.25 % V/V	B								
	DRY AMMONIUM SULFATE	3 LB/A	B								
4	RESICORE XL	64 FL OZ/A	A		100.0 a	100.0 a		41.660 a	14.275 a	65.20 a	219.2 a
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B								
	INDUCE	0.25 % V/V	B								
	DRY AMMONIUM SULFATE	3 LB/A	B								
5	MAVERICK HERBICIDE	24 FL OZ/A	A		100.0 a	100.0 a		38.013 a	14.425 a	65.30 a	199.6 a
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B								
	INDUCE	0.25 % V/V	B								
	DRY AMMONIUM SULFATE	3 LB/A	B								
6	MAVERICK HERBICIDE	18 FL OZ/A	A		100.0 a	100.0 a		39.648 a	14.350 a	65.33 a	208.4 a
	MAVERICK HERBICIDE	14 FL OZ/A	B								
	ROUNDUP POWER MAX 3(SALT)	28 LB AI/A	B								
	INDUCE	0.25 % V/V	B								
	DRY AMMONIUM SULFATE	3 LB/A	B								
7	MAVERICK HERBICIDE	24 FL OZ/A	A		100.0 a	100.0 a		38.415 a	14.300 a	65.33 a	202.0 a
	AATREX	0.75 LB AI/A	A								
	ROUNDUP POWER MAX 3(SALT)	1 LB AI/A	B								
	INDUCE	0.25 % V/V	B								
	DRY AMMONIUM SULFATE	3 LB/A	B								
8	ZIDUA	4.64 FL OZ/A	A		100.0 a	100.0 a		40.980 a	14.375 a	65.08 a	215.3 a
	CALLISTO	5.8 FL OZ/A	A								
	STINGER	0.31 PT/A	A								
	AATREX	1.25 PT/A	A								
	ROUNDUP POWERMAX	32 FL OZ/A	B								
	INDUCE	0.25 % V/V	B								
	AMS	3 LB/A	B								
9	ACURON	1.5 QT/A	A		100.0 a	100.0 a		41.045 a	14.325 a	65.33 a	215.8 a
	ACURON	1.5 QT/A	B								
	ROUNDUP POWERMAX	32 FL OZ/A	B								
	AMS	3 LB/A	B								
10	BICEP II MAGNUM	1.5 QT/A	A		100.0 a	100.0 a		37.338 a	14.425 a	65.35 a	196.1 a
	ACURON GT	3.75 QT/A	B								
	INDUCE	0.25 % V/V	B								
	AMS	3 LB/A	B								

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Could not calculate LSD (% mean diff) for columns 1,2,5,8,9,10 because error mean square = 0.  
^Calculated from residual.

# University of Kentucky

Rating Date	6-29-2023	6-29-2023	10-27-2023	10-27-2023	10-27-2023	10-27-2023
Part Rated	PLANT, P	PLANT, P	GRAIN, C	GRAIN, C	GRAIN, C	GRAIN, C
Rating Type	CONTRO	CONTRO	YIELD	MOICON	WEITES	YIELD
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	lb/plot, -, -	% , 0, 100		BU, -, -
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code			C, ZEAMX	C, ZEAMX		C, ZEAMX
BBCH Scale			BCOR	BCOR		BCOR
Crop Scientific Name			Zea mays	Zea mays		Zea mays
Crop Name			Corn	Corn		Corn
Pest Type	W, Weed	W, Weed				
Pest Code	IPOSS	AMBTR				
Pest Scientific Name	Ipomoea sp.	Ambrosia trifida				
Pest Name	Morning glory	Giant ragweed				
Rating Timing						
Days After First/Last Applic.	56, 13	56, 13	176, 133	176, 133	176, 133	176, 133
Trt-Eval Interval						
Plant-Eval Interval	57 DP-1	57 DP-1	177 DP-1	177 DP-1	177 DP-1	177 DP-1
Days After Emergence	49 DE-1	49 DE-1	169 DE-1	169 DE-1	169 DE-1	169 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						TY1
Number of Decimals						1

Trt	Treatment	Rate	Appl	8	9	10	11	12	13	14
No.	Name	Rate Unit	Code							
11	RESICORE XL	1.25 QT/A	A	100.0 a	100.0 a		39.983 a	14.350 a	65.33 a	210.2 a
	AATREX	0.624 PT/A	A							
	RESICORE XL	1.25 QT/A	B							
	AATREX	0.624 PT/A	B							
	ROUNDUP POWERMAX	32 FL OZ/A	B							
	AMS	3 LB/A	B							
12	TRIVOLT	12 OZ/A	A	100.0 a	100.0 a		40.360 a	14.225 a	65.10 a	212.4 a
	AATREX	1 PT/A	A							
	DIFLEXX DUO	24 OZ/A	B							
	AATREX	1 PT/A	B							
	ROUNDUP POWERMAX	32 OZ/A	B							
	CLASS ACT RIDION	1 % V/V	B							
LSD P=.05				.	.	.	2.9188	0.2848	0.474	15.24
Standard Deviation				0.00	0.00	.	2.0289	0.1979	0.329	10.60
CV				0.0	0.0	.	5.63	1.51	0.55	5.59
Levene's F^				.	.	.	1.55	1.03	0.444	1.571
Levene's Prob(F)				.	.	.	0.157	0.442	0.924	0.15
Shapiro-Wilk^				.	.	.	0.9751	0.9807	0.9014*	0.9775
P(Shapiro-Wilk)^				.	.	.	0.3961	0.6101	0.0007*	0.4788
Skewness^				.	.	.	-0.245	-0.0359	-1.1736*	-0.2426
P(Skewness)^				.	.	.	0.4919	0.9196	0.0018*	0.4963
Kurtosis^				.	.	.	-0.3685	-0.4339	1.1285	-0.3502
P(Kurtosis)^				.	.	.	0.5986	0.5356	0.1113	0.6168
Replicate F				0.000	0.000		0.616	0.579	0.202	0.600
Replicate Prob(F)				1.0000	1.0000		0.6094	0.6328	0.8944	0.6195
Treatment F				0.000	0.000		125.775	1735.734	13090.997	127.218
Treatment Prob(F)				1.0000	1.0000		0.0001	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,5,8,9,10 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

## Primary/Core PRE soil residual trial-conventional tillage South

Trial ID: 23-21  
 Protocol ID: VUSA2023MAVERICHMD68.04 Location: Cooperator Trial ID:  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: John Cranmer Sponsor Contact:  
 Investigator: Sara Carter

### Part Rated

PLANT = plant  
 GRAIN = grain  
 C = Crop is Part Rated  
 P = Pest is Part Rated

### Rating Type

PHYGEN = phytotoxicity - general / injury  
 CONTRO = control / burndown or knockdown  
 YIELD = yield  
 MOICON = moisture content  
 WEITES = weight - test

### Rating Unit/Min/Max

%, 0, 100 = percent  
 lb/plot, , = pounds per plot  
 BU, , = bushel

### Crop Type Code

C = EPPO species (Bayer) codes  
 ZEAMX, BCOR, Zea mays, Corn = US

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

IPOSS, Ipomoea sp., Morning glory = US  
 AMBTR, Ambrosia trifida, Giant ragweed = US

### Plant-Eval Interval

15 DP-1 = 1 ZEAMX 5-3-2023  
 29 DP-1 = 1 ZEAMX 5-3-2023  
 43 DP-1 = 1 ZEAMX 5-3-2023  
 57 DP-1 = 1 ZEAMX 5-3-2023  
 177 DP-1 = 1 ZEAMX 5-3-2023

### ARM Action Codes

TY1 =  $5.18571429 * [11] * (100 - [12]) / 84.5$

# University of Kentucky

## Valent Actives in a Liberty Link System

Ceres Trial ID: 23-22 Ceres Protocol ID: VUSA2023FIERCCEMD64.01

Cooperator Trial ID:

Location:

Project ID: 202042 Project ID 2: Project ID 3:

Study Director: John Cranmer Sponsor Contact: Affiliate Restricted:

Investigator: Sara Carter

Reps: 4 Plots: 10 by 35 feet  
Appl. Amount: 15 GAL/AC Mix Size: 2.2 L (total for 4 plots; minimum=1.825 L)

Trt	Treatment	Form	Form	Rate	Rate	Other	Other	Appl	Appl	Amt	Product	Rep	1	2	3	4
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Code	Timing	to Measure				
1	FIERCE EZ (2065)	3.04	LB/GAL	SC	6	FL OZ/A	6	FL OZ/A	A	PREPRE	6.875	mL/mx	101	203	310	408
	LIBERTY 280	2.34	LB/GAL	SL	32	FL OZ/A	32	FL OZ/A	B	LAPLAP	36.67	mL/mx				
	PERPETUO	2.3	LB/GAL	SC	6	FL OZ/A	6	FL OZ/A	B	LAPLAP	6.875	mL/mx				
	SELECT MAX	1	LB/GAL	EC	9	FL OZ/A	9	FL OZ/A	B	LAPLAP	10.31	mL/mx				
	INDUCE	100	%W/W	SF	0.25	% V/V	0.25	% V/V	B	LAPLAP	5.499	g/mx				
	DRY AMMONIUM SULFATE	100	%W/W	SG	3	LB/A	3	LB/A	B	LAPLAP	52.72	g/mx				
2	FIERCE MTZ SC (2030)	2.64	LB/GAL	SC	16	FL OZ/A	16	FL OZ/A	A	PREPRE	18.33	mL/mx	102	209	308	404
	LIBERTY 280	2.34	LB/GAL	SL	32	FL OZ/A	32	FL OZ/A	B	LAPLAP	36.67	mL/mx				
	PERPETUO	2.3	LB/GAL	SC	6	FL OZ/A	6	FL OZ/A	B	LAPLAP	6.875	mL/mx				
	SELECT MAX	1	LB/GAL	EC	9	FL OZ/A	9	FL OZ/A	B	LAPLAP	10.31	mL/mx				
	INDUCE	100	%W/W	SF	0.25	% V/V	0.25	% V/V	B	LAPLAP	5.499	g/mx				
	DRY AMMONIUM SULFATE	100	%W/W	SG	3	LB/A	3	LB/A	B	LAPLAP	52.72	g/mx				
3	VALOR XLT	40.3		WG	3.4	OZ/A			A	PRE	3.735	g/mx	103	201	303	401
	LIBERTY 280	2.34		SL	32	FL OZ/A			B	LP	36.67	mL/mx				
	INDUCE			SL	0.25	% V/V			B	LP	5.499	mL/mx				
	AMS			L	3	LB/A			B	LP						
4	BOUNDARY	6.5		E	3	PT/A			A	PRE	55.0	mL/mx	104	207	306	407
	FLEXSTAR	1.88		CS	1.5	PT/A			B	LP	27.5	mL/mx				
	FUSION	2.66		EC	12	OZ/A			B	lp	13.75	mL/mx				
5	TRIPZIN ZC	4	LB/GAL	ZC	44	FL OZ/A			A	PRE	50.42	mL/mx	105	206	304	402
	INTERLINE	2.34		SC	32	FL OZ/A			B	LP	36.67	mL/mx				
	MOCCASIN II PLUS	7.64	LB/GAL	EC	16	FL OZ/A			B	LP	18.33	mL/mx				
	INDUCE			SL	0.25	% V/V			B	LP	5.499	mL/mx				
6	TENDOVO			ZC	2.35	QT/A			A	PRE	86.17	mL/mx	106	204	307	410
	LIBERTY 280	2.34		SL	32	FL OZ/A			B	LP	36.67	mL/mx				
	INDUCE			SL	0.25	% V/V			B	LP	5.499	mL/mx				
	AMS			L	3	LB/A			B	LP						
7	WARRANT	3		CS	1.5	QT/A			A	PRE	55.0	mL/mx	107	210	309	405
	METRIBUZIN	75		DF	0.5	LB/A			A	PRE	8.787	g/mx				
	LIBERTY 280	2.34		SL	32	FL OZ/A			B	LP	36.67	mL/mx				
	INDUCE			SL	0.25	% V/V			B	LP	5.499	mL/mx				
	AMS			L	3	LB/A			B	LP						
8	AUTHORITY XL	70		DG	7	OZ/A			A	PRE	7.689	g/mx	108	205	302	406
	LIBERTY 280	2.34		SL	32	FL OZ/A			B	LP	36.67	mL/mx				
	INDUCE			SL	0.25	% V/V			B	LP	5.499	mL/mx				
	AMS			L	3	LB/A			B	LP						
9	ZIDUA PRO	4.09	LB/GAL	SC	4.5	FL OZ/A			A	PRE	5.156	mL/mx	109	202	305	409
	LIBERTY 280	2.34		SL	32	FL OZ/A			B	LP	36.67	mL/mx				
	INDUCE			SL	0.25	% V/V			B	LP	5.499	mL/mx				
	AMS			L	3	LB/A			B	LP						
10	Untreated Check												110	208	301	403

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

# University of Kentucky

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form	Conc	Form	Unit	Form	Type	Lot Code
6.875	mL	FIERCE EZ (2065)	3.04		LB/GAL			SC	
73.333	mL	LIBERTY 280	2.34		LB/GAL			SL	
13.750	mL	PERPETUO	2.3		LB/GAL			SC	
20.625	mL	SELECT MAX	1		LB/GAL			EC	
10.999	g	INDUCE	100		%W/W			SF	
105.447	g	DRY AMMONIUM SULFATE	100		%W/W			SG	
18.333	mL	FIERCE MTZ SC (2030)	2.64		LB/GAL			SC	
3.735	g	VALOR XLT	40.3					WG	
183.333	mL	LIBERTY 280	2.34					SL	
32.996	mL	INDUCE						SL	
55.000	mL	BOUNDARY	6.5					E	
27.500	mL	FLEXSTAR	1.88					CS	
13.750	mL	FUSION	2.66					EC	
50.417	mL	TRIPZIN ZC	4		LB/GAL			ZC	
36.667	mL	INTERLINE	2.34					SC	
18.333	mL	MOCCASIN II PLUS	7.64		LB/GAL			EC	
86.166	mL	TENDOVO						ZC	
55.000	mL	WARRANT	3					CS	
8.787	g	METRIBUZIN	75					DF	
7.689	g	AUTHORITY XL	70					DG	
5.156	mL	ZIDUA PRO	4.09		LB/GAL			SC	

\* 'Per area' calculations based on application amount= 15 GPA, mix size= 2.2 L (mix size basis).

\* 'Per volume' calculations use spray volume= 15 GPA, mix size= 2.2 L.

### General Trial Information

**Study Director:** John Cranmer **Title:** FMD Specialist  
**Investigator:** Sara Carter **Title:** RESEARCH SPECIALIST

**Status:** E established

**Last Export Date:** 10-13-2023 **Last Changed By:** Sara Carter  
**Reliability:** GOOD good quality

**ARM Trial Created On:** 4-18-2023  
**Initiation Date:** 5-3-2023 **Planned Completion Date:** 10-31-2023  
**Interim Report Due:** 11-1-2023 **Final Report Due:** 12-1-2023

### Trial Location

**City:** LEXINGTON **Country:** USA United States  
**State/Prov.:** KENTUCKY KY **County:** FAYETTE  
**Postal Code:** 40511

### Regulations

**Conducted Under GLP:** No  
**Conducted Under GEP:** No

**Study Rules:** Default

No.	Guideline	Discipline	Description
1.	ADM-C-PUB CO		Confidentiality - Public Trial - No Secrecy Agreement Required

### Objectives:

To compare Valent PREE and POST actives in a program approach in a Liberty crop ping system. Fierce EZ (6 fl oz/A) and Fierce MTZ (1 pt/A) will be compared to university standards. Measures of success is weed control at 21, 42 & 56 DAP wit h acceptable crop response.

### Materials and Methods

- Please include all treatments in test, even if they do not fit the area in which the test is conducted.
  - Soybean row spacing should be 30".
  - Cooperator can use a different spray volume to fit local conditions..
  - Select Max plus Induce does not need to be applied if volunteer corn is not in test area.
  - Apply post applications to 2 inch weeds
- Please include all treatments in test, even if they do not fit the area in which the test is conducted.
  - Soybean row spacing should be 30".
  - Cooperator can use a different spray volume to fit local conditions..
  - Select Max plus Induce does not need to be applied if volunteer corn is not in test area.
  - Apply post applications to 2 inch weeds

### Contacts

**Role:** STYDIR study director  
**Study Director/Author:** John Cranmer **Title:** FMD Specialist  
**Organization:** Valent USA  
**Country:** USA United States **State/Prov:** NC **Postal Code:** 27560  
**Role:** INVEST investigator  
**Investigator:** Sara Carter **Title:** RESEARCH SPECIALIST  
**Organization:** UNIVERSITY OF KENTUCKY  
**Country:** USA United States **State/Prov:** KY **Postal Code:** 40546-0312

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## Crop Description

**Crop 1:** GLXMA Glycine max Soybean **BBCH Scale:** BSOY  
**Variety:** AG 38FX1 **Stage Scale:** BBCH  
**Planting Date:** 5-3-2023 **Planting Rate:** 150000 S/A  
**Depth:** 1.25 IN **Planting Method:** PLANTD planted  
**Rows per Plot:** 6 **Soil Moisture:** GOOD good  
**Row Spacing:** 30 IN **Emergence Date:** 5-11-2023  
**Soil Temperature:** 59 F **Planting Equipment:** FE field equipment  
**Seed Bed:** SMOOTH smooth

## Pest Description

**Pest 1 Type:** W **Code:** AMBTR Ambrosia trifida **Stage Scale:** BBCH  
**Common Name:** Giant ragweed

**Pest 2 Type:** W **Code:** IPOSS Ipomoea sp. **Stage Scale:** BBCH  
**Common Name:** Morning glory

## Site and Design

**Treated Plot Width:** 10 FT **Site Type:** FIELD field  
**Treated Plot Length:** 35 FT  
**Treated Plot Area:** 350.0 FT<sup>2</sup> **Tillage Type:** CONTIL conventional-till  
**Replications:** 4 **Treatments:** 10 **Plots:** 40 **Study Design:** RACOB� Randomized Complete Block (RCB)

## Soil Description

**Description Name:** MAURY **Texture:** SIL silt loam  
**% Sand:** 6 **% OM:** 2.6 **Soil Name:** MAURY SILT LOAM  
**% Silt:** 62 **Fert. Level:** E excellent  
**% Clay:** 32 **pH:** 6.4 **CEC:** 18  
**Soil Drainage:** E excellent

## Weather Conditions

**Overall Moisture Conditions:** WEWEDR wet-wet-dry **Irrigation Type:** RAIN rain  
**Weather Station Name:** Lexington **Distance:** 7 MI

## Application Description

	A	B
<b>Date</b>	5-3-2023	6-16-2023
<b>Stop Time</b>	6:20 PM	6:15 PM
<b>Interval to Prev. Appl.</b>		44 DAYS
<b>Standard</b>	PREE	LPOT
<b>Method</b>	SPRAY	SPRAY
<b>Timing</b>	PREPRE	LAPLAP
<b>Placement</b>	BROSOI	BROFOL
<b>Mixed/Prepared By</b>	Sara	Sara
<b>Applied By</b>	Sara	Sara
<b>Air Temperature</b>	68 F	71 F
<b>% Relative Humidity</b>	36	52.9
<b>Wind Velocity+Dir</b>	6 MPH, NE	8.9 MPH, ENE
<b>Soil Temperature</b>	59.2 F	73.8 F
<b>Soil Moisture</b>	GOOD	GOOD
<b>Soil Surface Condition</b>	SMOOTH	SMOOTH
<b>% Cloud Cover</b>	50	10

## Protocol Application Directions:

One preemergence application fb one postemergence application.

## Crop Stage At Each Application

	A	B
<b>Crop 1 Code, BBCH Scale</b>	GLXMA, BSOY	GLXMA, BSOY
<b>Days after Emergence</b>	-8	36
<b>Stage Scale Used</b>	BBCH	BBCH
<b>Height Average</b>		6 IN

## Pest Stage At Each Application

	A	B
<b>Pest 1 Code, Type, Scale</b>	AMBTR, W, BBCH	AMBTR, W, BBCH
<b>Height Average</b>		6 IN
<b>Pest 2 Code, Type, Scale</b>	IPOSS, W, BBCH	IPOSS, W, BBCH
<b>Height Average</b>		3 IN

# University of Kentucky

## Application Equipment

	A	B
Equipment Name	BACKPACK	BACKPACK
Equipment Type	BELSPR	BELSPR
Operation Pressure	30 PSI	30 PSI
Nozzle Model	8002 DG	8002 DG
Nozzle Type	FLAT FAN	FLAT FAN
Nozzle Spacing	20 IN	20 IN
Boom Length	10 FT	10 FT
Boom Height	30 IN	30 IN
Boom Flow Rate	- IN	- IN
Ground Speed	4 MPH	4 MPH
Carrier	WATER	WATER
Application Amount	15 GPA	15 GPA
Mix Size	2.2 liters	2.2 liters
Propellant	CO2	CO2

Notes	Context	Date	By	Notes
STATUS 4-18-2023	Sara Carter	4-18-2023	Automatically added by ARM:	Trial Status updated to 'S' during trial creation.
STATUS 10-13-2023	Sara Carter	10-13-2023	Automatically added by ARM:	Status changed to: E: changed by (EKYCAS).
STATUS 10-13-2023	Sara Carter	10-13-2023	Automatically added by ARM:	Trial Status updated to 'E' when Initiation Date entered.

### Instructions:

1. Please include all treatments in test, even if they do not fit the area in which the test is conducted.
2. Soybean row spacing should be 30".
3. Cooperator can use a different spray volume to fit local conditions..
4. Select Max plus Induce does not need to be applied if volunteer corn is not in test area.
5. Apply post applications to 2 inch weeds

Yield Required: N

### Cropping Considerations:

21 day rating should occur prior to post application.

### Data to Collect:

Efficacy: 21, 42 and 56 days after pree application. Crop tolerance: 14, 21, 42 and 56 days after pree application.

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## Valent Actives in a Liberty Link System

Ceres Trial ID: 23-22 Ceres Protocol ID: VUSA2023FIERCCEMD64.01

Cooperator Trial ID:

Location:

Project ID: 202042 Project ID 2: Project ID 3:

Study Director: John Cranmer Sponsor Contact: Affiliate Restricted:

Investigator: Sara Carter

Rating Date	5-17-2023	5-24-2023	5-24-2023	5-24-2023	6-14-2023
SE Name					
SE Description					
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%	%	%	%	%
Sample Size					
Number of Subsamples	1	1	1	1	1
Crop Code	GLXM01	GLXM01	GLXM01	GLXM01	GLXM01
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max GMO	Glycine max GMO	Glycine max GMO	Glycine max GMO	Glycine max GMO
Crop Name	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>
Crop Variety					
Crop Stage Majority					
Pest Type			W, Weed	W, Weed	
Pest Code			AMBTR	IPOSS	
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.	
Pest Name			Giant ragweed	Morning glory	
Pest Stage Majority					
Rating Timing					
Days After First/Last Applic.	14, 14	21, 21	21, 21	21, 21	42, 42
Trt-Eval Interval					
Plant-Eval Interval	14 DP-1	21 DP-1	21 DP-1	21 DP-1	42 DP-1
Days After Emergence	6 DE-1	13 DE-1	13 DE-1	13 DE-1	34 DE-1
Pest Est.-Eval Interval					
Equipment					
Description					
Data Reliability					
ARM Action Codes					
Number of Decimals					
Data Entry Date	10-13-2023	10-13-2023	10-13-2023	10-13-2023	10-13-2023
Sort Order for View					

Trt	Treatment	Rate	Appl	1	2	3	4	5
No.	Name	Rate Unit	Code Plot					
1	FIERCE EZ (2065)	6 FL OZ/A	A 101	0.0	0.0	98.0	95.0	0.0
	LIBERTY 280	32 FL OZ/A	B 203	0.0	0.0	98.0	95.0	0.0
	PERPETUO	6 FL OZ/A	B 310	0.0	0.0	98.0	90.0	0.0
	SELECT MAX	9 FL OZ/A	B 408	0.0	0.0	98.0	95.0	0.0
	INDUCE	0.25 % V/V	B					
	DRY AMMONIUM SULFATE	3 LB/A	B					
			Mean =	0.0	0.0	98.0	93.8	0.0
2	FIERCE MTZ SC (2030)	16 FL OZ/A	A 102	0.0	0.0	80.0	100.0	0.0
	LIBERTY 280	32 FL OZ/A	B 209	0.0	0.0	85.0	100.0	0.0
	PERPETUO	6 FL OZ/A	B 308	0.0	0.0	80.0	95.0	0.0
	SELECT MAX	9 FL OZ/A	B 404	0.0	0.0	85.0	98.0	0.0
	INDUCE	0.25 % V/V	B					
	DRY AMMONIUM SULFATE	3 LB/A	B					
			Mean =	0.0	0.0	82.5	98.3	0.0
3	VALOR XLT	3.4 OZ/A	A 103	0.0	0.0	90.0	98.0	0.0
	LIBERTY 280	32 FL OZ/A	B 201	0.0	0.0	92.0	95.0	0.0
	INDUCE	0.25 % V/V	B 303	0.0	0.0	90.0	98.0	0.0
	AMS	3 LB/A	B 401	0.0	0.0	92.0	98.0	0.0
			Mean =	0.0	0.0	91.0	97.3	0.0
4	BOUNDARY	3 PT/A	A 104	0.0	0.0	70.0	60.0	0.0
	FLEXSTAR	1.5 PT/A	B 207	0.0	0.0	65.0	55.0	0.0
	FUSION	12 OZ/A	B 306	0.0	0.0	65.0	60.0	0.0
			407	0.0	0.0	65.0	65.0	0.0
			Mean =	0.0	0.0	66.3	60.0	0.0
5	TRIPZIN ZC	44 FL OZ/A	A 105	0.0	0.0	55.0	95.0	0.0
	INTERLINE	32 FL OZ/A	B 206	0.0	0.0	50.0	95.0	0.0
	MOCCASIN II PLUS	16 FL OZ/A	B 304	0.0	0.0	50.0	98.0	0.0
	INDUCE	0.25 % V/V	B 402	0.0	0.0	50.0	95.0	0.0
			Mean =	0.0	0.0	51.3	95.8	0.0
6	TENDOVO	2.35 QT/A	A 106	0.0	0.0	100.0	100.0	0.0
	LIBERTY 280	32 FL OZ/A	B 204	0.0	0.0	100.0	100.0	0.0
	INDUCE	0.25 % V/V	B 307	0.0	0.0	100.0	100.0	0.0
	AMS	3 LB/A	B 410	0.0	0.0	98.0	100.0	0.0
			Mean =	0.0	0.0	99.5	100.0	0.0



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Rating Date	5-17-2023	5-24-2023	5-24-2023	5-24-2023	6-14-2023
SE Name					
SE Description					
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%	%	%	%	%
Sample Size					
Number of Subsamples	1	1	1	1	1
Crop Code	GLXM01	GLXM01	GLXM01	GLXM01	GLXM01
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max GMO	Glycine max GMO	Glycine max GMO	Glycine max GMO	Glycine max GMO
Crop Name	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>
Crop Variety					
Crop Stage Majority					
Pest Type			W, Weed	W, Weed	
Pest Code			AMBTR	IPOSS	
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.	
Pest Name			Giant ragweed	Morning glory	
Pest Stage Majority					
Rating Timing					
Days After First/Last Applic.	14, 14	21, 21	21, 21	21, 21	42, 42
Trt-Eval Interval					
Plant-Eval Interval	14 DP-1	21 DP-1	21 DP-1	21 DP-1	42 DP-1
Days After Emergence	6 DE-1	13 DE-1	13 DE-1	13 DE-1	34 DE-1
Pest Est.-Eval Interval					
Equipment					
Description					
Data Reliability					
ARM Action Codes					
Number of Decimals					
Data Entry Date	10-13-2023	10-13-2023	10-13-2023	10-13-2023	10-13-2023
Sort Order for View					

Trt	Treatment	Rate	Appl	1	2	3	4	5
No.	Name	Rate Unit	Code Plot					
7	WARRANT	1.5 QT/A	A 107	0.0	0.0	75.0	85.0	0.0
	METRIBUZIN	0.5 LB/A	A 210	0.0	0.0	80.0	85.0	0.0
	LIBERTY 280	32 FL OZ/A	B 309	0.0	0.0	80.0	90.0	0.0
	INDUCE	0.25 % V/V	B 405	0.0	0.0	85.0	95.0	0.0
	AMS	3 LB/A	B					
			Mean =	0.0	0.0	80.0	88.8	0.0
8	AUTHORITY XL	7 OZ/A	A 108	0.0	0.0	90.0	95.0	0.0
	LIBERTY 280	32 FL OZ/A	B 205	0.0	0.0	95.0	98.0	0.0
	INDUCE	0.25 % V/V	B 302	0.0	0.0	95.0	95.0	0.0
	AMS	3 LB/A	B 406	0.0	0.0	95.0	95.0	0.0
			Mean =	0.0	0.0	93.8	95.8	0.0
9	ZIDUA PRO	4.5 FL OZ/A	A 109	0.0	0.0	85.0	98.0	0.0
	LIBERTY 280	32 FL OZ/A	B 202	0.0	0.0	85.0	95.0	0.0
	INDUCE	0.25 % V/V	B 305	0.0	0.0	85.0	95.0	0.0
	AMS	3 LB/A	B 409	0.0	0.0	85.0	95.0	0.0
			Mean =	0.0	0.0	85.0	95.8	0.0
10	Untreated Check		110	0.0	0.0	0.0	0.0	0.0
			208	0.0	0.0	0.0	0.0	0.0
			301	0.0	0.0	0.0	0.0	0.0
			403	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	0.0

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Rating Date	6-14-2023	6-14-2023	6-28-2023	6-28-2023	6-28-2023
SE Name					
SE Description					
Part Rated	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%	%	%	%	%
Sample Size					
Number of Subsamples	1	1	1	1	1
Crop Code	GLXM01	GLXM01	GLXM01	GLXM01	GLXM01
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max GMO	Glycine max GMO	Glycine max GMO	Glycine max GMO	Glycine max GMO
Crop Name	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>
Crop Variety					
Crop Stage Majority					
Pest Type	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	AMBTR	IPOSS		AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.		Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory		Giant ragweed	Morning glory
Pest Stage Majority					
Rating Timing					
Days After First/Last Applic.	42, 42	42, 42	56, 12	56, 12	56, 12
Trt-Eval Interval					
Plant-Eval Interval	42 DP-1	42 DP-1	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	34 DE-1	34 DE-1	48 DE-1	48 DE-1	48 DE-1
Pest Est.-Eval Interval					
Equipment					
Description					
Data Reliability					
ARM Action Codes					
Number of Decimals					
Data Entry Date	10-13-2023	10-13-2023	10-13-2023	10-13-2023	10-13-2023
Sort Order for View					

Trt Treatment	Rate	Appl	6	7	8	9	10
No. Name	Rate Unit	Code Plot					
1 FIERCE EZ (2065)	6 FL OZ/A	A 101	95.0	95.0	0.0	100.0	100.0
LIBERTY 280	32 FL OZ/A	B 203	95.0	90.0	0.0	100.0	100.0
PERPETUO	6 FL OZ/A	B 310	95.0	90.0	0.0	100.0	100.0
SELECT MAX	9 FL OZ/A	B 408	95.0	95.0	0.0	100.0	100.0
INDUCE	0.25 % V/V	B					
DRY AMMONIUM SULFATE	3 LB/A	B					
		Mean =	95.0	92.5	0.0	100.0	100.0
2 FIERCE MTZ SC (2030)	16 FL OZ/A	A 102	80.0	100.0	0.0	100.0	100.0
LIBERTY 280	32 FL OZ/A	B 209	80.0	95.0	0.0	100.0	100.0
PERPETUO	6 FL OZ/A	B 308	80.0	95.0	0.0	100.0	100.0
SELECT MAX	9 FL OZ/A	B 404	80.0	95.0	0.0	100.0	100.0
INDUCE	0.25 % V/V	B					
DRY AMMONIUM SULFATE	3 LB/A	B					
		Mean =	80.0	96.3	0.0	100.0	100.0
3 VALOR XLT	3.4 OZ/A	A 103	90.0	95.0	0.0	100.0	100.0
LIBERTY 280	32 FL OZ/A	B 201	90.0	95.0	0.0	100.0	100.0
INDUCE	0.25 % V/V	B 303	90.0	95.0	0.0	100.0	100.0
AMS	3 LB/A	B 401	90.0	95.0	0.0	100.0	100.0
		Mean =	90.0	95.0	0.0	100.0	100.0
4 BOUNDARY	3 PT/A	A 104	70.0	60.0	0.0	100.0	100.0
FLEXSTAR	1.5 PT/A	B 207	70.0	50.0	0.0	100.0	100.0
FUSION	12 OZ/A	B 306	65.0	55.0	0.0	100.0	100.0
		407	65.0	60.0	0.0	100.0	100.0
		Mean =	67.5	56.3	0.0	100.0	100.0
5 TRIPZIN ZC	44 FL OZ/A	A 105	50.0	95.0	0.0	100.0	100.0
INTERLINE	32 FL OZ/A	B 206	50.0	95.0	0.0	100.0	100.0
MOCCASIN II PLUS	16 FL OZ/A	B 304	50.0	95.0	0.0	100.0	100.0
INDUCE	0.25 % V/V	B 402	50.0	95.0	0.0	100.0	100.0
		Mean =	50.0	95.0	0.0	100.0	100.0
6 TENDOVO	2.35 QT/A	A 106	100.0	100.0	0.0	100.0	100.0
LIBERTY 280	32 FL OZ/A	B 204	100.0	100.0	0.0	100.0	100.0
INDUCE	0.25 % V/V	B 307	100.0	100.0	0.0	100.0	100.0
AMS	3 LB/A	B 410	100.0	100.0	0.0	100.0	100.0
		Mean =	100.0	100.0	0.0	100.0	100.0

# University of Kentucky

Rating Date	6-14-2023	6-14-2023	6-28-2023	6-28-2023	6-28-2023
SE Name					
SE Description					
Part Rated	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%	%	%	%	%
Sample Size					
Number of Subsamples	1	1	1	1	1
Crop Code	GLXM01	GLXM01	GLXM01	GLXM01	GLXM01
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max GMO	Glycine max GMO	Glycine max GMO	Glycine max GMO	Glycine max GMO
Crop Name	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>
Crop Variety					
Crop Stage Majority					
Pest Type	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	AMBTR	IPOSS		AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.		Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory		Giant ragweed	Morning glory
Pest Stage Majority					
Rating Timing					
Days After First/Last Applic.	42, 42	42, 42	56, 12	56, 12	56, 12
Trt-Eval Interval					
Plant-Eval Interval	42 DP-1	42 DP-1	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	34 DE-1	34 DE-1	48 DE-1	48 DE-1	48 DE-1
Pest Est.-Eval Interval					
Equipment					
Description					
Data Reliability					
ARM Action Codes					
Number of Decimals					
Data Entry Date	10-13-2023	10-13-2023	10-13-2023	10-13-2023	10-13-2023
Sort Order for View					

Trt	Treatment	Rate	Appl	6	7	8	9	10
No.	Name	Rate Unit	Code Plot					
7	WARRANT	1.5 QT/A	A 107	75.0	85.0	0.0	100.0	100.0
	METRIBUZIN	0.5 LB/A	A 210	80.0	85.0	0.0	100.0	100.0
	LIBERTY 280	32 FL OZ/A	B 309	80.0	85.0	0.0	100.0	100.0
	INDUCE	0.25 % V/V	B 405	85.0	85.0	0.0	100.0	100.0
	AMS	3 LB/A	B					
			Mean =	80.0	85.0	0.0	100.0	100.0
8	AUTHORITY XL	7 OZ/A	A 108	85.0	90.0	0.0	100.0	100.0
	LIBERTY 280	32 FL OZ/A	B 205	90.0	95.0	0.0	100.0	100.0
	INDUCE	0.25 % V/V	B 302	90.0	90.0	0.0	100.0	100.0
	AMS	3 LB/A	B 406	95.0	90.0	0.0	100.0	100.0
			Mean =	90.0	91.3	0.0	100.0	100.0
9	ZIDUA PRO	4.5 FL OZ/A	A 109	80.0	95.0	0.0	100.0	100.0
	LIBERTY 280	32 FL OZ/A	B 202	85.0	95.0	0.0	100.0	100.0
	INDUCE	0.25 % V/V	B 305	85.0	95.0	0.0	100.0	100.0
	AMS	3 LB/A	B 409	85.0	92.0	0.0	100.0	100.0
			Mean =	83.8	94.3	0.0	100.0	100.0
10	Untreated Check		110	0.0	0.0	0.0	0.0	0.0
			208	0.0	0.0	0.0	0.0	0.0
			301	0.0	0.0	0.0	0.0	0.0
			403	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	0.0

# University of Kentucky

## Valent Actives in a Liberty Link System

Ceres Trial ID: 23-22 Ceres Protocol ID: VUSA2023FIERCEMD64.01  
Cooperator Trial ID:

Location:

Project ID: 202042 Project ID 2: Project ID 3:  
Study Director: John Cranmer Sponsor Contact: Affiliate Restricted:  
Investigator: Sara Carter

### Part Rated

PLANT = plant

C = Crop is Part Rated

P = Pest is Part Rated

### Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

### Rating Unit/Min/Max

%, 0, 100 = percent

### Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = WEEVOL

IPOSS, Ipomoea sp., Morning glory = WEEVOL

### Plant-Eval Interval

14 DP-1 = 1 GLXMA 5-3-2023

21 DP-1 = 1 GLXMA 5-3-2023

42 DP-1 = 1 GLXMA 5-3-2023

56 DP-1 = 1 GLXMA 5-3-2023

# University of Kentucky

## Valent Actives in a Liberty Link System

Ceres Trial ID: 23-22 Ceres Protocol ID: VUSA2023FIERCCEMD64.01

Cooperator Trial ID:

Location:

Project ID: 202042 Project ID 2: Project ID 3:

Study Director: John Cranmer Sponsor Contact: Affiliate Restricted:

Investigator: Sara Carter

Rating Date	5-17-2023	5-24-2023	5-24-2023	5-24-2023	6-14-2023
SE Name					
SE Description					
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%	%	%	%	%
Sample Size					
Number of Subsamples	1	1	1	1	1
Crop Code	GLXM01	GLXM01	GLXM01	GLXM01	GLXM01
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max GMO	Glycine max GMO	Glycine max GMO	Glycine max GMO	Glycine max GMO
Crop Name	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>
Crop Variety					
Crop Stage Majority					
Pest Type			W, Weed	W, Weed	
Pest Code			AMBTR	IPOSS	
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.	
Pest Name			Giant ragweed	Morning glory	
Pest Stage Majority					
Rating Timing					
Days After First/Last Applic.	14, 14	21, 21	21, 21	21, 21	42, 42
Trt-Eval Interval					
Plant-Eval Interval	14 DP-1	21 DP-1	21 DP-1	21 DP-1	42 DP-1
Days After Emergence	6 DE-1	13 DE-1	13 DE-1	13 DE-1	34 DE-1
Pest Est.-Eval Interval					
Equipment					
Description					
Data Reliability					
ARM Action Codes					
Number of Decimals					
Data Entry Date	10-13-2023	10-13-2023	10-13-2023	10-13-2023	10-13-2023
Sort Order for View					

Trt No.	Treatment Name	Rate	Appl	1	2	3	4	5
		Rate Unit	Code					
1	FIERCE EZ (2065)	6 FL OZ/A	A	0.0 a	0.0 a	98.0 a	93.8 b	0.0 a
	LIBERTY 280	32 FL OZ/A	B					
	PERPETUO	6 FL OZ/A	B					
	SELECT MAX	9 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	DRY AMMONIUM SULFATE	3 LB/A	B					
2	FIERCE MTZ SC (2030)	16 FL OZ/A	A	0.0 a	0.0 a	82.5 cd	98.3 ab	0.0 a
	LIBERTY 280	32 FL OZ/A	B					
	PERPETUO	6 FL OZ/A	B					
	SELECT MAX	9 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	DRY AMMONIUM SULFATE	3 LB/A	B					
3	VALOR XLT	3.4 OZ/A	A	0.0 a	0.0 a	91.0 b	97.3 ab	0.0 a
	LIBERTY 280	32 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	AMS	3 LB/A	B					
4	BOUNDARY	3 PT/A	A	0.0 a	0.0 a	66.3 e	60.0 d	0.0 a
	FLEXSTAR	1.5 PT/A	B					
	FUSION	12 OZ/A	B					
5	TRIPZIN ZC	44 FL OZ/A	A	0.0 a	0.0 a	51.3 f	95.8 ab	0.0 a
	INTERLINE	32 FL OZ/A	B					
	MOCCASIN II PLUS	16 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
6	TENDOVO	2.35 QT/A	A	0.0 a	0.0 a	99.5 a	100.0 a	0.0 a
	LIBERTY 280	32 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	AMS	3 LB/A	B					
7	WARRANT	1.5 QT/A	A	0.0 a	0.0 a	80.0 d	88.8 c	0.0 a
	METRIBUZIN	0.5 LB/A	A					
	LIBERTY 280	32 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	AMS	3 LB/A	B					

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,5,8,9,10 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	5-17-2023	5-24-2023	5-24-2023	5-24-2023	6-14-2023
SE Name					
SE Description					
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%	%	%	%	%
Sample Size					
Number of Subsamples	1	1	1	1	1
Crop Code	GLXM01	GLXM01	GLXM01	GLXM01	GLXM01
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max GMO	Glycine max GMO	Glycine max GMO	Glycine max GMO	Glycine max GMO
Crop Name	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>
Crop Variety					
Crop Stage Majority					
Pest Type			W, Weed	W, Weed	
Pest Code			AMBTR	IPOSS	
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.	
Pest Name			Giant ragweed	Morning glory	
Pest Stage Majority					
Rating Timing					
Days After First/Last Applic.	14, 14	21, 21	21, 21	21, 21	42, 42
Trt-Eval Interval					
Plant-Eval Interval	14 DP-1	21 DP-1	21 DP-1	21 DP-1	42 DP-1
Days After Emergence	6 DE-1	13 DE-1	13 DE-1	13 DE-1	34 DE-1
Pest Est.-Eval Interval					
Equipment Description					
Data Reliability					
ARM Action Codes					
Number of Decimals					
Data Entry Date	10-13-2023	10-13-2023	10-13-2023	10-13-2023	10-13-2023
Sort Order for View					

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5
8	AUTHORITY XL	7	OZ/A	A	0.0 a	0.0 a	93.8 b	95.8 ab	0.0 a
	LIBERTY 280	32	FL OZ/A	B					
	INDUCE	0.25	% V/V	B					
	AMS	3	LB/A	B					
9	ZIDUA PRO	4.5	FL OZ/A	A	0.0 a	0.0 a	85.0 c	95.8 ab	0.0 a
	LIBERTY 280	32	FL OZ/A	B					
	INDUCE	0.25	% V/V	B					
	AMS	3	LB/A	B					
10	Untreated Check				0.0 a	0.0 a	0.0 g	0.0 e	0.0 a
	LSD P=.05				.	.	3.19	3.56	.
	Standard Deviation				0.00	0.00	2.20	2.45	0.00
	CV				0.0	0.0	2.94	2.97	0.0
	Levene's F^				.	.	0.971	1.763	.
	Levene's Prob(F)				.	.	0.483	0.118	.
	Shapiro-Wilk^				.	.	0.9448	0.9877	.
	P(Shapiro-Wilk)^				.	.	0.0503	0.9361	.
	Skewness^				.	.	0.3442	0.1355	.
	P(Skewness)^				.	.	0.38	0.7285	.
	Kurtosis^				.	.	1.2656	0.2704	.
	P(Kurtosis)^				.	.	0.1038	0.7238	.
	Replicate F				0.000	0.000	0.529	1.034	0.000
	Replicate Prob(F)				1.0000	1.0000	0.6662	0.3933	1.0000
	Treatment F				0.000	0.000	752.021	647.825	0.000
	Treatment Prob(F)				1.0000	1.0000	0.0001	0.0001	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,5,8,9,10 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	6-14-2023	6-14-2023	6-28-2023	6-28-2023	6-28-2023
SE Name					
SE Description					
Part Rated	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%	%	%	%	%
Sample Size					
Number of Subsamples	1	1	1	1	1
Crop Code	GLXM01	GLXM01	GLXM01	GLXM01	GLXM01
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max GMO	Glycine max GMO	Glycine max GMO	Glycine max GMO	Glycine max GMO
Crop Name	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>
Crop Variety					
Crop Stage Majority					
Pest Type	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	AMBTR	IPOSS		AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.		Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory		Giant ragweed	Morning glory
Pest Stage Majority					
Rating Timing					
Days After First/Last Applic.	42, 42	42, 42	56, 12	56, 12	56, 12
Trt-Eval Interval					
Plant-Eval Interval	42 DP-1	42 DP-1	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	34 DE-1	34 DE-1	48 DE-1	48 DE-1	48 DE-1
Pest Est.-Eval Interval					
Equipment					
Description					
Data Reliability					
ARM Action Codes					
Number of Decimals					
Data Entry Date	10-13-2023	10-13-2023	10-13-2023	10-13-2023	10-13-2023
Sort Order for View					

Trt No.	Treatment Name	Rate	Appl Code	6	7	8	9	10
		Rate Unit						
1	FIERCE EZ (2065)	6 FL OZ/A	A	95.0 b	92.5 bc	0.0 a	100.0 a	100.0 a
	LIBERTY 280	32 FL OZ/A	B					
	PERPETUO	6 FL OZ/A	B					
	SELECT MAX	9 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	DRY AMMONIUM SULFATE	3 LB/A	B					
2	FIERCE MTZ SC (2030)	16 FL OZ/A	A	80.0 e	96.3 b	0.0 a	100.0 a	100.0 a
	LIBERTY 280	32 FL OZ/A	B					
	PERPETUO	6 FL OZ/A	B					
	SELECT MAX	9 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	DRY AMMONIUM SULFATE	3 LB/A	B					
3	VALOR XLT	3.4 OZ/A	A	90.0 c	95.0 bc	0.0 a	100.0 a	100.0 a
	LIBERTY 280	32 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	AMS	3 LB/A	B					
4	BOUNDARY	3 PT/A	A	67.5 f	56.3 e	0.0 a	100.0 a	100.0 a
	FLEXSTAR	1.5 PT/A	B					
	FUSION	12 OZ/A	B					
5	TRIPZIN ZC	44 FL OZ/A	A	50.0 g	95.0 bc	0.0 a	100.0 a	100.0 a
	INTERLINE	32 FL OZ/A	B					
	MOCCASIN II PLUS	16 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
6	TENDOVO	2.35 QT/A	A	100.0 a	100.0 a	0.0 a	100.0 a	100.0 a
	LIBERTY 280	32 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	AMS	3 LB/A	B					
7	WARRANT	1.5 QT/A	A	80.0 e	85.0 d	0.0 a	100.0 a	100.0 a
	METRIBUZIN	0.5 LB/A	A					
	LIBERTY 280	32 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	AMS	3 LB/A	B					

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,5,8,9,10 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

	6-14-2023	6-14-2023	6-28-2023	6-28-2023	6-28-2023			
Rating Date	6-14-2023	6-14-2023	6-28-2023	6-28-2023	6-28-2023			
SE Name								
SE Description								
Part Rated	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P			
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO			
Rating Unit/Min/Max	%	%	%	%	%			
Sample Size								
Number of Subsamples	1	1	1	1	1			
Crop Code	GLXM01	GLXM01	GLXM01	GLXM01	GLXM01			
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY			
Crop Scientific Name	Glycine max GMO	Glycine max GMO	Glycine max GMO	Glycine max GMO	Glycine max GMO			
Crop Name	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>	Soybean, Libert>			
Crop Variety								
Crop Stage Majority								
Pest Type	W, Weed	W, Weed		W, Weed	W, Weed			
Pest Code	AMBTR	IPOSS		AMBTR	IPOSS			
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.		Ambrosia trifida	Ipomoea sp.			
Pest Name	Giant ragweed	Morning glory		Giant ragweed	Morning glory			
Pest Stage Majority								
Rating Timing								
Days After First/Last Applic.	42, 42	42, 42	56, 12	56, 12	56, 12			
Trt-Eval Interval								
Plant-Eval Interval	42 DP-1	42 DP-1	56 DP-1	56 DP-1	56 DP-1			
Days After Emergence	34 DE-1	34 DE-1	48 DE-1	48 DE-1	48 DE-1			
Pest Est.-Eval Interval								
Equipment Description								
Data Reliability								
ARM Action Codes								
Number of Decimals								
Data Entry Date	10-13-2023	10-13-2023	10-13-2023	10-13-2023	10-13-2023			
Sort Order for View								
Trt No.	Treatment Name	Rate	Appl Code	6	7	8	9	10
8	AUTHORITY XL	7 OZ/A	A	90.0 c	91.3 c	0.0 a	100.0 a	100.0 a
	LIBERTY 280	32 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	AMS	3 LB/A	B					
9	ZIDUA PRO	4.5 FL OZ/A	A	83.8 d	94.3 bc	0.0 a	100.0 a	100.0 a
	LIBERTY 280	32 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	AMS	3 LB/A	B					
10	Untreated Check			0.0 h	0.0 f	0.0 a	0.0 b	0.0 b
	LSD P=.05			3.08	3.09	.	.	.
	Standard Deviation			2.12	2.13	0.00	0.00	0.00
	CV			2.89	2.65	0.0	0.0	0.0
	Levene's F^			2.149	1.911	.	.	.
	Levene's Prob(F)			0.056	0.089	.	.	.
	Shapiro-Wilk^			0.9217*	0.9412*	.	.	.
	P(Shapiro-Wilk)^			0.0087*	0.038*	.	.	.
	Skewness^			0.0916	-0.2072	.	.	.
	P(Skewness)^			0.8144	0.596	.	.	.
	Kurtosis^			1.1941	2.2826*	.	.	.
	P(Kurtosis)^			0.1241	0.0046*	.	.	.
	Replicate F			1.615	1.122	0.000	0.000	0.000
	Replicate Prob(F)			0.2090	0.3575	1.0000	1.0000	1.0000
	Treatment F			776.754	839.704	0.000	0.000	0.000
	Treatment Prob(F)			0.0001	0.0001	1.0000	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,5,8,9,10 because error mean square = 0.  
 ^Calculated from residual.



# University of Kentucky

## Valent Actives in a Liberty Link System

Ceres Trial ID: 23-22 Ceres Protocol ID: VUSA2023FIERCEMD64.01  
Cooperator Trial ID:

Location:  
Project ID: 202042 Project ID 2: Project ID 3:  
Study Director: John Cranmer Sponsor Contact: Affiliate Restricted:  
Investigator: Sara Carter

### Part Rated

PLANT = plant  
C = Crop is Part Rated  
P = Pest is Part Rated

### Rating Type

PHYGEN = phytotoxicity - general / injury  
CONTRO = control / burndown or knockdown

### Rating Unit/Min/Max

%, 0, 100 = percent

### Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = WEEVOL  
IPOSS, Ipomoea sp., Morning glory = WEEVOL

### Plant-Eval Interval

14 DP-1 = 1 GLXMA 5-3-2023  
21 DP-1 = 1 GLXMA 5-3-2023  
42 DP-1 = 1 GLXMA 5-3-2023  
56 DP-1 = 1 GLXMA 5-3-2023

# University of Kentucky

## Valent Actives in a Enlist Duo System - Reduced Tillage

Trial ID: 23-23  
 Protocol ID: VUSA2023FIERCCEMD64.04 Location:  
 Project ID: 202042 Project ID 2: Project ID 3:  
 Study Director: John Cranmer Sponsor Contact:  
 Investigator: Sara Carter

Cooperator Trial ID:  
 Trial Year: 2023

Reps: 4 Plots: 10 by 35 feet  
 Appl. Amount: 15 GAL/AC Mix Size: 2.2 L (total for 4 plots; minimum=1.825 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Timing	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	ENLIST ONE	3.8 LB/GAL	SL		1 QT/A		1 QT/A		A	PREPOS	36.67 mL/mx		101	206	307	401
	ROUNDUP POWER MAX(S)	5.5 LB/GAL	SL		1 QT/A		1 QT/A		A	PREPOS	36.67 mL/mx					
	FIERCE EZ (2065)	3.04 LB/GAL	SC		6 FL OZ/A		6 FL OZ/A		A	PREPOS	6.875 mL/mx					
	INDUCE	100 %W/W	SF		0.25 % V/V		0.25 % V/V		A	PREPOS	5.499 g/mx					
	ENLIST ONE	3.8 LB/GAL	SL		1 QT/A		1 QT/A		B	POSPOS	36.67 mL/mx					
	ROUNDUP POWER MAX(S)	5.5 LB/GAL	SL		1 QT/A		1 QT/A		B	POSPOS	36.67 mL/mx					
	PERPETUO	2.3 LB/GAL	SC		6 FL OZ/A		6 FL OZ/A		B	POSPOS	6.875 mL/mx					
	SELECT MAX	1 LB/GAL	EC		9 FL OZ/A		9 FL OZ/A		B	POSPOS	10.31 mL/mx					
	DRY AMMONIUM SULFATE	100 %W/W	SG		8.5 LB/100 GAL		8.5 LB/100 GAL		B	POSPOS	22.41 g/mx					
	INDUCE	100 %W/W	SF		0.25 % V/V		0.25 % V/V		B	POSPOS	5.499 g/mx					
	2	ENLIST ONE	3.8 LB/GAL	SL		1 QT/A		1 QT/A		A	PREPOS	36.67 mL/mx		102	203	302
ROUNDUP POWER MAX(S)		5.5 LB/GAL	SL		1 QT/A		1 QT/A		A	PREPOS	36.67 mL/mx					
FIRSTRATE		84 %W/W	WG		0.6 OZ WT/A		0.6 OZ WT/A		A	PREPOS	0.659 g/mx					
FIERCE EZ (2065)		3.04 LB/GAL	SC		6 FL OZ/A		6 FL OZ/A		A	PREPOS	6.875 mL/mx					
INDUCE		100 %W/W	SF		0.25 % V/V		0.25 % V/V		A	PREPOS	5.499 g/mx					
ENLIST ONE		3.8 LB/GAL	SL		1 QT/A		1 QT/A		B	POSPOS	36.67 mL/mx					
ROUNDUP POWER MAX(S)		5.5 LB/GAL	SL		1 QT/A		1 QT/A		B	POSPOS	36.67 mL/mx					
PERPETUO		2.3 LB/GAL	SC		6 FL OZ/A		6 FL OZ/A		B	POSPOS	6.875 mL/mx					
SELECT MAX		1 LB/GAL	EC		9 FL OZ/A		9 FL OZ/A		B	POSPOS	10.31 mL/mx					
DRY AMMONIUM SULFATE		100 %W/W	SG		8.5 LB/100 GAL		8.5 LB/100 GAL		B	POSPOS	22.41 g/mx					
INDUCE		100 %W/W	SF		0.25 % V/V		0.25 % V/V		B	POSPOS	5.499 g/mx					
3	AUTHORITY FIRST	70		DF	6.45 OZ/A				A	PRE	7.085 g/mx		103	207	308	406
	ENLIST DUO	4		SL	4.75 PT/A				A	PRE	87.08 mL/mx					
	COC			L	1 % V/V				A	PRE	22.0 mL/mx					
	AMS	100		SG	3 LB/A				A	PRE	52.72 g/mx					
	ENLIST ONE	3.8 LB/GAL	SL		1 QT/A		1 QT/A		B	POSPOS	36.67 mL/mx					
	ROUNDUP POWER MAX(S)	5.5 LB/GAL	SL		1 QT/A		1 QT/A		B	POSPOS	36.67 mL/mx					
	PERPETUO	2.3 LB/GAL	SC		6 FL OZ/A		6 FL OZ/A		B	POSPOS	6.875 mL/mx					
	SELECT MAX	1 LB/GAL	EC		9 FL OZ/A		9 FL OZ/A		B	POSPOS	10.31 mL/mx					
	DRY AMMONIUM SULFATE	100 %W/W	SG		8.5 LB/100 GAL		8.5 LB/100 GAL		B	POSPOS	22.41 g/mx					
	INDUCE	100 %W/W	SF		0.25 % V/V		0.25 % V/V		B	POSPOS	5.499 g/mx					
	4	BOUNDARY	6.5		E	2.5 PT/A				A	PRE	45.83 mL/mx		104	209	310
ENLIST ONE		3.8		L	2 PT/A				A	PRE	36.67 mL/mx					
ROUNDUP POWERMAX		4.5		SL	1 QT/A				A	PRE	36.67 mL/mx					
INDUCE				SL	0.25 % V/V				A	PRE	5.499 mL/mx					
ENLIST ONE		3.8 LB/GAL	SL		1 QT/A		1 QT/A		B	POSPOS	36.67 mL/mx					
ROUNDUP POWER MAX(S)		5.5 LB/GAL	SL		1 QT/A		1 QT/A		B	POSPOS	36.67 mL/mx					
PERPETUO		2.3 LB/GAL	SC		6 FL OZ/A		6 FL OZ/A		B	POSPOS	6.875 mL/mx					
SELECT MAX		1 LB/GAL	EC		9 FL OZ/A		9 FL OZ/A		B	POSPOS	10.31 mL/mx					
DRY AMMONIUM SULFATE		100 %W/W	SG		8.5 LB/100 GAL		8.5 LB/100 GAL		B	POSPOS	22.41 g/mx					
INDUCE		100 %W/W	SF		0.25 % V/V		0.25 % V/V		B	POSPOS	5.499 g/mx					
5		ENLIST DUO	4		SL	4.75 PT/A				A	PRE	87.08 mL/mx		105	210	306
	SONIC	70		DF	6.45 OZ/A				A	PRE	7.085 g/mx					
	AMS	100		SG	3 LB/A				A	PRE	52.72 g/mx					
	ENLIST ONE	3.8 LB/GAL	SL		1 QT/A		1 QT/A		B	POSPOS	36.67 mL/mx					
	ROUNDUP POWER MAX(S)	5.5 LB/GAL	SL		1 QT/A		1 QT/A		B	POSPOS	36.67 mL/mx					
	PERPETUO	2.3 LB/GAL	SC		6 FL OZ/A		6 FL OZ/A		B	POSPOS	6.875 mL/mx					
	SELECT MAX	1 LB/GAL	EC		9 FL OZ/A		9 FL OZ/A		B	POSPOS	10.31 mL/mx					
	DRY AMMONIUM SULFATE	100 %W/W	SG		8.5 LB/100 GAL		8.5 LB/100 GAL		B	POSPOS	22.41 g/mx					
	INDUCE	100 %W/W	SF		0.25 % V/V		0.25 % V/V		B	POSPOS	5.499 g/mx					

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Reps: 4		Plots: 10 by 35 feet		Mix Size: 2.2 L (total for 4 plots; minimum=1.825 L)								
Appl. Amount: 15 GAL/AC		Form Form		Form Rate		Other Other		Appl Appl		Rep		
Trt Treatment		Conc Unit		Type Rate Unit		Rate Rate Unit		Code Timing		to Measure 1 2 3 4		
No.	Name											
6	SURVEIL	48	WG	2.8	OZ/A			A	PRE	3.076	g/mx	106 204 301 410
	METRIBUZIN	75	DF	5	OZ/A			A	PRE	5.492	g/mx	
	ENLIST DUO	4	SL	4.75	PT/A			A	PRE	87.08	mL/mx	
	AMS	100	SG	3	LB/A			A	PRE	52.72	g/mx	
	ENLIST ONE	3.8	LB/GAL	SL	1	QT/A	1	QT/A	B	POSPOS	36.67	mL/mx
	ROUNDUP POWER MAX(S)	5.5	LB/GAL	SL	1	QT/A	1	QT/A	B	POSPOS	36.67	mL/mx
	PERPETUO	2.3	LB/GAL	SC	6	FL OZ/A	6	FL OZ/A	B	POSPOS	6.875	mL/mx
	SELECT MAX	1	LB/GAL	EC	9	FL OZ/A	9	FL OZ/A	B	POSPOS	10.31	mL/mx
	DRY AMMONIUM SULFATE	100	%W/W	SG	8.5	LB/100 GAL	8.5	LB/100 GAL	B	POSPOS	22.41	g/mx
	INDUCE	100	%W/W	SF	0.25	% V/V	0.25	% V/V	B	POSPOS	5.499	g/mx
7	BOUNDARY	6.5	E	1.5	PT/A			A	PRE	27.5	mL/mx	107 205 304 408
	ENLIST ONE	3.8	LB/GAL	SL	1	QT/A	1	QT/A	A	PREPOS	36.67	mL/mx
	ROUNDUP POWER MAX(S)	5.5	LB/GAL	SL	1	QT/A	1	QT/A	A	PREPOS	36.67	mL/mx
	INDUCE		SL	0.25	% V/V			A	PRE	5.499	mL/mx	
	PREFIX	5.26	EC	2	PT/A			B	POS	36.67	mL/mx	
	ENLIST DUO	4	SL	4.75	PT/A			B	POS	87.08	mL/mx	
	PERPETUO	2.3	LB/GAL	SC	6	FL OZ/A	6	FL OZ/A	B	POSPOS	6.875	mL/mx
	SELECT MAX	1	LB/GAL	EC	9	FL OZ/A	9	FL OZ/A	B	POSPOS	10.31	mL/mx
	INDUCE			0.25	% V/V			B	POS	5.499	mL/mx	
8	WARRANT	3	CS	3	PT/A			A	PRE	55.0	mL/mx	108 202 303 402
	METRIBUZIN	75	DF	5	OZ/A			A	PRE	5.492	g/mx	
	ENLIST DUO	4	SL	4.75	PT/A			A	PRE	87.08	mL/mx	
	AMS	100	SG	3	LB/A			A	PRE	52.72	g/mx	
	WARRANT	3	CS	3	PT/A			B	POS	55.0	mL/mx	
	ENLIST DUO	4	SL	4.75	PT/A			B	POS	87.08	mL/mx	
	PERPETUO	2.3	LB/GAL	SC	6	FL OZ/A	6	FL OZ/A	B	POSPOS	6.875	mL/mx
	SELECT MAX	1	LB/GAL	EC	9	FL OZ/A	9	FL OZ/A	B	POSPOS	10.31	mL/mx
	INDUCE			0.25	% V/V			B	POS	5.499	mL/mx	
9	PREFIX	5.26	EC	1	QT/A			A	PRE	36.67	mL/mx	109 201 305 404
	ENLIST DUO	4	SL	4.75	PT/A			A	PRE	87.08	mL/mx	
	AMS	100	SG	3	LB/A			A	PRE	52.72	g/mx	
	SEQUENCE	5.25	EW	2.5	PT/A			B	POS	45.83	mL/mx	
	ENLIST ONE	3.8	L	1	QT/A			B	POS	36.67	mL/mx	
	PERPETUO	2.3	LB/GAL	SC	6	FL OZ/A		B	POS	6.875	mL/mx	
	SELECT MAX	0.97	EC	9	FL OZ/A			B	POS	10.31	mL/mx	
	AMS	100	SG	3	LB/A			B	POS	52.72	g/mx	
	INDUCE			0.25	% V/V			B	POS	5.499	mL/mx	
10	CHECK											110 208 309 405

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

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Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form	Conc	Form	Unit	Form	Type	Lot Code
329.999	mL	ENLIST ONE		3.8	LB/GAL		SL		
329.999	mL	ROUNDUP POWER MAX(S)		5.5	LB/GAL		SL		
13.750	mL	FIERCE EZ (2065)		3.04	LB/GAL		SC		
43.995	g	INDUCE		100	%W/W		SF		
61.875	mL	PERPETUO		2.3	LB/GAL		SC		
82.500	mL	SELECT MAX		1	LB/GAL		EC		
134.445	g	DRY AMMONIUM SULFATE		100	%W/W		SG		
0.659	g	FIRSTRATE		84	%W/W		WG		
7.085	g	AUTHORITY FIRST		70			DF		
609.583	mL	ENLIST DUO		4			SL		
21.998	mL	COC					L		
316.340	g	AMS		100			SG		
73.333	mL	BOUNDARY		6.5			E		
73.333	mL	ENLIST ONE		3.8			L		
36.667	mL	ROUNDUP POWERMAX		4.5			SL		
10.999	mL	INDUCE					SL		
7.085	g	SONIC		70			DF		
3.076	g	SURVEIL		48			WG		
10.984	g	METRIBUZIN		75			DF		
73.333	mL	PREFIX		5.26			EC		
16.498	mL	INDUCE							
110.000	mL	WARRANT		3			CS		
45.833	mL	SEQUENCE		5.25			EW		
10.312	mL	SELECT MAX		.97			EC		

\* 'Per area' calculations based on application amount= 15 GPA, mix size= 2.2 L (mix size basis).  
\* 'Per volume' calculations use spray volume= 15 GPA, mix size= 2.2 L.

### General Trial Information

**Study Director:** John Cranmer **Title:** FMD Specialist  
**Investigator:** Sara Carter **Title:** RESEARCH SPECIALIST

**Discipline:** H herbicide  
**Status:** I one-year/interim

**ARM Trial Created On:** 4-19-2023 **Reliability:** GOOD good quality  
**Initiation Date:** 5-3-2023 **Planned Completion Date:** 10-31-2023  
**Interim Report Due:** 11-1-2023 **Final Report Due:** 12-1-2023

### Trial Location

**City:** LEXINGTON **Country:** USA United States  
**State/Prov.:** KENTUCKY **County:** FAYETTE  
**Postal Code:** 40511

### Regulations

**Conducted Under GLP:** No  
**Conducted Under GEP:** No

No.	Guideline	Discipline	Description
1.	ADM-C-PUB CO		Confidentiality - Public Trial - No Secrecy Agreement Required

### Contacts

**Role:** STYDIR study director  
**Study Director:** John Cranmer **Title:** FMD Specialist  
**Organization:** Valent USA  
**Address 1:** 2228 Glengate Circle **Phone No.:** 919-280-6677  
**Country:** USA United States **E-mail:** john.cranmer@valent.com  
**City:** Morrisville **State/Prov:** NC **Postal Code:** 27560  
**Role:** INVEST investigator  
**Investigator:** Sara Carter **Title:** RESEARCH SPECIALIST  
**Organization:** UNIVERSITY OF KENTUCKY **Org. Type:** UNIVERSITY  
**Address 1:** 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710  
**Country:** USA United States **E-mail:** sara.carter@uky.edu  
**City:** LEXINGTON **State/Prov:** KY **Postal Code:** 40546-0312

### Crop Description

**Crop 1:** C GLXMA Glycine max Soybean **BBCH Scale:** BSOY  
**Variety:** NK 37V4E3S  
**Attributes:** E3  
**Planting Date:** 5-3-2023 **Planting Rate:** 150000 S/A  
**Depth:** 1.25 IN  
**Rows per Plot:** 6 **Planting Method:** PLANTD planted  
**Row Spacing:** 30 IN **Planting Equipment:** FE field equipment  
**Seed Bed:** MEDIUM medium  
**Soil Temperature:** 60.4 F **Soil Moisture:** GOOD good  
**Emergence Date:** 5-10-2023

# University of Kentucky

## Pest Description

**Pest 1 Type:** W **Code:** AMBTR Ambrosia trifida  
**Common Name:** Giant ragweed **Stage Scale:** BBCH

**Pest 2 Type:** W **Code:** IPOSS Ipomoea sp.  
**Common Name:** Morning glory **Stage Scale:** BBCH

**Pest 3 Type:** W **Code:** SETFA Setaria faberi  
**Common Name:** Giant foxtail **Stage Scale:** BBCH

## Site and Design

**Treated Plot Width:** 10 FT **Site Type:** FIELD field  
**Treated Plot Length:** 35 FT  
**Treated Plot Area:** 350.0 FT2 **Tillage Type:** NOTILL no-till  
**Replications:** 4 **Treatments:** 10 **Plots:** 40 **Study Design:** RACOB� Randomized Complete Block (RCB)  
**Distance between Blocks:** 0 FT  
**Distance between 'Plot' Experimental Units:** 0 FT

## Soil Description

**Description Name:** MAURY **Texture:** SIL silt loam  
**% Sand:** 6 **% OM:** 2.6 **Soil Name:** MAURY SILT LOAM  
**% Silt:** 62 **Fert. Level:** E excellent  
**% Clay:** 32 **pH:** 6.4 **CEC:** 18  
**Soil Drainage:** E excellent

## Application Description

	A	B
Date	5-5-2023	6-29-2023
Stop Time	4:05 PM	4:45 PM
Interval to Prev. Appl.		55 DAYS
Standard	PREE	POST
Method	SPRAY	SPRAY
Timing	PREPRE	POSPOS
Placement	BROFOL	BROADC
Mixed/Prepared By	Sara	Sara
Applied By	Sara	Sara
Air Temperature Start, Stop	73.4, - F	82, - F
% Relative Humidity Start, Stop	29, -	49.6, -
Wind Velocity+Dir. Start	7.6 MPH, ESE	4.3 MPH, W
Soil Temperature	60.4 F	73.8 F
Soil Moisture	GOOD	GOOD
Soil Surface Condition	MEDIUM	MEDIUM
% Cloud Cover	10	100

## Protocol Application Directions:

# One burndown application fb one postemergence application.

## Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY
Days after Emergence	-5	50
Height Average		12 IN

## Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average		8 IN
Pest 2 Code, Type, Scale	IPOSS, W, BBCH	IPOSS, W, BBCH
Height Average		3 IN
Pest 3 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH
Height Average		3 IN

## Application Equipment

	A	B
Equipment Name	BACKPACK	BACKPACK
Equipment Type	BELSPR	BELSPR
Operation Pressure	30 PSI	30 PSI
Nozzle Model	8002 DG	8002 DG
Nozzle Type	FLAT FAN	FLAT FAN
Nozzle Spacing	20 IN	20 IN
Boom Length	10 FT	10 FT
Boom Height	30 IN	30 IN
Boom Flow Rate	- IN	- IN
Ground Speed	4 MPH	4 MPH
Carrier	WATER	WATER
Application Amount	15 GPA	15 GPA
Mix Size	2.2 liters	2.2 liters
Propellant	CO2	CO2

# University of Kentucky

## Valent Actives in a Enlist Duo System - Reduced Tillage

Trial ID: 23-23  
 Protocol ID: VUSA2023FIERCCEMD64.04 Location:  
 Project ID: 202042 Project ID 2: Project ID 3:  
 Study Director: John Cranmer Sponsor Contact:  
 Investigator: Sara Carter

Cooperator Trial ID:  
 Trial Year: 2023

Rating Date	5-19-2023	5-26-2023	5-26-2023	5-26-2023	5-26-2023	6-16-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	% , 0, 10	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 10
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type			W, Weed	W, Weed	W, Weed	
Pest Code			AMBTR	IPOSS	SETFA	
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.	Setaria faberi	
Pest Name			Giant ragweed	Morning glory	Giant foxtail	
Rating Timing						
Days After First/Last Applic.	14, 14	21, 21	21, 21	21, 21	21, 21	42, 42
Trt-Eval Interval						
Plant-Eval Interval	16 DP-1	23 DP-1	23 DP-1	23 DP-1	23 DP-1	44 DP-1
Days After Emergence	9 DE-1	16 DE-1	16 DE-1	16 DE-1	16 DE-1	37 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	1	2	3	4	5	6
1	ENLIST ONE	1 QT/A	A	101		0.0	0.0	100.0	95.0	100.0	0.0
	ROUNDUP POWER MAX(S)	1 QT/A	A	206		0.0	0.0	100.0	90.0	100.0	0.0
	FIERCE EZ (2065)	6 FL OZ/A	A	307		0.0	0.0	100.0	95.0	100.0	0.0
	INDUCE	0.25 % V/V	A	401		0.0	0.0	100.0	90.0	100.0	0.0
	ENLIST ONE	1 QT/A	B								
	ROUNDUP POWER MAX(S)	1 QT/A	B								
	PERPETUO	6 FL OZ/A	B								
	SELECT MAX	9 FL OZ/A	B								
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B								
	INDUCE	0.25 % V/V	B								
				Mean =		0.0	0.0	100.0	92.5	100.0	0.0
2	ENLIST ONE	1 QT/A	A	102		0.0	0.0	100.0	100.0	90.0	0.0
	ROUNDUP POWER MAX(S)	1 QT/A	A	203		0.0	0.0	95.0	100.0	95.0	0.0
	FIRSTRATE	0.6 OZ WT/A	A	302		0.0	0.0	95.0	100.0	92.0	0.0
	FIERCE EZ (2065)	6 FL OZ/A	A	403		0.0	0.0	95.0	100.0	95.0	0.0
	INDUCE	0.25 % V/V	A								
	ENLIST ONE	1 QT/A	B								
	ROUNDUP POWER MAX(S)	1 QT/A	B								
	PERPETUO	6 FL OZ/A	B								
	SELECT MAX	9 FL OZ/A	B								
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B								
INDUCE	0.25 % V/V	B									
				Mean =		0.0	0.0	96.3	100.0	93.0	0.0
3	AUTHORITY FIRST	6.45 OZ/A	A	103		0.0	0.0	98.0	100.0	95.0	0.0
	ENLIST DUO	4.75 PT/A	A	207		0.0	0.0	98.0	100.0	98.0	0.0
	COC	1 % V/V	A	308		0.0	0.0	98.0	100.0	95.0	0.0
	AMS	3 LB/A	A	406		0.0	0.0	98.0	100.0	95.0	0.0
	ENLIST ONE	1 QT/A	B								
	ROUNDUP POWER MAX(S)	1 QT/A	B								
	PERPETUO	6 FL OZ/A	B								
	SELECT MAX	9 FL OZ/A	B								
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B								
	INDUCE	0.25 % V/V	B								
				Mean =		0.0	0.0	98.0	100.0	95.8	0.0

# University of Kentucky

Rating Date	5-19-2023	5-26-2023	5-26-2023	5-26-2023	5-26-2023	6-16-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 10	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type			W, Weed	W, Weed	W, Weed	
Pest Code			AMBTR	IPOSS	SETFA	
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.	Setaria faberi	
Pest Name			Giant ragweed	Morning glory	Giant foxtail	
Rating Timing						
Days After First/Last Applic.	14, 14	21, 21	21, 21	21, 21	21, 21	42, 42
Trt-Eval Interval						
Plant-Eval Interval	16 DP-1	23 DP-1	23 DP-1	23 DP-1	23 DP-1	44 DP-1
Days After Emergence	9 DE-1	16 DE-1	16 DE-1	16 DE-1	16 DE-1	37 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt No.	Treatment Name	Rate	Appl Code	Plot	1	2	3	4	5	6
4	BOUNDARY	2.5 PT/A	A	104	0.0	0.0	90.0	100.0	90.0	0.0
	ENLIST ONE	2 PT/A	A	209	0.0	0.0	95.0	100.0	95.0	0.0
	ROUNDUP POWERMAX	1 QT/A	A	310	0.0	0.0	90.0	100.0	90.0	0.0
	INDUCE	0.25 % V/V	A	407	0.0	0.0	90.0	100.0	92.0	0.0
	ENLIST ONE	1 QT/A	B							
	ROUNDUP POWER MAX(S)	1 QT/A	B							
	PERPETUO	6 FL OZ/A	B							
	SELECT MAX	9 FL OZ/A	B							
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B							
	INDUCE	0.25 % V/V	B							
				Mean =	0.0	0.0	91.3	100.0	91.8	0.0
5	ENLIST DUO	4.75 PT/A	A	105	0.0	0.0	100.0	100.0	75.0	0.0
	SONIC	6.45 OZ/A	A	210	0.0	0.0	100.0	100.0	80.0	0.0
	AMS	3 LB/A	A	306	0.0	0.0	100.0	100.0	80.0	0.0
	ENLIST ONE	1 QT/A	B	409	0.0	0.0	100.0	100.0	85.0	0.0
	ROUNDUP POWER MAX(S)	1 QT/A	B							
	PERPETUO	6 FL OZ/A	B							
	SELECT MAX	9 FL OZ/A	B							
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B							
	INDUCE	0.25 % V/V	B							
				Mean =	0.0	0.0	100.0	100.0	80.0	0.0
6	SURVEIL	2.8 OZ/A	A	106	0.0	0.0	98.0	100.0	85.0	0.0
	METRIBUZIN	5 OZ/A	A	204	0.0	0.0	95.0	100.0	85.0	0.0
	ENLIST DUO	4.75 PT/A	A	301	0.0	0.0	95.0	100.0	80.0	0.0
	AMS	3 LB/A	A	410	0.0	0.0	98.0	100.0	85.0	0.0
	ENLIST ONE	1 QT/A	B							
	ROUNDUP POWER MAX(S)	1 QT/A	B							
	PERPETUO	6 FL OZ/A	B							
	SELECT MAX	9 FL OZ/A	B							
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B							
	INDUCE	0.25 % V/V	B							
				Mean =	0.0	0.0	96.5	100.0	83.8	0.0
7	BOUNDARY	1.5 PT/A	A	107	0.0	0.0	100.0	100.0	90.0	0.0
	ENLIST ONE	1 QT/A	A	205	0.0	0.0	98.0	100.0	95.0	0.0
	ROUNDUP POWER MAX(S)	1 QT/A	A	304	0.0	0.0	100.0	100.0	90.0	0.0
	INDUCE	0.25 % V/V	A	408	0.0	0.0	98.0	100.0	95.0	0.0
	PREFIX	2 PT/A	B							
	ENLIST DUO	4.75 PT/A	B							
	PERPETUO	6 FL OZ/A	B							
	SELECT MAX	9 FL OZ/A	B							
	INDUCE	0.25 % V/V	B							
				Mean =	0.0	0.0	99.0	100.0	92.5	0.0

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Rating Date	5-19-2023	5-26-2023	5-26-2023	5-26-2023	5-26-2023	6-16-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	% , 0, 10	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 10
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type			W, Weed	W, Weed	W, Weed	
Pest Code			AMBTR	IPOSS	SETFA	
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.	Setaria faberi	
Pest Name			Giant ragweed	Morning glory	Giant foxtail	
Rating Timing						
Days After First/Last Applic.	14, 14	21, 21	21, 21	21, 21	21, 21	42, 42
Trt-Eval Interval						
Plant-Eval Interval	16 DP-1	23 DP-1	23 DP-1	23 DP-1	23 DP-1	44 DP-1
Days After Emergence	9 DE-1	16 DE-1	16 DE-1	16 DE-1	16 DE-1	37 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt No.	Treatment Name	Rate	Appl Code	Plot	1	2	3	4	5	6
8	WARRANT	3 PT/A	A	108	0.0	0.0	98.0	100.0	100.0	0.0
	METRIBUZIN	5 OZ/A	A	202	0.0	0.0	95.0	100.0	100.0	0.0
	ENLIST DUO	4.75 PT/A	A	303	0.0	0.0	95.0	100.0	100.0	0.0
	AMS	3 LB/A	A	402	0.0	0.0	98.0	100.0	100.0	0.0
	WARRANT	3 PT/A	B							
	ENLIST DUO	4.75 PT/A	B							
	PERPETUO	6 FL OZ/A	B							
	SELECT MAX	9 FL OZ/A	B							
INDUCE	0.25 % V/V	B								
			Mean =		0.0	0.0	96.5	100.0	100.0	0.0
9	PREFIX	1 QT/A	A	109	0.0	0.0	90.0	98.0	95.0	0.0
	ENLIST DUO	4.75 PT/A	A	201	0.0	0.0	95.0	95.0	90.0	0.0
	AMS	3 LB/A	A	305	0.0	0.0	90.0	98.0	95.0	0.0
	SEQUENCE	2.5 PT/A	B	404	0.0	0.0	90.0	98.0	95.0	0.0
	ENLIST ONE	1 QT/A	B							
	PERPETUO	6 FL OZ/A	B							
	SELECT MAX	9 FL OZ/A	B							
	AMS	3 LB/A	B							
INDUCE	0.25 % V/V	B								
			Mean =		0.0	0.0	91.3	97.3	93.8	0.0
10	CHECK			110	0.0	0.0	0.0	0.0	0.0	0.0
				208	0.0	0.0	0.0	0.0	0.0	0.0
				309	0.0	0.0	0.0	0.0	0.0	0.0
				405	0.0	0.0	0.0	0.0	0.0	0.0
				Mean =		0.0	0.0	0.0	0.0	0.0



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Rating Date	6-16-2023	6-16-2023	6-16-2023	6-30-2023	6-30-2023	6-30-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 10	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type	W, Weed	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	SETFA		AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi		Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory
Rating Timing						
Days After First/Last Applic.	42, 42	42, 42	42, 42	56, 1	56, 1	56, 1
Trt-Eval Interval						
Plant-Eval Interval	44 DP-1	44 DP-1	44 DP-1	58 DP-1	58 DP-1	58 DP-1
Days After Emergence	37 DE-1	37 DE-1	37 DE-1	51 DE-1	51 DE-1	51 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl							
No.	Name	Rate Unit	Code Plot	7	8	9	10	11	12	
1	ENLIST ONE	1 QT/A	A 101	95.0	90.0	95.0	0.0	85.0	80.0	
	ROUNDUP POWER MAX(S)	1 QT/A	A 206	95.0	90.0	98.0	0.0	80.0	85.0	
	FIERCE EZ (2065)	6 FL OZ/A	A 307	95.0	90.0	98.0	0.0	85.0	90.0	
	INDUCE	0.25 % V/V	A 401	95.0	90.0	98.0	0.0	88.0	85.0	
	ENLIST ONE	1 QT/A	B							
	ROUNDUP POWER MAX(S)	1 QT/A	B							
	PERPETUO	6 FL OZ/A	B							
	SELECT MAX	9 FL OZ/A	B							
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B							
	INDUCE	0.25 % V/V	B							
			Mean =	95.0	90.0	97.3	0.0	84.5	85.0	
2	ENLIST ONE	1 QT/A	A 102	95.0	95.0	90.0	0.0	90.0	90.0	
	ROUNDUP POWER MAX(S)	1 QT/A	A 203	95.0	95.0	90.0	0.0	85.0	85.0	
	FIRSTRATE	0.6 OZ WT/A	A 302	95.0	95.0	90.0	0.0	90.0	90.0	
	FIERCE EZ (2065)	6 FL OZ/A	A 403	95.0	95.0	90.0	0.0	90.0	90.0	
	INDUCE	0.25 % V/V	A							
	ENLIST ONE	1 QT/A	B							
	ROUNDUP POWER MAX(S)	1 QT/A	B							
	PERPETUO	6 FL OZ/A	B							
	SELECT MAX	9 FL OZ/A	B							
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B							
	INDUCE	0.25 % V/V	B							
			Mean =	95.0	95.0	90.0	0.0	88.8	88.8	
3	AUTHORITY FIRST	6.45 OZ/A	A 103	95.0	95.0	90.0	0.0	90.0	90.0	
	ENLIST DUO	4.75 PT/A	A 207	95.0	95.0	90.0	0.0	90.0	90.0	
	COC	1 % V/V	A 308	95.0	95.0	90.0	0.0	90.0	90.0	
	AMS	3 LB/A	A 406	95.0	95.0	90.0	0.0	90.0	90.0	
	ENLIST ONE	1 QT/A	B							
	ROUNDUP POWER MAX(S)	1 QT/A	B							
	PERPETUO	6 FL OZ/A	B							
	SELECT MAX	9 FL OZ/A	B							
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B							
	INDUCE	0.25 % V/V	B							
			Mean =	95.0	95.0	90.0	0.0	90.0	90.0	

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Rating Date	6-16-2023	6-16-2023	6-16-2023	6-30-2023	6-30-2023	6-30-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 10	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type	W, Weed	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	SETFA		AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi		Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory
Rating Timing						
Days After First/Last Applic.	42, 42	42, 42	42, 42	56, 1	56, 1	56, 1
Trt-Eval Interval						
Plant-Eval Interval	44 DP-1	44 DP-1	44 DP-1	58 DP-1	58 DP-1	58 DP-1
Days After Emergence	37 DE-1	37 DE-1	37 DE-1	51 DE-1	51 DE-1	51 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt No.	Treatment Name	Rate	Appl Code	Plot	7	8	9	10	11	12
4	BOUNDARY	2.5 PT/A	A	104	90.0	95.0	90.0	0.0	90.0	90.0
	ENLIST ONE	2 PT/A	A	209	95.0	95.0	90.0	0.0	90.0	90.0
	ROUNDUP POWERMAX	1 QT/A	A	310	90.0	95.0	90.0	0.0	90.0	90.0
	INDUCE	0.25 % V/V	A	407	90.0	95.0	90.0	0.0	90.0	90.0
	ENLIST ONE	1 QT/A	B							
	ROUNDUP POWER MAX(S)	1 QT/A	B							
	PERPETUO	6 FL OZ/A	B							
	SELECT MAX	9 FL OZ/A	B							
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B							
	INDUCE	0.25 % V/V	B							
	Mean =				91.3	95.0	90.0	0.0	90.0	90.0
5	ENLIST DUO	4.75 PT/A	A	105	95.0	95.0	75.0	0.0	90.0	90.0
	SONIC	6.45 OZ/A	A	210	95.0	95.0	80.0	0.0	90.0	90.0
	AMS	3 LB/A	A	306	95.0	95.0	85.0	0.0	90.0	90.0
	ENLIST ONE	1 QT/A	B	409	95.0	95.0	80.0	0.0	90.0	90.0
	ROUNDUP POWER MAX(S)	1 QT/A	B							
	PERPETUO	6 FL OZ/A	B							
	SELECT MAX	9 FL OZ/A	B							
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B							
	INDUCE	0.25 % V/V	B							
		Mean =				95.0	95.0	80.0	0.0	90.0
6	SURVEIL	2.8 OZ/A	A	106	95.0	95.0	85.0	0.0	90.0	90.0
	METRIBUZIN	5 OZ/A	A	204	90.0	95.0	85.0	0.0	90.0	90.0
	ENLIST DUO	4.75 PT/A	A	301	95.0	95.0	80.0	0.0	90.0	90.0
	AMS	3 LB/A	A	410	95.0	95.0	80.0	0.0	90.0	90.0
	ENLIST ONE	1 QT/A	B							
	ROUNDUP POWER MAX(S)	1 QT/A	B							
	PERPETUO	6 FL OZ/A	B							
	SELECT MAX	9 FL OZ/A	B							
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B							
	INDUCE	0.25 % V/V	B							
	Mean =				93.8	95.0	82.5	0.0	90.0	90.0
7	BOUNDARY	1.5 PT/A	A	107	95.0	95.0	85.0	0.0	90.0	90.0
	ENLIST ONE	1 QT/A	A	205	95.0	95.0	90.0	0.0	90.0	90.0
	ROUNDUP POWER MAX(S)	1 QT/A	A	304	90.0	95.0	90.0	0.0	90.0	90.0
	INDUCE	0.25 % V/V	A	408	95.0	95.0	90.0	0.0	90.0	90.0
	PREFIX	2 PT/A	B							
	ENLIST DUO	4.75 PT/A	B							
	PERPETUO	6 FL OZ/A	B							
	SELECT MAX	9 FL OZ/A	B							
	INDUCE	0.25 % V/V	B							
		Mean =				93.8	95.0	88.8	0.0	90.0

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Rating Date	6-16-2023	6-16-2023	6-16-2023	6-30-2023	6-30-2023	6-30-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type	W, Weed	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	SETFA		AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi		Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory
Rating Timing						
Days After First/Last Applic.	42, 42	42, 42	42, 42	56, 1	56, 1	56, 1
Trt-Eval Interval						
Plant-Eval Interval	44 DP-1	44 DP-1	44 DP-1	58 DP-1	58 DP-1	58 DP-1
Days After Emergence	37 DE-1	37 DE-1	37 DE-1	51 DE-1	51 DE-1	51 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl							
No.	Name	Rate Unit	Code Plot	7	8	9	10	11	12	
8	WARRANT	3 PT/A	A 108	95.0	95.0	100.0	0.0	90.0	90.0	
	METRIBUZIN	5 OZ/A	A 202	95.0	95.0	100.0	0.0	90.0	90.0	
	ENLIST DUO	4.75 PT/A	A 303	95.0	95.0	100.0	0.0	90.0	90.0	
	AMS	3 LB/A	A 402	95.0	95.0	100.0	0.0	90.0	90.0	
	WARRANT	3 PT/A	B							
	ENLIST DUO	4.75 PT/A	B							
	PERPETUO	6 FL OZ/A	B							
	SELECT MAX	9 FL OZ/A	B							
	INDUCE	0.25 % V/V	B							
			Mean =	95.0	95.0	100.0	0.0	90.0	90.0	
9	PREFIX	1 QT/A	A 109	90.0	95.0	95.0	0.0	90.0	90.0	
	ENLIST DUO	4.75 PT/A	A 201	95.0	95.0	90.0	0.0	90.0	90.0	
	AMS	3 LB/A	A 305	90.0	95.0	90.0	0.0	90.0	90.0	
	SEQUENCE	2.5 PT/A	B 404	90.0	95.0	90.0	0.0	90.0	90.0	
	ENLIST ONE	1 QT/A	B							
	PERPETUO	6 FL OZ/A	B							
	SELECT MAX	9 FL OZ/A	B							
	AMS	3 LB/A	B							
	INDUCE	0.25 % V/V	B							
			Mean =	91.3	95.0	91.3	0.0	90.0	90.0	
10	CHECK		110	0.0	0.0	0.0	0.0	0.0	0.0	
			208	0.0	0.0	0.0	0.0	0.0	0.0	
			309	0.0	0.0	0.0	0.0	0.0	0.0	
			405	0.0	0.0	0.0	0.0	0.0	0.0	
			Mean =	0.0	0.0	0.0	0.0	0.0	0.0	

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Rating Date 6-30-2023  
 Part Rated PLANT, P  
 Rating Type CONTRO  
 Rating Unit/Min/Max %, 0, 100  
 Number of Subsamples 1  
 Crop Type, Code C, GLXMA  
 BBCH Scale BSOY  
 Crop Scientific Name Glycine max  
 Crop Name Soybean  
 Pest Type W, Weed  
 Pest Code SETFA  
 Pest Scientific Name Setaria faberi  
 Pest Name Giant foxtail  
 Rating Timing  
 Days After First/Last Applic. 56, 1  
 Trt-Eval Interval  
 Plant-Eval Interval 58 DP-1  
 Days After Emergence 51 DE-1  
 Pest Est.-Eval Interval  
 EDC App  
 Data Reliability  
 ARM Action Codes  
 Number of Decimals

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	
1	ENLIST ONE	1 QT/A		A	101	85.0
	ROUNDUP POWER MAX(S)	1 QT/A		A	206	85.0
	FIERCE EZ (2065)	6 FL OZ/A		A	307	85.0
	INDUCE	0.25 % V/V		A	401	85.0
	ENLIST ONE	1 QT/A		B		
	ROUNDUP POWER MAX(S)	1 QT/A		B		
	PERPETUO	6 FL OZ/A		B		
	SELECT MAX	9 FL OZ/A		B		
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL		B		
	INDUCE	0.25 % V/V		B		
					Mean =	85.0
2	ENLIST ONE	1 QT/A		A	102	80.0
	ROUNDUP POWER MAX(S)	1 QT/A		A	203	85.0
	FIRSTRATE	0.6 OZ WT/A		A	302	85.0
	FIERCE EZ (2065)	6 FL OZ/A		A	403	85.0
	INDUCE	0.25 % V/V		A		
	ENLIST ONE	1 QT/A		B		
	ROUNDUP POWER MAX(S)	1 QT/A		B		
	PERPETUO	6 FL OZ/A		B		
	SELECT MAX	9 FL OZ/A		B		
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL		B		
	INDUCE	0.25 % V/V		B		
					Mean =	83.8
3	AUTHORITY FIRST	6.45 OZ/A		A	103	80.0
	ENLIST DUO	4.75 PT/A		A	207	80.0
	COC	1 % V/V		A	308	80.0
	AMS	3 LB/A		A	406	80.0
	ENLIST ONE	1 QT/A		B		
	ROUNDUP POWER MAX(S)	1 QT/A		B		
	PERPETUO	6 FL OZ/A		B		
	SELECT MAX	9 FL OZ/A		B		
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL		B		
	INDUCE	0.25 % V/V		B		
					Mean =	80.0

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Rating Date 6-30-2023  
 Part Rated PLANT, P  
 Rating Type CONTRO  
 Rating Unit/Min/Max %, 0, 100  
 Number of Subsamples 1  
 Crop Type, Code C, GLXMA  
 BBCH Scale BSOY  
 Crop Scientific Name Glycine max  
 Crop Name Soybean  
 Pest Type W, Weed  
 Pest Code SETFA  
 Pest Scientific Name Setaria faberi  
 Pest Name Giant foxtail  
 Rating Timing  
 Days After First/Last Applic. 56, 1  
 Trt-Eval Interval  
 Plant-Eval Interval 58 DP-1  
 Days After Emergence 51 DE-1  
 Pest Est.-Eval Interval  
 EDC App  
 Data Reliability  
 ARM Action Codes  
 Number of Decimals

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	
4	BOUNDARY	2.5	PT/A	A	104	80.0
	ENLIST ONE	2	PT/A	A	209	80.0
	ROUNDUP POWERMAX	1	QT/A	A	310	80.0
	INDUCE	0.25	% V/V	A	407	80.0
	ENLIST ONE	1	QT/A	B		
	ROUNDUP POWER MAX(S)	1	QT/A	B		
	PERPETUO	6	FL OZ/A	B		
	SELECT MAX	9	FL OZ/A	B		
	DRY AMMONIUM SULFATE	8.5	LB/100 GAL	B		
	INDUCE	0.25	% V/V	B		
					Mean =	80.0
5	ENLIST DUO	4.75	PT/A	A	105	60.0
	SONIC	6.45	OZ/A	A	210	75.0
	AMS	3	LB/A	A	306	80.0
	ENLIST ONE	1	QT/A	B	409	80.0
	ROUNDUP POWER MAX(S)	1	QT/A	B		
	PERPETUO	6	FL OZ/A	B		
	SELECT MAX	9	FL OZ/A	B		
	DRY AMMONIUM SULFATE	8.5	LB/100 GAL	B		
	INDUCE	0.25	% V/V	B		
					Mean =	73.8
6	SURVEIL	2.8	OZ/A	A	106	80.0
	METRIBUZIN	5	OZ/A	A	204	80.0
	ENLIST DUO	4.75	PT/A	A	301	80.0
	AMS	3	LB/A	A	410	80.0
	ENLIST ONE	1	QT/A	B		
	ROUNDUP POWER MAX(S)	1	QT/A	B		
	PERPETUO	6	FL OZ/A	B		
	SELECT MAX	9	FL OZ/A	B		
	DRY AMMONIUM SULFATE	8.5	LB/100 GAL	B		
	INDUCE	0.25	% V/V	B		
					Mean =	80.0
7	BOUNDARY	1.5	PT/A	A	107	80.0
	ENLIST ONE	1	QT/A	A	205	80.0
	ROUNDUP POWER MAX(S)	1	QT/A	A	304	80.0
	INDUCE	0.25	% V/V	A	408	80.0
	PREFIX	2	PT/A	B		
	ENLIST DUO	4.75	PT/A	B		
	PERPETUO	6	FL OZ/A	B		
	SELECT MAX	9	FL OZ/A	B		
	INDUCE	0.25	% V/V	B		
					Mean =	80.0

# University of Kentucky

Rating Date 6-30-2023  
 Part Rated PLANT, P  
 Rating Type CONTRO  
 Rating Unit/Min/Max %, 0, 100  
 Number of Subsamples 1  
 Crop Type, Code C, GLXMA  
 BBCH Scale BSOY  
 Crop Scientific Name Glycine max  
 Crop Name Soybean  
 Pest Type W, Weed  
 Pest Code SETFA  
 Pest Scientific Name Setaria faberi  
 Pest Name Giant foxtail  
 Rating Timing  
 Days After First/Last Applic. 56, 1  
 Trt-Eval Interval  
 Plant-Eval Interval 58 DP-1  
 Days After Emergence 51 DE-1  
 Pest Est.-Eval Interval  
 EDC App  
 Data Reliability  
 ARM Action Codes  
 Number of Decimals

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	
8	WARRANT	3 PT/A		A	108	98.0
	METRIBUZIN	5 OZ/A		A	202	95.0
	ENLIST DUO	4.75 PT/A		A	303	95.0
	AMS	3 LB/A		A	402	95.0
	WARRANT	3 PT/A		B		
	ENLIST DUO	4.75 PT/A		B		
	PERPETUO	6 FL OZ/A		B		
	SELECT MAX	9 FL OZ/A		B		
	INDUCE	0.25 % V/V		B		
					Mean =	95.8
9	PREFIX	1 QT/A		A	109	95.0
	ENLIST DUO	4.75 PT/A		A	201	90.0
	AMS	3 LB/A		A	305	90.0
	SEQUENCE	2.5 PT/A		B	404	90.0
	ENLIST ONE	1 QT/A		B		
	PERPETUO	6 FL OZ/A		B		
	SELECT MAX	9 FL OZ/A		B		
	AMS	3 LB/A		B		
	INDUCE	0.25 % V/V		B		
					Mean =	91.3
10	CHECK				110	0.0
					208	0.0
					309	0.0
					405	0.0
					Mean =	0.0

# University of Kentucky

## Valent Actives in a Enlist Duo System - Reduced Tillage

Trial ID: 23-23  
Protocol ID: VUSA2023FIERCMD64.04 Location:  
Project ID: 202042 Project ID 2: Project ID 3:  
Study Director: John Cranmer Sponsor Contact:  
Investigator: Sara Carter

Cooperator Trial ID:  
Trial Year: 2023

### Part Rated

PLANT = plant  
C = Crop is Part Rated  
P = Pest is Part Rated

### Rating Type

PHYGEN = phytotoxicity - general / injury  
CONTRO = control / burndown or knockdown

### Rating Unit/Min/Max

%, 0, 100 = percent

### Crop Type Code

C = EPPO species (Bayer) codes  
GLXMA, BSOY, Glycine max, Soybean = US

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US  
IPOSS, Ipomoea sp., Morning glory = US  
SETFA, Setaria faberi, Giant foxtail = US

### Plant-Eval Interval

16 DP-1 = 1 GLXMA 5-3-2023  
23 DP-1 = 1 GLXMA 5-3-2023  
44 DP-1 = 1 GLXMA 5-3-2023  
58 DP-1 = 1 GLXMA 5-3-2023

# University of Kentucky

## Valent Actives in a Enlist Duo System - Reduced Tillage

Trial ID: 23-23  
 Protocol ID: VUSA2023FIERCEMD64.04 Location:  
 Project ID: 202042 Project ID 2: Project ID 3:  
 Study Director: John Cranmer Sponsor Contact:  
 Investigator: Sara Carter

Cooperator Trial ID:  
 Trial Year: 2023

Rating Date	5-19-2023	5-26-2023	5-26-2023	5-26-2023	5-26-2023	6-16-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	% , 0, 10	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 10
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type			W, Weed	W, Weed	W, Weed	
Pest Code			AMBTR	IPOSS	SETFA	
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.	Setaria faberi	
Pest Name			Giant ragweed	Morning glory	Giant foxtail	
Rating Timing						
Days After First/Last Applic.	14, 14	21, 21	21, 21	21, 21	21, 21	42, 42
Trt-Eval Interval						
Plant-Eval Interval	16 DP-1	23 DP-1	23 DP-1	23 DP-1	23 DP-1	44 DP-1
Days After Emergence	9 DE-1	16 DE-1	16 DE-1	16 DE-1	16 DE-1	37 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl	1	2	3	4	5	6
No.	Name	Rate Unit	Code						
1	ENLIST ONE	1 QT/A	A	0.0 a	0.0 a	100.0 a	92.5 c	100.0 a	0.0 a
	ROUNDUP POWER MAX(S)	1 QT/A	A						
	FIERCE EZ (2065)	6 FL OZ/A	A						
	INDUCE	0.25 % V/V	A						
	ENLIST ONE	1 QT/A	B						
	ROUNDUP POWER MAX(S)	1 QT/A	B						
	PERPETUO	6 FL OZ/A	B						
	SELECT MAX	9 FL OZ/A	B						
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B						
	INDUCE	0.25 % V/V	B						
2	ENLIST ONE	1 QT/A	A	0.0 a	0.0 a	96.3 b	100.0 a	93.0 b	0.0 a
	ROUNDUP POWER MAX(S)	1 QT/A	A						
	FIRSTRATE	0.6 OZ WT/A	A						
	FIERCE EZ (2065)	6 FL OZ/A	A						
	INDUCE	0.25 % V/V	A						
	ENLIST ONE	1 QT/A	B						
	ROUNDUP POWER MAX(S)	1 QT/A	B						
	PERPETUO	6 FL OZ/A	B						
	SELECT MAX	9 FL OZ/A	B						
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B						
	INDUCE	0.25 % V/V	B						
3	AUTHORITY FIRST	6.45 OZ/A	A	0.0 a	0.0 a	98.0 ab	100.0 a	95.8 b	0.0 a
	ENLIST DUO	4.75 PT/A	A						
	COC	1 % V/V	A						
	AMS	3 LB/A	A						
	ENLIST ONE	1 QT/A	B						
	ROUNDUP POWER MAX(S)	1 QT/A	B						
	PERPETUO	6 FL OZ/A	B						
	SELECT MAX	9 FL OZ/A	B						
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B						
	INDUCE	0.25 % V/V	B						
4	BOUNDARY	2.5 PT/A	A	0.0 a	0.0 a	91.3 c	100.0 a	91.8 b	0.0 a
	ENLIST ONE	2 PT/A	A						
	ROUNDUP POWERMAX	1 QT/A	A						
	INDUCE	0.25 % V/V	A						
	ENLIST ONE	1 QT/A	B						
	ROUNDUP POWER MAX(S)	1 QT/A	B						
	PERPETUO	6 FL OZ/A	B						
	SELECT MAX	9 FL OZ/A	B						
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B						
	INDUCE	0.25 % V/V	B						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,6,8,10 because error mean square = 0.  
 ^Calculated from residual.



# University of Kentucky

Rating Date	5-19-2023	5-26-2023	5-26-2023	5-26-2023	5-26-2023	6-16-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	% , 0, 10	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 10
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type			W, Weed	W, Weed	W, Weed	
Pest Code			AMBTR	IPOSS	SETFA	
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.	Setaria faberi	
Pest Name			Giant ragweed	Morning glory	Giant foxtail	
Rating Timing						
Days After First/Last Applic.	14, 14	21, 21	21, 21	21, 21	21, 21	42, 42
Trt-Eval Interval						
Plant-Eval Interval	16 DP-1	23 DP-1	23 DP-1	23 DP-1	23 DP-1	44 DP-1
Days After Emergence	9 DE-1	16 DE-1	16 DE-1	16 DE-1	16 DE-1	37 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1	2	3	4	5	6
5	ENLIST DUO	4.75	PT/A	A	0.0 a	0.0 a	100.0 a	100.0 a	80.0 d	0.0 a
	SONIC	6.45	OZ/A	A						
	AMS	3	LB/A	A						
	ENLIST ONE	1	QT/A	B						
	ROUNDUP POWER MAX(S)	1	QT/A	B						
	PERPETUO	6	FL OZ/A	B						
	SELECT MAX	9	FL OZ/A	B						
	DRY AMMONIUM SULFATE	8.5	LB/100 GAL	B						
	INDUCE	0.25	% V/V	B						
6	SURVEIL	2.8	OZ/A	A	0.0 a	0.0 a	96.5 ab	100.0 a	83.8 c	0.0 a
	METRIBUZIN	5	OZ/A	A						
	ENLIST DUO	4.75	PT/A	A						
	AMS	3	LB/A	A						
	ENLIST ONE	1	QT/A	B						
	ROUNDUP POWER MAX(S)	1	QT/A	B						
	PERPETUO	6	FL OZ/A	B						
	SELECT MAX	9	FL OZ/A	B						
	DRY AMMONIUM SULFATE	8.5	LB/100 GAL	B						
	INDUCE	0.25	% V/V	B						
7	BOUNDARY	1.5	PT/A	A	0.0 a	0.0 a	99.0 ab	100.0 a	92.5 b	0.0 a
	ENLIST ONE	1	QT/A	A						
	ROUNDUP POWER MAX(S)	1	QT/A	A						
	INDUCE	0.25	% V/V	A						
	PREFIX	2	PT/A	B						
	ENLIST DUO	4.75	PT/A	B						
	PERPETUO	6	FL OZ/A	B						
	SELECT MAX	9	FL OZ/A	B						
	INDUCE	0.25	% V/V	B						
8	WARRANT	3	PT/A	A	0.0 a	0.0 a	96.5 ab	100.0 a	100.0 a	0.0 a
	METRIBUZIN	5	OZ/A	A						
	ENLIST DUO	4.75	PT/A	A						
	AMS	3	LB/A	A						
	WARRANT	3	PT/A	B						
	ENLIST DUO	4.75	PT/A	B						
	PERPETUO	6	FL OZ/A	B						
	SELECT MAX	9	FL OZ/A	B						
	INDUCE	0.25	% V/V	B						
9	PREFIX	1	QT/A	A	0.0 a	0.0 a	91.3 c	97.3 b	93.8 b	0.0 a
	ENLIST DUO	4.75	PT/A	A						
	AMS	3	LB/A	A						
	SEQUENCE	2.5	PT/A	B						
	ENLIST ONE	1	QT/A	B						
	PERPETUO	6	FL OZ/A	B						
	SELECT MAX	9	FL OZ/A	B						
	AMS	3	LB/A	B						
	INDUCE	0.25	% V/V	B						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,6,8,10 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	5-19-2023	5-26-2023	5-26-2023	5-26-2023	5-26-2023	6-16-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	% , 0 , 10	% , 0 , 10	% , 0 , 100	% , 0 , 100	% , 0 , 100	% , 0 , 10
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type			W, Weed	W, Weed	W, Weed	
Pest Code			AMBTR	IPOSS	SETFA	
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.	Setaria faberi	
Pest Name			Giant ragweed	Morning glory	Giant foxtail	
Rating Timing						
Days After First/Last Applic.	14, 14	21, 21	21, 21	21, 21	21, 21	42, 42
Trt-Eval Interval						
Plant-Eval Interval	16 DP-1	23 DP-1	23 DP-1	23 DP-1	23 DP-1	44 DP-1
Days After Emergence	9 DE-1	16 DE-1	16 DE-1	16 DE-1	16 DE-1	37 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt Treatment No. Name	Rate Rate Unit	Appl Code	1	2	3	4	5	6
10 CHECK			0.0 a	0.0 a	0.0 d	0.0 d	0.0 e	0.0 a
LSD P=.05			.	.	2.36	1.45	3.02	.
Standard Deviation			0.00	0.00	1.63	1.00	2.08	0.00
CV			0.0	0.0	1.87	1.13	2.51	0.0
Levene's F^			.	.	0.77	10.532*	0.814	.
Levene's Prob(F)			.	.	0.645	0.00*	0.608	.
Shapiro-Wilk^			.	.	0.9005*	0.8335*	0.9751	.
P(Shapiro-Wilk)^			.	.	0.002*	0.0*	0.5128	.
Skewness^			.	.	1.1259*	-0.2142	-0.4207	.
P(Skewness)^			.	.	0.006*	0.5838	0.2845	.
Kurtosis^			.	.	1.1531	3.0912*	0.524	.
P(Kurtosis)^			.	.	0.1371	0.0002*	0.4945	.
Replicate F			0.000	0.000	0.867	1.554	2.856	0.000
Replicate Prob(F)			1.0000	1.0000	0.4703	0.2234	0.0557	1.0000
Treatment F			0.000	0.000	1424.706	3921.687	823.419	0.000
Treatment Prob(F)			1.0000	1.0000	0.0001	0.0001	0.0001	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,6,8,10 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	6-16-2023	6-16-2023	6-16-2023	6-30-2023	6-30-2023	6-30-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type	W, Weed	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	SETFA		AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi		Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory
Rating Timing						
Days After First/Last Applic.	42, 42	42, 42	42, 42	56, 1	56, 1	56, 1
Trt-Eval Interval						
Plant-Eval Interval	44 DP-1	44 DP-1	44 DP-1	58 DP-1	58 DP-1	58 DP-1
Days After Emergence	37 DE-1	37 DE-1	37 DE-1	51 DE-1	51 DE-1	51 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl	7	8	9	10	11	12
No.	Name	Rate Unit	Code						
1	ENLIST ONE	1 QT/A	A	95.0 a	90.0 b	97.3 a	0.0 a	84.5 b	85.0 b
	ROUNDUP POWER MAX(S)	1 QT/A	A						
	FIERCE EZ (2065)	6 FL OZ/A	A						
	INDUCE	0.25 % V/V	A						
	ENLIST ONE	1 QT/A	B						
	ROUNDUP POWER MAX(S)	1 QT/A	B						
	PERPETUO	6 FL OZ/A	B						
	SELECT MAX	9 FL OZ/A	B						
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B						
	INDUCE	0.25 % V/V	B						
2	ENLIST ONE	1 QT/A	A	95.0 a	95.0 a	90.0 b	0.0 a	88.8 a	88.8 a
	ROUNDUP POWER MAX(S)	1 QT/A	A						
	FIRSTRATE	0.6 OZ WT/A	A						
	FIERCE EZ (2065)	6 FL OZ/A	A						
	INDUCE	0.25 % V/V	A						
	ENLIST ONE	1 QT/A	B						
	ROUNDUP POWER MAX(S)	1 QT/A	B						
	PERPETUO	6 FL OZ/A	B						
	SELECT MAX	9 FL OZ/A	B						
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B						
	INDUCE	0.25 % V/V	B						
3	AUTHORITY FIRST	6.45 OZ/A	A	95.0 a	95.0 a	90.0 b	0.0 a	90.0 a	90.0 a
	ENLIST DUO	4.75 PT/A	A						
	COC	1 % V/V	A						
	AMS	3 LB/A	A						
	ENLIST ONE	1 QT/A	B						
	ROUNDUP POWER MAX(S)	1 QT/A	B						
	PERPETUO	6 FL OZ/A	B						
	SELECT MAX	9 FL OZ/A	B						
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B						
	INDUCE	0.25 % V/V	B						
4	BOUNDARY	2.5 PT/A	A	91.3 a	95.0 a	90.0 b	0.0 a	90.0 a	90.0 a
	ENLIST ONE	2 PT/A	A						
	ROUNDUP POWERMAX	1 QT/A	A						
	INDUCE	0.25 % V/V	A						
	ENLIST ONE	1 QT/A	B						
	ROUNDUP POWER MAX(S)	1 QT/A	B						
	PERPETUO	6 FL OZ/A	B						
	SELECT MAX	9 FL OZ/A	B						
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B						
	INDUCE	0.25 % V/V	B						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,6,8,10 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	6-16-2023	6-16-2023	6-16-2023	6-30-2023	6-30-2023	6-30-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type	W, Weed	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	SETFA		AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi		Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory
Rating Timing						
Days After First/Last Applic.	42, 42	42, 42	42, 42	56, 1	56, 1	56, 1
Trt-Eval Interval						
Plant-Eval Interval	44 DP-1	44 DP-1	44 DP-1	58 DP-1	58 DP-1	58 DP-1
Days After Emergence	37 DE-1	37 DE-1	37 DE-1	51 DE-1	51 DE-1	51 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	7	8	9	10	11	12
5	ENLIST DUO	4.75	PT/A	A	95.0 a	95.0 a	80.0 c	0.0 a	90.0 a	90.0 a
	SONIC	6.45	OZ/A	A						
	AMS	3	LB/A	A						
	ENLIST ONE	1	QT/A	B						
	ROUNDUP POWER MAX(S)	1	QT/A	B						
	PERPETUO	6	FL OZ/A	B						
	SELECT MAX	9	FL OZ/A	B						
	DRY AMMONIUM SULFATE	8.5	LB/100 GAL	B						
	INDUCE	0.25	% V/V	B						
6	SURVEIL	2.8	OZ/A	A	93.8 a	95.0 a	82.5 c	0.0 a	90.0 a	90.0 a
	METRIBUZIN	5	OZ/A	A						
	ENLIST DUO	4.75	PT/A	A						
	AMS	3	LB/A	A						
	ENLIST ONE	1	QT/A	B						
	ROUNDUP POWER MAX(S)	1	QT/A	B						
	PERPETUO	6	FL OZ/A	B						
	SELECT MAX	9	FL OZ/A	B						
	DRY AMMONIUM SULFATE	8.5	LB/100 GAL	B						
	INDUCE	0.25	% V/V	B						
7	BOUNDARY	1.5	PT/A	A	93.8 a	95.0 a	88.8 b	0.0 a	90.0 a	90.0 a
	ENLIST ONE	1	QT/A	A						
	ROUNDUP POWER MAX(S)	1	QT/A	A						
	INDUCE	0.25	% V/V	A						
	PREFIX	2	PT/A	B						
	ENLIST DUO	4.75	PT/A	B						
	PERPETUO	6	FL OZ/A	B						
	SELECT MAX	9	FL OZ/A	B						
	INDUCE	0.25	% V/V	B						
8	WARRANT	3	PT/A	A	95.0 a	95.0 a	100.0 a	0.0 a	90.0 a	90.0 a
	METRIBUZIN	5	OZ/A	A						
	ENLIST DUO	4.75	PT/A	A						
	AMS	3	LB/A	A						
	WARRANT	3	PT/A	B						
	ENLIST DUO	4.75	PT/A	B						
	PERPETUO	6	FL OZ/A	B						
	SELECT MAX	9	FL OZ/A	B						
	INDUCE	0.25	% V/V	B						
9	PREFIX	1	QT/A	A	91.3 a	95.0 a	91.3 b	0.0 a	90.0 a	90.0 a
	ENLIST DUO	4.75	PT/A	A						
	AMS	3	LB/A	A						
	SEQUENCE	2.5	PT/A	B						
	ENLIST ONE	1	QT/A	B						
	PERPETUO	6	FL OZ/A	B						
	SELECT MAX	9	FL OZ/A	B						
	AMS	3	LB/A	B						
	INDUCE	0.25	% V/V	B						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,6,8,10 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	6-16-2023	6-16-2023	6-16-2023	6-30-2023	6-30-2023	6-30-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 10	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type	W, Weed	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	SETFA		AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Setaria faberi		Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory	Giant foxtail		Giant ragweed	Morning glory
Rating Timing						
Days After First/Last Applic.	42, 42	42, 42	42, 42	56, 1	56, 1	56, 1
Trt-Eval Interval						
Plant-Eval Interval	44 DP-1	44 DP-1	44 DP-1	58 DP-1	58 DP-1	58 DP-1
Days After Emergence	37 DE-1	37 DE-1	37 DE-1	51 DE-1	51 DE-1	51 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt Treatment No. Name	Rate Rate Unit	Appl Code	7	8	9	10	11	12
10 CHECK			0.0 b	0.0 c	0.0 d	0.0 a	0.0 c	0.0 c
LSD P=.05			2.34	.	2.99	.	1.81	2.20
Standard Deviation			1.61	0.00	2.06	0.00	1.25	1.51
CV			1.91	0.0	2.54	0.0	1.55	1.88
Levene's F^			0.623	.	1.713	.	0.937	1.771
Levene's Prob(F)			0.768	.	0.13	.	0.509	0.116
Shapiro-Wilk^			0.8972*	.	0.9109*	.	0.782*	0.7157*
P(Shapiro-Wilk)^			0.0016*	.	0.004*	.	0.0*	0.0*
Skewness^			-0.4209	.	0.2267	.	-0.9733*	-0.6584
P(Skewness)^			0.2842	.	0.5621	.	0.0163*	0.0974
Kurtosis^			3.175*	.	2.1417*	.	5.6589*	8.2084*
P(Kurtosis)^			0.0002*	.	0.0075*	.	0.0*	0.0*
Replicate F			0.643	0.000	0.367	0.000	2.070	1.000
Replicate Prob(F)			0.5941	1.0000	0.7772	1.0000	0.1278	0.4079
Treatment F			1363.500	0.000	795.716	0.000	2052.266	1396.394
Treatment Prob(F)			0.0001	1.0000	0.0001	1.0000	0.0001	0.0001

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 ^Calculated from residual.

# University of Kentucky

Rating Date 6-30-2023  
 Part Rated PLANT, P  
 Rating Type CONTRO  
 Rating Unit/Min/Max %, 0, 100  
 Number of Subsamples 1  
 Crop Type, Code C, GLXMA  
 BBCH Scale BSOY  
 Crop Scientific Name Glycine max  
 Crop Name Soybean  
 Pest Type W, Weed  
 Pest Code SETFA  
 Pest Scientific Name Setaria faberi  
 Pest Name Giant foxtail  
 Rating Timing  
 Days After First/Last Applic. 56, 1  
 Trt-Eval Interval  
 Plant-Eval Interval 58 DP-1  
 Days After Emergence 51 DE-1  
 Pest Est.-Eval Interval  
 EDC App  
 Data Reliability  
 ARM Action Codes  
 Number of Decimals

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	13	
1	ENLIST ONE	1 QT/A	A		85.0 b	
	ROUNDUP POWER MAX(S)	1 QT/A	A			
	FIERCE EZ (2065)	6 FL OZ/A	A			
	INDUCE	0.25 % V/V	A			
	ENLIST ONE	1 QT/A	B			
	ROUNDUP POWER MAX(S)	1 QT/A	B			
	PERPETUO	6 FL OZ/A	B			
	SELECT MAX	9 FL OZ/A	B			
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B			
	INDUCE	0.25 % V/V	B			
2	ENLIST ONE	1 QT/A	A			83.8 b
	ROUNDUP POWER MAX(S)	1 QT/A	A			
	FIRSTRATE	0.6 OZ WT/A	A			
	FIERCE EZ (2065)	6 FL OZ/A	A			
	INDUCE	0.25 % V/V	A			
	ENLIST ONE	1 QT/A	B			
	ROUNDUP POWER MAX(S)	1 QT/A	B			
	PERPETUO	6 FL OZ/A	B			
	SELECT MAX	9 FL OZ/A	B			
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B			
	INDUCE	0.25 % V/V	B			
3	AUTHORITY FIRST	6.45 OZ/A	A		80.0 bc	
	ENLIST DUO	4.75 PT/A	A			
	COC	1 % V/V	A			
	AMS	3 LB/A	A			
	ENLIST ONE	1 QT/A	B			
	ROUNDUP POWER MAX(S)	1 QT/A	B			
	PERPETUO	6 FL OZ/A	B			
	SELECT MAX	9 FL OZ/A	B			
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B			
	INDUCE	0.25 % V/V	B			
4	BOUNDARY	2.5 PT/A	A			80.0 bc
	ENLIST ONE	2 PT/A	A			
	ROUNDUP POWERMAX	1 QT/A	A			
	INDUCE	0.25 % V/V	A			
	ENLIST ONE	1 QT/A	B			
	ROUNDUP POWER MAX(S)	1 QT/A	B			
	PERPETUO	6 FL OZ/A	B			
	SELECT MAX	9 FL OZ/A	B			
	DRY AMMONIUM SULFATE	8.5 LB/100 GAL	B			
	INDUCE	0.25 % V/V	B			

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,6,8,10 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date 6-30-2023  
 Part Rated PLANT, P  
 Rating Type CONTRO  
 Rating Unit/Min/Max %, 0, 100  
 Number of Subsamples 1  
 Crop Type, Code C, GLXMA  
 BBCH Scale BSOY  
 Crop Scientific Name Glycine max  
 Crop Name Soybean  
 Pest Type W, Weed  
 Pest Code SETFA  
 Pest Scientific Name Setaria faberi  
 Pest Name Giant foxtail  
 Rating Timing  
 Days After First/Last Applic. 56, 1  
 Trt-Eval Interval  
 Plant-Eval Interval 58 DP-1  
 Days After Emergence 51 DE-1  
 Pest Est.-Eval Interval  
 EDC App  
 Data Reliability  
 ARM Action Codes  
 Number of Decimals

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	13
5	ENLIST DUO	4.75	PT/A	A	73.8 c
	SONIC	6.45	OZ/A	A	
	AMS	3	LB/A	A	
	ENLIST ONE	1	QT/A	B	
	ROUNDUP POWER MAX(S)	1	QT/A	B	
	PERPETUO	6	FL OZ/A	B	
	SELECT MAX	9	FL OZ/A	B	
	DRY AMMONIUM SULFATE	8.5	LB/100 GAL	B	
	INDUCE	0.25	% V/V	B	
6	SURVEIL	2.8	OZ/A	A	80.0 bc
	METRIBUZIN	5	OZ/A	A	
	ENLIST DUO	4.75	PT/A	A	
	AMS	3	LB/A	A	
	ENLIST ONE	1	QT/A	B	
	ROUNDUP POWER MAX(S)	1	QT/A	B	
	PERPETUO	6	FL OZ/A	B	
	SELECT MAX	9	FL OZ/A	B	
	DRY AMMONIUM SULFATE	8.5	LB/100 GAL	B	
	INDUCE	0.25	% V/V	B	
7	BOUNDARY	1.5	PT/A	A	80.0 bc
	ENLIST ONE	1	QT/A	A	
	ROUNDUP POWER MAX(S)	1	QT/A	A	
	INDUCE	0.25	% V/V	A	
	PREFIX	2	PT/A	B	
	ENLIST DUO	4.75	PT/A	B	
	PERPETUO	6	FL OZ/A	B	
	SELECT MAX	9	FL OZ/A	B	
	INDUCE	0.25	% V/V	B	
8	WARRANT	3	PT/A	A	95.8 a
	METRIBUZIN	5	OZ/A	A	
	ENLIST DUO	4.75	PT/A	A	
	AMS	3	LB/A	A	
	WARRANT	3	PT/A	B	
	ENLIST DUO	4.75	PT/A	B	
	PERPETUO	6	FL OZ/A	B	
	SELECT MAX	9	FL OZ/A	B	
	INDUCE	0.25	% V/V	B	
9	PREFIX	1	QT/A	A	91.3 a
	ENLIST DUO	4.75	PT/A	A	
	AMS	3	LB/A	A	
	SEQUENCE	2.5	PT/A	B	
	ENLIST ONE	1	QT/A	B	
	PERPETUO	6	FL OZ/A	B	
	SELECT MAX	9	FL OZ/A	B	
	AMS	3	LB/A	B	
	INDUCE	0.25	% V/V	B	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,6,8,10 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date 6-30-2023  
 Part Rated PLANT, P  
 Rating Type CONTRO  
 Rating Unit/Min/Max %, 0, 100  
 Number of Subsamples 1  
 Crop Type, Code C, GLXMA  
 BBCH Scale BSOY  
 Crop Scientific Name Glycine max  
 Crop Name Soybean  
 Pest Type W, Weed  
 Pest Code SETFA  
 Pest Scientific Name Setaria faberi  
 Pest Name Giant foxtail  
 Rating Timing  
 Days After First/Last Applic. 56, 1  
 Trt-Eval Interval  
 Plant-Eval Interval 58 DP-1  
 Days After Emergence 51 DE-1  
 Pest Est.-Eval Interval  
 EDC App  
 Data Reliability  
 ARM Action Codes  
 Number of Decimals

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	13
10	CHECK				0.0 d
	LSD P=.05				4.79
	Standard Deviation				3.30
	CV				4.4
	Levene's F^				1.549
	Levene's Prob(F)				0.176
	Shapiro-Wilk^				0.7204*
	P(Shapiro-Wilk)^				0.0*
	Skewness^				-1.9566*
	P(Skewness)^				0.0*
	Kurtosis^				11.5832*
	P(Kurtosis)^				0.0*
	Replicate F				0.591
	Replicate Prob(F)				0.6260
	Treatment F				269.570
	Treatment Prob(F)				0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,6,8,10 because error mean square = 0.  
 ^Calculated from residual.



# University of Kentucky

## Valent Actives in a Enlist Duo System - Reduced Tillage

Trial ID: 23-23  
Protocol ID: VUSA2023FIERCMD64.04 Location:  
Project ID: 202042 Project ID 2: Project ID 3:  
Study Director: John Cranmer Sponsor Contact:  
Investigator: Sara Carter

Cooperator Trial ID:  
Trial Year: 2023

### Part Rated

PLANT = plant  
C = Crop is Part Rated  
P = Pest is Part Rated

### Rating Type

PHYGEN = phytotoxicity - general / injury  
CONTRO = control / burndown or knockdown

### Rating Unit/Min/Max

%, 0, 100 = percent

### Crop Type Code

C = EPPO species (Bayer) codes  
GLXMA, BSOY, Glycine max, Soybean = US

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US  
IPOSS, Ipomoea sp., Morning glory = US  
SETFA, Setaria faberi, Giant foxtail = US

### Plant-Eval Interval

16 DP-1 = 1 GLXMA 5-3-2023  
23 DP-1 = 1 GLXMA 5-3-2023  
44 DP-1 = 1 GLXMA 5-3-2023  
58 DP-1 = 1 GLXMA 5-3-2023

# University of Kentucky

## Valent Actives in a Roundup Xtend System - Conventional Tillage

Trial ID: 23-24  
 Protocol ID: VUSA2023FIERCEMD64.05 Location: Cooperator Trial ID:  
 Project ID: 202042 Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: John Cranmer Sponsor Contact:  
 Investigator: Sara Carter

Reps: 4 Plots: 10 by 35 feet  
 Appl. Amount: 15 GAL/AC Mix Size: 2.2 L (total for 4 plots; minimum=1.825 L)

Trt	Treatment	Form	Form	Form	Rate	Other	Other	Appl	Appl	Amt	Product	Rep				
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Code	Timing	to Measure	1	2	3	4
1	FIERCE EZ (2065)	3.04	LB/GAL	SC	6 FL OZ/A		6 FL OZ/A	A		PREPRE	6.875 mL/mx	101	207	305	409	
	ROUNDUP POWER MAX(S)	5.5	LB/GAL	SL	32 FL OZ/A		32 FL OZ/A	B		POSPOS	36.67 mL/mx					
	XTENDIMAX WITH VAPORGRIP TECH	2.9	LB/GAL	SL	22 FL OZ/A		22 FL OZ/A	B		POSPOS	25.21 mL/mx					
	PERPETUO	2.3	LB/GAL	SC	6 FL OZ/A		6 FL OZ/A	B		POSPOS	6.875 mL/mx					
	SELECT MAX	1	LB/GAL	EC	9 FL OZ/A		9 FL OZ/A	B		POSPOS	10.31 mL/mx					
	IN-PLACE	100	%W/W	AJ	0.5 % V/V		0.5 % V/V	B		POSPOS	11.0 mL/mx					
	INDUCE	100	%W/W	SF	0.25 % V/V		0.25 % V/V	B		POSPOS	5.499 g/mx					
2	FIERCE MTZ SC (2030)	2.64	LB/GAL	SC	1 PT/A		1 PT/A	A		PREPRE	18.33 mL/mx	102	205	308	401	
	ROUNDUP POWER MAX(S)	5.5	LB/GAL	SL	32 FL OZ/A		32 FL OZ/A	B		POSPOS	36.67 mL/mx					
	XTENDIMAX WITH VAPORGRIP TECH	2.9	LB/GAL	SL	22 FL OZ/A		22 FL OZ/A	B		POSPOS	25.21 mL/mx					
	PERPETUO	2.3	LB/GAL	SC	6 FL OZ/A		6 FL OZ/A	B		POSPOS	6.875 mL/mx					
	SELECT MAX	1	LB/GAL	EC	9 FL OZ/A		9 FL OZ/A	B		POSPOS	10.31 mL/mx					
	IN-PLACE	100	%W/W	AJ	0.5 % V/V		0.5 % V/V	B		POSPOS	11.0 mL/mx					
	INDUCE	100	%W/W	SF	0.25 % V/V		0.25 % V/V	B		POSPOS	5.499 g/mx					
3	TAVIUM	406.8	GAE/L	CS	56.5 OZ/A			A		PRE	64.74 mL/mx	103	208	307	402	
	TAVIUM	406.8	GAE/L	CS	56.5 OZ/A			B		POS	64.74 mL/mx					
	ROUNDUP POWERMAX	4.5		SL	32 FL OZ/A			B		POS	36.67 mL/mx					
	INTACT			L	0.5 % V/V			B		POS	11.0 mL/mx					
	CLASS ACT RIDION			L	1 % V/V			B		POS	22.0 mL/mx					
4	ZIDUA PRO	4.09	LB/GAL	SC	4.5 FL OZ/A			A		PRE	5.156 mL/mx	104	202	309	406	
	ENGENIA	5	LB/AE/GAL	L	12.8 FL OZ/A			B		POS	14.67 mL/mx					
	ROUNDUP POWERMAX	4.5		SL	32 FL OZ/A			B		POS	36.67 mL/mx					
	CLASS ACT RIDION			L	1 % V/V			B		POS	22.0 mL/mx					
	INTACT			L	0.5 % V/V			B		POS	11.0 mL/mx					
5	SONIC	70		DF	6 OZ/A			A		PRE	6.59 g/mx	105	206	304	410	
	FEXAPAN	2.9		SL	22 OZ/A			A		PRE	25.21 mL/mx					
	INTACT			L	0.5 % V/V			A		PRE	11.0 mL/mx					
	ABUNDIT EDGE	5.5		SL	32 FL OZ/A			B		POS	36.67 mL/mx					
	FEXAPAN	2.9		SL	22 OZ/A			B		POS	25.21 mL/mx					
	EVERPREX	7.62	LB/GAL	EC	1 PT/A			B		POS	18.33 mL/mx					
	INTACT			L	0.5 % V/V			B		POS	11.0 mL/mx					
6	VALOR XLT	40.3		WG	3.01 OZ WT/A			A		PRE	3.306 g/mx	106	204	303	404	
	ROUNDUP POWERMAX	4.5		SL	32 FL OZ/A			B		POS	36.67 mL/mx					
	XTENDIMAX	2.9		SL	22 FL OZ/A			B		POS	25.21 mL/mx					
	INTACT			L	0.5 % V/V			B		POS	11.0 mL/mx					
	CLASS ACT RIDION			L	1 % V/V			B		POS	22.0 mL/mx					
7	BOUNDARY	6.5		E	1 QT/A			A		PRE	36.67 mL/mx	107	209	301	408	
	SEQUENCE	5.25		EW	3.5 PT/A			B		POS	64.17 mL/mx					
	XTENDIMAX	2.9		SL	22 FL OZ/A			B		POS	25.21 mL/mx					
	INTACT			L	0.5 % V/V			B		POS	11.0 mL/mx					
	CLASS ACT RIDION			L	1 % V/V			B		POS	22.0 mL/mx					
8	BROADAXE XC	7		EC	25 FL OZ/A			A		PRE	28.65 mL/mx	108	210	306	403	
	METRIBUZIN	75		DF	4 OZ/A			A		PRE	4.394 g/mx					
	TAVIUM	406.8	GAE/L	CS	56.5 OZ/A			B		POS	64.74 mL/mx					
	ROUNDUP POWERMAX	4.5		SL	32 FL OZ/A			B		POS	36.67 mL/mx					
	INTACT			L	0.5 % V/V			B		POS	11.0 mL/mx					
	CLASS ACT RIDION			L	1 % V/V			B		POS	22.0 mL/mx					

# University of Kentucky

Reps: 4 Plots: 10 by 35 feet  
Appl. Amount: 15 GAL/AC Mix Size: 2.2 L (total for 4 plots; minimum=1.825 L)

Trt	Treatment	Form	Form	Form	Rate	Other	Other	Appl	Appl	Amt	Product	Rep		
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Code	Timing	to Measure	1	2	3	4
9	BOUNDARY	6.5		E	1 QT/A			A	PRE	36.67 mL/mx	109	201	302	405
	TAVIUM	406.8	GAE/L	CS	56.5 OZ/A			B	POS	64.74 mL/mx				
	ROUNDUP POWERMAX	4.5		SL	32 FL OZ/A			B	POS	36.67 mL/mx				
	INTACT			L	0.5 % V/V			B	POS	11.0 mL/mx				
	CLASS ACT RIDION			L	1 % V/V			B	POS	22.0 mL/mx				

10 CHECK UNTREATED

110 203 310 407

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form	Conc	Form	Unit	Form	Type	Lot Code
6.875 mL		FIERCE EZ (2065)	3.04		LB/GAL		SC		
73.333 mL		ROUNDUP POWER MAX(S)	5.5		LB/GAL		SL		
50.417 mL		XTENDIMAX WITH VAPORGRIP TECH	2.9		LB/GAL		SL		
13.750 mL		PERPETUO	2.3		LB/GAL		SC		
20.625 mL		SELECT MAX	1		LB/GAL		EC		
21.998 mL		IN-PLACE	100		%W/W		AJ		
10.999 g		INDUCE	100		%W/W		SF		
18.333 mL		FIERCE MTZ SC (2030)	2.64		LB/GAL		SC		
258.958 mL		TAVIUM	406.8		GAE/L		CS		
183.333 mL		ROUNDUP POWERMAX	4.5				SL		
87.990 mL		INTACT					L		
131.986 mL		CLASS ACT RIDION					L		
5.156 mL		ZIDUA PRO	4.09		LB/GAL		SC		
14.667 mL		ENGENIA	5		LB/AE/GAL		L		
6.590 g		SONIC	70				DF		
50.417 mL		FEXAPAN	2.9				SL		
36.667 mL		ABUNDIT EDGE	5.5				SL		
18.333 mL		EVERPREX	7.62		LB/GAL		EC		
3.306 g		VALOR XLT	40.3				WG		
50.417 mL		XTENDIMAX	2.9				SL		
73.333 mL		BOUNDARY	6.5				E		
64.167 mL		SEQUENCE	5.25				EW		
28.646 mL		BROADAXE XC	7				EC		
4.394 g		METRIBUZIN	75				DF		

\* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2.2 L (mix size basis).

\* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2.2 L.

### General Trial Information

**Study Director:** John Cranmer **Title:** FMD Specialist  
**Investigator:** Sara Carter **Title:** Research Specialist

**Discipline:** H herbicide  
**Status:** I one-year/interim

**ARM Trial Created On:** 4-20-2023 **Reliability:** GOOD good quality  
**Initiation Date:** 5-3-2023 **Planned Completion Date:** 11-1-2023  
**Interim Report Due:** 11-1-2023 **Final Report Due:** 12-1-2023

### Trial Location

**City:** Lexington **Country:** USA United States  
**State/Prov.:** Kentucky **County:** Fayette  
**Postal Code:** 40511

### Regulations

**Conducted Under GLP:** No  
**Conducted Under GEP:** No

No.	Guideline	Discipline	Description
1.	ADM-C-PUB CO		Confidentiality - Public Trial - No Secrecy Agreement Required

### Contacts

**Role:** STYDIR study director  
**Study Director:** John Cranmer **Title:** FMD Specialist  
**Organization:** Valent USA  
**Address 1:** 2228 Glengate Circle **Phone No.:** 919-280-6677  
**Country:** USA United States **E-mail:** John.Cranmer@valent.com  
**City:** Morrisville **State/Prov.:** NC **Postal Code:** 27560  
**Role:** INVEST investigator  
**Investigator:** Sara Carter **Title:** Research Specialist  
**Organization:** University of Kentucky  
**Address 1:** 105 Plant Science Building **Phone No.:** 859-559-6710  
**Country:** USA United States **E-mail:** skcart0@uky.edu  
**City:** Lexington **State/Prov.:** KY **Postal Code:** 40546-0312

# University of Kentucky

## Crop Description

**Crop 1:** C GLXMA Glycine max Soybean **BBCH Scale:** BSOY  
**Variety:** AG37FX2 **Stage Scale:** BBCH  
**Planting Date:** 5-3-2023 **Planting Rate:** 150000 S/A  
**Depth:** 1.25 IN  
**Rows per Plot:** 6 **Planting Method:** PLANTD planted  
**Row Spacing:** 30 IN **Planting Equipment:** FE field equipment  
**Seed Bed:** SMOOTH smooth  
**Soil Temperature:** 59 F **Soil Moisture:** GOOD good  
**Emergence Date:** 5-11-2023

## Pest Description

**Pest 1 Type:** W **Code:** AMBTR Ambrosia trifida **Stage Scale:** BBCH  
**Common Name:** Giant ragweed  
**Pest 2 Type:** W **Code:** CHEAL Chenopodium album **Stage Scale:** BBCH  
**Common Name:** common lambsquarters  
**Pest 3 Type:** W **Code:** IPOSS Ipomoea sp. **Stage Scale:** BBCH  
**Common Name:** Morning glory

## Site and Design

**Treated Plot Width:** 10 FT **Site Type:** FIELD field  
**Treated Plot Length:** 35 FT  
**Treated Plot Area:** 350.0 FT2 **Tillage Type:** CONTIL conventional-till  
**Replications:** 4 **Treatments:** 10 **Plots:** 40 **Study Design:** RACOB� Randomized Complete Block (RCB)

## Soil Description

**Description Name:** MAURY SILT LOAM  
**% Sand:** 6 **% OM:** 3.4 **Texture:** SIL silt loam  
**% Silt:** 62 **Soil Name:** MAURY  
**% Clay:** 32  
**pH:** 6.8 **CEC:** 18

## Application Description

	A	B
<b>Date</b>	5-3-2023	6-16-2023
<b>Stop Time</b>	6:50 PM	5:15 PM
<b>Interval to Prev. Appl.</b>		44 DAYS
<b>Method</b>	SPRAY	SPRAY
<b>Timing</b>	PREPRE	POSPOS
<b>Placement</b>	BROSOI	BROFOL
<b>Mixed/Prepared By</b>	Sara	Sara
<b>Applied By</b>	Sara	Sara
<b>Air Temperature Start, Stop</b>	68, - F	83, - F
<b>% Relative Humidity Start, Stop</b>	36, -	75, -
<b>Wind Velocity+Dir. Start</b>	6 MPH, NE	4 MPH, SW
<b>Soil Temperature</b>	59.2 F	74 F
<b>Soil Moisture</b>	GOOD	GOOD
<b>Soil Surface Condition</b>	SMOOTH	SMOOTH
<b>% Cloud Cover</b>	50	20

## Protocol Application Directions:

One preemergence application fb one postemergence application.

## Crop Stage At Each Application

	A	B
<b>Crop 1 Code, BBCH Scale</b>	GLXMA, BSOY	GLXMA, BSOY
<b>Days after Emergence</b>	-8	36
<b>Height Average</b>		6 IN

## Pest Stage At Each Application

	A	B
<b>Pest 1 Code, Type, Scale</b>	AMBTR, W, BBCH	AMBTR, W, BBCH
<b>Height Average</b>		6 IN
<b>Pest 2 Code, Type, Scale</b>	CHEAL, W, BBCH	CHEAL, W, BBCH
<b>Height Average</b>		3 IN
<b>Pest 3 Code, Type, Scale</b>	IPOSS, W, BBCH	IPOSS, W, BBCH
<b>Height Average</b>		2 IN

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## Application Equipment

	<b>A</b>	<b>B</b>
<b>Equipment Name</b>	BELT	BELT
<b>Equipment Type</b>	SPRBEL	SPRBEL
<b>Operation Pressure</b>	30 PSI	30 PSI
<b>Nozzle Model</b>	8002VS	8002VS
<b>Nozzle Type</b>	FLAFAN	FLAFAN
<b>Nozzle TradeName</b>	TEEJET	TEEJET
<b>Nozzle Tip Size, Color</b>	02, YELLOW	02, YELLOW
<b>Nozzle Spacing</b>	20.0 IN	20.0 IN
<b>Nozzle Count</b>	6	6
<b>Boom Length</b>	10.0 FT	10.0 FT
<b>Boom Height</b>	30.0 IN	30.0 IN
<b>Ground Speed</b>	4 MPH	4 MPH
<b>Carrier</b>	WATER	WATER
<b>Application Amount</b>	15.00 GAL/AC	15 GAL/AC
<b>Mix Size</b>	2.2 L	2.2 L
<b>Propellant</b>	CO2	CO2

# University of Kentucky

## Valent Actives in a Roundup Xtend System - Conventional Tillage

Trial ID: 23-24  
 Protocol ID: VUSA2023FIERCCEMD64.05 Location:  
 Project ID: 202042 Project ID 2: Project ID 3:  
 Study Director: John Cranmer Sponsor Contact:  
 Investigator: Sara Carter

Cooperator Trial ID:  
 Trial Year: 2023

Rating Date	5-10-2023	5-24-2023	5-24-2023	5-24-2023	5-24-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 10	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type			W, Weed	W, Weed	W, Weed
Pest Code			AMBTR	CHEAL	IPOSS
Pest Scientific Name			Ambrosia trifida	Chenopodium alb>	Ipomoea sp.
Pest Name			Giant ragweed	common lambsqua>	Morning glory
Rating Timing					
Days After First/Last Applic.	7, 7	21, 21	21, 21	21, 21	21, 21
Trt-Eval Interval					
Plant-Eval Interval	7 DP-1	21 DP-1	21 DP-1	21 DP-1	21 DP-1
Days After Emergence	-1 DE-1	13 DE-1	13 DE-1	13 DE-1	13 DE-1
Pest Est.-Eval Interval					
EDC App					
Data Reliability					
ARM Action Codes					
Number of Decimals					

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	1	2	3	4	5
1	FIERCE EZ (2065)	6 FL OZ/A	A	101			0.0	80.0	100.0	98.0
	ROUNDUP POWER MAX(S)	32 FL OZ/A	B	207			0.0	85.0	100.0	95.0
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B	305			0.0	85.0	100.0	95.0
	PERPETUO	6 FL OZ/A	B	409			0.0	85.0	100.0	98.0
	SELECT MAX	9 FL OZ/A	B							
	IN-PLACE	0.5 % V/V	B							
	INDUCE	0.25 % V/V	B							
					Mean =		0.0	83.8	100.0	96.5
2	FIERCE MTZ SC (2030)	1 PT/A	A	102			0.0	90.0	100.0	100.0
	ROUNDUP POWER MAX(S)	32 FL OZ/A	B	205			0.0	90.0	100.0	100.0
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B	308			0.0	95.0	100.0	100.0
	PERPETUO	6 FL OZ/A	B	401			0.0	90.0	100.0	100.0
	SELECT MAX	9 FL OZ/A	B							
	IN-PLACE	0.5 % V/V	B							
	INDUCE	0.25 % V/V	B							
					Mean =		0.0	91.3	100.0	100.0
3	TAVIUM	56.5 OZ/A	A	103			0.0	90.0	95.0	95.0
	TAVIUM	56.5 OZ/A	B	208			0.0	95.0	95.0	98.0
	ROUNDUP POWERMAX	32 FL OZ/A	B	307			0.0	95.0	98.0	95.0
	INTACT	0.5 % V/V	B	402			0.0	90.0	95.0	95.0
	CLASS ACT RIDION	1 % V/V	B							
					Mean =		0.0	92.5	95.8	95.8
4	ZIDUA PRO	4.5 FL OZ/A	A	104			0.0	95.0	100.0	95.0
	ENGENIA	12.8 FL OZ/A	B	202			0.0	98.0	100.0	95.0
	ROUNDUP POWERMAX	32 FL OZ/A	B	309			0.0	95.0	100.0	95.0
	CLASS ACT RIDION	1 % V/V	B	406			0.0	95.0	98.0	90.0
	INTACT	0.5 % V/V	B							
					Mean =		0.0	95.8	99.5	93.8
5	SONIC	6 OZ/A	A	105			0.0	100.0	100.0	100.0
	FEXAPAN	22 OZ/A	A	206			0.0	100.0	100.0	100.0
	INTACT	0.5 % V/V	A	304			0.0	100.0	100.0	100.0
	ABUNDIT EDGE	32 FL OZ/A	B	410			0.0	100.0	100.0	100.0
	FEXAPAN	22 OZ/A	B							
	EVERPREX	1 PT/A	B							
	INTACT	0.5 % V/V	B							
					Mean =		0.0	100.0	100.0	100.0
6	VALOR XLT	3.01 OZ WT/A	A	106			0.0	95.0	100.0	100.0
	ROUNDUP POWERMAX	32 FL OZ/A	B	204			0.0	98.0	100.0	100.0
	XTENDIMAX	22 FL OZ/A	B	303			0.0	95.0	100.0	100.0
	INTACT	0.5 % V/V	B	404			0.0	95.0	100.0	100.0
	CLASS ACT RIDION	1 % V/V	B							
					Mean =		0.0	95.8	100.0	100.0

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Rating Date	5-10-2023	5-24-2023	5-24-2023	5-24-2023	5-24-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 10	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type			W, Weed	W, Weed	W, Weed
Pest Code			AMBTR	CHEAL	IPOSS
Pest Scientific Name			Ambrosia trifida	Chenopodium alb>	Ipomoea sp.
Pest Name			Giant ragweed	common lambsqua>	Morning glory
Rating Timing					
Days After First/Last Applic.	7, 7	21, 21	21, 21	21, 21	21, 21
Trt-Eval Interval					
Plant-Eval Interval	7 DP-1	21 DP-1	21 DP-1	21 DP-1	21 DP-1
Days After Emergence	-1 DE-1	13 DE-1	13 DE-1	13 DE-1	13 DE-1
Pest Est.-Eval Interval					
EDC App					
Data Reliability					
ARM Action Codes					
Number of Decimals					

Trt No.	Treatment Name	Rate	Appl Code	Plot	1	2	3	4	5
7	BOUNDARY	1 QT/A	A	107		0.0	35.0	100.0	50.0
	SEQUENCE	3.5 PT/A	B	209		0.0	40.0	100.0	45.0
	XTENDIMAX	22 FL OZ/A	B	301		0.0	45.0	100.0	45.0
	INTACT	0.5 % V/V	B	408		0.0	40.0	100.0	50.0
	CLASS ACT RIDION	1 % V/V	B						
				Mean =		0.0	40.0	100.0	47.5
8	BROADAXE XC	25 FL OZ/A	A	108		0.0	50.0	100.0	100.0
	METRIBUZIN	4 OZ/A	A	210		0.0	45.0	100.0	100.0
	TAVIUM	56.5 OZ/A	B	306		0.0	55.0	100.0	100.0
	ROUNDUP POWERMAX	32 FL OZ/A	B	403		0.0	50.0	100.0	100.0
	INTACT	0.5 % V/V	B						
				CLASS ACT RIDION					
				Mean =		0.0	50.0	100.0	100.0
9	BOUNDARY	1 QT/A	A	109		0.0	90.0	100.0	30.0
	TAVIUM	56.5 OZ/A	B	201		0.0	85.0	100.0	35.0
	ROUNDUP POWERMAX	32 FL OZ/A	B	302		0.0	90.0	100.0	35.0
	INTACT	0.5 % V/V	B	405		0.0	90.0	100.0	35.0
	CLASS ACT RIDION	1 % V/V	B						
				Mean =		0.0	88.8	100.0	33.8
10	CHECK UNTREATED			110		0.0	0.0	0.0	0.0
				203		0.0	0.0	0.0	0.0
				310		0.0	0.0	0.0	0.0
				407		0.0	0.0	0.0	0.0
				Mean =		0.0	0.0	0.0	0.0

# University of Kentucky

Rating Date	6-14-2023	6-14-2023	6-14-2023	6-14-2023	6-28-2023
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	%, 0, 10	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type		W, Weed	W, Weed	W, Weed	
Pest Code		AMBTR	CHEAL	IPOSS	
Pest Scientific Name		Ambrosia trifida	Chenopodium alb>	Ipomoea sp.	
Pest Name		Giant ragweed	common lambsqua>	Morning glory	
Rating Timing					
Days After First/Last Applic.	42, 42	42, 42	42, 42	42, 42	56, 12
Trt-Eval Interval					
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	42 DP-1	56 DP-1
Days After Emergence	34 DE-1	34 DE-1	34 DE-1	34 DE-1	48 DE-1
Pest Est.-Eval Interval					
EDC App					
Data Reliability					
ARM Action Codes					
Number of Decimals					

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	6	7	8	9	10
1	FIERCE EZ (2065)	6 FL OZ/A		A	101	0.0	70.0	100.0	95.0	0.0
	ROUNDUP POWER MAX(S)	32 FL OZ/A		B	207	0.0	70.0	100.0	98.0	0.0
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A		B	305	0.0	75.0	100.0	98.0	0.0
	PERPETUO	6 FL OZ/A		B	409	0.0	70.0	100.0	95.0	0.0
	SELECT MAX	9 FL OZ/A		B						
	IN-PLACE	0.5 % V/V		B						
	INDUCE	0.25 % V/V		B						
					Mean =	0.0	71.3	100.0	96.5	0.0
2	FIERCE MTZ SC (2030)	1 PT/A		A	102	0.0	85.0	100.0	100.0	0.0
	ROUNDUP POWER MAX(S)	32 FL OZ/A		B	205	0.0	85.0	100.0	100.0	0.0
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A		B	308	0.0	85.0	100.0	100.0	0.0
	PERPETUO	6 FL OZ/A		B	401	0.0	90.0	100.0	100.0	0.0
	SELECT MAX	9 FL OZ/A		B						
	IN-PLACE	0.5 % V/V		B						
	INDUCE	0.25 % V/V		B						
					Mean =	0.0	86.3	100.0	100.0	0.0
3	TAVIUM	56.5 OZ/A		A	103	0.0	90.0	95.0	90.0	0.0
	TAVIUM	56.5 OZ/A		B	208	0.0	95.0	95.0	95.0	0.0
	ROUNDUP POWERMAX	32 FL OZ/A		B	307	0.0	90.0	98.0	90.0	0.0
	INTACT	0.5 % V/V		B	402	0.0	85.0	95.0	90.0	0.0
	CLASS ACT RIDION	1 % V/V		B						
					Mean =	0.0	90.0	95.8	91.3	0.0
4	ZIDUA PRO	4.5 FL OZ/A		A	104	0.0	90.0	100.0	90.0	0.0
	ENGENIA	12.8 FL OZ/A		B	202	0.0	90.0	100.0	95.0	0.0
	ROUNDUP POWERMAX	32 FL OZ/A		B	309	0.0	95.0	100.0	90.0	0.0
	CLASS ACT RIDION	1 % V/V		B	406	0.0	90.0	100.0	95.0	0.0
	INTACT	0.5 % V/V		B						
					Mean =	0.0	91.3	100.0	92.5	0.0
5	SONIC	6 OZ/A		A	105	0.0	98.0	98.0	98.0	0.0
	FEXAPAN	22 OZ/A		A	206	0.0	95.0	98.0	98.0	0.0
	INTACT	0.5 % V/V		A	304	0.0	95.0	95.0	98.0	0.0
	ABUNDIT EDGE	32 FL OZ/A		B	410	0.0	95.0	95.0	95.0	0.0
	FEXAPAN	22 OZ/A		B						
	EVERPREX	1 PT/A		B						
	INTACT	0.5 % V/V		B						
					Mean =	0.0	95.8	96.5	97.3	0.0
6	VALOR XLT	3.01 OZ WT/A		A	106	0.0	85.0	100.0	95.0	0.0
	ROUNDUP POWERMAX	32 FL OZ/A		B	204	0.0	85.0	100.0	90.0	0.0
	XTENDIMAX	22 FL OZ/A		B	303	0.0	80.0	100.0	95.0	0.0
	INTACT	0.5 % V/V		B	404	0.0	85.0	100.0	90.0	0.0
	CLASS ACT RIDION	1 % V/V		B						
					Mean =	0.0	83.8	100.0	92.5	0.0



# University of Kentucky

Rating Date	6-14-2023	6-14-2023	6-14-2023	6-14-2023	6-28-2023
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type		W, Weed	W, Weed	W, Weed	
Pest Code		AMBTR	CHEAL	IPOSS	
Pest Scientific Name		Ambrosia trifida	Chenopodium alb>	Ipomoea sp.	
Pest Name		Giant ragweed	common lambsqua>	Morning glory	
Rating Timing					
Days After First/Last Applic.	42, 42	42, 42	42, 42	42, 42	56, 12
Trt-Eval Interval					
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	42 DP-1	56 DP-1
Days After Emergence	34 DE-1	34 DE-1	34 DE-1	34 DE-1	48 DE-1
Pest Est.-Eval Interval					
EDC App					
Data Reliability					
ARM Action Codes					
Number of Decimals					

Trt No.	Treatment Name	Rate	Appl Code	Plot	6	7	8	9	10
7	BOUNDARY	1 QT/A	A	107	0.0	25.0	100.0	50.0	0.0
	SEQUENCE	3.5 PT/A	B	209	0.0	25.0	100.0	45.0	0.0
	XTENDIMAX	22 FL OZ/A	B	301	0.0	35.0	100.0	45.0	0.0
	INTACT	0.5 % V/V	B	408	0.0	35.0	100.0	50.0	0.0
	CLASS ACT RIDION	1 % V/V	B						
				Mean =	0.0	30.0	100.0	47.5	0.0
8	BROADAXE XC	25 FL OZ/A	A	108	0.0	40.0	95.0	95.0	0.0
	METRIBUZIN	4 OZ/A	A	210	0.0	35.0	98.0	98.0	0.0
	TAVIUM	56.5 OZ/A	B	306	0.0	35.0	95.0	98.0	0.0
	ROUNDUP POWERMAX	32 FL OZ/A	B	403	0.0	35.0	95.0	95.0	0.0
	INTACT	0.5 % V/V	B						
				Mean =	0.0	36.3	95.8	96.5	0.0
9	BOUNDARY	1 QT/A	A	109	0.0	80.0	100.0	10.0	0.0
	TAVIUM	56.5 OZ/A	B	201	0.0	85.0	100.0	15.0	0.0
	ROUNDUP POWERMAX	32 FL OZ/A	B	302	0.0	85.0	100.0	20.0	0.0
	INTACT	0.5 % V/V	B	405	0.0	80.0	100.0	15.0	0.0
	CLASS ACT RIDION	1 % V/V	B						
				Mean =	0.0	82.5	100.0	15.0	0.0
10	CHECK UNTREATED			110	0.0	0.0	0.0	0.0	0.0
				203	0.0	0.0	0.0	0.0	0.0
				310	0.0	0.0	0.0	0.0	0.0
				407	0.0	0.0	0.0	0.0	0.0
				Mean =	0.0	0.0	0.0	0.0	0.0

# University of Kentucky

Rating Date	6-28-2023	6-28-2023	6-28-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	CHEAL	IPOSS
Pest Scientific Name	Ambrosia trifida	Chenopodium alb>	Ipomoea sp.
Pest Name	Giant ragweed	common lambsqua>	Morning glory
Rating Timing			
Days After First/Last Applic.	56, 12	56, 12	56, 12
Trt-Eval Interval			
Plant-Eval Interval	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	48 DE-1	48 DE-1	48 DE-1
Pest Est.-Eval Interval			
EDC App			
Data Reliability			
ARM Action Codes			
Number of Decimals			

Trt No.	Treatment Name	Rate	Appl Code	Plot	11	12	13
1	FIERCE EZ (2065)	6 FL OZ/A	A	101	100.0	100.0	100.0
	ROUNDUP POWER MAX(S)	32 FL OZ/A	B	207	100.0	100.0	100.0
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B	305	100.0	100.0	100.0
	PERPETUO	6 FL OZ/A	B	409	100.0	100.0	100.0
	SELECT MAX	9 FL OZ/A	B				
	IN-PLACE	0.5 % V/V	B				
	INDUCE	0.25 % V/V	B				
				Mean =	100.0	100.0	100.0
2	FIERCE MTZ SC (2030)	1 PT/A	A	102	100.0	100.0	100.0
	ROUNDUP POWER MAX(S)	32 FL OZ/A	B	205	100.0	100.0	100.0
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B	308	100.0	100.0	100.0
	PERPETUO	6 FL OZ/A	B	401	100.0	100.0	100.0
	SELECT MAX	9 FL OZ/A	B				
	IN-PLACE	0.5 % V/V	B				
	INDUCE	0.25 % V/V	B				
				Mean =	100.0	100.0	100.0
3	TAVIUM	56.5 OZ/A	A	103	100.0	100.0	100.0
	TAVIUM	56.5 OZ/A	B	208	100.0	100.0	100.0
	ROUNDUP POWERMAX	32 FL OZ/A	B	307	100.0	100.0	100.0
	INTACT	0.5 % V/V	B	402	100.0	100.0	100.0
	CLASS ACT RIDION	1 % V/V	B				
				Mean =	100.0	100.0	100.0
4	ZIDUA PRO	4.5 FL OZ/A	A	104	100.0	100.0	100.0
	ENGENIA	12.8 FL OZ/A	B	202	100.0	100.0	100.0
	ROUNDUP POWERMAX	32 FL OZ/A	B	309	100.0	100.0	100.0
	CLASS ACT RIDION	1 % V/V	B	406	100.0	100.0	100.0
	INTACT	0.5 % V/V	B				
				Mean =	100.0	100.0	100.0
5	SONIC	6 OZ/A	A	105	100.0	100.0	100.0
	FEXAPAN	22 OZ/A	A	206	100.0	100.0	100.0
	INTACT	0.5 % V/V	A	304	100.0	100.0	100.0
	ABUNDIT EDGE	32 FL OZ/A	B	410	100.0	100.0	100.0
	FEXAPAN	22 OZ/A	B				
	EVERPREX	1 PT/A	B				
	INTACT	0.5 % V/V	B				
				Mean =	100.0	100.0	100.0
6	VALOR XLT	3.01 OZ WT/A	A	106	100.0	100.0	100.0
	ROUNDUP POWERMAX	32 FL OZ/A	B	204	100.0	100.0	100.0
	XTENDIMAX	22 FL OZ/A	B	303	100.0	100.0	100.0
	INTACT	0.5 % V/V	B	404	100.0	100.0	100.0
	CLASS ACT RIDION	1 % V/V	B				
				Mean =	100.0	100.0	100.0

# University of Kentucky

Rating Date	6-28-2023	6-28-2023	6-28-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	CHEAL	IPOSS
Pest Scientific Name	Ambrosia trifida	Chenopodium alb>	Ipomoea sp.
Pest Name	Giant ragweed	common lambsqua>	Morning glory
Rating Timing			
Days After First/Last Applic.	56, 12	56, 12	56, 12
Trt-Eval Interval			
Plant-Eval Interval	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	48 DE-1	48 DE-1	48 DE-1
Pest Est.-Eval Interval			
EDC App			
Data Reliability			
ARM Action Codes			
Number of Decimals			

Trt No.	Treatment Name	Rate	Appl Code	Plot	11	12	13
7	BOUNDARY	1 QT/A	A	107	100.0	100.0	100.0
	SEQUENCE	3.5 PT/A	B	209	100.0	100.0	100.0
	XTENDIMAX	22 FL OZ/A	B	301	100.0	100.0	100.0
	INTACT	0.5 % V/V	B	408	100.0	100.0	100.0
	CLASS ACT RIDION	1 % V/V	B				
			Mean =		100.0	100.0	100.0
8	BROADAXE XC	25 FL OZ/A	A	108	100.0	100.0	100.0
	METRIBUZIN	4 OZ/A	A	210	100.0	100.0	100.0
	TAVIUM	56.5 OZ/A	B	306	100.0	100.0	100.0
	ROUNDUP POWERMAX	32 FL OZ/A	B	403	100.0	100.0	100.0
	INTACT	0.5 % V/V	B				
			CLASS ACT RIDION				
			Mean =		100.0	100.0	100.0
9	BOUNDARY	1 QT/A	A	109	100.0	100.0	100.0
	TAVIUM	56.5 OZ/A	B	201	100.0	100.0	100.0
	ROUNDUP POWERMAX	32 FL OZ/A	B	302	100.0	100.0	100.0
	INTACT	0.5 % V/V	B	405	100.0	100.0	100.0
	CLASS ACT RIDION	1 % V/V	B				
			Mean =		100.0	100.0	100.0
10	CHECK UNTREATED			110	0.0	0.0	0.0
				203	0.0	0.0	0.0
				310	0.0	0.0	0.0
				407	0.0	0.0	0.0
				Mean =	0.0	0.0	0.0

# University of Kentucky

## Valent Actives in a Roundup Xtend System - Conventional Tillage

Trial ID: 23-24  
 Protocol ID: VUSA2023FIERCMD64.05 Location: Cooperator Trial ID:  
 Project ID: 202042 Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: John Cranmer Sponsor Contact:  
 Investigator: Sara Carter

### Part Rated

PLANT = plant  
 C = Crop is Part Rated  
 P = Pest is Part Rated

### Rating Type

PHYGEN = phytotoxicity - general / injury  
 CONTRO = control / burndown or knockdown

### Rating Unit/Min/Max

%, 0, 100 = percent

### Crop Type Code

C = EPPO species (Bayer) codes  
 GLXMA, BSOY, Glycine max, Soybean = US

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US  
 CHEAL, Chenopodium album, common lambsquarters = US  
 IPOSS, Ipomoea sp., Morning glory = US

### Plant-Eval Interval

7 DP-1 = 1 GLXMA 5-3-2023  
 21 DP-1 = 1 GLXMA 5-3-2023  
 42 DP-1 = 1 GLXMA 5-3-2023  
 56 DP-1 = 1 GLXMA 5-3-2023

# University of Kentucky

## Valent Actives in a Roundup Xtend System - Conventional Tillage

Trial ID: 23-24  
 Protocol ID: VUSA2023FIERCEMD64.05 Location: Cooperator Trial ID:  
 Project ID: 202042 Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: John Cranmer Sponsor Contact:  
 Investigator: Sara Carter

Rating Date	5-10-2023	5-24-2023	5-24-2023	5-24-2023	5-24-2023	6-14-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	% , 0, 10	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 10
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type			W, Weed	W, Weed	W, Weed	
Pest Code			AMBTR	CHEAL	IPOSS	
Pest Scientific Name			Ambrosia trifida	Chenopodium alb>	Ipomoea sp.	
Pest Name			Giant ragweed	common lambsqua>	Morning glory	
Rating Timing						
Days After First/Last Applic.	7, 7	21, 21	21, 21	21, 21	21, 21	42, 42
Trt-Eval Interval						
Plant-Eval Interval	7 DP-1	21 DP-1	21 DP-1	21 DP-1	21 DP-1	42 DP-1
Days After Emergence	-1 DE-1	13 DE-1	13 DE-1	13 DE-1	13 DE-1	34 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6
1	FIERCE EZ (2065)	6 FL OZ/A	A		0.0 a	83.8 d	100.0 a	96.5 ab	0.0 a
	ROUNDUP POWER MAX(S)	32 FL OZ/A	B						
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B						
	PERPETUO	6 FL OZ/A	B						
	SELECT MAX	9 FL OZ/A	B						
	IN-PLACE	0.5 % V/V	B						
	INDUCE	0.25 % V/V	B						
2	FIERCE MTZ SC (2030)	1 PT/A	A		0.0 a	91.3 bc	100.0 a	100.0 a	0.0 a
	ROUNDUP POWER MAX(S)	32 FL OZ/A	B						
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B						
	PERPETUO	6 FL OZ/A	B						
	SELECT MAX	9 FL OZ/A	B						
	IN-PLACE	0.5 % V/V	B						
	INDUCE	0.25 % V/V	B						
3	TAVIUM	56.5 OZ/A	A		0.0 a	92.5 bc	95.8 b	95.8 b	0.0 a
	TAVIUM	56.5 OZ/A	B						
	ROUNDUP POWERMAX	32 FL OZ/A	B						
	INTACT	0.5 % V/V	B						
	CLASS ACT RIDION	1 % V/V	B						
4	ZIDUA PRO	4.5 FL OZ/A	A		0.0 a	95.8 b	99.5 a	93.8 b	0.0 a
	ENGENIA	12.8 FL OZ/A	B						
	ROUNDUP POWERMAX	32 FL OZ/A	B						
	CLASS ACT RIDION	1 % V/V	B						
	INTACT	0.5 % V/V	B						
5	SONIC	6 OZ/A	A		0.0 a	100.0 a	100.0 a	100.0 a	0.0 a
	FEXAPAN	22 OZ/A	A						
	INTACT	0.5 % V/V	A						
	ABUNDIT EDGE	32 FL OZ/A	B						
	FEXAPAN	22 OZ/A	B						
	EVERPREX	1 PT/A	B						
	INTACT	0.5 % V/V	B						
6	VALOR XLT	3.01 OZ WT/A	A		0.0 a	95.8 b	100.0 a	100.0 a	0.0 a
	ROUNDUP POWERMAX	32 FL OZ/A	B						
	XTENDIMAX	22 FL OZ/A	B						
	INTACT	0.5 % V/V	B						
	CLASS ACT RIDION	1 % V/V	B						
7	BOUNDARY	1 QT/A	A		0.0 a	40.0 f	100.0 a	47.5 c	0.0 a
	SEQUENCE	3.5 PT/A	B						
	XTENDIMAX	22 FL OZ/A	B						
	INTACT	0.5 % V/V	B						
	CLASS ACT RIDION	1 % V/V	B						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,6,10,11,12,13 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	5-10-2023	5-24-2023	5-24-2023	5-24-2023	5-24-2023	6-14-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	% , 0, 10	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 10
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type			W, Weed	W, Weed	W, Weed	
Pest Code			AMBTR	CHEAL	IPOSS	
Pest Scientific Name			Ambrosia trifida	Chenopodium alb>	Ipomoea sp.	
Pest Name			Giant ragweed	common lambsqua>	Morning glory	
Rating Timing						
Days After First/Last Applic.	7, 7	21, 21	21, 21	21, 21	21, 21	42, 42
Trt-Eval Interval						
Plant-Eval Interval	7 DP-1	21 DP-1	21 DP-1	21 DP-1	21 DP-1	42 DP-1
Days After Emergence	-1 DE-1	13 DE-1	13 DE-1	13 DE-1	13 DE-1	34 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5	6
8	BROADAXE XC	25 FL OZ/A		A		0.0 a	50.0 e	100.0 a	100.0 a	0.0 a
	METRIBUZIN	4 OZ/A		A						
	TAVIUM	56.5 OZ/A		B						
	ROUNDUP POWERMAX	32 FL OZ/A		B						
	INTACT	0.5 % V/V		B						
	CLASS ACT RIDION	1 % V/V		B						
9	BOUNDARY	1 QT/A		A		0.0 a	88.8 c	100.0 a	33.8 d	0.0 a
	TAVIUM	56.5 OZ/A		B						
	ROUNDUP POWERMAX	32 FL OZ/A		B						
	INTACT	0.5 % V/V		B						
	CLASS ACT RIDION	1 % V/V		B						
10	CHECK UNTREATED					0.0 a	0.0 g	0.0 c	0.0 e	0.0 a
	LSD P=.05						3.39	0.81	2.46	
	Standard Deviation						0.00	0.56	1.70	0.00
	CV						0.0	0.63	2.21	0.0
	Levene's F^							0.81	1.965	
	Levene's Prob(F)							0.611	0.08	
	Shapiro-Wilk^							0.9716	0.7893*	0.8938*
	P(Shapiro-Wilk)^							0.4052	0.0*	0.0013*
	Skewness^							-0.4452	1.3189*	-0.8704*
	P(Skewness)^							0.2578	0.0016*	0.0305*
	Kurtosis^							-0.1401	8.6026*	1.4834
	P(Kurtosis)^							0.8547	0.0*	0.0581
	Replicate F					0.000	2.869	1.354	0.078	0.000
	Replicate Prob(F)					1.0000	0.0549	0.2779	0.9712	1.0000
	Treatment F					0.000	794.885	12631.585	1824.933	0.000
	Treatment Prob(F)					1.0000	0.0001	0.0001	0.0001	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,6,10,11,12,13 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	6-14-2023	6-14-2023	6-14-2023	6-28-2023	6-28-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type	W, Weed	W, Weed	W, Weed		W, Weed
Pest Code	AMBTR	CHEAL	IPOSS		AMBTR
Pest Scientific Name	Ambrosia trifida	Chenopodium alb>	Ipomoea sp.		Ambrosia trifida
Pest Name	Giant ragweed	common lambsqua>	Morning glory		Giant ragweed
Rating Timing					
Days After First/Last Applic.	42, 42	42, 42	42, 42	56, 12	56, 12
Trt-Eval Interval					
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	56 DP-1	56 DP-1
Days After Emergence	34 DE-1	34 DE-1	34 DE-1	48 DE-1	48 DE-1
Pest Est.-Eval Interval					
EDC App					
Data Reliability					
ARM Action Codes					
Number of Decimals					

Trt No.	Treatment Name	Rate Unit	Appl Code	7	8	9	10	11
1	FIERCE EZ (2065)	6 FL OZ/A	A	71.3 d	100.0 a	96.5 ab	0.0 a	100.0 a
	ROUNDUP POWER MAX(S)	32 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	PERPETUO	6 FL OZ/A	B					
	SELECT MAX	9 FL OZ/A	B					
	IN-PLACE	0.5 % V/V	B					
	INDUCE	0.25 % V/V	B					
2	FIERCE MTZ SC (2030)	1 PT/A	A	86.3 bc	100.0 a	100.0 a	0.0 a	100.0 a
	ROUNDUP POWER MAX(S)	32 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	PERPETUO	6 FL OZ/A	B					
	SELECT MAX	9 FL OZ/A	B					
	IN-PLACE	0.5 % V/V	B					
	INDUCE	0.25 % V/V	B					
3	TAVIUM	56.5 OZ/A	A	90.0 b	95.8 b	91.3 c	0.0 a	100.0 a
	TAVIUM	56.5 OZ/A	B					
	ROUNDUP POWERMAX	32 FL OZ/A	B					
	INTACT	0.5 % V/V	B					
	CLASS ACT RIDION	1 % V/V	B					
4	ZIDUA PRO	4.5 FL OZ/A	A	91.3 ab	100.0 a	92.5 bc	0.0 a	100.0 a
	ENGENIA	12.8 FL OZ/A	B					
	ROUNDUP POWERMAX	32 FL OZ/A	B					
	CLASS ACT RIDION	1 % V/V	B					
	INTACT	0.5 % V/V	B					
5	SONIC	6 OZ/A	A	95.8 a	96.5 b	97.3 ab	0.0 a	100.0 a
	FEXAPAN	22 OZ/A	A					
	INTACT	0.5 % V/V	A					
	ABUNDIT EDGE	32 FL OZ/A	B					
	FEXAPAN	22 OZ/A	B					
	EVERPREX	1 PT/A	B					
	INTACT	0.5 % V/V	B					
6	VALOR XLT	3.01 OZ WT/A	A	83.8 c	100.0 a	92.5 bc	0.0 a	100.0 a
	ROUNDUP POWERMAX	32 FL OZ/A	B					
	XTENDIMAX	22 FL OZ/A	B					
	INTACT	0.5 % V/V	B					
	CLASS ACT RIDION	1 % V/V	B					
7	BOUNDARY	1 QT/A	A	30.0 f	100.0 a	47.5 d	0.0 a	100.0 a
	SEQUENCE	3.5 PT/A	B					
	XTENDIMAX	22 FL OZ/A	B					
	INTACT	0.5 % V/V	B					
	CLASS ACT RIDION	1 % V/V	B					

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,6,10,11,12,13 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	6-14-2023	6-14-2023	6-14-2023	6-28-2023	6-28-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type	W, Weed	W, Weed	W, Weed		W, Weed
Pest Code	AMBTR	CHEAL	IPOSS		AMBTR
Pest Scientific Name	Ambrosia trifida	Chenopodium alb>	Ipomoea sp.		Ambrosia trifida
Pest Name	Giant ragweed	common lambsqua>	Morning glory		Giant ragweed
Rating Timing					
Days After First/Last Applic.	42, 42	42, 42	42, 42	56, 12	56, 12
Trt-Eval Interval					
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	56 DP-1	56 DP-1
Days After Emergence	34 DE-1	34 DE-1	34 DE-1	48 DE-1	48 DE-1
Pest Est.-Eval Interval					
EDC App					
Data Reliability					
ARM Action Codes					
Number of Decimals					

Trt	Treatment	Rate	Appl	7	8	9	10	11
No.	Name	Rate Unit	Code					
8	BROADAXE XC	25 FL OZ/A	A	36.3 e	95.8 b	96.5 ab	0.0 a	100.0 a
	METRIBUZIN	4 OZ/A	A					
	TAVIUM	56.5 OZ/A	B					
	ROUNDUP POWERMAX	32 FL OZ/A	B					
	INTACT	0.5 % V/V	B					
	CLASS ACT RIDION	1 % V/V	B					
9	BOUNDARY	1 QT/A	A	82.5 c	100.0 a	15.0 e	0.0 a	100.0 a
	TAVIUM	56.5 OZ/A	B					
	ROUNDUP POWERMAX	32 FL OZ/A	B					
	INTACT	0.5 % V/V	B					
	CLASS ACT RIDION	1 % V/V	B					
10	CHECK UNTREATED			0.0 g	0.0 c	0.0 f	0.0 a	0.0 b
	LSD P=.05			4.56	1.27	3.51	.	.
	Standard Deviation			3.14	0.88	2.42	0.00	0.00
	CV			4.71	0.99	3.32	0.0	0.0
	Levene's F^			1.649	2.245*	3.45*	.	.
	Levene's Prob(F)			0.146	0.047*	0.005*	.	.
	Shapiro-Wilk^			0.9464	0.864*	0.9807	.	.
	P(Shapiro-Wilk)^			0.0569	0.0002*	0.7138	.	.
	Skewness^			0.1921	1.1308*	0.1	.	.
	P(Skewness)^			0.623	0.0058*	0.7978	.	.
	Kurtosis^			-0.2844	2.7763*	-0.259	.	.
	P(Kurtosis)^			0.7102	0.0008*	0.7351	.	.
	Replicate F			0.297	0.783	0.580	0.000	0.000
	Replicate Prob(F)			0.8272	0.5140	0.6333	1.0000	1.0000
	Treatment F			434.453	5097.957	974.727	0.000	0.000
	Treatment Prob(F)			0.0001	0.0001	0.0001	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,6,10,11,12,13 because error mean square = 0.  
 ^Calculated from residual.



# University of Kentucky

Rating Date	6-28-2023	6-28-2023
Part Rated	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Number of Subsamples	1	1
Crop Type, Code	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Pest Type	W, Weed	W, Weed
Pest Code	CHEAL	IPOSS
Pest Scientific Name	Chenopodium alb>	Ipomoea sp.
Pest Name	common lambsqua>	Morning glory
Rating Timing		
Days After First/Last Applic.	56, 12	56, 12
Trt-Eval Interval		
Plant-Eval Interval	56 DP-1	56 DP-1
Days After Emergence	48 DE-1	48 DE-1
Pest Est.-Eval Interval		
EDC App		
Data Reliability		
ARM Action Codes		
Number of Decimals		

Trt	Treatment	Rate	Appl	12	13
No.	Name	Rate Unit	Code		
1	FIERCE EZ (2065)	6 FL OZ/A	A	100.0 a	100.0 a
	ROUNDUP POWER MAX(S)	32 FL OZ/A	B		
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B		
	PERPETUO	6 FL OZ/A	B		
	SELECT MAX	9 FL OZ/A	B		
	IN-PLACE	0.5 % V/V	B		
	INDUCE	0.25 % V/V	B		
2	FIERCE MTZ SC (2030)	1 PT/A	A	100.0 a	100.0 a
	ROUNDUP POWER MAX(S)	32 FL OZ/A	B		
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B		
	PERPETUO	6 FL OZ/A	B		
	SELECT MAX	9 FL OZ/A	B		
	IN-PLACE	0.5 % V/V	B		
	INDUCE	0.25 % V/V	B		
3	TAVIUM	56.5 OZ/A	A	100.0 a	100.0 a
	TAVIUM	56.5 OZ/A	B		
	ROUNDUP POWERMAX	32 FL OZ/A	B		
	INTACT	0.5 % V/V	B		
	CLASS ACT RIDION	1 % V/V	B		
4	ZIDUA PRO	4.5 FL OZ/A	A	100.0 a	100.0 a
	ENGENIA	12.8 FL OZ/A	B		
	ROUNDUP POWERMAX	32 FL OZ/A	B		
	CLASS ACT RIDION	1 % V/V	B		
	INTACT	0.5 % V/V	B		
5	SONIC	6 OZ/A	A	100.0 a	100.0 a
	FEXAPAN	22 OZ/A	A		
	INTACT	0.5 % V/V	A		
	ABUNDIT EDGE	32 FL OZ/A	B		
	FEXAPAN	22 OZ/A	B		
	EVERPREX	1 PT/A	B		
	INTACT	0.5 % V/V	B		
6	VALOR XLT	3.01 OZ WT/A	A	100.0 a	100.0 a
	ROUNDUP POWERMAX	32 FL OZ/A	B		
	XTENDIMAX	22 FL OZ/A	B		
	INTACT	0.5 % V/V	B		
	CLASS ACT RIDION	1 % V/V	B		
7	BOUNDARY	1 QT/A	A	100.0 a	100.0 a
	SEQUENCE	3.5 PT/A	B		
	XTENDIMAX	22 FL OZ/A	B		
	INTACT	0.5 % V/V	B		
	CLASS ACT RIDION	1 % V/V	B		

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,6,10,11,12,13 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	6-28-2023	6-28-2023
Part Rated	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Number of Subsamples	1	1
Crop Type, Code	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Pest Type	W, Weed	W, Weed
Pest Code	CHEAL	IPOSS
Pest Scientific Name	Chenopodium alb>	Ipomoea sp.
Pest Name	common lambsqua>	Morning glory
Rating Timing		
Days After First/Last Applic.	56, 12	56, 12
Trt-Eval Interval		
Plant-Eval Interval	56 DP-1	56 DP-1
Days After Emergence	48 DE-1	48 DE-1
Pest Est.-Eval Interval		
EDC App		
Data Reliability		
ARM Action Codes		
Number of Decimals		

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	12	13
8	BROADAXE XC	25 FL OZ/A		A	100.0 a	100.0 a
	METRIBUZIN	4 OZ/A		A		
	TAVIUM	56.5 OZ/A		B		
	ROUNDUP POWERMAX	32 FL OZ/A		B		
	INTACT	0.5 % V/V		B		
	CLASS ACT RIDION	1 % V/V		B		
9	BOUNDARY	1 QT/A		A	100.0 a	100.0 a
	TAVIUM	56.5 OZ/A		B		
	ROUNDUP POWERMAX	32 FL OZ/A		B		
	INTACT	0.5 % V/V		B		
	CLASS ACT RIDION	1 % V/V		B		
10	CHECK UNTREATED				0.0 b	0.0 b
	LSD P=.05				.	.
	Standard Deviation				0.00	0.00
	CV				0.0	0.0
	Levene's F^				.	.
	Levene's Prob(F)				.	.
	Shapiro-Wilk^				.	.
	P(Shapiro-Wilk)^				.	.
	Skewness^				.	.
	P(Skewness)^				.	.
	Kurtosis^				.	.
	P(Kurtosis)^				.	.
	Replicate F				0.000	0.000
	Replicate Prob(F)				1.0000	1.0000
	Treatment F				0.000	0.000
	Treatment Prob(F)				1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Could not calculate LSD (% mean diff) for columns 1,2,6,10,11,12,13 because error mean square = 0.  
^Calculated from residual.

# University of Kentucky

## Valent Actives in a Roundup Xtend System - Conventional Tillage

Trial ID: 23-24  
 Protocol ID: VUSA2023FIERCMD64.05 Location: Cooperator Trial ID:  
 Project ID: 202042 Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: John Cranmer Sponsor Contact:  
 Investigator: Sara Carter

### Part Rated

PLANT = plant  
 C = Crop is Part Rated  
 P = Pest is Part Rated

### Rating Type

PHYGEN = phytotoxicity - general / injury  
 CONTRO = control / burndown or knockdown

### Rating Unit/Min/Max

%, 0, 100 = percent

### Crop Type Code

C = EPPO species (Bayer) codes  
 GLXMA, BSOY, Glycine max, Soybean = US

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US  
 CHEAL, Chenopodium album, common lambsquarters = US  
 IPOSS, Ipomoea sp., Morning glory = US

### Plant-Eval Interval

7 DP-1 = 1 GLXMA 5-3-2023  
 21 DP-1 = 1 GLXMA 5-3-2023  
 42 DP-1 = 1 GLXMA 5-3-2023  
 56 DP-1 = 1 GLXMA 5-3-2023

# University of Kentucky

## University Enlist Weed Control System Endorsement Demo-Pre fb post

Trial ID: 23-26-SOY-REC  
 Protocol ID: NA23K1A011H Location: UKREC 201-D Cooperator Trial ID:  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: Sponsor Contact:  
 Investigator: Travis Legleiter

Reps: 4		Plots: 10 by 30 feet		Mix Size: 2 L (total for 4 plots; minimum=1.564 L, overage=436 mL)												
Trt	Treatment	Form	Form	Rate	Other	Other	Appl	Appl	Amt	Product	Rep					
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Code	Timing	to Measure	1	2	3	4
1	UNTREATED												101	210	304	403
	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30	FL OZ/A	1.13	LB	A/A	A	PRE	31.25 mL/mx				
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95	LB	A/A	A	PRE	33.33 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5	% V/V	1.27	LB	A/A	A	PRE	49.99 mL/mx				
2	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30	FL OZ/A	1.13	LB	A/A	A	PRE	31.25 mL/mx	102	201	305	402
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95	LB	A/A	A	PRE	33.33 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5	% V/V	1.27	LB	A/A	A	PRE	49.99 mL/mx				
	Surveil	48	%	WG	4.2	OZ/A	0.126	LB	A/A	A	PRE	4.194 g/mx				
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95	LB	A/A	B	4" Weeds	33.33 mL/mx				
	Liberty	2.34	lba/gal	L	2	PT/A	0.585	LB	A/A	B	4" Weeds	33.33 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5	% V/V	1.27	LB	A/A	B	4" Weeds	49.99 mL/mx				
3	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30	FL OZ/A	1.13	LB	A/A	A	PRE	31.25 mL/mx	103	207	310	404
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95	LB	A/A	A	PRE	33.33 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5	% V/V	1.27	LB	A/A	A	PRE	49.99 mL/mx				
	Surveil	48	%	WG	4.2	OZ/A	0.126	LB	A/A	A	PRE	4.194 g/mx				
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95	LB	A/A	B	4" Weeds	33.33 mL/mx				
	Liberty	2.34	lba/gal	L	2	PT/A	0.585	LB	A/A	B	4" Weeds	33.33 mL/mx				
	EverpreX	7.62	LBA/GAL	EC	1.3	PT/A	1.24	LB	A/A	B	4" Weeds	21.67 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5	% V/V	1.27	LB	A/A	B	4" Weeds	49.99 mL/mx				
4	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30	FL OZ/A	1.13	LB	A/A	A	PRE	31.25 mL/mx	104	209	302	405
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95	LB	A/A	A	PRE	33.33 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5	% V/V	1.27	LB	A/A	A	PRE	49.99 mL/mx				
	Surveil	48	%	WG	2.1	OZ/A	0.063	LB	A/A	A	PRE	2.097 g/mx				
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95	LB	A/A	B	4" Weeds	33.33 mL/mx				
	Liberty	2.34	lba/gal	L	2	PT/A	0.585	LB	A/A	B	4" Weeds	33.33 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5	% V/V	1.27	LB	A/A	B	4" Weeds	49.99 mL/mx				
5	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30	FL OZ/A	1.13	LB	A/A	A	PRE	31.25 mL/mx	105	204	308	406
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95	LB	A/A	A	PRE	33.33 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5	% V/V	1.27	LB	A/A	A	PRE	49.99 mL/mx				
	Surveil	48	%	WG	2.1	OZ/A	0.063	LB	A/A	A	PRE	2.097 g/mx				
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95	LB	A/A	B	4" Weeds	33.33 mL/mx				
	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	1	QT/A	1.2	LB	A/A	B	4" Weeds	33.33 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5	% V/V	1.27	LB	A/A	B	4" Weeds	49.99 mL/mx				
6	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30	FL OZ/A	1.13	LB	A/A	A	PRE	31.25 mL/mx	106	208	303	408
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95	LB	A/A	A	PRE	33.33 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5	% V/V	1.27	LB	A/A	A	PRE	49.99 mL/mx				
	Surveil	48	%	WG	2.1	OZ/A	0.063	LB	A/A	A	PRE	2.097 g/mx				
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95	LB	A/A	B	4" Weeds	33.33 mL/mx				
	Liberty	2.34	lba/gal	L	2	PT/A	0.585	LB	A/A	B	4" Weeds	33.33 mL/mx				
	EverpreX	7.62	LBA/GAL	EC	1.3	PT/A	1.24	LB	A/A	B	4" Weeds	21.67 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5	% V/V	1.27	LB	A/A	B	4" Weeds	49.99 mL/mx				
7	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30	FL OZ/A	1.13	LB	A/A	A	PRE	31.25 mL/mx	107	206	301	407
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95	LB	A/A	A	PRE	33.33 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5	% V/V	1.27	LB	A/A	A	PRE	49.99 mL/mx				
	Surveil	48	%	WG	2.1	OZ/A	0.063	LB	A/A	A	PRE	2.097 g/mx				
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95	LB	A/A	B	4" Weeds	33.33 mL/mx				
	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	1	QT/A	1.2	LB	A/A	B	4" Weeds	33.33 mL/mx				
	EverpreX	7.62	LBA/GAL	EC	1.3	PT/A	1.24	LB	A/A	B	4" Weeds	21.67 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5	% V/V	1.27	LB	A/A	B	4" Weeds	49.99 mL/mx				

# University of Kentucky

Reps: 4		Plots: 10 by 30 feet		Mix Size: 2 L (total for 4 plots; minimum=1.564 L, overage=436 mL)											
Appl. Amount: 15 GAL/AC		Form Form		Form	Rate	Other	Other	Appl	Appl	Amt Product Rep					
No.	Treatment Name	Conc	Unit	Type	Rate	Unit	Rate	Unit	Code	Timing	to Measure	1	2	3	4
8	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30 FL	OZ/A	1.13 LB	A/A	A	PRE	31.25 mL/mx	108	202	309	410
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95 LB	A/A	A	PRE	33.33 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5 %	V/V	1.27 LB	A/A	A	PRE	49.99 mL/mx				
	Surveil	48	%	WG	2.1	OZ/A	0.063 LB	A/A	A	PRE	2.097 g/mx				
	Flexstar	1.88	lba/gal	SL	1	PT/A	0.235 LB	A/A	B	4" Weeds	16.67 mL/mx				
	Liberty	2.34	lba/gal	L	2	PT/A	0.585 LB	A/A	B	4" Weeds	33.33 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5 %	V/V	1.27 LB	A/A	B	4" Weeds	49.99 mL/mx				
9	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30 FL	OZ/A	1.13 LB	A/A	A	PRE	31.25 mL/mx	109	203	307	409
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95 LB	A/A	A	PRE	33.33 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5 %	V/V	1.27 LB	A/A	A	PRE	49.99 mL/mx				
	Surveil	48	%	WG	2.1	OZ/A	0.063 LB	A/A	A	PRE	2.097 g/mx				
	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	1	QT/A	1.2	LB	A/A	B	4" Weeds	33.33 mL/mx			
	Flexstar	1.88	lba/gal	SL	1	PT/A	0.235 LB	A/A	B	4" Weeds	16.67 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5 %	V/V	1.27 LB	A/A	B	4" Weeds	49.99 mL/mx				
10	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30 FL	OZ/A	1.13 LB	A/A	A	PRE	31.25 mL/mx	110	205	306	401
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95 LB	A/A	A	PRE	33.33 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	2.5 %	V/V	1.27 LB	A/A	A	PRE	49.99 mL/mx				
	Surveil	48	%	WG	2.1	OZ/A	0.063 LB	A/A	A	PRE	2.097 g/mx				
	Enlist One	3.8	lbae/gal	SL	2	PT/A	0.95 LB	A/A	B	4" Weeds	33.33 mL/mx				
	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	1	QT/A	1.2	LB	A/A	B	4" Weeds	33.33 mL/mx			
	Liberty	2.34	lba/gal	L	2	PT/A	0.585 LB	A/A	B	4" Weeds	33.33 mL/mx				
	EverpreX	7.62	LBA/GAL	EC	1.3	PT/A	1.24	LB	A/A	B	4" Weeds	21.67 mL/mx			
	AMS - Liquid	3.4	lba/gal	SL	2.5 %	V/V	1.27 LB	A/A	B	4" Weeds	49.99 mL/mx				

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form	Conc	Form	Unit	Form	Type	Lot Code
445.833	mL	Roundup PowerMAX 3	4.8	LBAE/GAL	SL				
566.666	mL	Enlist One	3.8	lbae/gal	SL				
949.897	mL	AMS - Liquid	3.4	lba/gal	SL				
23.067	g	Surveil	48	%	WG				
200.000	mL	Liberty	2.34	lba/gal	L				
86.667	mL	EverpreX	7.62	LBA/GAL	EC				
33.333	mL	Flexstar	1.88	lba/gal	SL				

\* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

\* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

### General Trial Information

**Investigator:** Travis Legleiter **Title:** Assistant Extension Professor

**Status:** E established

**ARM Trial Created On:** 4-5-2023

### Trial Location

**City:** Princeton **Country:** USA United States

**State/Prov.:** Kentucky **County:** Caldwell

**Postal Code:** 42445

### Regulations

**Conducted Under GLP:** No

**Conducted Under GEP:** Yes

Conducted Under GEP

**Role:** INVEST investigator

**Title:** Assistant Extension Professor

**Investigator:** Travis Legleiter

**Organization:** University of Kentucky

**Address 1:** 348 University Drive

**Phone No.:** 859-562-1323

**Country:** USA United States

**E-mail:** Travis.Legleiter@uky.edu

**City:** Princeton, KY

**Postal Code:** 42445

### Crop Description

**Crop 1:** C GLXMA Glycine max

Soybean

**BBCH Scale:** BSOY

**Entry Date:** 8-16-2023

**Stage Scale:** BBCH

**Variety:** SC7390E

**Attributes:** Enlist E3

**Planting Date:** 5-24-2023

**Planting Rate:** 140000 S/A

**Depth:** 1.25 IN

**Planting Method:** PLANTD planted

**Planting Equipment:** VP vacuum planter

# University of Kentucky

## Pest Description

<b>Pest 1 Type:</b> W	<b>Code:</b> ERICA	Erigeron canadensis	<b>Entry Date:</b> 8-16-2023
	<b>Common Name:</b> mare's-tail		<b>Stage Scale:</b> BBCH
<b>Pest 2 Type:</b> W	<b>Code:</b> CERVU	Cerastium fontanum vulgare	<b>Entry Date:</b> 8-16-2023
	<b>Common Name:</b> common mouse-ear chickweed		<b>Stage Scale:</b> BBCH
<b>Pest 3 Type:</b> W	<b>Code:</b> SETFA	Setaria faberi	<b>Entry Date:</b> 8-16-2023
	<b>Common Name:</b> Giant foxtail		<b>Stage Scale:</b> BBCH
<b>Pest 4 Type:</b> W	<b>Code:</b> ACCOS	Acalypha ostryifolia	<b>Entry Date:</b> 8-16-2023
	<b>Common Name:</b> Pineland three-seed mercury		<b>Stage Scale:</b> BBCH
<b>Pest 5 Type:</b> W	<b>Code:</b> AMBTR	Ambrosia trifida	<b>Entry Date:</b> 8-16-2023
	<b>Common Name:</b> Giant ragweed		<b>Stage Scale:</b> BBCH
<b>Pest 6 Type:</b> W	<b>Code:</b> ALLVI	Allium vineale	<b>Entry Date:</b> 8-16-2023
	<b>Common Name:</b> Field garlic		<b>Stage Scale:</b> BBCH
<b>Pest 7 Type:</b> W	<b>Code:</b> SORHA	Sorghum halepense	<b>Entry Date:</b> 8-16-2023
	<b>Common Name:</b> Johnson grass		<b>Stage Scale:</b> BBCH
<b>Pest 8 Type:</b> W	<b>Code:</b> IPOHE	Ipomoea hederacea	<b>Entry Date:</b> 8-16-2023
	<b>Common Name:</b> ivy-leaf morning glory		<b>Stage Scale:</b> BBCH
<b>Pest 9 Type:</b> W	<b>Code:</b> SIDSP	Sida spinosa	<b>Entry Date:</b> 8-16-2023
	<b>Common Name:</b> Prickly sida		<b>Stage Scale:</b> BBCH

## Site and Design

Treated Plot Width: 10 FT	Site Type: FIELD field
Treated Plot Length: 30 FT	Experimental Unit: 1 PLOT plot
Treated Plot Area: 300.0 FT2	Tillage Type: NOTILL no-till
Replications: 4	Study Design: RACOB� Randomized Complete Block (RCB)
Treatments: 10	
Plots: 40	
Distance between Blocks: 1 FT	
Distance between 'Plot' Experimental Units: 0.5 FT	

## Maintenance

No.	Date	Type	Maintenance Product Name	Rate	Unit
1.	4-12-2023	FERT	Phosphorus	46	lbs
2.	4-12-2023	FERT	Nitrogen	18	lbs
3.	4-12-2023	FERT	Potassium	30	lbs

## Soil Description

Description Name: 201-D	Texture: SIL silt loam
% Sand: 3.4	% OM: 2.4
% Silt: 79.9	Soil Name: Crider Silt Loam
% Clay: 16.7	
pH: 5.66	CEC: 10.62

## Application Description

	A	B
Date	5-26-2023	7-6-2023
Start Time	2:23 PM	12:40 PM
Stop Time	2:50 PM	1:08 PM
Interval to Prev. Appl.		41 DAYS
Method	SPRAY	SPRAY
Timing	PRE	POST
Placement	foliar	foliar
Applied By	CMY	CMY
Entry Date	8-16-2023	8-16-2023
Air Temperature Start, Stop	83.8, 76.3 F	88.6, 88.7 F
% Relative Humidity Start, Stop	34.5, 35.5	57.5, 56.7
Wind Velocity+Dir. Start	1.8 MPH, SW	0.9 MPH, -
Wind Velocity+Dir. Stop	2.4 MPH, SW	4 MPH, -
Wind Velocity+Dir. Max		11.6 MPH, -
Wet Leaves (Y/N)	N, no	
Soil Moisture	DRY	DRY
% Cloud Cover	1	70

## Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY
Stage Majority, Percent		V6, -
Stage Minimum, Percent		V6, -
Stage Maximum, Percent		V7, -
Height Average		15.75 IN
Height Minimum, Maximum		14, 17.5

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## Pest Stage At Each Application

	<b>A</b>	<b>B</b>
<b>Pest 1 Code, Type, Scale</b>	ERICA, W, BBCH	ERICA, W, BBCH
<b>Height Average</b>	5 IN	1.75 IN
<b>Height Minimum, Maximum</b>	1, 9	0, 1.75
<b>Density Average</b>	1.66 FT2	1 FT2
<b>Density Minimum, Maximum</b>	1, 2	0, 1
<b>Pest 2 Code, Type, Scale</b>	CERVU, W, BBCH	CERVU, W, BBCH
<b>Height Average</b>	0.75 IN	
<b>Height Minimum, Maximum</b>	0, 1.5	
<b>Density Average</b>	1 IN	
<b>Density Minimum, Maximum</b>	0, 1	
<b>Pest 3 Code, Type, Scale</b>	SETFA, W, BBCH	SETFA, W, BBCH
<b>Height Average</b>	8.875 IN	
<b>Height Minimum, Maximum</b>	0, 17.75	
<b>Density Average</b>	4 FT2	
<b>Density Minimum, Maximum</b>	0, 4	
<b>Pest 4 Code, Type, Scale</b>	ACCOS, W, BBCH	ACCOS, W, BBCH
<b>Height Average</b>	0.25 IN	1.25 IN
<b>Height Minimum, Maximum</b>	0.25, 0.25	0.5, 2
<b>Density Average</b>	3 FT2	3 FT2
<b>Density Minimum, Maximum</b>	0, 3	0, 3
<b>Pest 5 Code, Type, Scale</b>	AMBTR, W, BBCH	AMBTR, W, BBCH
<b>Height Average</b>	14 IN	
<b>Height Minimum, Maximum</b>	4, 24	
<b>Density Average</b>	2.33 FT2	
<b>Density Minimum, Maximum</b>	2, 3	
<b>Pest 6 Code, Type, Scale</b>	ALLVI, W, BBCH	ALLVI, W, BBCH
<b>Height Average</b>	18.5 IN	
<b>Height Minimum, Maximum</b>	18, 19	
<b>Density Average</b>	3 FT2	
<b>Density Minimum, Maximum</b>	0, 3	
<b>Pest 7 Code, Type, Scale</b>	SORHA, W, BBCH	SORHA, W, BBCH
<b>Height Average</b>	17.625 IN	27.5 IN
<b>Height Minimum, Maximum</b>	15.25, 20	26, 29
<b>Density Average</b>	3 FT2	2 FT2
<b>Density Minimum, Maximum</b>	0, 3	0, 2
<b>Pest 8 Code, Type, Scale</b>	IPOHE, W, BBCH	IPOHE, W, BBCH
<b>Height Average</b>		2 IN
<b>Height Minimum, Maximum</b>		0, 2
<b>Density Average</b>		1 FT2
<b>Density Minimum, Maximum</b>		0, 1
<b>Pest 9 Code, Type, Scale</b>	SIDSP, W, BBCH	SIDSP, W, BBCH
<b>Height Average</b>		0.625 IN
<b>Height Minimum, Maximum</b>		0.25, 1
<b>Density Average</b>		2.25 FT2
<b>Density Minimum, Maximum</b>		1, 3

## Application Equipment

	<b>A</b>	<b>B</b>
<b>Equipment Type</b>	BACCAI	BACCAI
<b>Operation Pressure</b>	35 PSI	37 PSI
<b>Nozzle Model</b>	AIXR 11002	AIXR 11002
<b>Nozzle Type</b>	FLAFAI	FLAFAI
<b>Nozzle TradeName</b>	TEEJET	TEEJET
<b>Nozzle Tip Size, Color</b>	02, Yellow	02, Yellow
<b>Nozzle Spacing</b>	20.0 IN	20.0 IN
<b>Boom ID</b>	WHITE	BLUE
<b>Boom Length</b>	10.0 FT	10.0 FT
<b>Boom Height</b>	18.0 IN	18.0 IN
<b>Ground Speed</b>	3 MPH	3 MPH
<b>Carrier</b>	WATER	WATER
<b>Application Amount</b>	15 GAL/AC	15 GAL/AC
<b>Mix Overage</b>	436.0 mL	436.0 mL
<b>Mix Size</b>	2.0 L	2.0 L
<b>Propellant</b>	comco2	comco2

## Notes

<b>Context</b>	<b>Date</b>	<b>By</b>	<b>Notes</b>
STATUS 4-5-2023		Travis Legleiter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS 8-16-2023		Travis Legleiter	Automatically added by ARM: Status changed to: E: changed by (EKYLET).
STATUS 8-16-2023		Travis Legleiter	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

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## University Enlist Weed Control System Endorsement Demo-Pre fb post

Trial ID: 23-26-SOY-REC  
 Protocol ID: NA23K1A011H Location: UKREC 201-D Cooperator Trial ID:  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: Sponsor Contact:  
 Investigator: Travis Legleiter

Rating Date	7-5-2023	7-5-2023	7-5-2023	7-21-2023	7-21-2023	7-21-2023
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C
Rating Type	PHYGEN	CONTROL	CONTROL	PHYGEN	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA			C, GLXMA		
BBCH Scale	BSOY			BSOY		
Crop Scientific Name	Glycine max			Glycine max		
Crop Name	Soybean			Soybean		
Pest Type		W, Weed	W, Weed		W, Weed	W, Weed
Pest Code		ACCOS	IPOSS		ACCOS	IPOSS
Pest Scientific Name		Acalypha persim>	Ipomoea sp.		Acalypha persim>	Ipomoea sp.
Pest Name		Pineland three->	Morning glory		Pineland three->	Morning glory
Pest Stage Scale		BBCH	BBCH		BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	40, 40	40, 40	40, 40	56, 15	56, 15	56, 15
Trt-Eval Interval						
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	58 DP-1	58 DP-1	58 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes			ET4	ET9		
Number of Decimals						
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023

Trt No.	Treatment Name	Rate	Appl	Code	Plot	1	2	3	4	5	6
1	UNTREATED				101	0.0	0.0	0.0	0.0	0.0	0.0
	Roundup PowerMAX 3	30 FL OZ/A	A		210	0.0	0.0	0.0	0.0	0.0	0.0
	Enlist One	2 PT/A	A		304	0.0	0.0	0.0	0.0	0.0	0.0
	AMS - Liquid	2.5 % V/V	A		403	0.0	0.0	0.0	0.0	0.0	0.0
				Mean =		0.0	0.0	0.0	0.0	0.0	0.0
2	Roundup PowerMAX 3	30 FL OZ/A	A		102	0.0	100.0	100.0	0.0	100.0	100.0
	Enlist One	2 PT/A	A		201	0.0	100.0	100.0	0.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A		305	0.0	100.0	97.0	0.0	100.0	100.0
	Surveil	4.2 OZ/A	A		402	0.0	100.0	100.0	0.0	100.0	100.0
	Enlist One	2 PT/A	B								
	Liberty	2 PT/A	B								
	AMS - Liquid	2.5 % V/V	B								
				Mean =		0.0	100.0	99.3	0.0	100.0	100.0
3	Roundup PowerMAX 3	30 FL OZ/A	A		103	0.0	100.0	97.0	0.0	100.0	100.0
	Enlist One	2 PT/A	A		207	0.0	100.0	95.0	0.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A		310	0.0	100.0	100.0	0.0	100.0	100.0
	Surveil	4.2 OZ/A	A		404	0.0	100.0	100.0	0.0	100.0	100.0
	Enlist One	2 PT/A	B								
	Liberty	2 PT/A	B								
	EverpreX	1.3 PT/A	B								
	AMS - Liquid	2.5 % V/V	B								
				Mean =		0.0	100.0	98.0	0.0	100.0	100.0
4	Roundup PowerMAX 3	30 FL OZ/A	A		104	0.0	90.0	90.0	0.0	100.0	100.0
	Enlist One	2 PT/A	A		209	0.0	100.0	100.0	0.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A		302	0.0	97.0	90.0	0.0	100.0	100.0
	Surveil	2.1 OZ/A	A		405	0.0	100.0	100.0	0.0	100.0	100.0
	Enlist One	2 PT/A	B								
	Liberty	2 PT/A	B								
	AMS - Liquid	2.5 % V/V	B								
				Mean =		0.0	96.8	95.0	0.0	100.0	100.0
5	Roundup PowerMAX 3	30 FL OZ/A	A		105	0.0	100.0	90.0	0.0	100.0	100.0
	Enlist One	2 PT/A	A		204	0.0	100.0	100.0	0.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A		308	0.0	97.0	97.0	0.0	100.0	100.0
	Surveil	2.1 OZ/A	A		406	0.0	100.0	100.0	0.0	100.0	100.0
	Enlist One	2 PT/A	B								
	Roundup PowerMAX 3	1 QT/A	B								
	AMS - Liquid	2.5 % V/V	B								
				Mean =		0.0	99.3	96.8	0.0	100.0	100.0



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Rating Date	7-5-2023	7-5-2023	7-5-2023	7-21-2023	7-21-2023	7-21-2023
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C
Rating Type	PHYGEN	CONTROL	CONTROL	PHYGEN	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA			C, GLXMA		
BBCH Scale	BSOY			BSOY		
Crop Scientific Name	Glycine max			Glycine max		
Crop Name	Soybean			Soybean		
Pest Type		W, Weed	W, Weed		W, Weed	W, Weed
Pest Code		ACCOS	IPOSS		ACCOS	IPOSS
Pest Scientific Name		Acalypha persim>	Ipomoea sp.		Acalypha persim>	Ipomoea sp.
Pest Name		Pineland three->	Morning glory		Pineland three->	Morning glory
Pest Stage Scale		BBCH	BBCH		BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	40, 40	40, 40	40, 40	56, 15	56, 15	56, 15
Trt-Eval Interval						
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	58 DP-1	58 DP-1	58 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes			ET4	ET9		
Number of Decimals						
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023

Trt	Treatment	Rate	Appl	1		2		3		4		5		6	
No.	Name	Rate Unit	Code Plot												
6	Roundup PowerMAX 3	30 FL OZ/A	A 106	0.0	97.0	97.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 208	0.0	100.0	97.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 303	0.0	100.0	100.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A 408	0.0	100.0	100.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	B												
	Liberty	2 PT/A	B												
	EverpreX	1.3 PT/A	B												
	AMS - Liquid	2.5 % V/V	B												
	Mean =			0.0	99.3	98.5	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
7	Roundup PowerMAX 3	30 FL OZ/A	A 107	0.0	100.0	97.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 206	0.0	100.0	100.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 301	0.0	90.0	97.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A 407	0.0	100.0	100.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	B												
	Roundup PowerMAX 3	1 QT/A	B												
	EverpreX	1.3 PT/A	B												
	AMS - Liquid	2.5 % V/V	B												
	Mean =			0.0	97.5	98.5	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
8	Roundup PowerMAX 3	30 FL OZ/A	A 108	0.0	100.0	97.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 202	0.0	97.0	97.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 309	0.0	97.0	97.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A 410	0.0	97.0	97.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	Flexstar	1 PT/A	B												
	Liberty	2 PT/A	B												
	AMS - Liquid	2.5 % V/V	B												
	Mean =			0.0	97.8	97.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
9	Roundup PowerMAX 3	30 FL OZ/A	A 109	0.0	97.0	97.0	2.0	100.0	100.0	2.0	100.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 203	0.0	100.0	100.0	2.0	100.0	100.0	2.0	100.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 307	0.0	97.0	97.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A 409	0.0	97.0	97.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	Roundup PowerMAX 3	1 QT/A	B												
	Flexstar	1 PT/A	B												
	AMS - Liquid	2.5 % V/V	B												
	Mean =			0.0	97.8	97.8	1.0	100.0	100.0	1.0	100.0	100.0	100.0	100.0	100.0
10	Roundup PowerMAX 3	30 FL OZ/A	A 110	0.0	100.0	100.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 205	0.0	100.0	97.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 306	0.0	100.0	97.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A 401	0.0	97.0	97.0	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	B												
	Roundup PowerMAX 3	1 QT/A	B												
	Liberty	2 PT/A	B												
	EverpreX	1.3 PT/A	B												
	AMS - Liquid	2.5 % V/V	B												
	Mean =			0.0	99.3	97.8	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0

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Rating Date	7-21-2023	7-21-2023	7-28-2023	7-28-2023	7-28-2023	7-28-2023
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C
Rating Type	CONTROL	CONTROL	PHYGEN	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code			C, GLXMA			
BBCH Scale			BSOY			
Crop Scientific Name			Glycine max			
Crop Name			Soybean			
Pest Type	W, Weed	W, Weed		W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	SORHA		ACCOS	IPOSS	AMBTR
Pest Scientific Name	Ambrosia trifida	Sorghum halepense		Acalypha persim>	Ipomoea sp.	Ambrosia trifida
Pest Name	Giant ragweed	Johnson grass		Pineland three->	Morning glory	Giant ragweed
Pest Stage Scale	BBCH	BBCH		BBCH	BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	56, 15	56, 15	63, 22	63, 22	63, 22	63, 22
Trt-Eval Interval						
Plant-Eval Interval	58 DP-1	58 DP-1	65 DP-1	65 DP-1	65 DP-1	65 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes						
Number of Decimals						
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023

Trt No.	Treatment Name	Rate	Appl Code	Plot	7	8	9	10	11	12
1	UNTREATED			101	0.0	0.0	0.0	0.0	0.0	0.0
	Roundup PowerMAX 3	30 FL OZ/A	A	210	0.0	0.0	0.0	0.0	0.0	0.0
	Enlist One	2 PT/A	A	304	0.0	0.0	0.0	0.0	0.0	0.0
	AMS - Liquid	2.5 % V/V	A	403	0.0	0.0	0.0	0.0	0.0	0.0
				Mean =	0.0	0.0	0.0	0.0	0.0	0.0
2	Roundup PowerMAX 3	30 FL OZ/A	A	102	100.0	100.0	0.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A	201	100.0	100.0	0.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A	305	100.0	100.0	0.0	100.0	100.0	100.0
	Surveil	4.2 OZ/A	A	402	100.0	100.0	0.0	100.0	100.0	100.0
	Enlist One	2 PT/A	B							
	Liberty	2 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
				Mean =	100.0	100.0	0.0	100.0	100.0	100.0
3	Roundup PowerMAX 3	30 FL OZ/A	A	103	100.0	100.0	0.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A	207	100.0	100.0	0.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A	310	100.0	100.0	0.0	100.0	100.0	100.0
	Surveil	4.2 OZ/A	A	404	100.0	100.0	0.0	100.0	100.0	100.0
	Enlist One	2 PT/A	B							
	Liberty	2 PT/A	B							
	EverpreX	1.3 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
				Mean =	100.0	100.0	0.0	100.0	100.0	100.0
4	Roundup PowerMAX 3	30 FL OZ/A	A	104	100.0	100.0	0.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A	209	100.0	100.0	0.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A	302	100.0	100.0	0.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A	405	100.0	100.0	0.0	100.0	100.0	100.0
	Enlist One	2 PT/A	B							
	Liberty	2 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
				Mean =	100.0	100.0	0.0	100.0	100.0	100.0
5	Roundup PowerMAX 3	30 FL OZ/A	A	105	100.0	100.0	0.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A	204	100.0	100.0	0.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A	308	100.0	100.0	0.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A	406	100.0	100.0	0.0	100.0	100.0	100.0
	Enlist One	2 PT/A	B							
	Roundup PowerMAX 3	1 QT/A	B							
	AMS - Liquid	2.5 % V/V	B							
				Mean =	100.0	100.0	0.0	100.0	100.0	100.0

# University of Kentucky

Rating Date	7-21-2023	7-21-2023	7-28-2023	7-28-2023	7-28-2023	7-28-2023
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C
Rating Type	CONTROL	CONTROL	PHYGEN	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code			C, GLXMA			
BBCH Scale			BSOY			
Crop Scientific Name			Glycine max			
Crop Name			Soybean			
Pest Type	W, Weed	W, Weed		W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	SORHA		ACCOS	IPOSS	AMBTR
Pest Scientific Name	Ambrosia trifida	Sorghum halepense		Acalypha persim	Ipomoea sp.	Ambrosia trifida
Pest Name	Giant ragweed	Johnson grass		Pineland three->	Morning glory	Giant ragweed
Pest Stage Scale	BBCH	BBCH		BBCH	BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	56, 15	56, 15	63, 22	63, 22	63, 22	63, 22
Trt-Eval Interval						
Plant-Eval Interval	58 DP-1	58 DP-1	65 DP-1	65 DP-1	65 DP-1	65 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes						
Number of Decimals						
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023

Trt	Treatment	Rate	Appl							
No.	Name	Rate Unit	Code Plot	7	8	9	10	11	12	
6	Roundup PowerMAX 3	30 FL OZ/A	A 106	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 208	100.0	0.0	0.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 303	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A 408	100.0	0.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	B							
	Liberty	2 PT/A	B							
	EverpreX	1.3 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
	Mean =			100.0	50.0	0.0	100.0	100.0	100.0	100.0
7	Roundup PowerMAX 3	30 FL OZ/A	A 107	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 206	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 301	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A 407	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	B							
	Roundup PowerMAX 3	1 QT/A	B							
	EverpreX	1.3 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
	Mean =			100.0	100.0	0.0	100.0	100.0	100.0	100.0
8	Roundup PowerMAX 3	30 FL OZ/A	A 108	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 202	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 309	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A 410	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	Flexstar	1 PT/A	B							
	Liberty	2 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
	Mean =			100.0	100.0	0.0	100.0	100.0	100.0	100.0
9	Roundup PowerMAX 3	30 FL OZ/A	A 109	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 203	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 307	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A 409	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	Roundup PowerMAX 3	1 QT/A	B							
	Flexstar	1 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
	Mean =			100.0	100.0	0.0	100.0	100.0	100.0	100.0
10	Roundup PowerMAX 3	30 FL OZ/A	A 110	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 205	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 306	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A 401	100.0	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	B							
	Roundup PowerMAX 3	1 QT/A	B							
	Liberty	2 PT/A	B							
	EverpreX	1.3 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
	Mean =			100.0	100.0	0.0	100.0	100.0	100.0	100.0

# University of Kentucky

Rating Date	7-28-2023	8-3-2023	8-3-2023	8-3-2023	8-3-2023	8-3-2023
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C
Rating Type	CONTROL	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code		C, GLXMA				
BBCH Scale		BSOY				
Crop Scientific Name		Glycine max				
Crop Name		Soybean				
Pest Type	W, Weed		W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	SORHA		ACCOSS	IPOSS	AMBTR	SORHA
Pest Scientific Name	Sorghum halepense		Acalypha persim>	Ipomoea sp.	Ambrosia trifida	Sorghum halepense
Pest Name	Johnson grass		Pineland three->	Morning glory	Giant ragweed	Johnson grass
Pest Stage Scale	BBCH		BBCH	BBCH	BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	63, 22	69, 28	69, 28	69, 28	69, 28	69, 28
Trt-Eval Interval						
Plant-Eval Interval	65 DP-1	71 DP-1	71 DP-1	71 DP-1	71 DP-1	71 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes						
Number of Decimals						
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023

Trt No.	Treatment Name	Rate	Appl	13	14	15	16	17	18
		Rate Unit	Code Plot						
1	UNTREATED		101	0.0	0.0	0.0	0.0	0.0	0.0
	Roundup PowerMAX 3	30 FL OZ/A	A 210	0.0	0.0	0.0	0.0	0.0	0.0
	Enlist One	2 PT/A	A 304	0.0	0.0	0.0	0.0	0.0	0.0
	AMS - Liquid	2.5 % V/V	A 403	0.0	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	0.0	0.0
2	Roundup PowerMAX 3	30 FL OZ/A	A 102	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 201	100.0	0.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 305	100.0	0.0	100.0	100.0	100.0	100.0
	Surveil	4.2 OZ/A	A 402	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	B						
	Liberty	2 PT/A	B						
	AMS - Liquid	2.5 % V/V	B						
			Mean =	100.0	0.0	100.0	100.0	100.0	100.0
3	Roundup PowerMAX 3	30 FL OZ/A	A 103	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 207	100.0	0.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 310	100.0	0.0	100.0	100.0	100.0	100.0
	Surveil	4.2 OZ/A	A 404	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	B						
	Liberty	2 PT/A	B						
	EverpreX	1.3 PT/A	B						
	AMS - Liquid	2.5 % V/V	B						
			Mean =	100.0	0.0	100.0	100.0	100.0	100.0
4	Roundup PowerMAX 3	30 FL OZ/A	A 104	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 209	100.0	0.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 302	100.0	0.0	100.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A 405	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	B						
	Liberty	2 PT/A	B						
	AMS - Liquid	2.5 % V/V	B						
			Mean =	100.0	0.0	100.0	100.0	100.0	100.0
5	Roundup PowerMAX 3	30 FL OZ/A	A 105	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 204	100.0	0.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 308	100.0	0.0	100.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A 406	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	B						
	Roundup PowerMAX 3	1 QT/A	B						
	AMS - Liquid	2.5 % V/V	B						
			Mean =	100.0	0.0	100.0	100.0	100.0	100.0

# University of Kentucky

Rating Date	7-28-2023	8-3-2023	8-3-2023	8-3-2023	8-3-2023	8-3-2023
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C
Rating Type	CONTROL	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code		C, GLXMA				
BBCH Scale		BSOY				
Crop Scientific Name		Glycine max				
Crop Name		Soybean				
Pest Type	W, Weed		W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	SORHA		ACCOS	IPOSS	AMBTR	SORHA
Pest Scientific Name	Sorghum halepen>		Acalypha persim>	Ipomoea sp.	Ambrosia trifida	Sorghum halepen>
Pest Name	Johnson grass		Pineland three->	Morning glory	Giant ragweed	Johnson grass
Pest Stage Scale	BBCH		BBCH	BBCH	BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	63, 22	69, 28	69, 28	69, 28	69, 28	69, 28
Trt-Eval Interval						
Plant-Eval Interval	65 DP-1	71 DP-1	71 DP-1	71 DP-1	71 DP-1	71 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes						
Number of Decimals						
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023

Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code Plot	13	14	15	16	17	18
6	Roundup PowerMAX 3	30 FL OZ/A	A 106	100.0	0.0	100.0	100.0	100.0	95.0
	Enlist One	2 PT/A	A 208	0.0	0.0	100.0	100.0	100.0	0.0
	AMS - Liquid	2.5 % V/V	A 303	90.0	0.0	100.0	100.0	100.0	80.0
	Surveil	2.1 OZ/A	A 408	0.0	0.0	100.0	100.0	100.0	0.0
	Enlist One	2 PT/A	B						
	Liberty	2 PT/A	B						
	EverpreX	1.3 PT/A	B						
	AMS - Liquid	2.5 % V/V	B						
	Mean =			47.5	0.0	100.0	100.0	100.0	43.8
7	Roundup PowerMAX 3	30 FL OZ/A	A 107	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 206	100.0	0.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 301	100.0	0.0	100.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A 407	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	B						
	Roundup PowerMAX 3	1 QT/A	B						
	EverpreX	1.3 PT/A	B						
	AMS - Liquid	2.5 % V/V	B						
	Mean =			100.0	0.0	100.0	100.0	100.0	100.0
8	Roundup PowerMAX 3	30 FL OZ/A	A 108	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 202	100.0	0.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 309	100.0	0.0	100.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A 410	100.0	0.0	100.0	100.0	100.0	100.0
	Flexstar	1 PT/A	B						
	Liberty	2 PT/A	B						
	AMS - Liquid	2.5 % V/V	B						
	Mean =			100.0	0.0	100.0	100.0	100.0	100.0
9	Roundup PowerMAX 3	30 FL OZ/A	A 109	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 203	100.0	0.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 307	100.0	0.0	100.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A 409	100.0	0.0	100.0	100.0	100.0	100.0
	Roundup PowerMAX 3	1 QT/A	B						
	Flexstar	1 PT/A	B						
	AMS - Liquid	2.5 % V/V	B						
	Mean =			100.0	0.0	100.0	100.0	100.0	100.0
10	Roundup PowerMAX 3	30 FL OZ/A	A 110	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	A 205	100.0	0.0	100.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	A 306	100.0	0.0	100.0	100.0	100.0	100.0
	Surveil	2.1 OZ/A	A 401	100.0	0.0	100.0	100.0	100.0	100.0
	Enlist One	2 PT/A	B						
	Roundup PowerMAX 3	1 QT/A	B						
	Liberty	2 PT/A	B						
	EverpreX	1.3 PT/A	B						
	AMS - Liquid	2.5 % V/V	B						
	Mean =			100.0	0.0	100.0	100.0	100.0	100.0

# University of Kentucky

## University Enlist Weed Control System Endorsement Demo-Pre fb post

Trial ID: 23-26-SOY-REC  
 Protocol ID: NA23K1A011H Location: UKREC 201-D  
 Project ID: Project ID 2: Project ID 3: Cooperator Trial ID:  
 Study Director: Sponsor Contact: Trial Year: 2023  
 Investigator: Travis Legleiter

### Part Rated

PLANT = plant  
 C = Crop is Part Rated

### Rating Type

PHYGEN = phytotoxicity - general / injury

### Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

PLOT = total plot

PLOT = total plot

### Crop Type, Code

C = EPP0 species (Bayer) codes  
 GLXMA, BSOY, Glycine max, Soybean = US

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

ACCOS, Acalypha persimilis, Pineland three-seed mercury = US  
 IPOSS, Ipomoea sp., Morning glory = US  
 AMBTR, Ambrosia trifida, Giant ragweed = US  
 SORHA, Sorghum halepense, Johnson grass = US

### Plant-Eval Interval

42 DP-1 = 1 GLXMA 5-24-2023  
 58 DP-1 = 1 GLXMA 5-24-2023  
 65 DP-1 = 1 GLXMA 5-24-2023  
 71 DP-1 = 1 GLXMA 5-24-2023

### EDC App

Rating Shell = Data pulled from Excel Rating Shell

### ARM Action Codes

ET4 = Excluded treatment 4  
 ET9 = Excluded treatment 9

# University of Kentucky

## University Enlist Weed Control System Endorsement Demo-Pre fb post

Trial ID: 23-26-SOY-REC  
 Protocol ID: NA23K1A011H Location: UKREC 201-D Cooperator Trial ID:  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: Sponsor Contact:  
 Investigator: Travis Legleiter

Rating Date	7-5-2023	7-5-2023	7-5-2023	7-21-2023	7-21-2023	7-21-2023	7-21-2023
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C
Rating Type	PHYGEN	CONTROL	CONTROL	PHYGEN	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1	1
Crop Type, Code	C, GLXMA			C, GLXMA			
BBCH Scale	BSOY			BSOY			
Crop Scientific Name	Glycine max			Glycine max			
Crop Name	Soybean			Soybean			
Pest Type		W, Weed	W, Weed		W, Weed	W, Weed	W, Weed
Pest Code		ACCOS	IPOSS		ACCOS	IPOSS	AMBTR
Pest Scientific Name		Acalypha persim>	Ipomoea sp.		Acalypha persim>	Ipomoea sp.	Ambrosia trifida
Pest Name		Pineland three->	Morning glory		Pineland three->	Morning glory	Giant ragweed
Pest Stage Scale		BBCH	BBCH		BBCH	BBCH	BBCH
Rating Timing							
Days After First/Last Applic.	40, 40	40, 40	40, 40	56, 15	56, 15	56, 15	56, 15
Trt-Eval Interval							
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	58 DP-1	58 DP-1	58 DP-1	58 DP-1
Days After Emergence							
Pest Est.-Eval Interval							
Equipment							
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability							
ARM Action Codes			ET4	ET9			
Number of Decimals							
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6	7
1	UNTREATED			0.0 a	0.0 b	0.0 b	0.0 a	0.0 b	0.0 b	0.0 b
	Roundup PowerMAX 3	30 FL OZ/A	A							
	Enlist One	2 PT/A	A							
	AMS - Liquid	2.5 % V/V	A							
2	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	100.0 a	99.3 a	0.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A							
	AMS - Liquid	2.5 % V/V	A							
	Surveil	4.2 OZ/A	A							
	Enlist One	2 PT/A	B							
	Liberty	2 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
3	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	100.0 a	98.0 a	0.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A							
	AMS - Liquid	2.5 % V/V	A							
	Surveil	4.2 OZ/A	A							
	Enlist One	2 PT/A	B							
	Liberty	2 PT/A	B							
	EverpreX	1.3 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
4	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	96.8 a	95.0	0.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A							
	AMS - Liquid	2.5 % V/V	A							
	Surveil	2.1 OZ/A	A							
	Enlist One	2 PT/A	B							
	Liberty	2 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
5	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	99.3 a	96.8 a	0.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A							
	AMS - Liquid	2.5 % V/V	A							
	Surveil	2.1 OZ/A	A							
	Enlist One	2 PT/A	B							
	Roundup PowerMAX 3	1 QT/A	B							
	AMS - Liquid	2.5 % V/V	B							

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,4,5,6,7,9,10,11,12,14,15,16,17 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	7-5-2023	7-5-2023	7-5-2023	7-21-2023	7-21-2023	7-21-2023	7-21-2023			
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C			
Rating Type	PHYGEN	CONTROL	CONTROL	PHYGEN	CONTROL	CONTROL	CONTROL			
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100			
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1			
Crop Type, Code	C, GLXMA			C, GLXMA						
BBCH Scale	BSOY			BSOY						
Crop Scientific Name	Glycine max			Glycine max						
Crop Name	Soybean			Soybean						
Pest Type		W, Weed	W, Weed		W, Weed	W, Weed	W, Weed			
Pest Code		ACCOS	IPOSS		ACCOS	IPOSS	AMBTR			
Pest Scientific Name		Acalypha persim>	Ipomoea sp.		Acalypha persim>	Ipomoea sp.	Ambrosia trifida			
Pest Name		Pineland three->	Morning glory		Pineland three->	Morning glory	Giant ragweed			
Pest Stage Scale		BBCH	BBCH		BBCH	BBCH	BBCH			
Rating Timing										
Days After First/Last Applic.	40, 40	40, 40	40, 40	56, 15	56, 15	56, 15	56, 15			
Trt-Eval Interval										
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	58 DP-1	58 DP-1	58 DP-1	58 DP-1			
Days After Emergence										
Pest Est.-Eval Interval										
Equipment										
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell			
Data Reliability										
ARM Action Codes			ET4	ET9						
Number of Decimals										
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023			
Trt No.	Treatment Name	Rate Unit	Appl Code	1	2	3	4	5	6	7
6	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	99.3 a	98.5 a	0.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A							
	AMS - Liquid	2.5 % V/V	A							
	Surveil	2.1 OZ/A	A							
	Enlist One	2 PT/A	B							
	Liberty	2 PT/A	B							
	EverpreX	1.3 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
7	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	97.5 a	98.5 a	0.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A							
	AMS - Liquid	2.5 % V/V	A							
	Surveil	2.1 OZ/A	A							
	Enlist One	2 PT/A	B							
	Roundup PowerMAX 3	1 QT/A	B							
	EverpreX	1.3 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
8	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	97.8 a	97.0 a	0.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A							
	AMS - Liquid	2.5 % V/V	A							
	Surveil	2.1 OZ/A	A							
	Flexstar	1 PT/A	B							
	Liberty	2 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
9	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	97.8 a	97.8 a	1.0	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A							
	AMS - Liquid	2.5 % V/V	A							
	Surveil	2.1 OZ/A	A							
	Roundup PowerMAX 3	1 QT/A	B							
	Flexstar	1 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,4,5,6,7,9,10,11,12,14,15,16,17 because error mean square = 0.  
 ^Calculated from residual.



# University of Kentucky

	7-5-2023	7-5-2023	7-5-2023	7-21-2023	7-21-2023	7-21-2023	7-21-2023			
Rating Date	7-5-2023	7-5-2023	7-5-2023	7-21-2023	7-21-2023	7-21-2023	7-21-2023			
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C			
Rating Type	PHYGEN	CONTROL	CONTROL	PHYGEN	CONTROL	CONTROL	CONTROL			
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100			
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1	1			
Crop Type, Code	C, GLXMA			C, GLXMA						
BBCH Scale	BSOY			BSOY						
Crop Scientific Name	Glycine max			Glycine max						
Crop Name	Soybean			Soybean						
Pest Type		W, Weed	W, Weed		W, Weed	W, Weed	W, Weed			
Pest Code		ACCOS	IPOSS		ACCOS	IPOSS	AMBTR			
Pest Scientific Name		Acalypha persim>	Ipomoea sp.		Acalypha persim>	Ipomoea sp.	Ambrosia trifida			
Pest Name		Pineland three->	Morning glory		Pineland three->	Morning glory	Giant ragweed			
Pest Stage Scale		BBCH	BBCH		BBCH	BBCH	BBCH			
Rating Timing										
Days After First/Last Applic.	40, 40	40, 40	40, 40	56, 15	56, 15	56, 15	56, 15			
Trt-Eval Interval										
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	58 DP-1	58 DP-1	58 DP-1	58 DP-1			
Days After Emergence										
Pest Est.-Eval Interval										
Equipment										
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell			
Data Reliability										
ARM Action Codes			ET4	ET9						
Number of Decimals										
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023			
Trt No.	Treatment Name	Rate Unit	Appl Code	1	2	3	4	5	6	7
10	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	99.3 a	97.8 a	0.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A							
	AMS - Liquid	2.5 % V/V	A							
	Surveil	2.1 OZ/A	A							
	Enlist One	2 PT/A	B							
	Roundup PowerMAX 3	1 QT/A	B							
	Liberty	2 PT/A	B							
	EverpreX	1.3 PT/A	B							
	AMS - Liquid	2.5 % V/V	B							
	LSD P=.05				3.48	3.09				
	Standard Deviation			0.00	2.40	2.12	0.00	0.00	0.00	0.00
	CV			0.0	2.7	2.43	0.0	0.0	0.0	0.0
	Levene's F^				0.667	0.875				
	Levene's Prob(F)				0.732	0.549				
	Shapiro-Wilk^				0.8646*	0.9517				
	P(Shapiro-Wilk)^				0.0002*	0.118				
	Skewness^				-1.6009*	-0.8548*				
	P(Skewness)^				0.0002*	0.0438*				
	Kurtosis^				4.0603*	2.355*				
	P(Kurtosis)^				0.0*	0.0057*				
	Replicate F			0.000	1.190	1.130	0.000	0.000	0.000	0.000
	Replicate Prob(F)			1.0000	0.3320	0.3568	1.0000	1.0000	1.0000	1.0000
	Treatment F			0.000	678.426	949.812	0.000	0.000	0.000	0.000
	Treatment Prob(F)			1.0000	0.0001	0.0001	1.0000	1.0000	1.0000	1.0000

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 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,4,5,6,7,9,10,11,12,14,15,16,17 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	7-21-2023	7-28-2023	7-28-2023	7-28-2023	7-28-2023	7-28-2023
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C
Rating Type	CONTROL	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code		C, GLXMA				
BBCH Scale		BSOY				
Crop Scientific Name		Glycine max				
Crop Name		Soybean				
Pest Type	W, Weed		W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	SORHA		ACCOS	IPOSS	AMBTR	SORHA
Pest Scientific Name	Sorghum halepen>		Acalypha persim>	Ipomoea sp.	Ambrosia trifida	Sorghum halepen>
Pest Name	Johnson grass		Pineland three->	Morning glory	Giant ragweed	Johnson grass
Pest Stage Scale	BBCH		BBCH	BBCH	BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	56, 15	63, 22	63, 22	63, 22	63, 22	63, 22
Trt-Eval Interval						
Plant-Eval Interval	58 DP-1	65 DP-1	65 DP-1	65 DP-1	65 DP-1	65 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes						
Number of Decimals						
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023

Trt No.	Treatment Name	Rate	Appl Code	8	9	10	11	12	13
		Rate Unit							
1	UNTREATED			0.0 c	0.0 a	0.0 b	0.0 b	0.0 b	0.0 c
	Roundup PowerMAX 3	30 FL OZ/A	A						
	Enlist One	2 PT/A	A						
	AMS - Liquid	2.5 % V/V	A						
2	Roundup PowerMAX 3	30 FL OZ/A	A	100.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A						
	AMS - Liquid	2.5 % V/V	A						
	Surveil	4.2 OZ/A	A						
	Enlist One	2 PT/A	B						
	Liberty	2 PT/A	B						
	AMS - Liquid	2.5 % V/V	B						
3	Roundup PowerMAX 3	30 FL OZ/A	A	100.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A						
	AMS - Liquid	2.5 % V/V	A						
	Surveil	4.2 OZ/A	A						
	Enlist One	2 PT/A	B						
	Liberty	2 PT/A	B						
	EverpreX	1.3 PT/A	B						
	AMS - Liquid	2.5 % V/V	B						
4	Roundup PowerMAX 3	30 FL OZ/A	A	100.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A						
	AMS - Liquid	2.5 % V/V	A						
	Surveil	2.1 OZ/A	A						
	Enlist One	2 PT/A	B						
	Liberty	2 PT/A	B						
	AMS - Liquid	2.5 % V/V	B						
5	Roundup PowerMAX 3	30 FL OZ/A	A	100.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A						
	AMS - Liquid	2.5 % V/V	A						
	Surveil	2.1 OZ/A	A						
	Enlist One	2 PT/A	B						
	Roundup PowerMAX 3	1 QT/A	B						
	AMS - Liquid	2.5 % V/V	B						

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 Could not calculate LSD (% mean diff) for columns 1,4,5,6,7,9,10,11,12,14,15,16,17 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

		7-21-2023	7-28-2023	7-28-2023	7-28-2023	7-28-2023	7-28-2023		
Rating Date		7-21-2023	7-28-2023	7-28-2023	7-28-2023	7-28-2023	7-28-2023		
Part Rated		PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C		
Rating Type		CONTROL	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL		
Rating Unit/Min/Max		% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Collection Basis		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Reporting Basis		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples		1	1	1	1	1	1		
Crop Type, Code			C, GLXMA						
BBCH Scale			BSOY						
Crop Scientific Name			Glycine max						
Crop Name			Soybean						
Pest Type		W, Weed		W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code		SORHA		ACCOS	IPOSS	AMBTR	SORHA		
Pest Scientific Name		Sorghum halepen>		Acalypha persim>	Ipomoea sp.	Ambrosia trifida	Sorghum halepen>		
Pest Name		Johnson grass		Pineland three->	Morning glory	Giant ragweed	Johnson grass		
Pest Stage Scale		BBCH		BBCH	BBCH	BBCH	BBCH		
Rating Timing									
Days After First/Last Applic.		56, 15	63, 22	63, 22	63, 22	63, 22	63, 22		
Trt-Eval Interval									
Plant-Eval Interval		58 DP-1	65 DP-1	65 DP-1	65 DP-1	65 DP-1	65 DP-1		
Days After Emergence									
Pest Est.-Eval Interval									
Equipment									
EDC App		Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability									
ARM Action Codes									
Number of Decimals									
Data Entry Date		10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023		
Trt No.	Treatment Name	Rate Unit	Appl Code	8	9	10	11	12	13
6	Roundup PowerMAX 3	30 FL OZ/A	A	50.0 b	0.0 a	100.0 a	100.0 a	100.0 a	47.5 b
	Enlist One	2 PT/A	A						
	AMS - Liquid	2.5 % V/V	A						
	Surveil	2.1 OZ/A	A						
	Enlist One	2 PT/A	B						
	Liberty	2 PT/A	B						
	EverpreX	1.3 PT/A	B						
	AMS - Liquid	2.5 % V/V	B						
7	Roundup PowerMAX 3	30 FL OZ/A	A	100.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A						
	AMS - Liquid	2.5 % V/V	A						
	Surveil	2.1 OZ/A	A						
	Enlist One	2 PT/A	B						
	Roundup PowerMAX 3	1 QT/A	B						
	EverpreX	1.3 PT/A	B						
	AMS - Liquid	2.5 % V/V	B						
8	Roundup PowerMAX 3	30 FL OZ/A	A	100.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A						
	AMS - Liquid	2.5 % V/V	A						
	Surveil	2.1 OZ/A	A						
	Flexstar	1 PT/A	B						
	Liberty	2 PT/A	B						
	AMS - Liquid	2.5 % V/V	B						
9	Roundup PowerMAX 3	30 FL OZ/A	A	100.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A						
	AMS - Liquid	2.5 % V/V	A						
	Surveil	2.1 OZ/A	A						
	Roundup PowerMAX 3	1 QT/A	B						
	Flexstar	1 PT/A	B						
	AMS - Liquid	2.5 % V/V	B						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,4,5,6,7,9,10,11,12,14,15,16,17 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

		7-21-2023	7-28-2023	7-28-2023	7-28-2023	7-28-2023	7-28-2023		
Rating Date		7-21-2023	7-28-2023	7-28-2023	7-28-2023	7-28-2023	7-28-2023		
Part Rated		PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C		
Rating Type		CONTROL	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL		
Rating Unit/Min/Max		% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Collection Basis		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Reporting Basis		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples		1	1	1	1	1	1		
Crop Type, Code			C, GLXMA						
BBCH Scale			BSOY						
Crop Scientific Name			Glycine max						
Crop Name			Soybean						
Pest Type		W, Weed		W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code		SORHA		ACCOS	IPOSS	AMBTR	SORHA		
Pest Scientific Name		Sorghum halepen>		Acalypha persim>	Ipomoea sp.	Ambrosia trifida	Sorghum halepen>		
Pest Name		Johnson grass		Pineland three->	Morning glory	Giant ragweed	Johnson grass		
Pest Stage Scale		BBCH		BBCH	BBCH	BBCH	BBCH		
Rating Timing									
Days After First/Last Applic.		56, 15	63, 22	63, 22	63, 22	63, 22	63, 22		
Trt-Eval Interval									
Plant-Eval Interval		58 DP-1	65 DP-1	65 DP-1	65 DP-1	65 DP-1	65 DP-1		
Days After Emergence									
Pest Est.-Eval Interval									
Equipment									
EDC App		Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability									
ARM Action Codes									
Number of Decimals									
Data Entry Date		10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023		
Trt No.	Treatment Name	Rate	Appl Code	8	9	10	11	12	13
10	Roundup PowerMAX 3	30 FL OZ/A	A	100.0 a	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A						
	AMS - Liquid	2.5 % V/V	A						
	Surveil	2.1 OZ/A	A						
	Enlist One	2 PT/A	B						
	Roundup PowerMAX 3	1 QT/A	B						
	Liberty	2 PT/A	B						
	EverpreX	1.3 PT/A	B						
	AMS - Liquid	2.5 % V/V	B						
	LSD P=.05			26.49	.	.	.	.	25.23
	Standard Deviation			18.26	0.00	0.00	0.00	0.00	17.39
	CV			21.48	0.0	0.0	0.0	0.0	20.52
	Levene's F^			.	.	.	.	.	256.711*
	Levene's Prob(F)			0.00*	.	.	.	.	0.00*
	Shapiro-Wilk^			0.6771*	.	.	.	.	0.6909*
	P(Shapiro-Wilk)^			0.0*	.	.	.	.	0.0*
	Skewness^			0.0	.	.	.	.	0.0457
	P(Skewness)^			1.0	.	.	.	.	0.9068
	Kurtosis^			5.9791*	.	.	.	.	6.1816*
	P(Kurtosis)^			0.0*	.	.	.	.	0.0*
	Replicate F			1.000	0.000	0.000	0.000	0.000	1.000
	Replicate Prob(F)			0.4079	1.0000	1.0000	1.0000	1.0000	0.4079
	Treatment F			13.667	0.000	0.000	0.000	0.000	15.325
	Treatment Prob(F)			0.0001	1.0000	1.0000	1.0000	1.0000	0.0001

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 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,4,5,6,7,9,10,11,12,14,15,16,17 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	8-3-2023	8-3-2023	8-3-2023	8-3-2023	8-3-2023			
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C			
Rating Type	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL			
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100			
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1			
Crop Type, Code	C, GLXMA							
BBCH Scale	BSOY							
Crop Scientific Name	Glycine max							
Crop Name	Soybean							
Pest Type		W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code		ACCOS	IPOSS	AMBTR	SORHA			
Pest Scientific Name		Acalypha persim>	Ipomoea sp.	Ambrosia trifida	Sorghum halepen>			
Pest Name		Pineland three->	Morning glory	Giant ragweed	Johnson grass			
Pest Stage Scale		BBCH	BBCH	BBCH	BBCH			
Rating Timing								
Days After First/Last Applic.	69, 28	69, 28	69, 28	69, 28	69, 28			
Trt-Eval Interval								
Plant-Eval Interval	71 DP-1	71 DP-1	71 DP-1	71 DP-1	71 DP-1			
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell			
Data Reliability								
ARM Action Codes								
Number of Decimals								
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023			
Trt No.	Treatment Name	Rate	Appl Code	14	15	16	17	18
1	UNTREATED			0.0 a	0.0 b	0.0 b	0.0 b	0.0 c
	Roundup PowerMAX 3	30 FL OZ/A	A					
	Enlist One	2 PT/A	A					
	AMS - Liquid	2.5 % V/V	A					
2	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A					
	AMS - Liquid	2.5 % V/V	A					
	Surveil	4.2 OZ/A	A					
	Enlist One	2 PT/A	B					
	Liberty	2 PT/A	B					
	AMS - Liquid	2.5 % V/V	B					
3	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A					
	AMS - Liquid	2.5 % V/V	A					
	Surveil	4.2 OZ/A	A					
	Enlist One	2 PT/A	B					
	Liberty	2 PT/A	B					
	EverpreX	1.3 PT/A	B					
	AMS - Liquid	2.5 % V/V	B					
4	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A					
	AMS - Liquid	2.5 % V/V	A					
	Surveil	2.1 OZ/A	A					
	Enlist One	2 PT/A	B					
	Liberty	2 PT/A	B					
	AMS - Liquid	2.5 % V/V	B					
5	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A					
	AMS - Liquid	2.5 % V/V	A					
	Surveil	2.1 OZ/A	A					
	Enlist One	2 PT/A	B					
	Roundup PowerMAX 3	1 QT/A	B					
	AMS - Liquid	2.5 % V/V	B					

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,4,5,6,7,9,10,11,12,14,15,16,17 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	8-3-2023	8-3-2023	8-3-2023	8-3-2023	8-3-2023			
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C			
Rating Type	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100			
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1			
Crop Type, Code	C, GLXMA							
BBCH Scale	B SOY							
Crop Scientific Name	Glycine max							
Crop Name	Soybean							
Pest Type		W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code		ACCOS	IPOSS	AMBTR	SORHA			
Pest Scientific Name		Acalypha persim>	Ipomoea sp.	Ambrosia trifida	Sorghum halepen>			
Pest Name		Pineland three->	Morning glory	Giant ragweed	Johnson grass			
Pest Stage Scale		BBCH	BBCH	BBCH	BBCH			
Rating Timing								
Days After First/Last Applic.	69, 28	69, 28	69, 28	69, 28	69, 28			
Trt-Eval Interval								
Plant-Eval Interval	71 DP-1	71 DP-1	71 DP-1	71 DP-1	71 DP-1			
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell			
Data Reliability								
ARM Action Codes								
Number of Decimals								
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023			
Trt No.	Treatment Name	Rate Unit	Appl Code	14	15	16	17	18
6	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	100.0 a	100.0 a	100.0 a	43.8 b
	Enlist One	2 PT/A	A					
	AMS - Liquid	2.5 % V/V	A					
	Surveil	2.1 OZ/A	A					
	Enlist One	2 PT/A	B					
	Liberty	2 PT/A	B					
	EverpreX	1.3 PT/A	B					
	AMS - Liquid	2.5 % V/V	B					
7	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A					
	AMS - Liquid	2.5 % V/V	A					
	Surveil	2.1 OZ/A	A					
	Enlist One	2 PT/A	B					
	Roundup PowerMAX 3	1 QT/A	B					
	EverpreX	1.3 PT/A	B					
	AMS - Liquid	2.5 % V/V	B					
8	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A					
	AMS - Liquid	2.5 % V/V	A					
	Surveil	2.1 OZ/A	A					
	Flexstar	1 PT/A	B					
	Liberty	2 PT/A	B					
	AMS - Liquid	2.5 % V/V	B					
9	Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	Enlist One	2 PT/A	A					
	AMS - Liquid	2.5 % V/V	A					
	Surveil	2.1 OZ/A	A					
	Roundup PowerMAX 3	1 QT/A	B					
	Flexstar	1 PT/A	B					
	AMS - Liquid	2.5 % V/V	B					

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,4,5,6,7,9,10,11,12,14,15,16,17 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	8-3-2023	8-3-2023	8-3-2023	8-3-2023	8-3-2023		
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, C		
Rating Type	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1		
Crop Type, Code	C, GLXMA						
BBCH Scale	BSOY						
Crop Scientific Name	Glycine max						
Crop Name	Soybean						
Pest Type		W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code		ACCOS	IPOSS	AMBTR	SORHA		
Pest Scientific Name		Acalypha persim>	Ipomoea sp.	Ambrosia trifida	Sorghum halepen>		
Pest Name		Pineland three->	Morning glory	Giant ragweed	Johnson grass		
Pest Stage Scale		BBCH	BBCH	BBCH	BBCH		
Rating Timing							
Days After First/Last Applic.	69, 28	69, 28	69, 28	69, 28	69, 28		
Trt-Eval Interval							
Plant-Eval Interval	71 DP-1	71 DP-1	71 DP-1	71 DP-1	71 DP-1		
Days After Emergence							
Pest Est.-Eval Interval							
Equipment							
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability							
ARM Action Codes							
Number of Decimals							
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023		
Trt Treatment No. Name	Rate Unit	Appl Code	14	15	16	17	18
10 Roundup PowerMAX 3	30 FL OZ/A	A	0.0 a	100.0 a	100.0 a	100.0 a	100.0 a
Enlist One	2 PT/A	A					
AMS - Liquid	2.5 % V/V	A					
Surveil	2.1 OZ/A	A					
Enlist One	2 PT/A	B					
Roundup PowerMAX 3	1 QT/A	B					
Liberty	2 PT/A	B					
EverpreX	1.3 PT/A	B					
AMS - Liquid	2.5 % V/V	B					
LSD P=.05			.	.	.	.	23.35
Standard Deviation			0.00	0.00	0.00	0.00	16.09
CV			0.0	0.0	0.0	0.0	19.07
Levene's F^			.	.	.	.	96.79*
Levene's Prob(F)			.	.	.	.	0.00*
Shapiro-Wilk^			.	.	.	.	0.6956*
P(Shapiro-Wilk)^			.	.	.	.	0.0*
Skewness^			.	.	.	.	0.1195
P(Skewness)^			.	.	.	.	0.7594
Kurtosis^			.	.	.	.	6.5077*
P(Kurtosis)^			.	.	.	.	0.0*
Replicate F			0.000	0.000	0.000	0.000	1.000
Replicate Prob(F)			1.0000	1.0000	1.0000	1.0000	0.4079
Treatment F			0.000	0.000	0.000	0.000	18.403
Treatment Prob(F)			1.0000	1.0000	1.0000	1.0000	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,4,5,6,7,9,10,11,12,14,15,16,17 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

## University Enlist Weed Control System Endorsement Demo-Pre fb post

Trial ID: 23-26-SOY-REC  
 Protocol ID: NA23K1A011H Location: UKREC 201-D Cooperator Trial ID:  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: Sponsor Contact:  
 Investigator: Travis Legleiter

Part Rated

PLANT = plant  
C = Crop is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

PLOT = total plot

PLOT = total plot

Crop Type, Code

C = EPPO species (Bayer) codes  
GLXMA, BSOY, Glycine max, Soybean = US

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

ACCOS, Acalypha persimilis, Pineland three-seed mercury = US  
IPOSS, Ipomoea sp., Morning glory = US  
AMBTR, Ambrosia trifida, Giant ragweed = US  
SORHA, Sorghum halepense, Johnson grass = US

Plant-Eval Interval

42 DP-1 = 1 GLXMA 5-24-2023  
58 DP-1 = 1 GLXMA 5-24-2023  
65 DP-1 = 1 GLXMA 5-24-2023  
71 DP-1 = 1 GLXMA 5-24-2023

EDC App

Rating Shell = Data pulled from Excel Rating Shell

ARM Action Codes

ET4 = Excluded treatment 4  
ET9 = Excluded treatment 9



# University of Kentucky

## Corn Herbicide Programs

Trial ID: 23-28\_COR-REC  
Protocol ID: 23-28\_COR-REC Location: UKREC  
Project ID: Project ID 2: Project ID 3:  
Study Director: Sponsor Contact:  
Investigator: Travis Legleiter

Cooperator Trial ID:  
Trial Year: 2023

Reps: 4		Plots: 10 by 30 feet		Mix Size: 2 L (total for 4 plots; minimum=1.564 L, overage=436 mL)												
Trt	Treatment	Form	Form	Form	Rate	Other	Other	Appl	Appl	Amt	Product	Rep				
No.	Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Code	Timing	to Measure	1	2	3	4
1	Untreated												101	204	302	404
2	Restraint	6.498	LBA/GAL	EC	36	OZ/A	1.83	lba/a	A	PRE	37.5 mL/mx		102	203	301	406
	Atrazine	4	LBA/GAL	F	1	QT/A	1	lba/a	A	PRE	33.33 mL/mx					
	Shieldex	3.33	lba/gal	OD	1.35	OZ/A	0.035	lba/a	B	POST	1.406 mL/mx					
	Atrazine	4	LBA/GAL	F	1	QT/A	1	lba/a	B	POST	33.33 mL/mx					
	COC	100 %		SL	1 %	V/V			B	POST	20.0 mL/mx					
3	Restraint	6.498	LBA/GAL	EC	36	OZ/A	1.83	lba/a	A	PRE	37.5 mL/mx		103	206	303	401
	Atrazine	4	LBA/GAL	F	1	QT/A	1	lba/a	A	PRE	33.33 mL/mx					
	Shieldex	3.33	lba/gal	OD	1.35	OZ/A	0.035	lba/a	B	POST	1.406 mL/mx					
	Atrazine	4	LBA/GAL	F	1	QT/A	1	lba/a	B	POST	33.33 mL/mx					
	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	20	FL OZ/A	0.75	lbae/a	B	POST	20.83 mL/mx					
	AMS - Liquid	3.4	lba/gal	SL	2.5 %	V/V	8.5	lba/100gal	B	POST	49.99 mL/mx					
	COC	100 %		SL	1 %	V/V			B	POST	20.0 mL/mx					
4	Maverick	2.04	lba/gal	SC	24	FL OZ/A	0.383	lba/a	A	PRE	25.0 mL/mx		104	205	306	403
	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	28	FL OZ/A	1.05	lbae/a	B	POST	29.17 mL/mx					
	AMS - Liquid	3.4	lba/gal	SL	2.5 %	V/V	8.5	lba/100gal	B	POST	49.99 mL/mx					
5	Maverick	2.04	lba/gal	SC	18	FL OZ/A	0.287	lba/a	A	PRE	18.75 mL/mx		105	202	305	402
	Maverick	2.04	lba/gal	SC	14	FL OZ/A	0.223	lba/a	B	POST	14.58 mL/mx					
	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	28	FL OZ/A	1.05	lbae/a	B	POST	29.17 mL/mx					
	AMS - Liquid	3.4	lba/gal	SL	2.5 %	V/V	8.5	lba/100gal	B	POST	49.99 mL/mx					
6	Maverick	2.04	lba/gal	SC	24	FL OZ/A	0.383	lba/a	A	PRE	25.0 mL/mx		106	201	304	405
	Atrazine	4	LBA/GAL	F	0.75	QT/A	0.75	lba/a	A	PRE	25.0 mL/mx					
	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	28	FL OZ/A	1.05	lbae/a	B	POST	29.17 mL/mx					
	AMS - Liquid	3.4	lba/gal	SL	2.5 %	V/V	8.5	lba/100gal	B	POST	49.99 mL/mx					

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form	Conc	Form	Unit	Form	Type	Lot	Code
75.000	mL	Restraint	6.498	LBA/GAL	EC					
158.333	mL	Atrazine	4	LBA/GAL	F					
2.812	mL	Shieldex	3.33	lba/gal	OD					
39.996	mL	COC	100	%	SL					
108.333	mL	Roundup PowerMAX 3	4.8	LBAE/GAL	SL					
199.978	mL	AMS - Liquid	3.4	lba/gal	SL					
83.333	mL	Maverick	2.04	lba/gal	SC					

\* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).  
\* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

### General Trial Information

Investigator: Travis Legleiter Title: Assistant Extension Professor

Status: E established

ARM Trial Created On: 4-7-2023

### Trial Location

City: Princeton Country: USA United States  
State/Prov.: Kentucky Country: Caldwell  
Postal Code: 42445

### Regulations

Conducted Under GLP: No  
Conducted Under GEP: No

Role: INVEST investigator  
Investigator: Travis Legleiter Title: Assistant Extension Professor

Organization: University of Kentucky  
Address 1: 348 University Drive Phone No.: 859-562-1323  
Country: USA United States E-mail: Travis.Legleiter@uky.edu  
City: Princeton, KY Postal Code: 42445

# University of Kentucky

## Crop Description

**Crop 1:** C ZEAMX Zea mays Corn **BBCH Scale:** BCOR  
**Entry Date:** 8-17-2023 **Stage Scale:** BBCH  
**Variety:** P1170AM  
**Attributes:** RR/LL  
**Planting Date:** 5-17-2023 **Planting Rate:** 32000 S/A  
**Depth:** 2 IN  
**Row Spacing:** 30 IN **Planting Method:** PLANTD planted  
**Planting Equipment:** VP vacuum planter  
**Soil Moisture:** WET wet

## Pest Description

**Pest 1 Type:** W **Code:** AMBTR Ambrosia trifida **Entry Date:** 8-17-2023  
**Common Name:** Giant ragweed **Stage Scale:** BBCH

**Pest 2 Type:** W **Code:** IPOHE Ipomoea hederacea **Entry Date:** 8-17-2023  
**Common Name:** ivy-leaf morning glory **Stage Scale:** BBCH

**Pest 3 Type:** W **Code:** EPHNU Euphorbia nutans **Entry Date:** 8-17-2023  
**Common Name:** Eyebane **Stage Scale:** BBCH

**Pest 4 Type:** W **Code:** DIGIS Digitaria ischaemum **Entry Date:** 8-17-2023  
**Common Name:** smooth crabgrass **Stage Scale:** BBCH

**Pest 5 Type:** W **Code:** ELEIN Eleusine indica **Entry Date:** 8-17-2023  
**Common Name:** Goosegrass **Stage Scale:** BBCH

## Site and Design

**Treated Plot Width:** 10 FT **Site Type:** FIELD field  
**Treated Plot Length:** 30 FT **Experimental Unit:** 1 PLOT plot  
**Treated Plot Area:** 300.0 FT2 **Tillage Type:** NOTILL no-till  
**Replications:** 4 **Treatments:** 6 **Plots:** 24 **Study Design:** RACOBL Randomized Complete Block (RCB)  
**Distance between Blocks:** 1 FT  
**Distance between 'Plot' Experimental Units:** 0.5 FT

## Maintenance

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Type	Rate	Unit
1.	4-20-2023	FERT	Phosphorus				46	lbs
2.	4-20-2023	FERT	Nitrogen				18	lbs
3.	4-24-2023	FERT	Nitrogen				200	lbs
4.	4-19-2023	HERB	Roundup PowerMAX 3 4.8	LBAE/GAL	SL		30	fl oz
5.	4-19-2023	HERB	Interline				32	fl oz
6.	4-19-2023	ADJ	AMS				2.5	% V/V

## Field Prep./Maintenance:

@ Planting added : 40 fl oz Roundup Powermax 3 = 41.68 ml/mx  
 2.5% AMS Liquid = 50 ml/mx

## Soil Description

**Description Name:** 108-C4  
**% Sand:** 4.2 **% OM:** 2.6 **Texture:** SIL silt loam  
**% Silt:** 80.8 **Soil Name:** Crider Silt Loam  
**% Clay:** 15.1  
**pH:** 5.25 **CEC:** 12.7

## Application Description

	A	B
<b>Date</b>	5-18-2023	6-15-2023
<b>Start Time</b>	2:13 PM	11:55 AM
<b>Stop Time</b>	2:30 PM	12:05 AM
<b>Interval to Prev. Appl.</b>		28 DAYS
<b>Method</b>	SPRAY	spray
<b>Placement</b>	soil	foliar
<b>Applied By</b>	CMY	JLG
<b>Entry Date</b>	8-17-2023	8-17-2023
<b>Air Temperature Start, Stop</b>	79, 79 F	88.8, 84.7 F
<b>% Relative Humidity Start, Stop</b>	41, 43	40.4, 43.6
<b>Wind Velocity+Dir. Start</b>	1.7 MPH, SW	1.2 MPH, N
<b>Wind Velocity+Dir. Stop</b>	6 MPH, SW	4.6 MPH, N
<b>Wind Velocity+Dir. Max</b>	14.6 MPH, SW	7.9 MPH, N
<b>Wet Leaves (Y/N)</b>	N, no	N, no
<b>Soil Moisture</b>	WET	DRY
<b>% Cloud Cover</b>	0	5

# University of Kentucky

## Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	ZEAMX, BCOR	ZEAMX, BCOR
Stage Majority, Percent		V6, -
Stage Minimum, Percent		V5, -
Stage Maximum, Percent		V5, -
Height Average		20 IN
Height Minimum, Maximum		18, 22

## Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average		5.125 IN
Height Minimum, Maximum		1.75, 8.5
Density Average		2 FT2
Density Minimum, Maximum		1, 3
Pest 2 Code, Type, Scale	IPOHE, W, BBCH	IPOHE, W, BBCH
Height Average		1.5 IN
Height Minimum, Maximum		0, 1.5
Density Average		1 FT2
Density Minimum, Maximum		0, 1
Pest 3 Code, Type, Scale	EPHNU, W, BBCH	EPHNU, W, BBCH
Height Average		0.25 IN
Height Minimum, Maximum		0, 0.25
Density Average		1 FT2
Density Minimum, Maximum		0, 1
Pest 4 Code, Type, Scale	DIGIS, W, BBCH	DIGIS, W, BBCH
Height Average		1.5 IN
Height Minimum, Maximum		1, 2
Density Average		3 FT2
Density Minimum, Maximum		0, 3
Pest 5 Code, Type, Scale	ELEIN, W, BBCH	ELEIN, W, BBCH
Height Average		2 IN
Height Minimum, Maximum		0, 2
Density Average		1 FT2
Density Minimum, Maximum		0, 1

## Application Equipment

	A	B
Equipment Type	BACCAI	BACCAI
Operation Pressure	33 PSI	35 PSI
Nozzle Model	XR11002	XR11002
Nozzle Type	FLAFXR	FLAFXR
Nozzle TradeName	XR TeeJet	XR TeeJet
Nozzle Tip Size, Color	02, Yellow	02, Yellow
Boom ID	WHITE	BLUE
Boom Length	10.0 FT	10.0 FT
Boom Height	18.0 IN	18.0 IN
Ground Speed	3 MPH	3 MPH
Carrier	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC
Mix Overage	436.0 mL	436.0 mL
Mix Size	2.0 L	2.0 L
Propellant	comco2	comco2

## Notes

Context	Date	By	Notes
STATUS 4-7-2023	Travis Legleiter	Automatically added by ARM:	Trial Status updated to 'S' during trial creation.
STATUS 8-17-2023	Travis Legleiter	Automatically added by ARM:	Status changed to: E: changed by (EKYLET).
STATUS 8-17-2023	Travis Legleiter	Automatically added by ARM:	Trial Status updated to 'E' when Planting Date entered.

# University of Kentucky

## Corn Herbicide Programs

Trial ID: 23-28\_COR-REC  
 Protocol ID: 23-28\_COR-REC Location: UKREC  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Sponsor Contact:  
 Investigator: Travis Legleiter

Cooperator Trial ID:  
 Trial Year: 2023

Rating Date	6-8-2023	6-8-2023	6-8-2023	6-8-2023	6-8-2023	6-27-2023
Part Rated	plant, c	plant, p	plant, p	plant, p	plant, p	plant, p
Rating Type	phygen	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, ZEAMX					
BBCH Scale	BCOR					
Crop Scientific Name	Zea mays					
Crop Name	Corn					
Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMBTR	AMACH	SIDSP	IPOSS	AMBTR
Pest Scientific Name		Ambrosia trifida	Amaranthus hybr>	Sida spinosa	Ipomoea sp.	Ambrosia trifida
Pest Name		Giant ragweed	smooth pigweed	Prickly sida	Morning glory	Giant ragweed
Pest Stage Scale		BBCH	BBCH	BBCH	BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	21, 21	21, 21	21, 21	21, 21	21, 21	40, 12
Trt-Eval Interval						
Plant-Eval Interval	22 DP-1	22 DP-1	22 DP-1	22 DP-1	22 DP-1	41 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes		AA				ET4
Number of Decimals						
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023

Trt	Treatment	Rate	Appl	1		2		3		4		5		6	
No.	Name	Rate Unit	Code Plot												
1	Untreated		101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			204	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			302	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			404	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0d	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Restraint	36 OZ/A	A 102	0.0	97.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Atrazine	1 QT/A	A 203	0.0	70.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	100.0	100.0	100.0
	Shieldex	1.35 OZ/A	B 301	0.0	80.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Atrazine	1 QT/A	B 406	0.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	100.0	100.0	100.0
	COC	1 % V/V	B												
			Mean =	0.0	85.9d	100.0	100.0	100.0	100.0	100.0	100.0	98.5	100.0	100.0	100.0
3	Restraint	36 OZ/A	A 103	0.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	100.0	100.0	100.0
	Atrazine	1 QT/A	A 206	0.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	95.0	100.0	100.0	100.0
	Shieldex	1.35 OZ/A	B 303	0.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Atrazine	1 QT/A	B 401	0.0	60.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	100.0	100.0	100.0
	Roundup PowerMAX 3	20 FL OZ/A	B												
	AMS - Liquid	2.5 % V/V	B												
	COC	1 % V/V	B												
			Mean =	0.0	83.9d	100.0	100.0	100.0	100.0	100.0	100.0	97.3	100.0	100.0	99.3
4	Maverick	24 FL OZ/A	A 104	0.0	97.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Roundup PowerMAX 3	28 FL OZ/A	B 205	0.0	50.0	100.0	100.0	100.0	100.0	100.0	100.0	50.0	100.0	100.0	85.0
	AMS - Liquid	2.5 % V/V	B 306	0.0	25.0	100.0	100.0	100.0	100.0	100.0	100.0	90.0	100.0	100.0	80.0
			403	0.0	70.0	100.0	100.0	100.0	100.0	100.0	100.0	90.0	100.0	100.0	100.0
			Mean =	0.0	63.7d	100.0	100.0	100.0	100.0	100.0	100.0	82.5	100.0	100.0	91.3
5	Maverick	18 FL OZ/A	A 105	0.0	50.0	97.0	97.0	97.0	97.0	97.0	97.0	60.0	97.0	97.0	97.0
	Maverick	14 FL OZ/A	B 202	0.0	60.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	100.0	100.0	100.0
	Roundup PowerMAX 3	28 FL OZ/A	B 305	0.0	60.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B 402	0.0	50.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	100.0	100.0	100.0
			Mean =	0.0	55.0d	99.3	99.3	99.3	99.3	99.3	99.3	87.8	100.0	100.0	99.3
6	Maverick	24 FL OZ/A	A 106	0.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	90.0	100.0	100.0	100.0
	Atrazine	0.75 QT/A	A 201	0.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Roundup PowerMAX 3	28 FL OZ/A	B 304	0.0	90.0	100.0	100.0	100.0	100.0	100.0	100.0	95.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B 405	0.0	97.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.0
			Mean =	0.0	92.1d	100.0	100.0	100.0	100.0	100.0	100.0	96.3	100.0	100.0	97.5

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-27-2023	6-27-2023	6-27-2023	7-10-2023	7-10-2023	7-10-2023
Part Rated	plant, p	plant, p	plant, p	plant, p	plant, p	plant, p
Rating Type	control	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMACH	SIDSP	IPOSS	AMBTR	AMACH	SIDSP
Pest Scientific Name	Amaranthus hybr>	Sida spinosa	Ipomoea sp.	Ambrosia trifida	Amaranthus hybr>	Sida spinosa
Pest Name	smooth pigweed	Prickly sida	Morning glory	Giant ragweed	smooth pigweed	Prickly sida
Pest Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	40, 12	40, 12	40, 12	53, 25	53, 25	53, 25
Trt-Eval Interval						
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1	54 DP-1	54 DP-1	54 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes						
Number of Decimals						
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023

Trt	Treatment	Rate	Appl	7	8	9	10	11	12
No.	Name	Rate Unit	Code Plot						
1	Untreated		101	0.0	0.0	0.0	0.0	0.0	0.0
			204	0.0	0.0	0.0	0.0	0.0	0.0
			302	0.0	0.0	0.0	0.0	0.0	0.0
			404	0.0	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	0.0	0.0
2	Restraint	36 OZ/A	A 102	100.0	100.0	80.0	100.0	100.0	90.0
	Atrazine	1 QT/A	A 203	100.0	100.0	80.0	100.0	100.0	100.0
	Shieldex	1.35 OZ/A	B 301	100.0	100.0	80.0	100.0	100.0	100.0
	Atrazine	1 QT/A	B 406	100.0	100.0	90.0	100.0	100.0	100.0
	COC	1 % V/V	B						
			Mean =	100.0	100.0	82.5	100.0	100.0	97.5
3	Restraint	36 OZ/A	A 103	100.0	100.0	80.0	100.0	100.0	100.0
	Atrazine	1 QT/A	A 206	100.0	100.0	70.0	100.0	100.0	100.0
	Shieldex	1.35 OZ/A	B 303	100.0	100.0	70.0	100.0	100.0	100.0
	Atrazine	1 QT/A	B 401	100.0	100.0	80.0	97.0	100.0	100.0
	Roundup PowerMAX 3	20 FL OZ/A	B						
	AMS - Liquid	2.5 % V/V	B						
	COC	1 % V/V	B						
			Mean =	100.0	100.0	75.0	99.3	100.0	100.0
4	Maverick	24 FL OZ/A	A 104	100.0	100.0	60.0	100.0	100.0	100.0
	Roundup PowerMAX 3	28 FL OZ/A	B 205	100.0	100.0	80.0	75.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B 306	100.0	100.0	80.0	90.0	100.0	100.0
			403	100.0	100.0	90.0	100.0	100.0	100.0
			Mean =	100.0	100.0	77.5	91.3	100.0	100.0
5	Maverick	18 FL OZ/A	A 105	100.0	100.0	50.0	100.0	100.0	100.0
	Maverick	14 FL OZ/A	B 202	100.0	100.0	90.0	100.0	100.0	100.0
	Roundup PowerMAX 3	28 FL OZ/A	B 305	100.0	100.0	90.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B 402	100.0	100.0	95.0	100.0	100.0	100.0
			Mean =	100.0	100.0	81.3	100.0	100.0	100.0
6	Maverick	24 FL OZ/A	A 106	100.0	100.0	50.0	100.0	100.0	80.0
	Atrazine	0.75 QT/A	A 201	100.0	100.0	90.0	100.0	100.0	97.0
	Roundup PowerMAX 3	28 FL OZ/A	B 304	100.0	100.0	90.0	100.0	100.0	100.0
	AMS - Liquid	2.5 % V/V	B 405	100.0	100.0	90.0	100.0	100.0	100.0
			Mean =	100.0	100.0	80.0	100.0	100.0	94.3

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date 7-10-2023  
 Part Rated plant, p  
 Rating Type control  
 Rating Unit/Min/Max %, 0, 100  
 Sample Size 1 plot  
 Collection Basis 1 plot  
 Reporting Basis 1 plot  
 Number of Subsamples 1  
 Crop Type, Code  
 BBCH Scale  
 Crop Scientific Name  
 Crop Name  
 Pest Type W, Weed  
 Pest Code IPOSS  
 Pest Scientific Name Ipomoea sp.  
 Pest Name Morning glory  
 Pest Stage Scale BBCH  
 Rating Timing  
 Days After First/Last Applic. 53, 25  
 Trt-Eval Interval  
 Plant-Eval Interval 54 DP-1  
 Days After Emergence  
 Pest Est.-Eval Interval  
 Equipment  
 EDC App Rating Shell  
 Data Reliability  
 ARM Action Codes EC  
 Number of Decimals  
 Data Entry Date 10-10-2023

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	13
1	Untreated				101	0.0
					204	0.0
					302	0.0
					404	0.0
					Mean =	0.0
2	Restraint	36 OZ/A	A	A	102	80.0
	Atrazine	1 QT/A	A	A	203	90.0
	Shieldex	1.35 OZ/A	B	B	301	65.0
	Atrazine	1 QT/A	B	B	406	80.0
	COC	1 % V/V	B	B		
					Mean =	78.8
3	Restraint	36 OZ/A	A	A	103	80.0
	Atrazine	1 QT/A	A	A	206	70.0
	Shieldex	1.35 OZ/A	B	B	303	55.0
	Atrazine	1 QT/A	B	B	401	90.0
	Roundup PowerMAX 3	20 FL OZ/A	B	B		
	AMS - Liquid	2.5 % V/V	B	B		
	COC	1 % V/V	B	B		
					Mean =	73.8
4	Maverick	24 FL OZ/A	A	A	104	50.0
	Roundup PowerMAX 3	28 FL OZ/A	B	B	205	40.0
	AMS - Liquid	2.5 % V/V	B	B	306	60.0
					403	90.0
					Mean =	60.0
5	Maverick	18 FL OZ/A	A	A	105	60.0
	Maverick	14 FL OZ/A	B	B	202	95.0
	Roundup PowerMAX 3	28 FL OZ/A	B	B	305	90.0
	AMS - Liquid	2.5 % V/V	B	B	402	97.0
					Mean =	85.5
6	Maverick	24 FL OZ/A	A	A	106	70.0
	Atrazine	0.75 QT/A	A	A	201	80.0
	Roundup PowerMAX 3	28 FL OZ/A	B	B	304	85.0
	AMS - Liquid	2.5 % V/V	B	B	405	85.0
					Mean =	80.0

d=Means are reported in de-transformed data units

# University of Kentucky

## Corn Herbicide Programs

Trial ID: 23-28\_COR-REC  
 Protocol ID: 23-28\_COR-REC Location: UKREC  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Sponsor Contact:  
 Investigator: Travis Legleiter

Cooperator Trial ID:  
 Trial Year: 2023

c = Crop is Part Rated  
 p = Pest is Part Rated

Rating Type

phygen = phytotoxicity - general / injury

Rating Unit/Min/Max

%, 0, 100 = percent

plot = total plot

plot = total plot

plot = total plot

Crop Type, Code

C = EPPO species (Bayer) codes  
ZEAMX, BCOR, Zea mays, Corn = US

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US  
 AMACH, Amaranthus hybridus, smooth pigweed = US  
 SIDSP, Sida spinosa, Prickly sida = US  
 IPOSS, Ipomoea sp., Morning glory = US

Plant-Eval Interval

22 DP-1 = 1 ZEAMX 5-17-2023  
 41 DP-1 = 1 ZEAMX 5-17-2023  
 54 DP-1 = 1 ZEAMX 5-17-2023

EDC App

Rating Shell = Data pulled from Excel Rating Shell

ARM Action Codes

AA = Automatic arcsine square root % transformation  
 ET4 = Excluded treatment 4  
 EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table

# University of Kentucky

## Corn Herbicide Programs

Trial ID: 23-28\_COR-REC  
 Protocol ID: 23-28\_COR-REC Location: UKREC  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Sponsor Contact:  
 Investigator: Travis Legleiter

Cooperator Trial ID:  
 Trial Year: 2023

Rating Date	6-8-2023	6-8-2023	6-8-2023	6-8-2023	6-8-2023	6-27-2023
Part Rated	plant, c	plant, p	plant, p	plant, p	plant, p	plant, p
Rating Type	phygen	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, ZEAMX					
BBCH Scale	BCOR					
Crop Scientific Name	Zea mays					
Crop Name	Corn					
Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMBTR	AMACH	SIDSP	IPOSS	AMBTR
Pest Scientific Name		Ambrosia trifida	Amaranthus hybr>	Sida spinosa	Ipomoea sp.	Ambrosia trifida
Pest Name		Giant ragweed	smooth pigweed	Prickly sida	Morning glory	Giant ragweed
Pest Stage Scale		BBCH	BBCH	BBCH	BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	21, 21	21, 21	21, 21	21, 21	21, 21	40, 12
Trt-Eval Interval						
Plant-Eval Interval	22 DP-1	22 DP-1	22 DP-1	22 DP-1	22 DP-1	41 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes		AA				ET4
Number of Decimals						
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6
		Rate Unit			dAA				
1	Untreated			0.0 a	0.0 c	0.0 b	0.0 b	0.0 b	0.0 b
2	Restraint	36 OZ/A	A	0.0 a	85.9 ab	100.0 a	100.0 a	98.5 a	100.0 a
	Atrazine	1 QT/A	A						
	Shieldex	1.35 OZ/A	B						
	Atrazine	1 QT/A	B						
	COC	1 % V/V	B						
3	Restraint	36 OZ/A	A	0.0 a	83.9 ab	100.0 a	100.0 a	97.3 a	99.3 a
	Atrazine	1 QT/A	A						
	Shieldex	1.35 OZ/A	B						
	Atrazine	1 QT/A	B						
	Roundup PowerMAX 3	20 FL OZ/A	B						
	AMS - Liquid	2.5 % V/V	B						
	COC	1 % V/V	B						
4	Maverick	24 FL OZ/A	A	0.0 a	63.7 ab	100.0 a	100.0 a	82.5 a	91.3
	Roundup PowerMAX 3	28 FL OZ/A	B						
	AMS - Liquid	2.5 % V/V	B						
5	Maverick	18 FL OZ/A	A	0.0 a	55.0 b	99.3 a	99.3 a	87.8 a	99.3 a
	Maverick	14 FL OZ/A	B						
	Roundup PowerMAX 3	28 FL OZ/A	B						
	AMS - Liquid	2.5 % V/V	B						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,7,8,11 because error mean square = 0.  
 ^Calculated from residual.  
 d=Means are reported in de-transformed data units



# University of Kentucky

Rating Date	6-8-2023	6-8-2023	6-8-2023	6-8-2023	6-8-2023	6-27-2023		
Part Rated	plant, c	plant, p	plant, p	plant, p	plant, p	plant, p		
Rating Type	phygen	control	control	control	control	control		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot		
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot		
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot		
Number of Subsamples	1	1	1	1	1	1		
Crop Type, Code	C, ZEAMX							
BBCH Scale	BCOR							
Crop Scientific Name	Zea mays							
Crop Name	Corn							
Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code		AMBTR	AMACH	SIDSP	IPOSS	AMBTR		
Pest Scientific Name		Ambrosia trifida	Amaranthus hybr>	Sida spinosa	Ipomoea sp.	Ambrosia trifida		
Pest Name		Giant ragweed	smooth pigweed	Prickly sida	Morning glory	Giant ragweed		
Pest Stage Scale		BBCH	BBCH	BBCH	BBCH	BBCH		
Rating Timing								
Days After First/Last Applic.	21, 21	21, 21	21, 21	21, 21	21, 21	40, 12		
Trt-Eval Interval								
Plant-Eval Interval	22 DP-1	22 DP-1	22 DP-1	22 DP-1	22 DP-1	41 DP-1		
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability								
ARM Action Codes		AA				ET4		
Number of Decimals								
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023		
Trt Treatment	Rate	Appl	1	2	3	4	5	6
No. Name	Rate Unit	Code		dAA				
6 Maverick	24 FL OZ/A	A	0.0 a	92.1 a	100.0 a	100.0 a	96.3 a	97.5 a
Atrazine	0.75 QT/A	A						
Roundup PowerMAX 3	28 FL OZ/A	B						
AMS - Liquid	2.5 % V/V	B						
LSD P=.05	.		20.65	25.56	0.92	0.92	18.82	3.92
Standard Deviation	0.00		10.60t		0.61	0.61	12.49	2.54
CV	0.0		20.59t		0.74	0.74	16.21	3.21
Levene's F^	.		1.654		0.533	0.533	0.868	0.557
Levene's Prob(F)	.		0.197		0.748	0.748	0.522	0.697
Shapiro-Wilk^	.		0.9644		0.6622*	0.6622*	0.8431*	0.8513*
P(Shapiro-Wilk)^	.		0.5321		0.0*	0.0*	0.0016*	0.0056*
Skewness^	.		-0.1763		-2.2059*	-2.2059*	-1.3084*	-1.6452*
P(Skewness)^	.		0.7282		0.0002*	0.0002*	0.0157*	0.0075*
Kurtosis^	.		0.8239		8.7619*	8.7619*	3.5213*	4.0017*
P(Kurtosis)^	.		0.4064		0.0*	0.0*	0.0015*	0.0013*
Replicate F	0.000		1.090		1.000	1.000	0.539	0.556
Replicate Prob(F)	1.0000		0.3834		0.4199	0.4199	0.6625	0.6540
Treatment F	0.000		25.996		17725.446	17725.446	37.530	1211.456
Treatment Prob(F)	1.0000		0.0001		0.0001	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Could not calculate LSD (% mean diff) for columns 1,7,8,11 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-27-2023	6-27-2023	6-27-2023	7-10-2023	7-10-2023	7-10-2023			
Part Rated	plant, p	plant, p	plant, p	plant, p	plant, p	plant, p			
Rating Type	control	control	control	control	control	control			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100			
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot			
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot			
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot			
Number of Subsamples	1	1	1	1	1	1			
Crop Type, Code									
BBCH Scale									
Crop Scientific Name									
Crop Name									
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code	AMACH	SIDSP	IPOSS	AMBTR	AMACH	SIDSP			
Pest Scientific Name	Amaranthus hybr>	Sida spinosa	Ipomoea sp.	Ambrosia trifida	Amaranthus hybr>	Sida spinosa			
Pest Name	smooth pigweed	Prickly sida	Morning glory	Giant ragweed	smooth pigweed	Prickly sida			
Pest Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH			
Rating Timing									
Days After First/Last Applic.	40, 12	40, 12	40, 12	53, 25	53, 25	53, 25			
Trt-Eval Interval									
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1	54 DP-1	54 DP-1	54 DP-1			
Days After Emergence									
Pest Est.-Eval Interval									
Equipment									
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell			
Data Reliability									
ARM Action Codes									
Number of Decimals									
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023			
Trt No.	Treatment Name	Rate Unit	Appl Code	7	8	9	10	11	12
1	Untreated			0.0 b	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b
2	Restraint	36 OZ/A	A	100.0 a	100.0 a	82.5 a	100.0 a	100.0 a	97.5 a
	Atrazine	1 QT/A	A						
	Shieldex	1.35 OZ/A	B						
	Atrazine	1 QT/A	B						
	COC	1 % V/V	B						
3	Restraint	36 OZ/A	A	100.0 a	100.0 a	75.0 a	99.3 a	100.0 a	100.0 a
	Atrazine	1 QT/A	A						
	Shieldex	1.35 OZ/A	B						
	Atrazine	1 QT/A	B						
	Roundup PowerMAX 3	20 FL OZ/A	B						
	AMS - Liquid	2.5 % V/V	B						
	COC	1 % V/V	B						
4	Maverick	24 FL OZ/A	A	100.0 a	100.0 a	77.5 a	91.3 a	100.0 a	100.0 a
	Roundup PowerMAX 3	28 FL OZ/A	B						
	AMS - Liquid	2.5 % V/V	B						
5	Maverick	18 FL OZ/A	A	100.0 a	100.0 a	81.3 a	100.0 a	100.0 a	100.0 a
	Maverick	14 FL OZ/A	B						
	Roundup PowerMAX 3	28 FL OZ/A	B						
	AMS - Liquid	2.5 % V/V	B						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
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Could not calculate LSD (% mean diff) for columns 1,7,8,11 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-27-2023	6-27-2023	6-27-2023	7-10-2023	7-10-2023	7-10-2023			
Part Rated	plant, p	plant, p	plant, p	plant, p	plant, p	plant, p			
Rating Type	control	control	control	control	control	control			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100			
Sample Size	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot			
Collection Basis	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot			
Reporting Basis	1 plot	1 plot	1 plot	1 plot	1 plot	1 plot			
Number of Subsamples	1	1	1	1	1	1			
Crop Type, Code									
BBCH Scale									
Crop Scientific Name									
Crop Name									
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code	AMACH	SIDSP	IPOSS	AMBTR	AMACH	SIDSP			
Pest Scientific Name	Amaranthus hybr>	Sida spinosa	Ipomoea sp.	Ambrosia trifida	Amaranthus hybr>	Sida spinosa			
Pest Name	smooth pigweed	Prickly sida	Morning glory	Giant ragweed	smooth pigweed	Prickly sida			
Pest Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH			
Rating Timing									
Days After First/Last Applic.	40, 12	40, 12	40, 12	53, 25	53, 25	53, 25			
Trt-Eval Interval									
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1	54 DP-1	54 DP-1	54 DP-1			
Days After Emergence									
Pest Est.-Eval Interval									
Equipment									
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell			
Data Reliability									
ARM Action Codes									
Number of Decimals									
Data Entry Date	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023	10-10-2023			
Trt	Treatment	Rate	Appl	7	8	9	10	11	12
No.	Name	Rate Unit	Code						
6	Maverick	24 FL OZ/A	A	100.0 a	100.0 a	80.0 a	100.0 a	100.0 a	94.3 a
	Atrazine	0.75 QT/A	A						
	Roundup PowerMAX 3	28 FL OZ/A	B						
	AMS - Liquid	2.5 % V/V	B						
	LSD P=.05			.	.	16.24	7.42	.	6.10
	Standard Deviation			0.00	0.00	10.77	4.92	0.00	4.05
	CV			0.0	0.0	16.31	6.02	0.0	4.94
	Levene's F^			.	.	0.219	3.12*	.	0.552
	Levene's Prob(F)			.	.	0.95	0.034*	.	0.735
	Shapiro-Wilk^			.	.	0.977	0.8161*	.	0.836*
	P(Shapiro-Wilk)^			.	.	0.8348	0.0005*	.	0.0012*
	Skewness^			.	.	-0.2052	-1.2748*	.	-1.2359*
	P(Skewness)^			.	.	0.686	0.0182*	.	0.0216*
	Kurtosis^			.	.	0.1786	5.9409*	.	3.7175*
	P(Kurtosis)^			.	.	0.8561	0.0*	.	0.0009*
	Replicate F			0.000	0.000	4.102	0.856	0.000	2.160
	Replicate Prob(F)			1.0000	1.0000	0.0260	0.4853	1.0000	0.1353
	Treatment F			0.000	0.000	36.332	266.821	0.000	395.056
	Treatment Prob(F)			1.0000	1.0000	0.0001	0.0001	1.0000	0.0001

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Could not calculate LSD (% mean diff) for columns 1,7,8,11 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date 7-10-2023  
 Part Rated plant, p  
 Rating Type control  
 Rating Unit/Min/Max %, 0, 100  
 Sample Size 1 plot  
 Collection Basis 1 plot  
 Reporting Basis 1 plot  
 Number of Subsamples 1  
 Crop Type, Code  
 BBCH Scale  
 Crop Scientific Name  
 Crop Name  
 Pest Type W, Weed  
 Pest Code IPOSS  
 Pest Scientific Name Ipomoea sp.  
 Pest Name Morning glory  
 Pest Stage Scale BBCH  
 Rating Timing  
 Days After First/Last Applic. 53, 25  
 Trt-Eval Interval  
 Plant-Eval Interval 54 DP-1  
 Days After Emergence  
 Pest Est.-Eval Interval  
 Equipment  
 EDC App Rating Shell  
 Data Reliability  
 ARM Action Codes EC  
 Number of Decimals  
 Data Entry Date 10-10-2023

Trt No.	Treatment Name	Rate	Unit	Appl Code	
					13
1	Untreated				0.0
2	Restraint	36 OZ/A	A		78.8 a
	Atrazine	1 QT/A	A		
	Shieldex	1.35 OZ/A	B		
	Atrazine	1 QT/A	B		
	COC	1 % V/V	B		
3	Restraint	36 OZ/A	A		73.8 a
	Atrazine	1 QT/A	A		
	Shieldex	1.35 OZ/A	B		
	Atrazine	1 QT/A	B		
	Roundup PowerMAX 3	20 FL OZ/A	B		
	AMS - Liquid	2.5 % V/V	B		
	COC	1 % V/V	B		
4	Maverick	24 FL OZ/A	A		60.0 a
	Roundup PowerMAX 3	28 FL OZ/A	B		
	AMS - Liquid	2.5 % V/V	B		
5	Maverick	18 FL OZ/A	A		85.5 a
	Maverick	14 FL OZ/A	B		
	Roundup PowerMAX 3	28 FL OZ/A	B		
	AMS - Liquid	2.5 % V/V	B		

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,7,8,11 because error mean square = 0.  
 ^Calculated from residual.  
 d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date 7-10-2023  
 Part Rated plant, p  
 Rating Type control  
 Rating Unit/Min/Max %, 0, 100  
 Sample Size 1 plot  
 Collection Basis 1 plot  
 Reporting Basis 1 plot  
 Number of Subsamples 1  
 Crop Type, Code  
 BBCH Scale  
 Crop Scientific Name  
 Crop Name  
 Pest Type W, Weed  
 Pest Code IPOSS  
 Pest Scientific Name Ipomoea sp.  
 Pest Name Morning glory  
 Pest Stage Scale BBCH  
 Rating Timing  
 Days After First/Last Applic. 53, 25  
 Trt-Eval Interval  
 Plant-Eval Interval 54 DP-1  
 Days After Emergence  
 Pest Est.-Eval Interval  
 Equipment  
 EDC App Rating Shell  
 Data Reliability  
 ARM Action Codes EC  
 Number of Decimals  
 Data Entry Date 10-10-2023

Trt No.	Treatment Name	Rate	Unit	Appl Code	
6	Maverick	24 FL OZ/A	A	A	80.0 a
	Atrazine	0.75 QT/A	A	A	
	Roundup PowerMAX 3	28 FL OZ/A	B	B	
	AMS - Liquid	2.5 % V/V	B	B	
	LSD P=.05				20.93
	Standard Deviation				13.59
	CV				17.97
	Levene's F^				0.52
	Levene's Prob(F)				0.722
	Shapiro-Wilk^				0.9598
	P(Shapiro-Wilk)^				0.5407
	Skewness^				-0.2696
	P(Skewness)^				0.6294
	Kurtosis^				-0.9366
	P(Kurtosis)^				0.3903
	Replicate F				2.195
	Replicate Prob(F)				0.1414
	Treatment F				2.027
	Treatment Prob(F)				0.1545

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,7,8,11 because error mean square = 0.  
 ^Calculated from residual.  
 d=Means are reported in de-transformed data units

# University of Kentucky

## Corn Herbicide Programs

Trial ID: 23-28\_COR-REC  
 Protocol ID: 23-28\_COR-REC Location: UKREC  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Sponsor Contact:  
 Investigator: Travis Legleiter

Cooperator Trial ID:  
 Trial Year: 2023

c = Crop is Part Rated  
 p = Pest is Part Rated

Rating Type

phygen = phytotoxicity - general / injury

Rating Unit/Min/Max

%, 0, 100 = percent

plot = total plot

plot = total plot

plot = total plot

Crop Type, Code

C = EPPO species (Bayer) codes

ZEAMX, BCOR, Zea mays, Corn = US

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

AMACH, Amaranthus hybridus, smooth pigweed = US

SIDSP, Sida spinosa, Prickly sida = US

IPOSS, Ipomoea sp., Morning glory = US

Plant-Eval Interval

22 DP-1 = 1 ZEAMX 5-17-2023

41 DP-1 = 1 ZEAMX 5-17-2023

54 DP-1 = 1 ZEAMX 5-17-2023

EDC App

Rating Shell = Data pulled from Excel Rating Shell

ARM Action Codes

AA = Automatic arcsine square root % transformation

ET4 = Excluded treatment 4

EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table

# University of Kentucky

## C23 821 UNIVERSITY CORN HERBICIDE TRIAL

Trial ID: 23-31 COR-REC  
 Protocol ID: MKD-FI-2023-US-C23-A-01.0 Location: University of Kentucky Cooperator Trial ID:  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: Daniel Waldstein Sponsor Contact:  
 Investigator: WALDSTEIN DANIEL

Reps: 4		Plots: 10 by 30 feet		Mix Size: 2 L (total for 4 plots; minimum=1.564 L, overage=436 mL)									
Appl. Amount: 15 GAL/AC		Form Form Form		Rate	Appl	Appl	Amt	Product	Rep				
Trt	Treatment	Form	Form	Form	Rate	Code	Timing	to Measure		1	2	3	4
No.	Name	Conc	Unit	Type	Rate	Unit							
1	CHECK									101	207	310	404
2	ACURON	412.8	GA/L	ZC	48.0	FL OZ/A	A	VA	50.0 mL/mx	102	203	301	411
3	DEGREE XTRA	485	GA/L	SL	64.0	FL OZ/A	A	VA	66.67 mL/mx	103	204	309	408
4	TRIVOLT	3.65	lba/gal	EC	12.0	FL OZ/A	A	VA	12.5 mL/mx	104	209	308	402
5	BAS 82100H	195	GA/L	ZC	14.0	FL OZ/A	A	VA	14.58 mL/mx	105	202	304	407
6	BAS 82100H	195	GA/L	ZC	14.0	FL OZ/A	A	VA	14.58 mL/mx	106	210	303	410
	ATRAZIN 4L	480	GA/L	SC	32.0	FL OZ/A	A	VA	33.33 mL/mx				
7	BAS 82100H	195	GA/L	ZC	17.0	FL OZ/A	A	VA	17.71 mL/mx	107	205	311	401
8	BAS 82100H	195	GA/L	ZC	17.0	FL OZ/A	A	VA	17.71 mL/mx	108	201	307	409
	ATRAZIN 4L	480	GA/L	SC	32.0	FL OZ/A	A	VA	33.33 mL/mx				
9	BAS 82100H	195	GA/L	ZC	14.0	FL OZ/A	B	NA	14.58 mL/mx	109	211	306	405
	ARMEZON	336	GA/L	SC	0.75	FL OZ/A	B	NA	0.7812 mL/mx				
	ATRAZIN 4L	480	GA/L	SC	32.0	FL OZ/A	B	NA	33.33 mL/mx				
	ROUNDUP POWERMAX3	575	GA/L	SL	30.0	FL OZ/A	B	NA	31.25 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	8.5	LB AI/100 GAL	B	NA	49.99 mL/mx				
	CROP OIL CONCENTRATE	870	GA/L	SL	1.0	% V/V	B	NA	20.0 mL/mx				
10	BAS 82100H	195	GA/L	ZC	14.0	FL OZ/A	A	VA	14.58 mL/mx	110	208	305	406
	ARMEZON PRO	642.5	GA/L	EC	16.0	FL OZ/A	C	NA	16.67 mL/mx				
	ATRAZIN 4L	480	GA/L	SC	16.0	FL OZ/A	C	NA	16.67 mL/mx				
	ROUNDUP POWERMAX3	575	GA/L	SL	30.0	FL OZ/A	C	NA	31.25 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	8.5	LB AI/100 GAL	C	NA	49.99 mL/mx				
	CROP OIL CONCENTRATE	870	GA/L	SL	1.0	% V/V	C	NA	20.0 mL/mx				
11	BAS 82100H	195	GA/L	ZC	14.0	FL OZ/A	A	VA	14.58 mL/mx	111	206	302	403
	STATUS HERBICIDE	56	%	WG	5.0	OZ WT/A	C	NA	4.993 g/mx				
	ZIDUA SC	500	GA/L	SC	2.5	FL OZ/A	C	NA	2.604 mL/mx				
	ROUNDUP POWERMAX3	575	GA/L	SL	30.0	FL OZ/A	C	NA	31.25 mL/mx				
	AMS - Liquid	3.4	lba/gal	SL	8.5	LB AI/100 GAL	C	NA	49.99 mL/mx				
	NIS	100	%	SL	0.25	% V/V	C	NA	4.999 mL/mx				

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form	Conc	Form	Unit	Form	Type	Lot Code
50.000	mL	ACURON	412.8	GA/L	ZC				
66.667	mL	DEGREE XTRA	485	GA/L	SL				
12.500	mL	TRIVOLT	3.65	lba/gal	EC				
108.333	mL	BAS 82100H	195	GA/L	ZC				
116.667	mL	ATRAZIN 4L	480	GA/L	SC				
0.781	mL	ARMEZON	336	GA/L	SC				
93.750	mL	ROUNDUP POWERMAX3	575	GA/L	SL				
149.984	mL	AMS - Liquid	3.4	lba/gal	SL				
39.996	mL	CROP OIL CONCENTRATE	870	GA/L	SL				
16.667	mL	ARMEZON PRO	642.5	GA/L	EC				
4.993	g	STATUS HERBICIDE	56	%	WG				
2.604	mL	ZIDUA SC	500	GA/L	SC				
4.999	mL	NIS	100	%	SL				

\* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 2 L (mix size basis).

\* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 2 L.

# University of Kentucky

## C23 821 UNIVERSITY CORN HERBICIDE TRIAL

Trial ID: 23-31 COR-REC  
 Protocol ID: MKD-FI-2023-US-C23-A-01.0 Location: University of Kentucky Cooperator Trial ID:  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: Daniel Waldstein Sponsor Contact:  
 Investigator: WALDSTEIN DANIEL

### General Trial Information

**Study Director:** Daniel Waldstein  
**Investigator:** WALDSTEIN DANIEL

**Status:** E established

**ARM Trial Created On:** 4-7-2023

### Trial Location

**City:** Princeton **Country:** USA United States  
**State/Prov.:** Kentucky  
**Postal Code:** 42445

### Regulations

**Conducted Under GLP:** No  
**Conducted Under GEP:** No

### No. Destroyed?

1. PARTLY

### Contacts

**Role:** STYDIR study director  
**Study Director:** Daniel Waldstein  
**Role:** INVEST investigator  
**Investigator:** WALDSTEIN DANIEL

### Crop Description

**Crop 1:** C ZEAMX Zea mays Corn **BBCH Scale:** BCOR  
**Entry Date:** 9-13-2023 **Stage Scale:** BBCH  
**Variety:** P1170AM  
**Attributes:** RR/LL  
**Planting Date:** 5-17-2023 **Planting Rate:** 32000 S/A  
**Depth:** 2 IN  
**Row Spacing:** 30 IN **Planting Method:** PLANTD planted  
**Planting Equipment:** VP vacuum planter  
**Soil Moisture:** WET wet

### Pest Description

**Pest 1 Type:** W **Code:** AMBTR Ambrosia trifida **Entry Date:** 9-13-2023  
**Common Name:** Giant ragweed **Stage Scale:** BBCH

**Pest 2 Type:** W **Code:** DIGSS Digitaria sp. **Entry Date:** 9-13-2023  
**Common Name:** Crabgrass **Stage Scale:** BBCH

**Pest 3 Type:** W **Code:** SIDSP Sida spinosa **Entry Date:** 9-13-2023  
**Common Name:** Prickly sida **Stage Scale:** BBCH

**Pest 4 Type:** W **Code:** CYPES Cyperus esculentus **Entry Date:** 9-13-2023  
**Common Name:** Yellow nutsedge **Stage Scale:** BBCH

**Pest 5 Type:** W **Code:** EPHNU Euphorbia nutans **Entry Date:** 9-13-2023  
**Common Name:** Eyebane **Stage Scale:** BBCH

**Pest 6 Type:** W **Code:** GLXMA Glycine max **Entry Date:** 9-13-2023  
**Common Name:** Soybean **Stage Scale:** BBCH

**Pest 7 Type:** W **Code:** CONSS Convolvulus sp. **Entry Date:** 9-13-2023  
**Common Name:** Morningglory **Stage Scale:** BBCH

**Pest 8 Type:** W **Code:** AMACH Amaranthus hybridus **Entry Date:** 9-13-2023  
**Common Name:** smooth pigweed **Stage Scale:** BBCH

**Pest 9 Type:** W **Code:** ERICA Erigeron canadensis **Entry Date:** 9-13-2023  
**Common Name:** mare's-tail **Stage Scale:** BBCH

### Site and Design

**Treated Plot Width:** 10 FT **Site Type:** FIELD field  
**Treated Plot Length:** 30 FT **Experimental Unit:** 1 PLOT plot  
**Treated Plot Area:** 300.0 FT<sup>2</sup> **Tillage Type:** NOTILL no-till  
**Replications:** 4 **Treatments:** 11 **Plots:** 44 **Study Design:** RACOB� Randomized Complete Block (RCB)  
**Distance between Blocks:** 1 FT  
**Distance between 'Plot' Experimental Units:** 0.5 FT



# University of Kentucky

## Maintenance

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Type	Rate	Unit
1.	4-20-2023	FERT	Phosphorus				46	lbs
2.	4-20-2023	FERT	Nitrogen				18	lbs
3.	4-24-2023	FERT	Nitrogen				200	lbs
4.	4-19-2023	HERB	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	30	fl oz/a
5.	4-19-2023	HERB	Interline				32	fl oz/a
6.	4-19-2023	ADJ	AMS				2.5	v/v
7.	5-17-2023	HERB	Roundup PowerMAX 3	4.8	LBAE/GAL	SL	40	fl oz/a
8.	5-17-2023	ADJ	AMS				2.5	v/v

## Field Prep./Maintenance:

May 17 application was made at planting to all a application bottles + treatment 9 + untreated.

## Soil Description

Description Name: 108-C4  
 % Sand: 4.2      % OM: 2.6      Texture: SIL      silt loam  
 % Silt: 80.8      Soil Name: Crider Silt Loam  
 % Clay: 15.1  
 pH: 5.25      CEC: 12.7

## Application Description

	A	B	C
Date	5-18-2023	6-2-2023	6-5-2023
Start Time	2:32 PM	12:38 PM	3:28 PM
Stop Time	3:04 PM	12:39 PM	3:34 PM
Interval to Prev. Appl.		15 DAYS	3 DAYS
Method	SPRAY	SPRAY	SPRAY
Timing	PREEM	POSPOS	POSPOS
Placement	soil	foliar	foliar
Applied By	CMY	CMY	CMY
Entry Date	9-13-2023	9-13-2023	9-13-2023
Air Temperature Start, Stop	79, 79 F	85.9, 85.9 F	86.8, 88.8 F
% Relative Humidity Start, Stop	41, 43	53.7, 53.6	37.4, 37.4
Wind Velocity+Dir. Start	1.9 MPH, SW	2.1 MPH, W	2.4 MPH, N
Wind Velocity+Dir. Stop	9.2 MPH, SW	2.7 MPH, W	4.5 MPH, N
Wind Velocity+Dir. Max	14.6 MPH, SW	7.3 MPH, W	4.5 MPH, N
Wet Leaves (Y/N)	N, no	N, no	N, no
Soil Temperature			83.2 F
Soil Moisture	WET	DRY	DRY
% Cloud Cover	0	50	0

## Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale	ZEAMX, BCOR	ZEAMX, BCOR	ZEAMX, BCOR
Stage Majority, Percent	V3, -	V3, -	V4, -
Stage Minimum, Percent	V3, -	V3, -	V4, -
Stage Maximum, Percent	V4, -	V4, -	V4, -
Height Average	9.375 IN	9.375 IN	11.75 IN
Height Minimum, Maximum	8.75, 10	8.75, 10	9, 14.5

# University of Kentucky

## Pest Stage At Each Application

	A	B	C
<b>Pest 1 Code, Type, Scale</b>	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
<b>Height Average</b>		2 IN	4 IN
<b>Height Minimum, Maximum</b>		1, 3	1.5, 6.5
<b>Density Average</b>		2.33 FT2	2.33 FT2
<b>Density Minimum, Maximum</b>		1, 4	2, 3
<b>Pest 2 Code, Type, Scale</b>	DIGSS, W, BBCH	DIGSS, W, BBCH	DIGSS, W, BBCH
<b>Height Average</b>		0.875 IN	
<b>Height Minimum, Maximum</b>		0.25, 1.5	
<b>Density Average</b>		4 FT2	
<b>Density Minimum, Maximum</b>		1, 6	
<b>Pest 3 Code, Type, Scale</b>	SIDSP, W, BBCH	SIDSP, W, BBCH	SIDSP, W, BBCH
<b>Height Average</b>		0.75 IN	
<b>Height Minimum, Maximum</b>		0.75, 0.75	
<b>Density Average</b>		2 FT2	
<b>Density Minimum, Maximum</b>		0, 2	
<b>Pest 4 Code, Type, Scale</b>	CYPES, W, BBCH	CYPES, W, BBCH	CYPES, W, BBCH
<b>Height Average</b>		1.75 IN	
<b>Height Minimum, Maximum</b>		0, 1.75	
<b>Density Average</b>		1 FT2	
<b>Density Minimum, Maximum</b>		0, 1	
<b>Pest 5 Code, Type, Scale</b>	EPHNU, W, BBCH	EPHNU, W, BBCH	EPHNU, W, BBCH
<b>Height Average</b>		0.75 IN	
<b>Height Minimum, Maximum</b>		0.5, 1	
<b>Density Average</b>		1 FT2	
<b>Density Minimum, Maximum</b>		0, 1	
<b>Pest 6 Code, Type, Scale</b>	GLXMA, W, BBCH	GLXMA, W, BBCH	GLXMA, W, BBCH
<b>Height Average</b>		9 IN	
<b>Height Minimum, Maximum</b>		0, 9	
<b>Density Average</b>		1 FT2	
<b>Density Minimum, Maximum</b>		0, 1	
<b>Pest 7 Code, Type, Scale</b>	CONSS, W, BBCH	CONSS, W, BBCH	CONSS, W, BBCH
<b>Height Average</b>		0.5 IN	
<b>Height Minimum, Maximum</b>		0, 0.5	
<b>Density Average</b>		1 FT2	
<b>Density Minimum, Maximum</b>		0, 1	
<b>Pest 8 Code, Type, Scale</b>	AMACH, W, BBCH	AMACH, W, BBCH	AMACH, W, BBCH
<b>Height Average</b>		0.25 IN	
<b>Height Minimum, Maximum</b>		0, 0.25	
<b>Density Average</b>		1 FT2	
<b>Density Minimum, Maximum</b>		0, 1	
<b>Pest 9 Code, Type, Scale</b>	ERICA, W, BBCH	ERICA, W, BBCH	ERICA, W, BBCH
<b>Height Average</b>			4 IN
<b>Height Minimum, Maximum</b>			3.5, 4.5
<b>Density Average</b>			2 FT2
<b>Density Minimum, Maximum</b>			0, 2

## Application Equipment

	A	B	C
<b>Equipment Type</b>	BACCAI	BACCAI	BACCAI
<b>Operation Pressure</b>	33 PSI	37 PSI	35 PSI
<b>Nozzle Model</b>	XR11002	AIXR 11002	AIXR 11002
<b>Nozzle Type</b>	FLAFXR	FLAFAI	FLAFAI
<b>Nozzle TradeName</b>	XR TeeJet	TEEJET	TEEJET
<b>Nozzle Tip Size, Color</b>	02, Yellow	02, Yellow	02, Yellow
<b>Nozzle Spacing</b>	20.0 IN	20.0 IN	20.0 IN
<b>Boom ID</b>	WHITE	BLUE	WHITE
<b>Boom Length</b>	10.0 FT	10.0 FT	10.0 FT
<b>Boom Height</b>	18.0 IN	18.0 IN	18.0 IN
<b>Ground Speed</b>	3 MPH	3 MPH	3 MPH
<b>Carrier</b>	WATER	WATER	WATER
<b>Application Amount</b>	15 GAL/AC	15 GAL/AC	15 GAL/AC
<b>Mix Overage</b>	436.0 mL	436.0 mL	436.0 mL
<b>Mix Size</b>	2.0 L	2.0 L	2.0 L
<b>Propellant</b>	comco2	comco2	comco2

## Notes

Context	Date	By	Notes
STATUS	4-7-2023	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	7-13-2023	Travis Legleiter	Automatically added by ARM: Status changed to: E: changed by (EKYLET).
STATUS	7-13-2023	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'E' when Rating Date entered.

## SE Definitions

SE Description	1.	2.	3.	4.
Gras	Broad	Cr		
s	leaf	op		
wee	weed	Re		
d	contro	sp		
contr	l (%)	on		
ol %		se		

# University of Kentucky

## C23 821 UNIVERSITY CORN HERBICIDE TRIAL

Trial ID: 23-31 COR-REC  
 Protocol ID: MKD-F-2023-US-C23-A-01.0 Location: University of Kentucky  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Daniel Waldstein Sponsor Contact:  
 Investigator: WALDSTEIN DANIEL

Cooperator Trial ID:  
 Trial Year: 2023

Rating Date	6-8-2023	6-8-2023	6-8-2023	6-16-2023	6-16-2023	6-16-2023
Part Rated	plant, c	PLANT, P	PLANT, P	plant, c	PLANT, P	PLANT, P
Rating Type	phygen	CONTROL	CONTROL	phygen	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 plot	1 PLOT	1 PLOT	1 plot	1 PLOT	1 PLOT
Collection Basis	1 plot	1 PLOT	1 PLOT	1 plot	1 PLOT	1 PLOT
Reporting Basis	1 plot	1 PLOT	1 PLOT	1 plot	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, ZEAMX			C, ZEAMX		
BBCH Scale	BCOR			BCOR		
Crop Scientific Name	Zea mays			Zea mays		
Crop Name	Corn			Corn		
Pest Type		W, Weed	W, Weed		W, Weed	W, Weed
Pest Code		AMBTR	IPOSS		AMBTR	IPOSS
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.		Ambrosia trifida	Ipomoea sp.
Pest Name		Giant ragweed	Morning glory		Giant ragweed	Morning glory
Pest Stage Scale		BBCH	BBCH		BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	21, 3	21, 3	21, 3	29, 11	29, 11	29, 11
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	29 DA-A	29 DA-A	29 DA-A
Plant-Eval Interval	22 DP-1	22 DP-1	22 DP-1	30 DP-1	30 DP-1	30 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes		ET7			AL	
Number of Decimals						
Data Entry Date	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023

Trt	Treatment	Rate	Appl	1		2		3		4		5		6	
No.	Name	Rate Unit	Code Plot												
1	CHECK		A 101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			207	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			310	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			404	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0d	0.0	0.0	0.0
2	ACURON	48.0 FL OZ/A	A 102	0.0	90.0	95.0	0.0	80.0	90.0			80.0	90.0	90.0	90.0
			203	0.0	95.0	97.0	0.0	90.0	90.0			90.0	90.0	90.0	90.0
			301	0.0	80.0	97.0	0.0	70.0	97.0			70.0	97.0	97.0	97.0
			411	0.0	95.0	90.0	0.0	80.0	80.0			80.0	80.0	80.0	80.0
			Mean =	0.0	90.0	94.8	0.0	79.7d	89.3			79.7d	89.3	89.3	89.3
3	DEGREE XTRA	64.0 FL OZ/A	A 103	0.0	97.0	100.0	0.0	80.0	90.0			80.0	90.0	90.0	90.0
			204	0.0	90.0	100.0	0.0	90.0	97.0			90.0	97.0	97.0	97.0
			309	0.0	70.0	95.0	0.0	70.0	90.0			70.0	90.0	90.0	90.0
			408	0.0	80.0	95.0	0.0	80.0	90.0			80.0	90.0	90.0	90.0
			Mean =	0.0	84.3	97.5	0.0	79.7d	91.8			79.7d	91.8	91.8	91.8
4	TRIVOLT	12.0 FL OZ/A	A 104	0.0	97.0	97.0	0.0	97.0	97.0			97.0	97.0	97.0	97.0
			209	0.0	70.0	100.0	0.0	90.0	97.0			90.0	97.0	97.0	97.0
			308	0.0	60.0	97.0	0.0	50.0	90.0			50.0	90.0	90.0	90.0
			402	0.0	85.0	90.0	0.0	85.0	97.0			85.0	97.0	97.0	97.0
			Mean =	0.0	78.0	96.0	0.0	78.1d	95.3			78.1d	95.3	95.3	95.3
5	BAS 82100H	14.0 FL OZ/A	A 105	0.0	95.0	100.0	0.0	70.0	95.0			70.0	95.0	95.0	95.0
			202	0.0	60.0	95.0	0.0	50.0	90.0			50.0	90.0	90.0	90.0
			304	0.0	50.0	95.0	0.0	50.0	90.0			50.0	90.0	90.0	90.0
			407	0.0	60.0	95.0	0.0	70.0	90.0			70.0	90.0	90.0	90.0
			Mean =	0.0	66.3	96.3	0.0	59.2d	91.3			59.2d	91.3	91.3	91.3
6	BAS 82100H	14.0 FL OZ/A	A 106	0.0	100.0	97.0	0.0	100.0	97.0			100.0	97.0	97.0	97.0
	ATRAZIN 4L	32.0 FL OZ/A	A 210	0.0	80.0	100.0	0.0	85.0	97.0			85.0	97.0	97.0	97.0
			303	0.0	50.0	95.0	0.0	50.0	100.0			50.0	100.0	100.0	100.0
			410	0.0	90.0	90.0	0.0	70.0	90.0			70.0	90.0	90.0	90.0
			Mean =	0.0	80.0	95.5	0.0	73.9d	96.0			73.9d	96.0	96.0	96.0
7	BAS 82100H	17.0 FL OZ/A	A 107	0.0	90.0	100.0	0.0	85.0	100.0			85.0	100.0	100.0	100.0
			205	0.0	50.0	95.0	0.0	60.0	90.0			60.0	90.0	90.0	90.0
			311	0.0	40.0	90.0	0.0	20.0	90.0			20.0	90.0	90.0	90.0
			401	0.0	90.0	95.0	0.0	80.0	90.0			80.0	90.0	90.0	90.0
			Mean =	0.0	67.5	95.0	0.0	53.7d	92.5			53.7d	92.5	92.5	92.5
8	BAS 82100H	17.0 FL OZ/A	A 108	0.0	100.0	100.0	0.0	97.0	100.0			97.0	100.0	100.0	100.0
	ATRAZIN 4L	32.0 FL OZ/A	A 201	0.0	98.0	100.0	0.0	80.0	95.0			80.0	95.0	95.0	95.0
			307	0.0	95.0	100.0	0.0	75.0	90.0			75.0	90.0	90.0	90.0
			409	0.0	95.0	95.0	0.0	80.0	95.0			80.0	95.0	95.0	95.0
			Mean =	0.0	97.0	98.8	0.0	82.6d	95.0			82.6d	95.0	95.0	95.0

d=Means are reported in de-transformed data units

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Rating Date	6-8-2023	6-8-2023	6-8-2023	6-16-2023	6-16-2023	6-16-2023		
Part Rated	plant, c	PLANT, P	PLANT, P	plant, c	PLANT, P	PLANT, P		
Rating Type	phygen	CONTROL	CONTROL	phygen	CONTROL	CONTROL		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size	1 plot	1 PLOT	1 PLOT	1 plot	1 PLOT	1 PLOT		
Collection Basis	1 plot	1 PLOT	1 PLOT	1 plot	1 PLOT	1 PLOT		
Reporting Basis	1 plot	1 PLOT	1 PLOT	1 plot	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1		
Crop Type, Code	C, ZEAMX			C, ZEAMX				
BBCH Scale	BCOR			BCOR				
Crop Scientific Name	Zea mays			Zea mays				
Crop Name	Corn			Corn				
Pest Type		W, Weed	W, Weed		W, Weed	W, Weed		
Pest Code		AMBTR	IPOSS		AMBTR	IPOSS		
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.		Ambrosia trifida	Ipomoea sp.		
Pest Name		Giant ragweed	Morning glory		Giant ragweed	Morning glory		
Pest Stage Scale		BBCH	BBCH		BBCH	BBCH		
Rating Timing								
Days After First/Last Applic.	21, 3	21, 3	21, 3	29, 11	29, 11	29, 11		
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	29 DA-A	29 DA-A	29 DA-A		
Plant-Eval Interval	22 DP-1	22 DP-1	22 DP-1	30 DP-1	30 DP-1	30 DP-1		
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability								
ARM Action Codes		ET7			AL			
Number of Decimals								
Data Entry Date	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023		
Trt Treatment	Rate	Appl	Rating Shell				Rating Shell	
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6
9 BAS 82100H	14.0 FL OZ/A	B 109	0.0	100.0	100.0	0.0	100.0	100.0
ARMEZON	0.75 FL OZ/A	B 211	0.0	100.0	100.0	0.0	100.0	100.0
ATRAZIN 4L	32.0 FL OZ/A	B 306	0.0	100.0	100.0	0.0	100.0	97.0
ROUNDUP POWERMAX3	30.0 FL OZ/A	B 405	0.0	100.0	100.0	0.0	100.0	100.0
AMS - Liquid	8.5 LB AI/100 GAL	B						
CROP OIL CONCENTRATE	1.0 % V/V	B						
	Mean =		0.0	100.0	100.0	0.0	100.0d	99.3
10 BAS 82100H	14.0 FL OZ/A	A 110	0.0	50.0	95.0	0.0	100.0	100.0
ARMEZON PRO	16.0 FL OZ/A	C 208	0.0	90.0	100.0	0.0	100.0	100.0
ATRAZIN 4L	16.0 FL OZ/A	C 305	0.0	70.0	95.0	0.0	100.0	100.0
ROUNDUP POWERMAX3	30.0 FL OZ/A	C 406	0.0	90.0	97.0	0.0	100.0	100.0
AMS - Liquid	8.5 LB AI/100 GAL	C						
CROP OIL CONCENTRATE	1.0 % V/V	C						
	Mean =		0.0	75.0	96.8	0.0	100.0d	100.0
11 BAS 82100H	14.0 FL OZ/A	A 111	0.0	60.0	97.0	0.0	100.0	100.0
STATUS HERBICIDE	5.0 OZ WT/A	C 206	0.0	60.0	95.0	0.0	100.0	100.0
ZIDUA SC	2.5 FL OZ/A	C 302	0.0	50.0	95.0	0.0	100.0	100.0
ROUNDUP POWERMAX3	30.0 FL OZ/A	C 403	0.0	60.0	97.0	0.0	100.0	100.0
AMS - Liquid	8.5 LB AI/100 GAL	C						
NIS	0.25 % V/V	C						
	Mean =		0.0	57.5	96.0	0.0	100.0d	100.0

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Rating Date	6-23-2023	6-23-2023	6-23-2023	6-23-2023	6-30-2023	6-30-2023
Part Rated	plant, c	PLANT, P	PLANT, P	PLANT, P	plant, c	PLANT, P
Rating Type	phygen	CONTROL	CONTROL	CONTROL	phygen	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 plot	1 PLOT	1 PLOT	1 PLOT	1 plot	1 PLOT
Collection Basis	1 plot	1 PLOT	1 PLOT	1 PLOT	1 plot	1 PLOT
Reporting Basis	1 plot	1 PLOT	1 PLOT	1 PLOT	1 plot	1 PLOT
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, ZEAMX				C, ZEAMX	
BBCH Scale	BCOR				BCOR	
Crop Scientific Name	Zea mays				Zea mays	
Crop Name	Corn				Corn	
Pest Type		W, Weed	W, Weed	W, Weed		W, Weed
Pest Code		AMBTR	IPOSS	ELEIN		AMBTR
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Eleusine indica		Ambrosia trifida
Pest Name		Giant ragweed	Morning glory	Goosegrass		Giant ragweed
Pest Stage Scale		BBCH	BBCH	BBCH		BBCH
Rating Timing						
Days After First/Last Applic.	36, 18	36, 18	36, 18	36, 18	43, 25	43, 25
Trt-Eval Interval	36 DA-A	36 DA-A	36 DA-A	36 DA-A	43 DA-A	43 DA-A
Plant-Eval Interval	37 DP-1	37 DP-1	37 DP-1	37 DP-1	44 DP-1	44 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes		AL				AA
Number of Decimals						
Data Entry Date	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023

Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code Plot	7	8	9	10	11	12
1	CHECK		A 101	0.0	0.0	0.0	0.0	0.0	0.0
			207	0.0	0.0	0.0	0.0	0.0	0.0
			310	0.0	0.0	0.0	0.0	0.0	0.0
			404	0.0	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0d	0.0	0.0	0.0	0.0d
2	ACURON	48.0 FL OZ/A	A 102	0.0	97.0	90.0	100.0	0.0	70.0
			203	0.0	70.0	70.0	80.0	0.0	70.0
			301	0.0	70.0	90.0	90.0	0.0	60.0
			411	0.0	80.0	80.0	95.0	0.0	70.0
			Mean =	0.0	78.5d	82.5	91.3	0.0	67.6d
3	DEGREE XTRA	64.0 FL OZ/A	A 103	0.0	90.0	90.0	90.0	0.0	80.0
			204	0.0	70.0	50.0	95.0	0.0	80.0
			309	0.0	90.0	80.0	97.0	0.0	70.0
			408	0.0	70.0	70.0	90.0	0.0	60.0
			Mean =	0.0	79.4d	72.5	93.0	0.0	72.9d
4	TRIVOLT	12.0 FL OZ/A	A 104	0.0	97.0	97.0	97.0	0.0	80.0
			209	0.0	50.0	80.0	50.0	0.0	70.0
			308	0.0	50.0	97.0	80.0	0.0	40.0
			402	0.0	80.0	80.0	97.0	0.0	70.0
			Mean =	0.0	66.4d	88.5	81.0	0.0	65.6d
5	BAS 82100H	14.0 FL OZ/A	A 105	0.0	70.0	100.0	90.0	0.0	60.0
			202	0.0	25.0	90.0	70.0	0.0	50.0
			304	0.0	50.0	95.0	95.0	0.0	20.0
			407	0.0	70.0	80.0	90.0	0.0	40.0
			Mean =	0.0	49.8d	91.3	86.3	0.0	42.0d
6	BAS 82100H	14.0 FL OZ/A	A 106	0.0	100.0	97.0	100.0	0.0	100.0
	ATRAZIN 4L	32.0 FL OZ/A	A 210	0.0	70.0	90.0	50.0	0.0	70.0
			303	0.0	25.0	90.0	90.0	0.0	20.0
			410	0.0	80.0	60.0	80.0	0.0	50.0
			Mean =	0.0	61.3d	84.3	80.0	0.0	66.4d
7	BAS 82100H	17.0 FL OZ/A	A 107	0.0	70.0	90.0	90.0	0.0	60.0
			205	0.0	50.0	90.0	90.0	0.0	50.0
			311	0.0	25.0	50.0	90.0	0.0	25.0
			401	0.0	70.0	90.0	90.0	0.0	70.0
			Mean =	0.0	49.8d	80.0	90.0	0.0	51.1d
8	BAS 82100H	17.0 FL OZ/A	A 108	0.0	100.0	100.0	100.0	0.0	90.0
	ATRAZIN 4L	32.0 FL OZ/A	A 201	0.0	70.0	95.0	95.0	0.0	75.0
			307	0.0	90.0	90.0	95.0	0.0	70.0
			409	0.0	80.0	90.0	95.0	0.0	70.0
			Mean =	0.0	84.3d	93.8	96.3	0.0	76.9d

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-23-2023	6-23-2023	6-23-2023	6-23-2023	6-30-2023	6-30-2023			
Part Rated	plant, c	PLANT, P	PLANT, P	PLANT, P	plant, c	PLANT, P			
Rating Type	phygen	CONTROL	CONTROL	CONTROL	phygen	CONTROL			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100			
Sample Size	1 plot	1 PLOT	1 PLOT	1 PLOT	1 plot	1 PLOT			
Collection Basis	1 plot	1 PLOT	1 PLOT	1 PLOT	1 plot	1 PLOT			
Reporting Basis	1 plot	1 PLOT	1 PLOT	1 PLOT	1 plot	1 PLOT			
Number of Subsamples	1	1	1	1	1	1			
Crop Type, Code	C, ZEAMX				C, ZEAMX				
BBCH Scale	BCOR				BCOR				
Crop Scientific Name	Zea mays				Zea mays				
Crop Name	Corn				Corn				
Pest Type		W, Weed	W, Weed	W, Weed		W, Weed			
Pest Code		AMBTR	IPOSS	ELEIN		AMBTR			
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Eleusine indica		Ambrosia trifida			
Pest Name		Giant ragweed	Morning glory	Goosegrass		Giant ragweed			
Pest Stage Scale		BBCH	BBCH	BBCH		BBCH			
Rating Timing									
Days After First/Last Applic.	36, 18	36, 18	36, 18	36, 18	43, 25	43, 25			
Trt-Eval Interval	36 DA-A	36 DA-A	36 DA-A	36 DA-A	43 DA-A	43 DA-A			
Plant-Eval Interval	37 DP-1	37 DP-1	37 DP-1	37 DP-1	44 DP-1	44 DP-1			
Days After Emergence									
Pest Est.-Eval Interval									
Equipment									
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell			
Data Reliability									
ARM Action Codes		AL				AA			
Number of Decimals									
Data Entry Date	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023			
Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code Plot	7	8	9	10	11	12
9	BAS 82100H	14.0 FL OZ/A	B 109	0.0	100.0	100.0	100.0	0.0	100.0
	ARMEZON	0.75 FL OZ/A	B 211	0.0	100.0	97.0	100.0	0.0	100.0
	ATRAZIN 4L	32.0 FL OZ/A	B 306	0.0	100.0	97.0	100.0	0.0	100.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	B 405	0.0	100.0	97.0	100.0	0.0	97.0
	AMS - Liquid	8.5 LB AI/100 GAL	B						
	CROP OIL CONCENTRATE	1.0 % V/V	B						
			Mean =	0.0	100.0d	97.8	100.0	0.0	99.8d
10	BAS 82100H	14.0 FL OZ/A	A 110	0.0	100.0	100.0	100.0	0.0	100.0
	ARMEZON PRO	16.0 FL OZ/A	C 208	0.0	100.0	97.0	100.0	0.0	100.0
	ATRAZIN 4L	16.0 FL OZ/A	C 305	0.0	100.0	100.0	100.0	0.0	100.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C 406	0.0	100.0	97.0	100.0	0.0	97.0
	AMS - Liquid	8.5 LB AI/100 GAL	C						
	CROP OIL CONCENTRATE	1.0 % V/V	C						
			Mean =	0.0	100.0d	98.5	100.0	0.0	99.8d
11	BAS 82100H	14.0 FL OZ/A	A 111	0.0	100.0	100.0	100.0	0.0	100.0
	STATUS HERBICIDE	5.0 OZ WT/A	C 206	0.0	100.0	100.0	100.0	0.0	100.0
	ZIDUA SC	2.5 FL OZ/A	C 302	0.0	100.0	97.0	100.0	0.0	100.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C 403	0.0	100.0	100.0	100.0	0.0	100.0
	AMS - Liquid	8.5 LB AI/100 GAL	C						
	NIS	0.25 % V/V	C						
			Mean =	0.0	100.0d	99.3	100.0	0.0	100.0d

# University of Kentucky

Rating Date	6-30-2023	6-30-2023	7-13-2023	7-13-2023	7-13-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	IPOSS	ELEIN	AMBTR	IPOSS	SETFA
Pest Scientific Name	Ipomoea sp.	Eleusine indica	Ambrosia trifida	Ipomoea sp.	Setaria faberi
Pest Name	Morning glory	Goosegrass	Giant ragweed	Morning glory	Giant foxtail
Pest Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH
Rating Timing					
Days After First/Last Applic.	43, 25	43, 25	56, 38	56, 38	56, 38
Trt-Eval Interval	43 DA-A	43 DA-A	56 DA-A	56 DA-A	56 DA-A
Plant-Eval Interval	44 DP-1	44 DP-1	57 DP-1	57 DP-1	57 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes		AA	ER3	ET4	ER1
Number of Decimals					
Data Entry Date	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023

Trt	Treatment	Rate	Appl	13		14		15		16		17	
No.	Name	Rate Unit	Code Plot										
1	CHECK		A 101	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
			207	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
			310	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
			404	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
			Mean =	0.0	0.0d	0.0	0.0	0.0	0.0	0.0			0.0
2	ACURON	48.0 FL OZ/A	A 102	70.0	95.0	70.0	25.0						
			203	70.0	80.0	60.0	25.0						70.0
			301	50.0	70.0		60.0						90.0
			411	50.0	90.0	50.0	70.0						25.0
			Mean =	60.0	85.0d	60.0	45.0						61.7
3	DEGREE XTRA	64.0 FL OZ/A	A 103	70.0	95.0	70.0	0.0						
			204	50.0	80.0	60.0	25.0						80.0
			309	50.0	70.0		25.0						0.0
			408	20.0	90.0	25.0	25.0						50.0
			Mean =	47.5	85.0d	51.7	18.8						43.3
4	TRIVOLT	12.0 FL OZ/A	A 104	70.0	95.0	70.0	0.0						
			209	50.0	70.0	0.0	0.0						0.0
			308	70.0	50.0		60.0						50.0
			402	70.0	80.0	50.0	50.0						70.0
			Mean =	65.0	75.9d	40.0	27.5						40.0
5	BAS 82100H	14.0 FL OZ/A	A 105	80.0	100.0	90.0	80.0						
			202	70.0	70.0	25.0	50.0						60.0
			304	70.0	90.0		80.0						90.0
			407	50.0	90.0	0.0	25.0						50.0
			Mean =	67.5	90.9d	38.3	58.8						66.7
6	BAS 82100H	14.0 FL OZ/A	A 106	97.0	100.0	100.0	95.0						
	ATRAZIN 4L	32.0 FL OZ/A	A 210	50.0	70.0	50.0	50.0						0.0
			303	50.0	70.0		50.0						80.0
			410	50.0	90.0	20.0	50.0						50.0
			Mean =	61.8	86.9d	56.7	61.3						43.3
7	BAS 82100H	17.0 FL OZ/A	A 107	70.0	70.0	60.0	90.0						
			205	80.0	90.0	25.0	80.0						90.0
			311	80.0	80.0		50.0						50.0
			401	90.0	70.0	50.0	60.0						70.0
			Mean =	80.0	78.2d	45.0	70.0						70.0
8	BAS 82100H	17.0 FL OZ/A	A 108	90.0	90.0	80.0	80.0						
	ATRAZIN 4L	32.0 FL OZ/A	A 201	70.0	80.0	75.0	70.0						90.0
			307	70.0	90.0		70.0						65.0
			409	80.0	90.0	70.0	90.0						50.0
			Mean =	77.5	87.8d	75.0	77.5						68.3

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-30-2023	6-30-2023	7-13-2023	7-13-2023	7-13-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	IPOSS	ELEIN	AMBTR	IPOSS	SETFA
Pest Scientific Name	Ipomoea sp.	Eleusine indica	Ambrosia trifida	Ipomoea sp.	Setaria faberi
Pest Name	Morning glory	Goosegrass	Giant ragweed	Morning glory	Giant foxtail
Pest Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH
Rating Timing					
Days After First/Last Applic.	43, 25	43, 25	56, 38	56, 38	56, 38
Trt-Eval Interval	43 DA-A	43 DA-A	56 DA-A	56 DA-A	56 DA-A
Plant-Eval Interval	44 DP-1	44 DP-1	57 DP-1	57 DP-1	57 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes		AA	ER3	ET4	ER1
Number of Decimals					
Data Entry Date	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023

Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	13	14	15	16	17
9 BAS 82100H	14.0 FL OZ/A	B 109	90.0	95.0	100.0	80.0	
ARMEZON	0.75 FL OZ/A	B 211	90.0	100.0	95.0	70.0	100.0
ATRAZIN 4L	32.0 FL OZ/A	B 306	90.0	100.0		85.0	100.0
ROUNDUP POWERMAX3	30.0 FL OZ/A	B 405	90.0	97.0	90.0	90.0	100.0
AMS - Liquid	8.5 LB AI/100 GAL	B					
CROP OIL CONCENTRATE	1.0 % V/V	B					
	Mean =		90.0	99.0d	95.0	81.3	100.0
10 BAS 82100H	14.0 FL OZ/A	A 110	95.0	100.0	100.0	95.0	
ARMEZON PRO	16.0 FL OZ/A	C 208	95.0	100.0	90.0	90.0	90.0
ATRAZIN 4L	16.0 FL OZ/A	C 305	95.0	100.0		97.0	97.0
ROUNDUP POWERMAX3	30.0 FL OZ/A	C 406	90.0	100.0	90.0	80.0	95.0
AMS - Liquid	8.5 LB AI/100 GAL	C					
CROP OIL CONCENTRATE	1.0 % V/V	C					
	Mean =		93.8	100.0d	93.3	90.5	94.0
11 BAS 82100H	14.0 FL OZ/A	A 111	95.0	100.0	100.0	97.0	
STATUS HERBICIDE	5.0 OZ WT/A	C 206	97.0	100.0	100.0	97.0	100.0
ZIDUA SC	2.5 FL OZ/A	C 302	95.0	100.0		95.0	100.0
ROUNDUP POWERMAX3	30.0 FL OZ/A	C 403	97.0	97.0	95.0	85.0	100.0
AMS - Liquid	8.5 LB AI/100 GAL	C					
NIS	0.25 % V/V	C					
	Mean =		96.0	99.8d	98.3	93.5	100.0



# University of Kentucky

Rating Date 7-13-2023  
 Part Rated PLANT, P  
 Rating Type CONTROL  
 Rating Unit/Min/Max %, 0, 100  
 Sample Size 1 PLOT  
 Collection Basis 1 PLOT  
 Reporting Basis 1 PLOT  
 Number of Subsamples 1  
 Crop Type, Code  
 BBCH Scale  
 Crop Scientific Name  
 Crop Name  
 Pest Type W, Weed  
 Pest Code SORHA  
 Pest Scientific Name Sorghum halepen>  
 Pest Name Johnson grass  
 Pest Stage Scale BBCH  
 Rating Timing  
 Days After First/Last Applic. 56, 38  
 Trt-Eval Interval 56 DA-A  
 Plant-Eval Interval 57 DP-1  
 Days After Emergence  
 Pest Est.-Eval Interval  
 Equipment  
 EDC App Rating Shell  
 Data Reliability  
 ARM Action Codes  
 Number of Decimals  
 Data Entry Date 7-13-2023

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	18
1	CHECK					0.0
						0.0
						0.0
						0.0
						0.0
						Mean = 0.0
2	ACURON	48.0	FL OZ/A	A	102	70.0
					203	70.0
					301	50.0
					411	90.0
						Mean = 70.0
3	DEGREE XTRA	64.0	FL OZ/A	A	103	50.0
					204	80.0
					309	25.0
					408	50.0
						Mean = 51.3
4	TRIVOLT	12.0	FL OZ/A	A	104	90.0
					209	0.0
					308	80.0
					402	70.0
						Mean = 60.0
5	BAS 82100H	14.0	FL OZ/A	A	105	100.0
					202	70.0
					304	90.0
					407	50.0
						Mean = 77.5
6	BAS 82100H	14.0	FL OZ/A	A	106	100.0
	ATRAZIN 4L	32.0	FL OZ/A	A	210	0.0
					303	50.0
					410	70.0
						Mean = 55.0
7	BAS 82100H	17.0	FL OZ/A	A	107	80.0
					205	90.0
					311	50.0
					401	70.0
						Mean = 72.5
8	BAS 82100H	17.0	FL OZ/A	A	108	70.0
	ATRAZIN 4L	32.0	FL OZ/A	A	201	90.0
					307	90.0
					409	90.0
						Mean = 85.0

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date 7-13-2023  
 Part Rated PLANT, P  
 Rating Type CONTROL  
 Rating Unit/Min/Max %, 0, 100  
 Sample Size 1 PLOT  
 Collection Basis 1 PLOT  
 Reporting Basis 1 PLOT  
 Number of Subsamples 1  
 Crop Type, Code  
 BBCH Scale  
 Crop Scientific Name  
 Crop Name  
 Pest Type W, Weed  
 Pest Code SORHA  
 Pest Scientific Name Sorghum halepen>  
 Pest Name Johnson grass  
 Pest Stage Scale BBCH  
 Rating Timing  
 Days After First/Last Applic. 56, 38  
 Trt-Eval Interval 56 DA-A  
 Plant-Eval Interval 57 DP-1  
 Days After Emergence  
 Pest Est.-Eval Interval  
 Equipment  
 EDC App Rating Shell  
 Data Reliability  
 ARM Action Codes  
 Number of Decimals  
 Data Entry Date 7-13-2023

Trt	Treatment	Rate	Appl		
No.	Name	Rate Unit	Code Plot	18	
9	BAS 82100H	14.0 FL OZ/A	B 109		95.0
	ARMEZON	0.75 FL OZ/A	B 211		97.0
	ATRAZIN 4L	32.0 FL OZ/A	B 306		100.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	B 405		95.0
	AMS - Liquid	8.5 LB AI/100 GAL	B		
	CROP OIL CONCENTRATE	1.0 % V/V	B		
			Mean =		96.8
10	BAS 82100H	14.0 FL OZ/A	A 110		100.0
	ARMEZON PRO	16.0 FL OZ/A	C 208		100.0
	ATRAZIN 4L	16.0 FL OZ/A	C 305		97.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C 406		100.0
	AMS - Liquid	8.5 LB AI/100 GAL	C		
	CROP OIL CONCENTRATE	1.0 % V/V	C		
			Mean =		99.3
11	BAS 82100H	14.0 FL OZ/A	A 111		100.0
	STATUS HERBICIDE	5.0 OZ WT/A	C 206		100.0
	ZIDUA SC	2.5 FL OZ/A	C 302		100.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C 403		100.0
	AMS - Liquid	8.5 LB AI/100 GAL	C		
	NIS	0.25 % V/V	C		
			Mean =		100.0

# University of Kentucky

## C23 821 UNIVERSITY CORN HERBICIDE TRIAL

Trial ID: 23-31 COR-REC  
Protocol ID: MKD-FI-2023-US-C23-A-01.0 Location: University of Kentucky Cooperator Trial ID:  
Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
Study Director: Daniel Waldstein Sponsor Contact:  
Investigator: WALDSTEIN DANIEL

Part Rated

PLANT = plant  
c = Crop is Part Rated  
P = Pest is Part Rated

Rating Type

phygen = phytotoxicity - general / injury

Rating Unit/Min/Max

%, 0, 100 = percent

plot = total plot

plot = total plot

plot = total plot

Crop Type Code

C = EPPO species (Bayer) codes  
ZEAMX, BCOR, Zea mays, Corn = US

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US  
IPOSS, Ipomoea sp., Morning glory = US  
ELEIN, Eleusine indica, Goosegrass = US  
SETFA, Setaria faberi, Giant foxtail = US  
SORHA, Sorghum halepense, Johnson grass = US

Plant-Eval Interval

22 DP-1 = 1 ZEAMX 5-17-2023  
30 DP-1 = 1 ZEAMX 5-17-2023  
37 DP-1 = 1 ZEAMX 5-17-2023  
44 DP-1 = 1 ZEAMX 5-17-2023  
57 DP-1 = 1 ZEAMX 5-17-2023

EDC App

Rating Shell = Data pulled from Excel Rating Shell

ARM Action Codes

ET7 = Excluded treatment 7  
AL = Automatic log transformation of X+1  
AA = Automatic arcsine square root % transformation  
ER3 = Excluded replicate 3  
ET4 = Excluded treatment 4  
ER1 = Excluded replicate 1

# University of Kentucky

## C23 821 UNIVERSITY CORN HERBICIDE TRIAL

Trial ID: 23-31 COR-REC  
 Protocol ID: MKD-F-2023-US-C23-A-01.0 Location: University of Kentucky  
 Project ID: Project ID 2: Project ID 3: Cooperator Trial ID:  
 Study Director: Daniel Waldstein Sponsor Contact: Trial Year: 2023  
 Investigator: WALDSTEIN DANIEL

Rating Date	6-8-2023	6-8-2023	6-8-2023	6-16-2023	6-16-2023	6-16-2023
Part Rated	plant, c	PLANT, P	PLANT, P	plant, c	PLANT, P	PLANT, P
Rating Type	phygen	CONTROL	CONTROL	phygen	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 plot	1 PLOT	1 PLOT	1 plot	1 PLOT	1 PLOT
Collection Basis	1 plot	1 PLOT	1 PLOT	1 plot	1 PLOT	1 PLOT
Reporting Basis	1 plot	1 PLOT	1 PLOT	1 plot	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, ZEAMX			C, ZEAMX		
BBCH Scale	BCOR			BCOR		
Crop Scientific Name	Zea mays			Zea mays		
Crop Name	Corn			Corn		
Pest Type		W, Weed	W, Weed		W, Weed	W, Weed
Pest Code		AMBTR	IPOSS		AMBTR	IPOSS
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.		Ambrosia trifida	Ipomoea sp.
Pest Name		Giant ragweed	Morning glory		Giant ragweed	Morning glory
Pest Stage Scale		BBCH	BBCH		BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	21, 3	21, 3	21, 3	29, 11	29, 11	29, 11
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	29 DA-A	29 DA-A	29 DA-A
Plant-Eval Interval	22 DP-1	22 DP-1	22 DP-1	30 DP-1	30 DP-1	30 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes		ET7			AL	
Number of Decimals						
Data Entry Date	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6
		Rate Unit						dAL	
1	CHECK			0.0 a	0.0 d	0.0 b	0.0 a	0.0 c	0.0 c
2	ACURON	48.0 FL OZ/A	A	0.0 a	90.0 ab	94.8 a	0.0 a	79.7 ab	89.3 b
3	DEGREE XTRA	64.0 FL OZ/A	A	0.0 a	84.3 ab	97.5 a	0.0 a	79.7 ab	91.8 b
4	TRIVOLT	12.0 FL OZ/A	A	0.0 a	78.0 abc	96.0 a	0.0 a	78.1 ab	95.3 ab
5	BAS 82100H	14.0 FL OZ/A	A	0.0 a	66.3 bc	96.3 a	0.0 a	59.2 b	91.3 b
6	BAS 82100H	14.0 FL OZ/A	A	0.0 a	80.0 abc	95.5 a	0.0 a	73.9 ab	96.0 ab
	ATRAZIN 4L	32.0 FL OZ/A	A						
7	BAS 82100H	17.0 FL OZ/A	A	0.0 a	67.5	95.0 a	0.0 a	53.7 b	92.5 ab
8	BAS 82100H	17.0 FL OZ/A	A	0.0 a	97.0 a	98.8 a	0.0 a	82.6 ab	95.0 ab
	ATRAZIN 4L	32.0 FL OZ/A	A						
9	BAS 82100H	14.0 FL OZ/A	B	0.0 a	100.0 a	100.0 a	0.0 a	100.0 a	99.3 a
	ARMEZON	0.75 FL OZ/A	B						
	ATRAZIN 4L	32.0 FL OZ/A	B						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	B						
	AMS - Liquid	8.5 LB AI/100 GAL	B						
	CROP OIL CONCENTRATE	1.0 % V/V	B						
10	BAS 82100H	14.0 FL OZ/A	A	0.0 a	75.0 abc	96.8 a	0.0 a	100.0 a	100.0 a
	ARMEZON PRO	16.0 FL OZ/A	C						
	ATRAZIN 4L	16.0 FL OZ/A	C						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C						
	AMS - Liquid	8.5 LB AI/100 GAL	C						
	CROP OIL CONCENTRATE	1.0 % V/V	C						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Excluded replicate 3 in column 15; 1 in 17  
 Could not calculate LSD (% mean diff) for columns 1,4,7,11 because error mean square = 0.  
 ^Calculated from residual.  
 d=Means are reported in de-transformed data units

# University of Kentucky

		6-8-2023	6-8-2023	6-8-2023	6-16-2023	6-16-2023	6-16-2023		
Rating Date		6-8-2023	6-8-2023	6-8-2023	6-16-2023	6-16-2023	6-16-2023		
Part Rated		plant, c	PLANT, P	PLANT, P	plant, c	PLANT, P	PLANT, P		
Rating Type		phygen	CONTROL	CONTROL	phygen	CONTROL	CONTROL		
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size		1 plot	1 PLOT	1 PLOT	1 plot	1 PLOT	1 PLOT		
Collection Basis		1 plot	1 PLOT	1 PLOT	1 plot	1 PLOT	1 PLOT		
Reporting Basis		1 plot	1 PLOT	1 PLOT	1 plot	1 PLOT	1 PLOT		
Number of Subsamples		1	1	1	1	1	1		
Crop Type, Code		C, ZEAMX			C, ZEAMX				
BBCH Scale		BCOR			BCOR				
Crop Scientific Name		Zea mays			Zea mays				
Crop Name		Corn			Corn				
Pest Type			W, Weed	W, Weed		W, Weed	W, Weed		
Pest Code			AMBTR	IPOSS		AMBTR	IPOSS		
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.		Ambrosia trifida	Ipomoea sp.		
Pest Name			Giant ragweed	Morning glory		Giant ragweed	Morning glory		
Pest Stage Scale			BBCH	BBCH		BBCH	BBCH		
Rating Timing									
Days After First/Last Applic.		21, 3	21, 3	21, 3	29, 11	29, 11	29, 11		
Trt-Eval Interval		21 DA-A	21 DA-A	21 DA-A	29 DA-A	29 DA-A	29 DA-A		
Plant-Eval Interval		22 DP-1	22 DP-1	22 DP-1	30 DP-1	30 DP-1	30 DP-1		
Days After Emergence									
Pest Est.-Eval Interval									
Equipment									
EDC App		Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability									
ARM Action Codes			ET7			AL			
Number of Decimals									
Data Entry Date		7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023		
Trt No.	Treatment Name	Rate Rate Unit	Appl Code	1	2	3	4	5 dAL	6
11	BAS 82100H	14.0 FL OZ/A	A	0.0 a	57.5 c	96.0 a	0.0 a	100.0 a	100.0 a
	STATUS HERBICIDE	5.0 OZ WT/A	C						
	ZIDUA SC	2.5 FL OZ/A	C						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C						
	AMS - Liquid	8.5 LB AI/100 GAL	C						
	NIS	0.25 % V/V	C						
LSD P=.05					16.75	3.55		19.51 - 26.57	4.97
Standard Deviation				0.00	11.54	2.46	0.00	0.09t	3.44
CV				0.0	15.86	2.79	0.0	5.3t	3.99
Levene's F^				.	0.729	0.764	.	1.015	0.832
Levene's Prob(F)				.	0.679	0.661	.	0.452	0.602
Shapiro-Wilk^				.	0.9525	0.9755	.	0.8728*	0.9678
P(Shapiro-Wilk)^				.	0.0922	0.4635	.	0.0002*	0.2535
Skewness^				.	-0.5222	-0.1876	.	-1.4537*	0.281
P(Skewness)^				.	0.1858	0.6142	.	0.0003*	0.4512
Kurtosis^				.	2.1473*	-0.753	.	6.5589*	1.4681*
P(Kurtosis)^				.	0.0074*	0.305	.	0.0*	0.0492*
Replicate F				0.000	3.823	5.090	0.000	5.063	1.933
Replicate Prob(F)				1.0000	0.0210	0.0057	1.0000	0.0059	0.1456
Treatment F				0.000	24.723	564.950	0.000	159.955	281.224
Treatment Prob(F)				1.0000	0.0001	0.0001	1.0000	0.0001	0.0001

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Excluded replicate 3 in column 15; 1 in 17  
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^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

	6-23-2023	6-23-2023	6-23-2023	6-23-2023	6-30-2023	6-30-2023		
Rating Date	6-23-2023	6-23-2023	6-23-2023	6-23-2023	6-30-2023	6-30-2023		
Part Rated	plant, c	PLANT, P	PLANT, P	PLANT, P	plant, c	PLANT, P		
Rating Type	phygen	CONTROL	CONTROL	CONTROL	phygen	CONTROL		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size	1 plot	1 PLOT	1 PLOT	1 PLOT	1 plot	1 PLOT		
Collection Basis	1 plot	1 PLOT	1 PLOT	1 PLOT	1 plot	1 PLOT		
Reporting Basis	1 plot	1 PLOT	1 PLOT	1 PLOT	1 plot	1 PLOT		
Number of Subsamples	1	1	1	1	1	1		
Crop Type, Code	C, ZEAMX				C, ZEAMX			
BBCH Scale	BCOR				BCOR			
Crop Scientific Name	Zea mays				Zea mays			
Crop Name	Corn				Corn			
Pest Type		W, Weed	W, Weed	W, Weed		W, Weed		
Pest Code		AMBTR	IPOSS	ELEIN		AMBTR		
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Eleusine indica		Ambrosia trifida		
Pest Name		Giant ragweed	Morning glory	Goosegrass		Giant ragweed		
Pest Stage Scale		BBCH	BBCH	BBCH		BBCH		
Rating Timing								
Days After First/Last Applic.	36, 18	36, 18	36, 18	36, 18	43, 25	43, 25		
Trt-Eval Interval	36 DA-A	36 DA-A	36 DA-A	36 DA-A	43 DA-A	43 DA-A		
Plant-Eval Interval	37 DP-1	37 DP-1	37 DP-1	37 DP-1	44 DP-1	44 DP-1		
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability								
ARM Action Codes		AL				AA		
Number of Decimals								
Data Entry Date	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023		
Trt Treatment	Rate	Appl	7	8	9	10	11	12
No. Name	Rate Unit	Code		dAL				dAA
1	CHECK		0.0 a	0.0 c	0.0 c	0.0 b	0.0 a	0.0 d
2	ACURON	A	0.0 a	78.5 ab	82.5 ab	91.3 a	0.0 a	67.6 bc
3	DEGREE XTRA	A	0.0 a	79.4 ab	72.5 b	93.0 a	0.0 a	72.9 bc
4	TRIVOLT	A	0.0 a	66.4 ab	88.5 ab	81.0 a	0.0 a	65.6 bc
5	BAS 82100H	A	0.0 a	49.8 b	91.3 ab	86.3 a	0.0 a	42.0 c
6	BAS 82100H	A	0.0 a	61.3 ab	84.3 ab	80.0 a	0.0 a	66.4 bc
	ATRAZIN 4L	A						
7	BAS 82100H	A	0.0 a	49.8 b	80.0 ab	90.0 a	0.0 a	51.1 bc
8	BAS 82100H	A	0.0 a	84.3 ab	93.8 ab	96.3 a	0.0 a	76.9 b
	ATRAZIN 4L	A						
9	BAS 82100H	B	0.0 a	100.0 a	97.8 a	100.0 a	0.0 a	99.8 a
	ARMEZON	B						
	ATRAZIN 4L	B						
	ROUNDUP POWERMAX3	B						
	AMS - Liquid	B						
	CROP OIL CONCENTRATE	B						
10	BAS 82100H	A	0.0 a	100.0 a	98.5 a	100.0 a	0.0 a	99.8 a
	ARMEZON PRO	C						
	ATRAZIN 4L	C						
	ROUNDUP POWERMAX3	C						
	AMS - Liquid	C						
	CROP OIL CONCENTRATE	C						

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# University of Kentucky

	6-23-2023	6-23-2023	6-23-2023	6-23-2023	6-30-2023	6-30-2023		
Rating Date	6-23-2023	6-23-2023	6-23-2023	6-23-2023	6-30-2023	6-30-2023		
Part Rated	plant, c	PLANT, P	PLANT, P	PLANT, P	plant, c	PLANT, P		
Rating Type	phygen	CONTROL	CONTROL	CONTROL	phygen	CONTROL		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size	1 plot	1 PLOT	1 PLOT	1 PLOT	1 plot	1 PLOT		
Collection Basis	1 plot	1 PLOT	1 PLOT	1 PLOT	1 plot	1 PLOT		
Reporting Basis	1 plot	1 PLOT	1 PLOT	1 PLOT	1 plot	1 PLOT		
Number of Subsamples	1	1	1	1	1	1		
Crop Type, Code	C, ZEAMX				C, ZEAMX			
BBCH Scale	BCOR				BCOR			
Crop Scientific Name	Zea mays				Zea mays			
Crop Name	Corn				Corn			
Pest Type		W, Weed	W, Weed	W, Weed		W, Weed		
Pest Code		AMBTR	IPOSS	ELEIN		AMBTR		
Pest Scientific Name		Ambrosia trifida	Ipomoea sp.	Eleusine indica		Ambrosia trifida		
Pest Name		Giant ragweed	Morning glory	Goosegrass		Giant ragweed		
Pest Stage Scale		BBCH	BBCH	BBCH		BBCH		
Rating Timing								
Days After First/Last Applic.	36, 18	36, 18	36, 18	36, 18	43, 25	43, 25		
Trt-Eval Interval	36 DA-A	36 DA-A	36 DA-A	36 DA-A	43 DA-A	43 DA-A		
Plant-Eval Interval	37 DP-1	37 DP-1	37 DP-1	37 DP-1	44 DP-1	44 DP-1		
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability								
ARM Action Codes		AL				AA		
Number of Decimals								
Data Entry Date	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023		
Trt Treatment No. Name	Rate Unit	Appl Code	7	8	9	10	11	12
				dAL				dAA
11 BAS 82100H	14.0 FL OZ/A	A	0.0 a	100.0 a	99.3 a	100.0 a	0.0 a	100.0 a
STATUS HERBICIDE	5.0 OZ WT/A	C						
ZIDUA SC	2.5 FL OZ/A	C						
ROUNDUP POWERMAX3	30.0 FL OZ/A	C						
AMS - Liquid	8.5 LB AI/100 GAL	C						
NIS	0.25 % V/V	C						
LSD P=.05				23.56 - 31.98	14.41	13.26		4.93 - 22.16
Standard Deviation			0.00	0.11t	9.98	9.18	0.00	8.88t
CV			0.0	6.71t	12.36	11.01	0.0	15.39t
Levene's F^			.	0.36	0.87	1.787	.	1.385
Levene's Prob(F)			.	0.955	0.569	0.102	.	0.23
Shapiro-Wilk^			.	0.889*	0.8798*	0.8964*	.	0.9108*
P(Shapiro-Wilk)^			.	0.0005*	0.0003*	0.0008*	.	0.0024*
Skewness^			.	-1.2995*	-1.5139*	-0.6267	.	0.8521*
P(Skewness)^			.	0.001*	0.0002*	0.0972	.	0.026*
Kurtosis^			.	2.1397*	3.5817*	2.0574*	.	4.5747*
P(Kurtosis)^			.	0.0051*	0.0*	0.0069*	.	0.0*
Replicate F			0.000	4.184	2.603	3.904	0.000	5.257
Replicate Prob(F)			1.0000	0.0138	0.0702	0.0182	1.0000	0.0049
Treatment F			0.000	101.526	31.689	38.746	0.000	33.647
Treatment Prob(F)			1.0000	0.0001	0.0001	0.0001	1.0000	0.0001

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Excluded replicate 3 in column 15; 1 in 17  
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d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-30-2023	6-30-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	IPOSS	ELEIN	AMBTR	IPOSS	SETFA	SORHA
Pest Scientific Name	Ipomoea sp.	Eleusine indica	Ambrosia trifida	Ipomoea sp.	Setaria faberi	Sorghum halepense
Pest Name	Morning glory	Goosegrass	Giant ragweed	Morning glory	Giant foxtail	Johnson grass
Pest Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	43, 25	43, 25	56, 38	56, 38	56, 38	56, 38
Trt-Eval Interval	43 DA-A	43 DA-A	56 DA-A	56 DA-A	56 DA-A	56 DA-A
Plant-Eval Interval	44 DP-1	44 DP-1	57 DP-1	57 DP-1	57 DP-1	57 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes		AA	ER3	ET4	ER1	
Number of Decimals						
Data Entry Date	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023

Trt No.	Treatment Name	Rate	Appl Code	13	14	15	16	17	18
		Rate Unit			dAA				
1	CHECK			0.0 d	0.0 d	0.0 c	0.0 c	0.0 b	0.0 b
2	ACURON	48.0 FL OZ/A	A	60.0 bc	85.0 bc	60.0 ab	45.0 b	61.7 ab	70.0 a
3	DEGREE XTRA	64.0 FL OZ/A	A	47.5 c	85.0 bc	51.7 ab	18.8 c	43.3 ab	51.3 a
4	TRIVOLT	12.0 FL OZ/A	A	65.0 bc	75.9 c	40.0 bc	27.5	40.0 ab	60.0 a
5	BAS 82100H	14.0 FL OZ/A	A	67.5 bc	90.9 bc	38.3 bc	58.8 ab	66.7 ab	77.5 a
6	BAS 82100H	14.0 FL OZ/A	A	61.8 bc	86.9 bc	56.7 ab	61.3 ab	43.3 ab	55.0 a
	ATRAZIN 4L	32.0 FL OZ/A	A						
7	BAS 82100H	17.0 FL OZ/A	A	80.0 ab	78.2 c	45.0 ab	70.0 ab	70.0 ab	72.5 a
8	BAS 82100H	17.0 FL OZ/A	A	77.5 ab	87.8 bc	75.0 ab	77.5 ab	68.3 ab	85.0 a
	ATRAZIN 4L	32.0 FL OZ/A	A						
9	BAS 82100H	14.0 FL OZ/A	B	90.0 a	99.0 ab	95.0 a	81.3 a	100.0 a	96.8 a
	ARMEZON	0.75 FL OZ/A	B						
	ATRAZIN 4L	32.0 FL OZ/A	B						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	B						
	AMS - Liquid	8.5 LB AI/100 GAL	B						
	CROP OIL CONCENTRATE	1.0 % V/V	B						
10	BAS 82100H	14.0 FL OZ/A	A	93.8 a	100.0 a	93.3 a	90.5 a	94.0 a	99.3 a
	ARMEZON PRO	16.0 FL OZ/A	C						
	ATRAZIN 4L	16.0 FL OZ/A	C						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C						
	AMS - Liquid	8.5 LB AI/100 GAL	C						
	CROP OIL CONCENTRATE	1.0 % V/V	C						

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Excluded replicate 3 in column 15; 1 in 17  
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^Calculated from residual.  
d=Means are reported in de-transformed data units



# University of Kentucky

	6-30-2023	6-30-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023		
Rating Date	6-30-2023	6-30-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1	1		
Crop Type, Code								
BBCH Scale								
Crop Scientific Name								
Crop Name								
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	IPOSS	ELEIN	AMBTR	IPOSS	SETFA	SORHA		
Pest Scientific Name	Ipomoea sp.	Eleusine indica	Ambrosia trifida	Ipomoea sp.	Setaria faberi	Sorghum halepense		
Pest Name	Morning glory	Goosegrass	Giant ragweed	Morning glory	Giant foxtail	Johnson grass		
Pest Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH		
Rating Timing								
Days After First/Last Applic.	43, 25	43, 25	56, 38	56, 38	56, 38	56, 38		
Trt-Eval Interval	43 DA-A	43 DA-A	56 DA-A	56 DA-A	56 DA-A	56 DA-A		
Plant-Eval Interval	44 DP-1	44 DP-1	57 DP-1	57 DP-1	57 DP-1	57 DP-1		
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability								
ARM Action Codes		AA	ER3	ET4	ER1			
Number of Decimals								
Data Entry Date	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023	7-13-2023		
Trt Treatment								
No. Name	Rate	Appl	13	14	15	16	17	18
	Rate Unit	Code		dAA				
11 BAS 82100H	14.0 FL OZ/A	A	96.0 a	99.8 a	98.3 a	93.5 a	100.0 a	100.0 a
STATUS HERBICIDE	5.0 OZ WT/A	C						
ZIDUA SC	2.5 FL OZ/A	C						
ROUNDUP POWERMAX3	30.0 FL OZ/A	C						
AMS - Liquid	8.5 LB AI/100 GAL	C						
NIS	0.25 % V/V	C						
LSD P=.05			15.81	4.42 - 15.30	33.00	23.51	44.54	31.20
Standard Deviation			10.95	8.40t	19.38	16.20	26.15	21.60
CV			16.3	12.66t	32.62	27.16	41.85	30.97
Levene's F^			0.416	1.301	1.293	1.75	1.262	0.965
Levene's Prob(F)			0.929	0.271	0.275	0.121	0.291	0.491
Shapiro-Wilk^			0.9585	0.9771	0.9747	0.9871	0.9366*	0.945*
P(Shapiro-Wilk)^			0.1143	0.5236	0.4388	0.9227	0.0179*	0.0358*
Skewness^			0.0893	-0.0791	0.3023	-0.0704	-0.7144	-0.758*
P(Skewness)^			0.8101	0.8315	0.4178	0.8569	0.0598	0.0464*
Kurtosis^			1.2145	-0.5316	-0.1561	0.1066	1.1787	1.8022*
P(Kurtosis)^			0.1013	0.4676	0.8306	0.8891	0.1115	0.0169*
Replicate F			2.806	2.863	6.425	0.550	0.133	0.921
Replicate Prob(F)			0.0566	0.0532	0.0070	0.6524	0.8761	0.4424
Treatment F			24.412	33.077	7.033	14.285	3.975	7.143
Treatment Prob(F)			0.0001	0.0001	0.0001	0.0001	0.0042	0.0001

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# University of Kentucky

## C23 821 UNIVERSITY CORN HERBICIDE TRIAL

Trial ID: 23-31 COR-REC  
Protocol ID: MKD-F-2023-US-C23-A-01.0 Location: University of Kentucky Cooperator Trial ID:  
Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
Study Director: Daniel Waldstein Sponsor Contact:  
Investigator: WALDSTEIN DANIEL

### Part Rated

PLANT = plant  
c = Crop is Part Rated  
P = Pest is Part Rated

### Rating Type

phygen = phytotoxicity - general / injury

### Rating Unit/Min/Max

%, 0, 100 = percent

plot = total plot

plot = total plot

plot = total plot

### Crop Type Code

C = EPPO species (Bayer) codes  
ZEAMX, BCOR, Zea mays, Corn = US

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US  
IPOSS, Ipomoea sp., Morning glory = US  
ELEIN, Eleusine indica, Goosegrass = US  
SETFA, Setaria faberi, Giant foxtail = US  
SORHA, Sorghum halepense, Johnson grass = US

### Plant-Eval Interval

22 DP-1 = 1 ZEAMX 5-17-2023  
30 DP-1 = 1 ZEAMX 5-17-2023  
37 DP-1 = 1 ZEAMX 5-17-2023  
44 DP-1 = 1 ZEAMX 5-17-2023  
57 DP-1 = 1 ZEAMX 5-17-2023

### EDC App

Rating Shell = Data pulled from Excel Rating Shell

### ARM Action Codes

ET7 = Excluded treatment 7  
AL = Automatic log transformation of X+1  
AA = Automatic arcsine square root % transformation  
ER3 = Excluded replicate 3  
ET4 = Excluded treatment 4  
ER1 = Excluded replicate 1

# University of Kentucky

## ZIDUA PRO COMPETITOR WEED CONTROL AND CROP SAFETY

Trial ID: 23-32  
 Protocol ID: MKD-H-2023-US-D32-A-01.0 Location: Cooperator Trial ID: H23D32A-  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: Greg Stapleton Sponsor Contact:  
 Investigator: Sara Carter

Reps: 4	Plots: 10 by 35 feet															
Appl. Amount: 15 GAL/AC	Mix Size: 2.2 L (total for 4 plots; minimum=1.825 L)															
Trt Treatment	Form	Form	Form	Rate	Other	Other	Appl	Appl	Amt	Product	Rep					
No. Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Code	Timing	to Measure	1	2	3	4	
1 CHECK												103	201	306	401	
2 ZIDUA PRO	490 GA/L	SC		6.0 FL OZ/A		214.0 G A/HA	A	VA				6.875 mL/mx	102	207	304	407
AGRI-DEX	1000 GA/L	OL		1.0 % V/V		1.0 % V/V	A	VA				22.0 mL/mx				
3 TENDOVO	501.2 GA/L	ZC		48.0 FL OZ/A		1760.0 G A/HA	A	VA				55.0 mL/mx	105	206	302	406
4 KYBER	316.8 GA/L	SC		16.0 FL OZ/A		370.0 G A/HA	A	VA				18.33 mL/mx	107	202	301	404
5 BOUNDARY 6.5 EC	780 GA/L	EC		24.0 FL OZ/A		1370.0 G A/HA	A	VA				27.5 mL/mx	106	203	307	402
6 AUTHORITY SUPREME	500 GA/L	SC		6.5 FL OZ/A		237.0 G A/HA	A	VA				7.448 mL/mx	104	205	303	405
7 SONIC	70 %	WG		5.0 OZ WT/A		245.0 G A/HA	A	VA				5.492 g/mx	101	204	305	403

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

Amount* Unit	Treatment Name	Form	Conc	Form	Unit	Form	Type	Lot	Code
6.875 mL	ZIDUA PRO	490	GA/L	SC					
21.998 mL	AGRI-DEX	1000	GA/L	OL					
55.000 mL	TENDOVO	501.2	GA/L	ZC					
18.333 mL	KYBER	316.8	GA/L	SC					
27.500 mL	BOUNDARY 6.5 EC	780	GA/L	EC					
7.448 mL	AUTHORITY SUPREME	500	GA/L	SC					
5.492 g	SONIC	70	%	WG					

\* 'Per area' calculations based on application amount= 15 GPA, mix size= 2.2 L (mix size basis).  
 \* 'Per volume' calculations use spray volume= 15 GPA, mix size= 2.2 L.

### General Trial Information

**Study Director:** Greg Stapleton **Title:** Sr Tech Service Rep  
**Investigator:** Sara Carter **Title:** RESEARCH SPECIALIST

**Discipline:** H herbicide  
**Status:** I one-year/interim

**Usage/Type:** SCR Screening/Exploratory

**ARM Trial Created On:** 4-24-2023  
**Initiation Date:** 5-3-2023 **Planned Completion Date:** 11-1-2023

### Trial Location

**City:** LEXINGTON **Country:** USA United States  
**State/Prov.:** KENTUCKY **County:** FAYETTE  
**Postal Code:** 40511

### Regulations

**Conducted Under GLP:** No  
**Conducted Under GEP:** No

### Contacts

**Role:** STYDIR study director  
**Study Director:** Greg Stapleton **Title:** Sr Tech Service Rep  
**Organization:** BASF  
**Address 1:** 2218 Navajo Circle **Phone No.:** 731-589-2629  
**Country:** USA United States **E-mail:** gregory.stapleton@basf.com  
**City:** Dyersburg **State/Prov:** TN **Postal Code:** 38024  
**Role:** INVEST investigator  
**Investigator:** Sara Carter **Title:** RESEARCH SPECIALIST  
**Organization:** UNIVERSITY OF KENTUCKY **Org. Type:** UNIVERSITY  
**Address 1:** 105 PLANT SCIENCE BUILDING **Phone No.:** 859-259-1914 **Mobile No.:** 859-559-6710  
**Country:** USA United States **E-mail:** sara.carter@uky.edu  
**City:** LEXINGTON **State/Prov:** KY **Postal Code:** 40546-0312

# University of Kentucky

## Crop Description

Crop 1: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY  
**Stage Scale:** BBCH  
**Variety:** AG 37XF2  
**Planting Date:** 5-3-2023 **Planting Rate:** 150000 S/A  
**Depth:** 1.25 in  
**Rows per Plot:** 6 **Planting Method:** PLANTD planted  
**Row Spacing:** 30 in **Planting Equipment:** FE field equipment  
**Seed Bed:** SMOOTH smooth  
**Soil Temperature:** 58.4 F **Soil Moisture:** GOOD good  
**Emergence Date:** 5-13-2023

## Pest Description

**Pest 1 Type:** W **Code:** AMBTR Ambrosia trifida **Stage Scale:** BBCH  
**Common Name:** Giant ragweed  
**Pest 2 Type:** W **Code:** IPOSS Ipomoea sp. **Stage Scale:** BBCH  
**Common Name:** Morning glory  
**Pest 3 Type:** W **Code:** DIGSA Digitaria sanguinalis **Stage Scale:** BBCH  
**Common Name:** large crabgrass

## Site and Design

**Treated Plot Width:** 10 FT **Site Type:** FIELD field  
**Treated Plot Length:** 35 FT  
**Treated Plot Area:** 350.0 FT2 **Tillage Type:** CONTIL conventional-till  
**Replications:** 4 **Treatments:** 7 **Plots:** 28 **Study Design:** RACOB� Randomized Complete Block (RCB)

## Soil Description

**Description Name:** MAURY **Texture:** SIL silt loam  
**% Sand:** 6 **% OM:** 2.6 **Soil Name:** MAURY SILT LOAM  
**% Silt:** 62 **Fert. Level:** E excellent  
**% Clay:** 32 **pH:** 6.4 **CEC:** 18  
**Soil Drainage:** E excellent

## Application Description

**A**  
**Date:** 5-4-2023  
**Stop Time:** 7:10 PM  
**Standard:** PREE  
**Method:** SPRAY  
**Timing:** PREPRE  
**Placement:** BROSOI  
**Mixed/Prepared By:** Sara  
**Applied By:** Sara  
**Air Temperature Start, Stop:** 64.6, - F  
**% Relative Humidity Start, Stop:** 32, -  
**Wind Velocity+Dir. Start:** 4.7 MPH, NE  
**Soil Temperature:** 59.4 F  
**Soil Moisture:** GOOD  
**Soil Surface Condition:** SMOOTH  
**% Cloud Cover:** 50

## Crop Stage At Each Application

**A**  
**Crop 1 Code, BBCH Scale:** GLXMA, BSOY  
**Days after Emergence:** -9

## Pest Stage At Each Application

**A**  
**Pest 1 Code, Type, Scale:** AMBTR, W, BBCH  
**Pest 2 Code, Type, Scale:** IPOSS, W, BBCH  
**Pest 3 Code, Type, Scale:** DIGSA, W, BBCH

## Application Equipment

**A**  
**Equipment Name:** BACKPACK  
**Equipment Type:** BELSPR  
**Operation Pressure:** 30 PSI  
**Nozzle Model:** 8002 DG  
**Nozzle Type:** FLAT FAN  
**Nozzle Spacing:** 20 IN  
**Boom Length:** 10 FT  
**Boom Height:** 30 IN  
**Boom Flow Rate:** - IN  
**Ground Speed:** 4 MPH  
**Carrier:** WATER  
**Application Amount:** 15 GPA  
**Mix Size:** 2.2 liters  
**Propellant:** CO2

# University of Kentucky

## ZIDUA PRO COMPETITOR WEED CONTROL AND CROP SAFETY

Cooperator Trial ID: H23D32A-

Trial ID: 23-32  
Protocol ID: MKD-H-2023-US-D32-A-01.0 Location:  
Project ID: Project ID 2: Project ID 3:  
Study Director: Greg Stapleton Sponsor Contact:  
Investigator: Sara Carter

Trial Year: 2023

Rating Date	5-9-2023	5-18-2023	5-18-2023	5-18-2023	5-18-2023	5-31-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit/Min/Max	% , 0, 10	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 10
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type			W, Weed	W, Weed	W, Weed	
Pest Code			AMBTR	IPOSS	DIGSA	
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.	Digitaria sangu>	
Pest Name			Giant ragweed	Morning glory	large crabgrass	
Rating Timing						
Days After First/Last Applic.	5, 5	14, 14	14, 14	14, 14	14, 14	27, 27
Trt-Eval Interval	5 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	27 DA-A
Plant-Eval Interval	6 DP-1	15 DP-1	15 DP-1	15 DP-1	15 DP-1	28 DP-1
Days After Emergence	-4 DE-1	5 DE-1	5 DE-1	5 DE-1	5 DE-1	18 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl	Code	Plot	1	2	3	4	5	6			
1	CHECK				103	0.0	0.0	0.0	0.0	0.0	0.0			
					201	0.0	0.0	0.0	0.0	0.0	0.0			
					306	0.0	0.0	0.0	0.0	0.0	0.0			
					401	0.0	0.0	0.0	0.0	0.0	0.0			
					Mean =	0.0	0.0	0.0	0.0	0.0	0.0			
2	ZIDUA PRO	6.0 FL OZ/A	A		102	0.0	0.0	100.0	100.0	100.0	0.0			
					AGRI-DEX	1.0 % V/V	A	207	0.0	0.0	100.0	100.0	100.0	0.0
					304	0.0	0.0	100.0	100.0	100.0	0.0			
					407	0.0	0.0	100.0	100.0	100.0	0.0			
					Mean =	0.0	0.0	100.0	100.0	100.0	0.0			
3	TENDOVO	48.0 FL OZ/A	A		105	0.0	0.0	100.0	100.0	100.0	0.0			
					206	0.0	0.0	100.0	100.0	100.0	0.0			
					302	0.0	0.0	100.0	100.0	100.0	0.0			
					406	0.0	0.0	100.0	100.0	100.0	0.0			
					Mean =	0.0	0.0	100.0	100.0	100.0	0.0			
4	KYBER	16.0 FL OZ/A	A		107	0.0	0.0	100.0	100.0	100.0	0.0			
					202	0.0	0.0	100.0	100.0	100.0	0.0			
					301	0.0	0.0	100.0	100.0	100.0	0.0			
					404	0.0	0.0	100.0	100.0	100.0	0.0			
					Mean =	0.0	0.0	100.0	100.0	100.0	0.0			
5	BOUNDARY 6.5 EC	24.0 FL OZ/A	A		106	0.0	0.0	75.0	65.0	98.0	0.0			
					203	0.0	0.0	70.0	70.0	95.0	0.0			
					307	0.0	0.0	75.0	70.0	100.0	0.0			
					402	0.0	0.0	75.0	75.0	100.0	0.0			
					Mean =	0.0	0.0	73.8	70.0	98.3	0.0			
6	AUTHORITY SUPREME	6.5 FL OZ/A	A		104	0.0	0.0	85.0	90.0	100.0	0.0			
					205	0.0	0.0	90.0	95.0	100.0	0.0			
					303	0.0	0.0	85.0	95.0	95.0	0.0			
					405	0.0	0.0	90.0	95.0	98.0	0.0			
					Mean =	0.0	0.0	87.5	93.8	98.3	0.0			
7	SONIC	5.0 OZ WT/A	A		101	0.0	0.0	100.0	100.0	100.0	0.0			
					204	0.0	0.0	100.0	100.0	100.0	0.0			
					305	0.0	0.0	100.0	100.0	100.0	0.0			
					403	0.0	0.0	100.0	100.0	100.0	0.0			
					Mean =	0.0	0.0	100.0	100.0	100.0	0.0			

# University of Kentucky

Rating Date	5-31-2023	5-31-2023	5-31-2023	6-29-2023	6-29-2023	6-29-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 10	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type	W, Weed	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	AMBTR	IPOSS	DIGSA		AMBTR	IPOSS
Pest Scientific Name	Ambrosia trifida	Ipomoea sp.	Digitaria sangu>		Ambrosia trifida	Ipomoea sp.
Pest Name	Giant ragweed	Morning glory	large crabgrass		Giant ragweed	Morning glory
Rating Timing						
Days After First/Last Applic.	27, 27	27, 27	27, 27	56, 56	56, 56	56, 56
Trt-Eval Interval	27 DA-A	27 DA-A	27 DA-A	56 DA-A	56 DA-A	56 DA-A
Plant-Eval Interval	28 DP-1	28 DP-1	28 DP-1	57 DP-1	57 DP-1	57 DP-1
Days After Emergence	18 DE-1	18 DE-1	18 DE-1	47 DE-1	47 DE-1	47 DE-1
Pest Est.-Eval Interval						
EDC App						
Data Reliability						
ARM Action Codes						
Number of Decimals						

Trt	Treatment	Rate	Appl		7	8	9	10	11	12
No.	Name	Rate Unit	Code Plot							
1	CHECK			103	0.0	0.0	0.0	0.0	0.0	0.0
				201	0.0	0.0	0.0	0.0	0.0	0.0
				306	0.0	0.0	0.0	0.0	0.0	0.0
				401	0.0	0.0	0.0	0.0	0.0	0.0
				Mean =	0.0	0.0	0.0	0.0	0.0	0.0
2	ZIDUA PRO	6.0 FL OZ/A	A	102	100.0	100.0	100.0	0.0	95.0	95.0
	AGRI-DEX	1.0 % V/V	A	207	100.0	100.0	100.0	0.0	95.0	95.0
				304	100.0	100.0	100.0	0.0	95.0	95.0
				407	100.0	100.0	100.0	0.0	98.0	95.0
				Mean =	100.0	100.0	100.0	0.0	95.8	95.0
3	TENDOVO	48.0 FL OZ/A	A	105	100.0	100.0	100.0	0.0	95.0	95.0
				206	100.0	100.0	100.0	0.0	95.0	95.0
				302	100.0	100.0	100.0	0.0	95.0	95.0
				406	100.0	100.0	100.0	0.0	95.0	95.0
				Mean =	100.0	100.0	100.0	0.0	95.0	95.0
4	KYBER	16.0 FL OZ/A	A	107	100.0	100.0	100.0	0.0	95.0	95.0
				202	100.0	100.0	100.0	0.0	98.0	95.0
				301	100.0	100.0	100.0	0.0	95.0	95.0
				404	100.0	100.0	100.0	0.0	95.0	95.0
				Mean =	100.0	100.0	100.0	0.0	95.8	95.0
5	BOUNDARY 6.5 EC	24.0 FL OZ/A	A	106	75.0	65.0	95.0	0.0	75.0	60.0
				203	70.0	65.0	95.0	0.0	70.0	65.0
				307	70.0	65.0	95.0	0.0	70.0	60.0
				402	70.0	70.0	95.0	0.0	70.0	65.0
				Mean =	71.3	66.3	95.0	0.0	71.3	62.5
6	AUTHORITY SUPREME	6.5 FL OZ/A	A	104	80.0	85.0	100.0	0.0	70.0	80.0
				205	80.0	85.0	100.0	0.0	75.0	80.0
				303	85.0	85.0	95.0	0.0	75.0	85.0
				405	85.0	85.0	95.0	0.0	80.0	80.0
				Mean =	82.5	85.0	97.5	0.0	75.0	81.3
7	SONIC	5.0 OZ WT/A	A	101	100.0	100.0	100.0	0.0	95.0	95.0
				204	100.0	100.0	100.0	0.0	98.0	95.0
				305	100.0	100.0	100.0	0.0	95.0	95.0
				403	100.0	100.0	100.0	0.0	95.0	95.0
				Mean =	100.0	100.0	100.0	0.0	95.8	95.0

# University of Kentucky

Rating Date 6-29-2023  
 Part Rated PLANT, P  
 Rating Type CONTRO  
 Rating Unit/Min/Max %, 0, 100  
 Number of Subsamples 1  
 Crop Type, Code C, GLXMA  
 BBCH Scale BSOY  
 Crop Scientific Name Glycine max  
 Crop Name Soybean  
 Pest Type W, Weed  
 Pest Code DIGSA  
 Pest Scientific Name Digitaria sangu>  
 Pest Name large crabgrass  
 Rating Timing  
 Days After First/Last Applic. 56, 56  
 Trt-Eval Interval 56 DA-A  
 Plant-Eval Interval 57 DP-1  
 Days After Emergence 47 DE-1  
 Pest Est.-Eval Interval  
 EDC App  
 Data Reliability  
 ARM Action Codes  
 Number of Decimals

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	13
1	CHECK				103	0.0
					201	0.0
					306	0.0
					401	0.0
					Mean =	0.0
2	ZIDUA PRO	6.0 FL OZ/A		A	102	98.0
	AGRI-DEX	1.0 % V/V		A	207	98.0
					304	95.0
					407	95.0
					Mean =	96.5
3	TENDOVO	48.0 FL OZ/A		A	105	95.0
					206	95.0
					302	95.0
					406	95.0
					Mean =	95.0
4	KYBER	16.0 FL OZ/A		A	107	95.0
					202	95.0
					301	95.0
					404	95.0
					Mean =	95.0
5	BOUNDARY 6.5 EC	24.0 FL OZ/A		A	106	85.0
					203	80.0
					307	85.0
					402	90.0
					Mean =	85.0
6	AUTHORITY SUPREME	6.5 FL OZ/A		A	104	95.0
					205	95.0
					303	95.0
					405	90.0
					Mean =	93.8
7	SONIC	5.0 OZ WT/A		A	101	95.0
					204	90.0
					305	90.0
					403	95.0
					Mean =	92.5

# University of Kentucky

## ZIDUA PRO COMPETITOR WEED CONTROL AND CROP SAFETY

Trial ID: 23-32  
 Protocol ID: MKD-H-2023-US-D32-A-01.0 Location: Cooperator Trial ID: H23D32A-  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: Greg Stapleton Sponsor Contact:  
 Investigator: Sara Carter

### Part Rated

PLANT = plant  
 C = Crop is Part Rated  
 P = Pest is Part Rated

### Rating Type

PHYGEN = phytotoxicity - general / injury  
 CONTRO = control / burndown or knockdown

### Rating Unit/Min/Max

%, 0, 100 = percent

### Crop Type Code

C = EPPO species (Bayer) codes  
 GLXMA, BSOY, Glycine max, Soybean = US

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US  
 IPOSS, Ipomoea sp., Morning glory = US  
 DIGSA, Digitaria sanguinalis, large crabgrass = US

### Plant-Eval Interval

6 DP-1 = 1 GLXMA 5-3-2023  
 15 DP-1 = 1 GLXMA 5-3-2023  
 28 DP-1 = 1 GLXMA 5-3-2023  
 57 DP-1 = 1 GLXMA 5-3-2023



# University of Kentucky

## ZIDUA PRO COMPETITOR WEED CONTROL AND CROP SAFETY

Trial ID: 23-32  
 Protocol ID: MKD-H-2023-US-D32-A-01.0 Location: Trial Year: 2023  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Greg Stapleton Sponsor Contact:  
 Investigator: Sara Carter

Rating Date	5-9-2023	5-18-2023	5-18-2023	5-18-2023	5-18-2023	5-31-2023	5-31-2023
Part Rated	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, P
Rating Type	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	% , 0, 10	% , 0, 10	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 10	% , 0, 100
Number of Subsamples	1	1	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type			W, Weed	W, Weed	W, Weed		W, Weed
Pest Code			AMBTR	IPOSS	DIGSA		AMBTR
Pest Scientific Name			Ambrosia trifida	Ipomoea sp.	Digitaria sangu>		Ambrosia trifida
Pest Name			Giant ragweed	Morning glory	large crabgrass		Giant ragweed
Rating Timing							
Days After First/Last Applic.	5, 5	14, 14	14, 14	14, 14	14, 14	27, 27	27, 27
Trt-Eval Interval	5 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	27 DA-A	27 DA-A
Plant-Eval Interval	6 DP-1	15 DP-1	15 DP-1	15 DP-1	15 DP-1	28 DP-1	28 DP-1
Days After Emergence	-4 DE-1	5 DE-1	5 DE-1	5 DE-1	5 DE-1	18 DE-1	18 DE-1
Pest Est.-Eval Interval							
EDC App							
Data Reliability							
ARM Action Codes							
Number of Decimals							

Trt	Treatment	Rate	Appl	1	2	3	4	5	6	7
No.	Name	Rate Unit	Code							
1	CHECK			0.0 a	0.0 a	0.0 d	0.0 d	0.0 b	0.0 a	0.0 d
2	ZIDUA PRO	6.0 FL OZ/A	A	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	0.0 a	100.0 a
	AGRI-DEX	1.0 % V/V	A							
3	TENDOVO	48.0 FL OZ/A	A	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	0.0 a	100.0 a
4	KYBER	16.0 FL OZ/A	A	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	0.0 a	100.0 a
5	BOUNDARY 6.5 EC	24.0 FL OZ/A	A	0.0 a	0.0 a	73.8 c	70.0 c	98.3 a	0.0 a	71.3 c
6	AUTHORITY SUPREME	6.5 FL OZ/A	A	0.0 a	0.0 a	87.5 b	93.8 b	98.3 a	0.0 a	82.5 b
7	SONIC	5.0 OZ WT/A	A	0.0 a	0.0 a	100.0 a	100.0 a	100.0 a	0.0 a	100.0 a
	LSD P=.05			.	.	2.24	2.52	1.99	.	2.24
	Standard Deviation			0.00	0.00	1.51	1.70	1.34	0.00	1.51
	CV			0.0	0.0	1.88	2.11	1.57	0.0	1.91
	Levene's F^			.	.	3.929*	0.863	5.188*	.	3.929*
	Levene's Prob(F)			.	.	0.009*	0.538	0.002*	.	0.009*
	Shapiro-Wilk^			.	.	0.8388*	0.8691*	0.7705*	.	0.8388*
	P(Shapiro-Wilk)^			.	.	0.0006*	0.0023*	0.0*	.	0.0006*
	Skewness^			.	.	-0.8135	0.1436	-1.0329*	.	0.8135
	P(Skewness)^			.	.	0.0908	0.7591	0.0345*	.	0.0908
	Kurtosis^			.	.	2.5571*	3.4198*	3.4896*	.	2.5571*
	P(Kurtosis)^			.	.	0.0087*	0.0008*	0.0006*	.	0.0087*
	Replicate F			0.000	0.000	0.391	1.966	0.239	0.000	0.391
	Replicate Prob(F)			1.0000	1.0000	0.7607	0.1553	0.8677	1.0000	0.7607
	Treatment F			0.000	0.000	2365.174	1920.311	3157.284	0.000	2359.957
	Treatment Prob(F)			1.0000	1.0000	0.0001	0.0001	0.0001	1.0000	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,6,10 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date	5-31-2023	5-31-2023	6-29-2023	6-29-2023	6-29-2023
Part Rated	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 10	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Pest Type	W, Weed	W, Weed		W, Weed	W, Weed
Pest Code	IPOSS	DIGSA		AMBTR	IPOSS
Pest Scientific Name	Ipomoea sp.	Digitaria sangu>		Ambrosia trifida	Ipomoea sp.
Pest Name	Morning glory	large crabgrass		Giant ragweed	Morning glory
Rating Timing					
Days After First/Last Applic.	27, 27	27, 27	56, 56	56, 56	56, 56
Trt-Eval Interval	27 DA-A	27 DA-A	56 DA-A	56 DA-A	56 DA-A
Plant-Eval Interval	28 DP-1	28 DP-1	57 DP-1	57 DP-1	57 DP-1
Days After Emergence	18 DE-1	18 DE-1	47 DE-1	47 DE-1	47 DE-1
Pest Est.-Eval Interval					
EDC App					
Data Reliability					
ARM Action Codes					
Number of Decimals					

Trt Treatment No. Name	Rate Rate Unit	Appl Code	8	9	10	11	12	
1 CHECK			0.0 d		0.0 d	0.0 a	0.0 d	0.0 d
2 ZIDUA PRO	6.0 FL OZ/A	A	100.0 a		100.0 a	0.0 a	95.8 a	95.0 a
AGRI-DEX	1.0 % V/V	A						
3 TENDOVO	48.0 FL OZ/A	A	100.0 a		100.0 a	0.0 a	95.0 a	95.0 a
4 KYBER	16.0 FL OZ/A	A	100.0 a		100.0 a	0.0 a	95.8 a	95.0 a
5 BOUNDARY 6.5 EC	24.0 FL OZ/A	A	66.3 c		95.0 c	0.0 a	71.3 c	62.5 c
6 AUTHORITY SUPREME	6.5 FL OZ/A	A	85.0 b		97.5 b	0.0 a	75.0 b	81.3 b
7 SONIC	5.0 OZ WT/A	A	100.0 a		100.0 a	0.0 a	95.8 a	95.0 a
LSD P=.05			1.40		1.62	.	3.17	2.24
Standard Deviation			0.94		1.09	0.00	2.13	1.51
CV			1.2		1.29	0.0	2.82	2.02
Levene's F^			0.595	2413602951120590000000000000.00*	.	.	1.053	3.929*
Levene's Prob(F)			0.731		0.00*	.	0.421	0.009*
Shapiro-Wilk^			0.6279*		0.7918*	.	0.8951*	0.8388*
P(Shapiro-Wilk)^			0.0*		0.0*	.	0.0088*	0.0006*
Skewness^			2.4926*		0.0	.	0.5138	0.8135
P(Skewness)^			0.0*		1.0	.	0.2777	0.0908
Kurtosis^			11.1577*		2.8592*	.	2.4882*	2.5571*
P(Kurtosis)^			0.0*		0.0038*	.	0.0104*	0.0087*
Replicate F			1.000		1.000	0.000	0.535	0.391
Replicate Prob(F)			0.4155		0.4155	1.0000	0.6642	0.7607
Treatment F			6125.001		4693.000	0.000	1076.287	2167.957
Treatment Prob(F)			0.0001		0.0001	1.0000	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,6,10 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

Rating Date 6-29-2023  
 Part Rated PLANT, P  
 Rating Type CONTRO  
 Rating Unit/Min/Max %, 0, 100  
 Number of Subsamples 1  
 Crop Type, Code C, GLXMA  
 BBCH Scale BSOY  
 Crop Scientific Name Glycine max  
 Crop Name Soybean  
 Pest Type W, Weed  
 Pest Code DIGSA  
 Pest Scientific Name Digitaria sangu>  
 Pest Name large crabgrass  
 Rating Timing  
 Days After First/Last Applic. 56, 56  
 Trt-Eval Interval 56 DA-A  
 Plant-Eval Interval 57 DP-1  
 Days After Emergence 47 DE-1  
 Pest Est.-Eval Interval  
 EDC App  
 Data Reliability  
 ARM Action Codes  
 Number of Decimals

Trt No.	Treatment Name	Rate	Unit	Appl Code	13
1	CHECK				0.0 c
2	ZIDUA PRO	6.0 FL OZ/A	A		96.5 a
	AGRI-DEX	1.0 % V/V	A		
3	TENDOVO	48.0 FL OZ/A	A		95.0 a
4	KYBER	16.0 FL OZ/A	A		95.0 a
5	BOUNDARY 6.5 EC	24.0 FL OZ/A	A		85.0 b
6	AUTHORITY SUPREME	6.5 FL OZ/A	A		93.8 a
7	SONIC	5.0 OZ WT/A	A		92.5 a
	LSD P=.05				3.39
	Standard Deviation				2.28
	CV				2.86
	Levene's F^				1.70
	Levene's Prob(F)				0.17
	Shapiro-Wilk^				0.9548
	P(Shapiro-Wilk)^				0.2614
	Skewness^				-0.191
	P(Skewness)^				0.6838
	Kurtosis^				1.3285
	P(Kurtosis)^				0.1531
	Replicate F				0.573
	Replicate Prob(F)				0.6397
	Treatment F				958.590
	Treatment Prob(F)				0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,6,10 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

## ZIDUA PRO COMPETITOR WEED CONTROL AND CROP SAFETY

Trial ID: 23-32  
 Protocol ID: MKD-H-2023-US-D32-A-01.0 Location: Cooperator Trial ID: H23D32A-  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: Greg Stapleton Sponsor Contact:  
 Investigator: Sara Carter

### Part Rated

PLANT = plant  
 C = Crop is Part Rated  
 P = Pest is Part Rated

### Rating Type

PHYGEN = phytotoxicity - general / injury  
 CONTRO = control / burndown or knockdown

### Rating Unit/Min/Max

%, 0, 100 = percent

### Crop Type Code

C = EPPO species (Bayer) codes  
 GLXMA, BSOY, Glycine max, Soybean = US

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US  
 IPOSS, Ipomoea sp., Morning glory = US  
 DIGSA, Digitaria sanguinalis, large crabgrass = US

### Plant-Eval Interval

6 DP-1 = 1 GLXMA 5-3-2023  
 15 DP-1 = 1 GLXMA 5-3-2023  
 28 DP-1 = 1 GLXMA 5-3-2023  
 57 DP-1 = 1 GLXMA 5-3-2023

# University of Kentucky

L-GA / EFFICACY / SOYBEAN / EXTERNAL

Cooperator Trial ID:

Trial Year: 2023

Trial ID: 23-33 SOY-REC

Protocol ID: MKD-FI-2023-US-D41-A-01.0 Location:

Project ID: Project ID 2: Project ID 3:

Study Director: Liam Vincent Sponsor Contact:

Investigator: VINCENT LIAM

Reps: 4 Plots: 10 by 30 feet  
Appl. Amount: 20 GAL/AC Mix Size: 2.5 L (total for 4 plots; minimum=2.086 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Form Unit	Form Type	Rate	Other Rate	Other Rate	Appl Unit	Appl Code	Appl Timing	Appl Amt	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	CHECK											NA3		101	204	308	406		
2	BAS 101005H	211 GA/L	SL	24.0 FL OZ/A	370.0 g Al/ha	B	NA3	23.44 mL/mx					102	206	303	405			
3	SURMISE 5	551.2 GA/L	SL	16.4 FL OZ/A	660.0 g Al/ha	B	NA3	16.02 mL/mx					103	207	305	408			
4	INTERLINE	280 GA/L	SL	32.0 FL OZ/A	660.0 g Al/ha	B	NA3	31.25 mL/mx					104	201	307	402			
5	BAS 101005H AMS - Liquid	211 GA/L 3.4 lba/gal	SL SL	24.0 FL OZ/A 1.5 LB Al/A	370.0 g Al/ha 1680 g Al/ha	B B	NA3 NA3	23.44 mL/mx 55.14 mL/mx					105	202	304	403			
6	SURMISE 5 AMS - Liquid	551.2 GA/L 3.4 lba/gal	SL SL	16.4 FL OZ/A 1.5 LB Al/A	660.0 g Al/ha 1680.0 g Al/ha	B B	NA3 NA3	16.02 mL/mx 55.14 mL/mx					106	208	306	404			
7	INTERLINE AMS - Liquid	280 GA/L 3.4 lba/gal	SL SL	32.0 FL OZ/A 1.5 LB Al/A	660.0 g Al/ha 1680.0 g Al/ha	B B	NA3 NA3	31.25 mL/mx 55.14 mL/mx					107	205	301	407			
8	BAS 101005H ZIDUA SC AMS - Liquid	211 GA/L 500 GA/L 3.4 lba/gal	SL SC SL	24.0 FL OZ/A 2.5 FL OZ/A 1.5 LB Al/A	370.0 g Al/ha 91.3 g Al/ha 1680.0 g Al/ha	A A A	NA2 NA2 NA2	23.44 mL/mx 2.441 mL/mx 55.14 mL/mx					108	203	302	401			

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
70.312 mL		BAS 101005H	211	GA/L	SL	
32.031 mL		SURMISE 5	551.2	GA/L	SL	
62.500 mL		INTERLINE	280	GA/L	SL	
220.564 mL		AMS - Liquid	3.4	lba/gal	SL	
2.441 mL		ZIDUA SC	500	GA/L	SC	

\* 'Per area' calculations based on application amount= 20 GAL/AC, mix size= 2.5 L (mix size basis).

### General Trial Information

Study Director: Liam Vincent  
Investigator: VINCENT LIAM

Status: E established

ARM Trial Created On: 4-7-2023

### Trial Location

City: Princeton Country: USA United States  
State/Prov.: Kentucky  
Postal Code: 42445

### Regulations

Conducted Under GLP: No  
Conducted Under GEP: No

### Contacts

Role: STYDIR study director  
Study Director: Liam Vincent  
Role: INVEST investigator  
Investigator: VINCENT LIAM

### Crop Description

Crop 1: C GLXMA Glycine max Soybean BBCH Scale: BSOY  
Entry Date: 10-23-2023 Stage Scale: BBCH  
Variety: Asgrow 43XF2  
Planting Date: 5-24-2023 Planting Rate: 140000 S/A  
Depth: 1.25 IN  
Planting Method: PLANTD planted  
Row Spacing: 15 IN Planting Equipment: VP vacuum planter

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### Pest Description

- Pest 1 Type:** W **Code:** ACCOS **Acalypha persimilis** **Entry Date:** 10-23-2023  
**Common Name:** Pineland three-seed mercury **Stage Scale:** BBCH
- Pest 2 Type:** W **Code:** SIDSP **Sida spinosa** **Entry Date:** 10-23-2023  
**Common Name:** Prickly sida **Stage Scale:** BBCH
- Pest 3 Type:** W **Code:** IPOHE **Ipomoea hederacea** **Entry Date:** 10-23-2023  
**Common Name:** ivy-leaf morning glory **Stage Scale:** BBCH
- Pest 4 Type:** W **Code:** AMBTR **Ambrosia trifida** **Entry Date:** 10-23-2023  
**Common Name:** Giant ragweed **Stage Scale:** BBCH
- Pest 5 Type:** W **Code:** ABUTH **Abutilon theophrasti** **Entry Date:** 10-23-2023  
**Common Name:** velvetleaf **Stage Scale:** BBCH

### Site and Design

**Treated Plot Width:** 10 FT **Site Type:** FIELD field  
**Treated Plot Length:** 30 FT **Experimental Unit:** 1 PLOT plot  
**Treated Plot Area:** 300.0 FT<sup>2</sup> **Tillage Type:** NOTILL no-till  
**Replications:** 4 **Treatments:** 8 **Plots:** 32 **Study Design:** RACOBL Randomized Complete Block (RCB)  
**Distance between Blocks:** 1 FT  
**Distance between 'Plot' Experimental Units:** 0.5 FT

### Maintenance

No.	Date	Type	Maintenance Product Name	Rate	Unit
1.	4-19-2023	HERB	Roundup Powermax 3	30	fl oz/a
2.	4-19-2023	HERB	Interline	32	fl oz/a
3.	4-19-2023	ADJ	AMS	2.5	%v/v
4.	4-18-2023	FERT	Phosphorus	46	lbs
5.	4-18-2023	FERT	Nitrogen	18	lbs
6.	5-26-2023	HERB	Dual II Magnum	0.67	pts/a

### Soil Description

**Description Name:** 201-E  
**% Sand:** 4.2 **% OM:** 2.4 **Texture:** SIL silt loam  
**% Silt:** 80.1 **Soil Name:** Crider Silt Loam  
**% Clay:** 15.7  
**pH:** 5.43 **CEC:** 11.97

### Application Description

	A	B
<b>Date</b>	6-23-2023	6-30-2023
<b>Start Time</b>	5:36 PM	4:37 PM
<b>Stop Time</b>	5:37 PM	4:53 PM
<b>Interval to Prev. Appl.</b>		7 DAYS
<b>Method</b>	spray	spray
<b>Placement</b>	foliar	foliar
<b>Applied By</b>	JLG	CMY
<b>Entry Date</b>	10-23-2023	10-23-2023
<b>Air Temperature Start, Stop</b>	82.3, 82.3 F	97.3, 98 F
<b>% Relative Humidity Start, Stop</b>	51.7, 51.7	57.5, 57.5
<b>Wind Velocity+Dir. Start</b>	1.2 MPH, S	6.1 MPH, NE
<b>Wind Velocity+Dir. Stop</b>	3.4 MPH, S	4.8 MPH, NE
<b>Wind Velocity+Dir. Max</b>	6.3 MPH, S	10.3 MPH, NE
<b>Wet Leaves (Y/N)</b>	N, no	N, no
<b>Soil Moisture</b>	WET	DRY
<b>% Cloud Cover</b>	100	30

### Crop Stage At Each Application

	A	B
<b>Crop 1 Code, BBCH Scale</b>	GLXMA, BSOY	GLXMA, BSOY
<b>Stage Majority, Percent</b>	V3, -	V4, -
<b>Stage Minimum, Percent</b>	V3, -	V4, -
<b>Stage Maximum, Percent</b>	V3, -	V5, -
<b>Height Average</b>	6.375 IN	11.5 IN
<b>Height Minimum, Maximum</b>	5.25, 7.5	10, 13

### Pest Stage At Each Application

	A	B
<b>Pest 1 Code, Type, Scale</b>	ACCOS, W, BBCH	ACCOS, W, BBCH
<b>Pest 2 Code, Type, Scale</b>	SIDSP, W, BBCH	SIDSP, W, BBCH
<b>Pest 3 Code, Type, Scale</b>	IPOHE, W, BBCH	IPOHE, W, BBCH
<b>Pest 4 Code, Type, Scale</b>	AMBTR, W, BBCH	AMBTR, W, BBCH
<b>Pest 5 Code, Type, Scale</b>	ABUTH, W, BBCH	ABUTH, W, BBCH

# University of Kentucky

## Application Equipment

	A	B
Equipment Type	BACCAI	BACCAI
Operation Pressure	35 PSI	35 PSI
Nozzle Model	XR11003	XR11003
Boom ID	WHITE	WHITE
Boom Length	10.0 FT	10.0 FT
Boom Height	18.0 IN	18.0 IN
Ground Speed	3 MPH	3 MPH
Carrier	WATER	WATER
Application Amount	20 GAL/AC	20 GAL/AC
Mix Size	2.5 L	2.5 L
Propellant	comco2	comco2

## Treatment Appl. Comments

Trt No	Treatment Application Comment
8	Treatment 8 on Application A, was applied at 20 GPA. Mixed for 2,000 mls instead of 2500 mls, but still had some in the bottle

## Notes

Context	Date	By	Notes
STATUS	4-7-2023	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	10-23-2023	Travis Legleiter	Automatically added by ARM: Status changed to: E: changed by (EKYLET).
STATUS	10-23-2023	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'E' when Date entered.

## SE Definitions

SE Name	1.	2.	3.	4.
SE Description	CONTRO_1	CONTRO_1	CONTRO_1	
	% control with	% control with	% control with	
	standard of	standard of	standard of	
	0% control in	0% control in	0% control in	
	check	check	check	
	(untreated)	(untreated)%	(untreated)	

# University of Kentucky

L-GA / EFFICACY / SOYBEAN / EXTERNAL

Trial ID: 23-33 SOY-REC  
Protocol ID: MKD-FI-2023-US-D41-A-01.0 Location:  
Project ID: Project ID 2: Project ID 3:  
Study Director: Liam Vincent Sponsor Contact:  
Investigator: VINCENT LIAM

Cooperator Trial ID:  
Trial Year: 2023

Rating Date	6-30-2023	6-30-2023	6-30-2023	7-7-2023	7-7-2023	7-7-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	SIDSP	IPOHE	AMBTR	SIDSP	IPOHE
Pest Scientific Name	Ambrosia trifida	Sida spinosa	Ipomoea hederac>	Ambrosia trifida	Sida spinosa	Ipomoea hederac>
Pest Name	Giant ragweed	Prickly sida	ivy-leaf mornin>	Giant ragweed	Prickly sida	ivy-leaf mornin>
Pest Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	7, 7	7, 7	7, 7	14, 7	14, 7	14, 7
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A	14 DA-A
Plant-Eval Interval	37 DP-1	37 DP-1	37 DP-1	44 DP-1	44 DP-1	44 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes				ET3		ET4
Number of Decimals						
Data Entry Date	9-29-2023	9-29-2023	9-29-2023	9-29-2023	9-29-2023	9-29-2023

Trt	Treatment	Rate	Appl	1		2		3		4		5		6	
No.	Name	Rate Unit	Code Plot												
1	CHECK		101							0.0		0.0			0.0
			204							0.0		0.0			0.0
			308							0.0		0.0			0.0
			406							0.0		0.0			0.0
			Mean =							0.0		0.0			0.0
2	BAS 101005H	24.0 FL OZ/A B	102							97.0		100.0			100.0
			206							97.0		100.0			100.0
			303							97.0		100.0			97.0
			405							97.0		100.0			100.0
			Mean =							97.0		100.0			99.3
3	SURMISE 5	16.4 FL OZ/A B	103							95.0		100.0			100.0
			207							100.0		100.0			100.0
			305							90.0		100.0			100.0
			408							100.0		100.0			100.0
			Mean =							96.3		100.0			100.0
4	INTERLINE	32.0 FL OZ/A B	104							95.0		100.0			95.0
			201							97.0		100.0			90.0
			307							95.0		100.0			100.0
			402							95.0		100.0			100.0
			Mean =							95.5		100.0			96.3
5	BAS 101005H	24.0 FL OZ/A B	105							97.0		100.0			100.0
	AMS - Liquid	1.5 LB AI/A B	202							100.0		100.0			100.0
			304							100.0		100.0			100.0
			403							95.0		100.0			100.0
			Mean =							98.0		100.0			100.0
6	SURMISE 5	16.4 FL OZ/A B	106							95.0		100.0			100.0
	AMS - Liquid	1.5 LB AI/A B	208							100.0		100.0			100.0
			306							97.0		100.0			100.0
			404							97.0		100.0			100.0
			Mean =							97.3		100.0			100.0
7	INTERLINE	32.0 FL OZ/A B	107							100.0		100.0			100.0
	AMS - Liquid	1.5 LB AI/A B	205							97.0		100.0			97.0
			301							95.0		100.0			100.0
			407							100.0		100.0			100.0
			Mean =							98.0		100.0			99.3
8	BAS 101005H	24.0 FL OZ/A A	108	90.0		100.0				100.0		100.0			100.0
	ZIDUA SC	2.5 FL OZ/A A	203	90.0		100.0				100.0		100.0			100.0
	AMS - Liquid	1.5 LB AI/A A	302	97.0		100.0				100.0		98.0			97.0
			401	95.0		100.0				85.0		100.0			97.0
			Mean =	93.0		100.0				96.3		98.8			98.5



# University of Kentucky

Rating Date	7-13-2023	7-13-2023	7-13-2023	7-21-2023	7-21-2023	7-21-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	SIDSP	IPOHE	AMBTR	SIDSP	IPOHE
Pest Scientific Name	Ambrosia trifida	Sida spinosa	Ipomoea hederac>	Ambrosia trifida	Sida spinosa	Ipomoea hederac>
Pest Name	Giant ragweed	Prickly sida	ivy-leaf mornin>	Giant ragweed	Prickly sida	ivy-leaf mornin>
Pest Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	20, 13	20, 13	20, 13	28, 21	28, 21	28, 21
Trt-Eval Interval	20 DA-A	20 DA-A	20 DA-A	28 DA-A	28 DA-A	28 DA-A
Plant-Eval Interval	50 DP-1	50 DP-1	50 DP-1	58 DP-1	58 DP-1	58 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes						
Number of Decimals						
Data Entry Date	9-29-2023	9-29-2023	9-29-2023	9-29-2023	9-29-2023	9-29-2023

Trt	Treatment	Rate	Appl	7		8		9		10		11		12	
No.	Name	Rate Unit	Code Plot												
1	CHECK		101	0.0	0.0			0.0		0.0		0.0		0.0	
			204	0.0	0.0			0.0		0.0		0.0		0.0	
			308	0.0	0.0			0.0		0.0		0.0		0.0	
			406	0.0	0.0			0.0		0.0		0.0		0.0	
			Mean =	0.0	0.0			0.0		0.0		0.0		0.0	
2	BAS 101005H	24.0 FL OZ/A B	102	100.0	100.0			100.0		100.0		100.0		100.0	
			206	100.0	100.0			100.0		100.0		100.0		100.0	
			303	100.0	100.0			100.0		100.0		100.0		100.0	
			405	100.0	100.0			100.0		100.0		100.0		100.0	
			Mean =	100.0	100.0			100.0		100.0		100.0		100.0	
3	SURMISE 5	16.4 FL OZ/A B	103	100.0	100.0			100.0		100.0		100.0		100.0	
			207	100.0	100.0			100.0		100.0		100.0		100.0	
			305	95.0	100.0			100.0		100.0		100.0		100.0	
			408	100.0	100.0			100.0		100.0		100.0		100.0	
			Mean =	98.8	100.0			100.0		100.0		100.0		100.0	
4	INTERLINE	32.0 FL OZ/A B	104	97.0	100.0			100.0		100.0		100.0		100.0	
			201	100.0	100.0			100.0		100.0		100.0		100.0	
			307	100.0	100.0			100.0		100.0		100.0		100.0	
			402	100.0	100.0			97.0		100.0		100.0		100.0	
			Mean =	99.3	100.0			99.3		100.0		100.0		100.0	
5	BAS 101005H	24.0 FL OZ/A B	105	100.0	100.0			100.0		100.0		100.0		100.0	
	AMS - Liquid	1.5 LB AI/A B	202	100.0	100.0			100.0		100.0		100.0		100.0	
			304	100.0	100.0			100.0		100.0		100.0		100.0	
			403	97.0	100.0			100.0		100.0		100.0		100.0	
			Mean =	99.3	100.0			100.0		100.0		100.0		100.0	
6	SURMISE 5	16.4 FL OZ/A B	106	100.0	100.0			100.0		100.0		100.0		100.0	
	AMS - Liquid	1.5 LB AI/A B	208	100.0	100.0			100.0		100.0		100.0		100.0	
			306	100.0	100.0			100.0		100.0		100.0		100.0	
			404	100.0	100.0			100.0		100.0		100.0		100.0	
			Mean =	100.0	100.0			100.0		100.0		100.0		100.0	
7	INTERLINE	32.0 FL OZ/A B	107	100.0	100.0			100.0		100.0		100.0		100.0	
	AMS - Liquid	1.5 LB AI/A B	205	100.0	100.0			100.0		100.0		100.0		100.0	
			301	97.0	100.0			100.0		100.0		100.0		100.0	
			407	100.0	100.0			100.0		100.0		100.0		100.0	
			Mean =	99.3	100.0			100.0		100.0		100.0		100.0	
8	BAS 101005H	24.0 FL OZ/A A	108	100.0	100.0			100.0		100.0		100.0		100.0	
	ZIDUA SC	2.5 FL OZ/A A	203	100.0	100.0			100.0		100.0		100.0		100.0	
	AMS - Liquid	1.5 LB AI/A A	302	100.0	100.0			100.0		100.0		100.0		100.0	
			401	100.0	100.0			100.0		100.0		100.0		100.0	
			Mean =	100.0	100.0			100.0		100.0		100.0		100.0	

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Rating Date	7-28-2023	7-28-2023	7-28-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Crop Type, Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	SIDSP	IPOHE
Pest Scientific Name	Ambrosia trifida	Sida spinosa	Ipomoea hederac>
Pest Name	Giant ragweed	Prickly sida	ivy-leaf mornin>
Pest Stage Scale	BBCH	BBCH	BBCH
Rating Timing			
Days After First/Last Applic.	35, 28	35, 28	35, 28
Trt-Eval Interval	35 DA-A		35 DA-A
Plant-Eval Interval	65 DP-1	65 DP-1	65 DP-1
Days After Emergence			
Pest Est.-Eval Interval			
Equipment			
EDC App	Rating Shell	Rating Shell	Rating Shell
Data Reliability			
ARM Action Codes			
Number of Decimals			
Data Entry Date	9-29-2023	9-29-2023	9-29-2023

Trt No.	Treatment	Rate	Appl Code	Plot 13	Plot 14	Plot 15
1	CHECK		101	0.0	0.0	0.0
			204	0.0	0.0	0.0
			308	0.0	0.0	0.0
			406	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0
2	BAS 101005H	24.0 FL OZ/A B	102	100.0	100.0	100.0
			206	100.0	100.0	100.0
			303	100.0	100.0	100.0
			405	100.0	100.0	100.0
			Mean =	100.0	100.0	100.0
3	SURMISE 5	16.4 FL OZ/A B	103	100.0	100.0	100.0
			207	100.0	100.0	100.0
			305	100.0	100.0	100.0
			408	100.0	100.0	100.0
			Mean =	100.0	100.0	100.0
4	INTERLINE	32.0 FL OZ/A B	104	100.0	100.0	100.0
			201	100.0	100.0	100.0
			307	100.0	100.0	100.0
			402	100.0	100.0	100.0
			Mean =	100.0	100.0	100.0
5	BAS 101005H AMS - Liquid	24.0 FL OZ/A B 1.5 LB AI/A B	105	100.0	100.0	100.0
			202	100.0	100.0	100.0
			304	100.0	100.0	100.0
			403	100.0	100.0	100.0
			Mean =	100.0	100.0	100.0
6	SURMISE 5 AMS - Liquid	16.4 FL OZ/A B 1.5 LB AI/A B	106	100.0	100.0	100.0
			208	100.0	100.0	100.0
			306	100.0	100.0	100.0
			404	100.0	100.0	100.0
			Mean =	100.0	100.0	100.0
7	INTERLINE AMS - Liquid	32.0 FL OZ/A B 1.5 LB AI/A B	107	100.0	100.0	100.0
			205	100.0	100.0	100.0
			301	100.0	100.0	100.0
			407	100.0	100.0	100.0
			Mean =	100.0	100.0	100.0
8	BAS 101005H ZIDUA SC AMS - Liquid	24.0 FL OZ/A A 2.5 FL OZ/A A 1.5 LB AI/A A	108	100.0	100.0	100.0
			203	100.0	100.0	100.0
			302	100.0	100.0	100.0
			401	100.0	100.0	100.0
			Mean =	100.0	100.0	100.0

# University of Kentucky

L-GA / EFFICACY / SOYBEAN / EXTERNAL

Cooperator Trial ID:

Trial Year: 2023

Trial ID: 23-33 SOY-REC  
Protocol ID: MKD-F-2023-US-D41-A-01.0 Location:  
Project ID: Project ID 2: Project ID 3:  
Study Director: Liam Vincent Sponsor Contact:  
Investigator: VINCENT LIAM

Part Rated

PLANT = plant

P = Pest is Part Rated

Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

PLOT = total plot

PLOT = total plot

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

SIDSP, Sida spinosa, Prickly sida = US

IPOHE, Ipomoea hederacea, ivy-leaf morning glory = US

Pest Stage Scale

BBCH = BBCH uniform plant stages

Plant-Eval Interval

37 DP-1 = 1 GLXMA 5-24-2023

44 DP-1 = 1 GLXMA 5-24-2023

50 DP-1 = 1 GLXMA 5-24-2023

58 DP-1 = 1 GLXMA 5-24-2023

65 DP-1 = 1 GLXMA 5-24-2023

EDC App

Rating Shell = Data pulled from Excel Rating Shell

ARM Action Codes

ET3 = Excluded treatment 3

ET4 = Excluded treatment 4

# University of Kentucky

L-GA / EFFICACY / SOYBEAN / EXTERNAL

Trial ID: 23-33 SOY-REC  
 Protocol ID: MKD-F-2023-US-D41-A-01.0 Location:  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Liam Vincent Sponsor Contact:  
 Investigator: VINCENT LIAM

Cooperator Trial ID:  
 Trial Year: 2023

Rating Date	6-30-2023	6-30-2023	6-30-2023	7-7-2023	7-7-2023	7-7-2023	7-13-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1	1
Crop Type, Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	SIDSP	IPOHE	AMBTR	SIDSP	IPOHE	AMBTR
Pest Scientific Name	Ambrosia trifida	Sida spinosa	Ipomoea hederac>	Ambrosia trifida	Sida spinosa	Ipomoea hederac>	Ambrosia trifida
Pest Name	Giant ragweed	Prickly sida	ivy-leaf mornin>	Giant ragweed	Prickly sida	ivy-leaf mornin>	Giant ragweed
Pest Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH
Rating Timing							
Days After First/Last Applic.	7, 7	7, 7	7, 7	14, 7	14, 7	14, 7	20, 13
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A	14 DA-A	20 DA-A
Plant-Eval Interval	37 DP-1	37 DP-1	37 DP-1	44 DP-1	44 DP-1	44 DP-1	50 DP-1
Days After Emergence							
Pest Est.-Eval Interval							
Equipment							
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability							
ARM Action Codes				ET3		ET4	
Number of Decimals							
Data Entry Date	9-29-2023	9-29-2023	9-29-2023	9-29-2023	9-29-2023	9-29-2023	9-29-2023

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6	7
1	CHECK						0.0 b	0.0 b	0.0 b	0.0 b
2	BAS 101005H	24.0 FL OZ/A	B				97.0 a	100.0 a	99.3 a	100.0 a
3	SURMISE 5	16.4 FL OZ/A	B				96.3	100.0 a	100.0 a	98.8 a
4	INTERLINE	32.0 FL OZ/A	B				95.5 a	100.0 a	96.3	99.3 a
5	BAS 101005H	24.0 FL OZ/A	B				98.0 a	100.0 a	100.0 a	99.3 a
	AMS - Liquid	1.5 LB AI/A	B							
6	SURMISE 5	16.4 FL OZ/A	B				97.3 a	100.0 a	100.0 a	100.0 a
	AMS - Liquid	1.5 LB AI/A	B							
7	INTERLINE	32.0 FL OZ/A	B				98.0 a	100.0 a	99.3 a	99.3 a
	AMS - Liquid	1.5 LB AI/A	B							
8	BAS 101005H	24.0 FL OZ/A	A	93.0	100.0	96.3	98.8 a	99.5 a	98.5 a	100.0 a
	ZIDUA SC	2.5 FL OZ/A	A							
	AMS - Liquid	1.5 LB AI/A	A							
	LSD P=.05			.	.	.	2.71	0.52	1.56	1.90
	Standard Deviation			.	.	.	1.83	0.35	1.05	1.29
	CV			.	.	.	2.19	0.4	1.23	1.48
	Levene's F^			.	.	.	2.636*	0.643	1.892	0.627
	Levene's Prob(F)			.	.	.	0.046*	0.716	0.13	0.729
	Shapiro-Wilk^			.	.	.	0.9553	0.5947*	0.9238*	0.8426*
	P(Shapiro-Wilk)^			.	.	.	0.2681	0.0*	0.0432*	0.0003*
	Skewness^			.	.	.	-0.4312	-2.7492*	-0.9098	-1.4923*
	P(Skewness)^			.	.	.	0.3607	0.0*	0.0602	0.0017*
	Kurtosis^			.	.	.	0.0065	13.5402*	1.0997	2.2657*
	P(Kurtosis)^			.	.	.	0.9943	0.0*	0.2341	0.0118*
	Replicate F						1.042	1.000	0.774	0.828
	Replicate Prob(F)						0.3981	0.4123	0.5235	0.4933
	Treatment F						1626.189	39943.861	5110.936	2981.237
	Treatment Prob(F)						0.0001	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,3,8,10,11,12,13,14,15 because error mean square = 0.  
 ^Calculated from residual.

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				7-13-2023	7-13-2023	7-21-2023	7-21-2023	7-21-2023	7-28-2023	7-28-2023
Rating Date				7-13-2023	7-13-2023	7-21-2023	7-21-2023	7-21-2023	7-28-2023	7-28-2023
Part Rated				PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type				CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max				% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples				1	1	1	1	1	1	1
Crop Type, Code										
BBCH Scale										
Crop Scientific Name										
Crop Name										
Pest Type				W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code				SIDSP	IPOHE	AMBTR	SIDSP	IPOHE	AMBTR	SIDSP
Pest Scientific Name				Sida spinosa	Ipomoea hederac>	Ambrosia trifida	Sida spinosa	Ipomoea hederac>	Ambrosia trifida	Sida spinosa
Pest Name				Prickly sida	ivy-leaf mornin>	Giant ragweed	Prickly sida	ivy-leaf mornin>	Giant ragweed	Prickly sida
Pest Stage Scale				BBCH	BBCH	BBCH	BBCH	BBCH	BBCH	BBCH
Rating Timing										
Days After First/Last Applic.				20, 13	20, 13	28, 21	28, 21	28, 21	35, 28	35, 28
Trt-Eval Interval				20 DA-A	20 DA-A	28 DA-A	28 DA-A	28 DA-A	35 DA-A	35 DA-A
Plant-Eval Interval				50 DP-1	50 DP-1	58 DP-1	58 DP-1	58 DP-1	65 DP-1	65 DP-1
Days After Emergence										
Pest Est.-Eval Interval										
Equipment										
EDC App				Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability										
ARM Action Codes										
Number of Decimals										
Data Entry Date				9-29-2023	9-29-2023	9-29-2023	9-29-2023	9-29-2023	9-29-2023	9-29-2023
Trt No.	Treatment Name	Rate	Appl Code	8	9	10	11	12	13	14
1	CHECK			0.0 b	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b
2	BAS 101005H	24.0 FL OZ/A B		100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
3	SURMISE 5	16.4 FL OZ/A B		100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
4	INTERLINE	32.0 FL OZ/A B		100.0 a	99.3 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
5	BAS 101005H	24.0 FL OZ/A B		100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	AMS - Liquid	1.5 LB AI/A B								
6	SURMISE 5	16.4 FL OZ/A B		100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	AMS - Liquid	1.5 LB AI/A B								
7	INTERLINE	32.0 FL OZ/A B		100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	AMS - Liquid	1.5 LB AI/A B								
8	BAS 101005H	24.0 FL OZ/A A		100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	ZIDUA SC	2.5 FL OZ/A A								
	AMS - Liquid	1.5 LB AI/A A								
LSD P=.05				.	0.78	.	.	.	.	.
Standard Deviation				0.00	0.53	0.00	0.00	0.00	0.00	0.00
CV				0.0	0.61	0.0	0.0	0.0	0.0	0.0
Levene's F^				.	0.643	.	.	.	.	.
Levene's Prob(F)				.	0.716	.	.	.	.	.
Shapiro-Wilk^				.	0.5947*	.	.	.	.	.
P(Shapiro-Wilk)^				.	0.0*	.	.	.	.	.
Skewness^				.	-2.7492*	.	.	.	.	.
P(Skewness)^				.	0.0*	.	.	.	.	.
Kurtosis^				.	13.5402*	.	.	.	.	.
P(Kurtosis)^				.	0.0*	.	.	.	.	.
Replicate F				0.000	1.000	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)				1.0000	0.4123	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F				0.000	17740.684	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)				1.0000	0.0001	1.0000	1.0000	1.0000	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Could not calculate LSD (% mean diff) for columns 1,2,3,8,10,11,12,13,14,15 because error mean square = 0.  
^Calculated from residual.

# University of Kentucky

Rating Date 7-28-2023  
 Part Rated PLANT, P  
 Rating Type CONTROL  
 Rating Unit/Min/Max %, 0, 100  
 Sample Size 1 PLOT  
 Collection Basis 1 PLOT  
 Reporting Basis 1 PLOT  
 Number of Subsamples 1  
 Crop Type, Code  
 BBCH Scale  
 Crop Scientific Name  
 Crop Name  
 Pest Type W, Weed  
 Pest Code IPOHE  
 Pest Scientific Name Ipomoea hederac>  
 Pest Name ivy-leaf mornin>  
 Pest Stage Scale BBCH  
 Rating Timing  
 Days After First/Last Applic. 35, 28  
 Trt-Eval Interval 35 DA-A  
 Plant-Eval Interval 65 DP-1  
 Days After Emergence  
 Pest Est.-Eval Interval  
 Equipment  
 EDC App Rating Shell  
 Data Reliability  
 ARM Action Codes  
 Number of Decimals  
 Data Entry Date 9-29-2023

Trt No.	Treatment Name	Rate	Unit	Appl Code	
					15
1	CHECK				0.0 b
2	BAS 101005H	24.0	FL OZ/A	B	100.0 a
3	SURMISE 5	16.4	FL OZ/A	B	100.0 a
4	INTERLINE	32.0	FL OZ/A	B	100.0 a
5	BAS 101005H	24.0	FL OZ/A	B	100.0 a
	AMS - Liquid	1.5	LB AI/A	B	
6	SURMISE 5	16.4	FL OZ/A	B	100.0 a
	AMS - Liquid	1.5	LB AI/A	B	
7	INTERLINE	32.0	FL OZ/A	B	100.0 a
	AMS - Liquid	1.5	LB AI/A	B	
8	BAS 101005H	24.0	FL OZ/A	A	100.0 a
	ZIDUA SC	2.5	FL OZ/A	A	
	AMS - Liquid	1.5	LB AI/A	A	
LSD P=.05					.
Standard Deviation					0.00
CV					0.0
Levene's F^					.
Levene's Prob(F)					.
Shapiro-Wilk^					.
P(Shapiro-Wilk)^					.
Skewness^					.
P(Skewness)^					.
Kurtosis^					.
P(Kurtosis)^					.
Replicate F					0.000
Replicate Prob(F)					1.0000
Treatment F					0.000
Treatment Prob(F)					1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,3,8,10,11,12,13,14,15 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

L-GA / EFFICACY / SOYBEAN / EXTERNAL

Cooperator Trial ID:

Trial Year: 2023

Trial ID: 23-33 SOY-REC  
Protocol ID: MKD-F-2023-US-D41-A-01.0 Location:  
Project ID: Project ID 2: Project ID 3:  
Study Director: Liam Vincent Sponsor Contact:  
Investigator: VINCENT LIAM

Part Rated

PLANT = plant

P = Pest is Part Rated

Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

PLOT = total plot

PLOT = total plot

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

SIDSP, Sida spinosa, Prickly sida = US

IPOHE, Ipomoea hederacea, ivy-leaf morning glory = US

Pest Stage Scale

BBCH = BBCH uniform plant stages

Plant-Eval Interval

37 DP-1 = 1 GLXMA 5-24-2023

44 DP-1 = 1 GLXMA 5-24-2023

50 DP-1 = 1 GLXMA 5-24-2023

58 DP-1 = 1 GLXMA 5-24-2023

65 DP-1 = 1 GLXMA 5-24-2023

EDC App

Rating Shell = Data pulled from Excel Rating Shell

ARM Action Codes

ET3 = Excluded treatment 3

ET4 = Excluded treatment 4

# University of Kentucky

## L-GA / EFFICACY / SOYBEAN / EXTERNAL

Trial ID: 23-33\_SOY-REC  
 Protocol ID: MKD-FH-2023-US-D41-A-01.0 Location: Trial Year: 2023  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Liam Vincent Sponsor Contact:  
 Investigator: VINCENT LIAM

Rating Date	Jul-28-2023
Part Rated	PLANT, P
Rating Type	CONTROL
Rating Unit/Min/Max	%, 0, 100
Sample Size	1 PLOT
Collection Basis	1 PLOT
Reporting Basis	1 PLOT
Number of Subsamples	1
Pest Type	W, Weed
Pest Code	IPOHE
Pest Scientific Name	Ipomoea hederac>
Pest Name	ivy-leaf mornin>
Days After First/Last Applic.	35, 28
Trt-Eval Interval	35 DA-A
Plant-Eval Interval	65 DP-1
EDC App	Rating Shell
Data Entry Date	Sep-29-2023
Trt Treatment	Rate Appl
No. Name	Rate Unit Code Plot
8	15
BAS 101005H	24.0 fl oz/a A 108
ZIDUA SC	2.5 fl oz/a A 203
AMS - Liquid	1.5 lb ai/a A 302
	401
	Mean =
	100.0
	100.0
	100.0
	100.0
	100.0



# University of Kentucky

## L-GA / EFFICACY / SOYBEAN / EXTERNAL

Trial ID: 23-33\_SOY-REC  
Protocol ID: MKD-FH-2023-US-D41-A-01.0 Location: Trial Year: 2023  
Project ID: Project ID 2: Project ID 3:  
Study Director: Liam Vincent Sponsor Contact:  
Investigator: VINCENT LIAM

### Part Rated

PLANT = plant  
P = Pest is Part Rated

### Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

PLOT = total plot

PLOT = total plot

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

SIDSP, Sida spinosa, Prickly sida = US

IPOHE, Ipomoea hederacea, ivy-leaf morning glory = US

### Plant-Eval Interval

37 DP-1 = 1 GLXMA May-24-2023

44 DP-1 = 1 GLXMA May-24-2023

50 DP-1 = 1 GLXMA May-24-2023

58 DP-1 = 1 GLXMA May-24-2023

65 DP-1 = 1 GLXMA May-24-2023

### EDC App

Rating Shell = Data pulled from Excel Rating Shell

# University of Kentucky

## L-GA / EFFICACY / SOYBEAN / EXTERNAL

Trial ID: 23-33\_SOY-REC  
 Protocol ID: MKD-F-2023-US-D41-A-01.0 Location: Trial Year: 2023  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Liam Vincent Sponsor Contact:  
 Investigator: VINCENT LIAM

Rating Date	Jun-30-2023	Jun-30-2023	Jun-30-2023	Jul-7-2023	Jul-7-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	SIDSP	IPOHE	AMBTR	SIDSP
Pest Scientific Name	Ambrosia trifida	Sida spinosa	Ipomoea hederac>	Ambrosia trifida	Sida spinosa
Pest Name	Giant ragweed	Prickly sida	ivy-leaf mornin>	Giant ragweed	Prickly sida
Days After First/Last Applic.	7, 7	7, 7	7, 7	14, 7	14, 7
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A
Plant-Eval Interval	37 DP-1	37 DP-1	37 DP-1	44 DP-1	44 DP-1
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Entry Date	Sep-29-2023	Sep-29-2023	Sep-29-2023	Sep-29-2023	Sep-29-2023
Trt Treatment	1	2	3	4	5
Rate					
Appl					
No. Name					
Rate Unit					
Code					
1 CHECK				0.0 b	0.0 b
2 BAS 101005H 24.0 fl oz/a B				97.0 a	100.0 a
3 SURMISE 5 16.4 fl oz/a B				96.3	100.0 a
4 INTERLINE 32.0 fl oz/a B				95.5 a	100.0 a
5 BAS 101005H 24.0 fl oz/a B AMS - Liquid 1.5 lb ai/a B				98.0 a	100.0 a
6 SURMISE 5 16.4 fl oz/a B AMS - Liquid 1.5 lb ai/a B				97.3 a	100.0 a
7 INTERLINE 32.0 fl oz/a B AMS - Liquid 1.5 lb ai/a B				98.0 a	100.0 a
8 BAS 101005H 24.0 fl oz/a A ZIDUA SC 2.5 fl oz/a A AMS - Liquid 1.5 lb ai/a A	93.0	100.0	96.3	98.8 a	99.5 a
LSD P=.05	.	.	.	2.71	0.52
Standard Deviation	.	.	.	1.83	0.35
CV	.	.	.	2.19	0.4
Levene's F^	.	.	.	2.636*	0.643
Levene's Prob(F)	.	.	.	0.046*	0.716
Shapiro-Wilk^	.	.	.	0.9553	0.5947*
P(Shapiro-Wilk)^	.	.	.	0.2681	0.0*
Skewness^	.	.	.	-0.4312	-2.7492*
P(Skewness)^	.	.	.	0.3607	0.0*
Kurtosis^	.	.	.	0.0065	13.5402*
P(Kurtosis)^	.	.	.	0.9943	0.0*
Replicate F				1.042	1.000
Replicate Prob(F)				0.3981	0.4123
Treatment F				1626.189	39943.861
Treatment Prob(F)				0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,3,8,10,11,12,13,14,15 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

## L-GA / EFFICACY / SOYBEAN / EXTERNAL

Trial ID: 23-33\_SOY-REC  
 Protocol ID: MKD-F-2023-US-D41-A-01.0 Location: Trial Year: 2023  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Liam Vincent Sponsor Contact:  
 Investigator: VINCENT LIAM

Rating Date	Jul-7-2023	Jul-13-2023	Jul-13-2023	Jul-13-2023	Jul-21-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	IPOHE	AMBTR	SIDSP	IPOHE	AMBTR
Pest Scientific Name	Ipomoea hederac>	Ambrosia trifida	Sida spinosa	Ipomoea hederac>	Ambrosia trifida
Pest Name	ivy-leaf mornin>	Giant ragweed	Prickly sida	ivy-leaf mornin>	Giant ragweed
Days After First/Last Applic.	14, 7	20, 13	20, 13	20, 13	28, 21
Trt-Eval Interval	14 DA-A	20 DA-A	20 DA-A	20 DA-A	28 DA-A
Plant-Eval Interval	44 DP-1	50 DP-1	50 DP-1	50 DP-1	58 DP-1
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Entry Date	Sep-29-2023	Sep-29-2023	Sep-29-2023	Sep-29-2023	Sep-29-2023
Trt Treatment	6	7	8	9	10
Rate					
Appl					
No. Name					
1 CHECK	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b
2 BAS 101005H 24.0 fl oz/a B	99.3 a	100.0 a	100.0 a	100.0 a	100.0 a
3 SURMISE 5 16.4 fl oz/a B	100.0 a	98.8 a	100.0 a	100.0 a	100.0 a
4 INTERLINE 32.0 fl oz/a B	96.3	99.3 a	100.0 a	99.3 a	100.0 a
5 BAS 101005H 24.0 fl oz/a B	100.0 a	99.3 a	100.0 a	100.0 a	100.0 a
AMS - Liquid 1.5 lb ai/a B					
6 SURMISE 5 16.4 fl oz/a B	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
AMS - Liquid 1.5 lb ai/a B					
7 INTERLINE 32.0 fl oz/a B	99.3 a	99.3 a	100.0 a	100.0 a	100.0 a
AMS - Liquid 1.5 lb ai/a B					
8 BAS 101005H 24.0 fl oz/a A	98.5 a	100.0 a	100.0 a	100.0 a	100.0 a
ZIDUA SC 2.5 fl oz/a A					
AMS - Liquid 1.5 lb ai/a A					
LSD P=.05	1.56	1.90	.	0.78	.
Standard Deviation	1.05	1.29	0.00	0.53	0.00
CV	1.23	1.48	0.0	0.61	0.0
Levene's F^	1.892	0.627	.	0.643	.
Levene's Prob(F)	0.13	0.729	.	0.716	.
Shapiro-Wilk^	0.9238*	0.8426*	.	0.5947*	.
P(Shapiro-Wilk)^	0.0432*	0.0003*	.	0.0*	.
Skewness^	-0.9098	-1.4923*	.	-2.7492*	.
P(Skewness)^	0.0602	0.0017*	.	0.0*	.
Kurtosis^	1.0997	2.2657*	.	13.5402*	.
P(Kurtosis)^	0.2341	0.0118*	.	0.0*	.
Replicate F	0.774	0.828	0.000	1.000	0.000
Replicate Prob(F)	0.5235	0.4933	1.0000	0.4123	1.0000
Treatment F	5110.936	2981.237	0.000	17740.684	0.000
Treatment Prob(F)	0.0001	0.0001	1.0000	0.0001	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,3,8,10,11,12,13,14,15 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

## L-GA / EFFICACY / SOYBEAN / EXTERNAL

Trial ID: 23-33\_SOY-REC  
 Protocol ID: MKD-F-2023-US-D41-A-01.0 Location: Trial Year: 2023  
 Project ID: Project ID 2: Project ID 3:  
 Study Director: Liam Vincent Sponsor Contact:  
 Investigator: VINCENT LIAM

Rating Date	Jul-21-2023	Jul-21-2023	Jul-28-2023	Jul-28-2023	Jul-28-2023
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	SIDSP	IPOHE	AMBTR	SIDSP	IPOHE
Pest Scientific Name	Sida spinosa	Ipomoea hederac>	Ambrosia trifida	Sida spinosa	Ipomoea hederac>
Pest Name	Prickly sida	ivy-leaf mornin>	Giant ragweed	Prickly sida	ivy-leaf mornin>
Days After First/Last Applic.	28, 21	28, 21	35, 28	35, 28	35, 28
Trt-Eval Interval	28 DA-A	28 DA-A	35 DA-A	65 DP-1	35 DA-A
Plant-Eval Interval	58 DP-1	58 DP-1	65 DP-1	65 DP-1	65 DP-1
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Entry Date	Sep-29-2023	Sep-29-2023	Sep-29-2023	Sep-29-2023	Sep-29-2023
Trt Treatment	Rate	Rate	Rate	Rate	Rate
No. Name	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit
	11	12	13	14	15
1 CHECK	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b
2 BAS 101005H	24.0 fl oz/a B	100.0 a	100.0 a	100.0 a	100.0 a
3 SURMISE 5	16.4 fl oz/a B	100.0 a	100.0 a	100.0 a	100.0 a
4 INTERLINE	32.0 fl oz/a B	100.0 a	100.0 a	100.0 a	100.0 a
5 BAS 101005H	24.0 fl oz/a B	100.0 a	100.0 a	100.0 a	100.0 a
AMS - Liquid	1.5 lb ai/a B				
6 SURMISE 5	16.4 fl oz/a B	100.0 a	100.0 a	100.0 a	100.0 a
AMS - Liquid	1.5 lb ai/a B				
7 INTERLINE	32.0 fl oz/a B	100.0 a	100.0 a	100.0 a	100.0 a
AMS - Liquid	1.5 lb ai/a B				
8 BAS 101005H	24.0 fl oz/a A	100.0 a	100.0 a	100.0 a	100.0 a
ZIDUA SC	2.5 fl oz/a A				
AMS - Liquid	1.5 lb ai/a A				
LSD P=.05	.	.	.	.	.
Standard Deviation	0.00	0.00	0.00	0.00	0.00
CV	0.0	0.0	0.0	0.0	0.0
Levene's F^	.	.	.	.	.
Levene's Prob(F)	.	.	.	.	.
Shapiro-Wilk^	.	.	.	.	.
P(Shapiro-Wilk)^	.	.	.	.	.
Skewness^	.	.	.	.	.
P(Skewness)^	.	.	.	.	.
Kurtosis^	.	.	.	.	.
P(Kurtosis)^	.	.	.	.	.
Replicate F	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)	1.0000	1.0000	1.0000	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Could not calculate LSD (% mean diff) for columns 1,2,3,8,10,11,12,13,14,15 because error mean square = 0.  
 ^Calculated from residual.

# University of Kentucky

## L-GA / EFFICACY / SOYBEAN / EXTERNAL

Trial ID: 23-33\_SOY-REC  
Protocol ID: MKD-FH-2023-US-D41-A-01.0 Location: Trial Year: 2023  
Project ID: Project ID 2: Project ID 3:  
Study Director: Liam Vincent Sponsor Contact:  
Investigator: VINCENT LIAM

### Part Rated

PLANT = plant

P = Pest is Part Rated

### Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

PLOT = total plot

PLOT = total plot

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

SIDSP, Sida spinosa, Prickly sida = US

IPOHE, Ipomoea hederacea, ivy-leaf morning glory = US

### Plant-Eval Interval

37 DP-1 = 1 GLXMA May-24-2023

44 DP-1 = 1 GLXMA May-24-2023

50 DP-1 = 1 GLXMA May-24-2023

58 DP-1 = 1 GLXMA May-24-2023

65 DP-1 = 1 GLXMA May-24-2023

### EDC App

Rating Shell = Data pulled from Excel Rating Shell

# University of Kentucky

## BAS842 IN E3 NO-TILL SOYBEANS

Trial ID: 23-34 SOY-REC  
 Protocol ID: MKD-F-2023-US-D65-A-01.0 Location: University of Kentucky Cooperator Trial ID:  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: Matt Inman Sponsor Contact:  
 Investigator: INMAN MATT

Reps: 4		Plots: 10 by 30 feet															
Trt	Treatment	Form	Form	Form	Rate	Other	Other	Appl	Appl	Appl.	Mix	Amt	Product	Rep			
No.	Name	Conc	Unit	Type	Rate	Rate	Rate	Unit	Code	Timing	Amount	Size	to Measure	1	2	3	4
1	ENLIST ONE	456 GA/L	SL	32.0 FL OZ/A	1066.0 g Al/ha			A	VA	15 GAL/AC 2 L		33.33 mL/mx	101	209	302	403	
	ZIDUA SC	500 GA/L	SC	3.25 FL OZ/A	119.0 g Al/ha			A	VA	15 GAL/AC 2 L		3.385 mL/mx					
	ROUNDUP POWERMAX3	575 GA/L	SL	30.0 FL OZ/A	1260.0 g Al/ha			A	VA	15 GAL/AC 2 L		31.25 mL/mx					
	AMS - Liquid	3.4 lba/gal	SL	8.5 LB AI/100 GAL	2.5 %v/v			A		15 GAL/AC 2 L		49.99 mL/mx					
2	ENLIST ONE	456 GA/L	SL	32.0 FL OZ/A	1066.0 g Al/ha			A	VA	15 GAL/AC 2 L		33.33 mL/mx	102	208	306	408	
	ZIDUA SC	500 GA/L	SC	3.25 FL OZ/A	119.0 g Al/ha			A	VA	15 GAL/AC 2 L		3.385 mL/mx					
	PURSUIT	240 GA/L	SL	4.0 FL OZ/A	70.0 g Al/ha			A	VA	15 GAL/AC 2 L		4.167 mL/mx					
	ROUNDUP POWERMAX3	575 GA/L	SL	30.0 FL OZ/A	1260.0 g Al/ha			A	VA	15 GAL/AC 2 L		31.25 mL/mx					
	AMS - Liquid	3.4 lba/gal	SL	8.5 LB AI/100 GAL	2.5 %v/v			A		15 GAL/AC 2 L		49.99 mL/mx					
3	VERDICT	668 GA/L	EC	5.0 FL OZ/A	244.0 g Al/ha			A	VA	15 GAL/AC 2 L		5.208 mL/mx	103	204	301	404	
	ZIDUA SC	500 GA/L	SC	3.25 FL OZ/A	119.0 g Al/ha			A	VA	15 GAL/AC 2 L		3.385 mL/mx					
	PURSUIT	240 GA/L	SL	4.0 FL OZ/A	70.0 g Al/ha			A	VA	15 GAL/AC 2 L		4.167 mL/mx					
	ROUNDUP POWERMAX3	575 GA/L	SL	30.0 FL OZ/A	1260.0 g Al/ha			A	VA	15 GAL/AC 2 L		31.25 mL/mx					
	AMS - Liquid	3.4 lba/gal	SL	8.5 LB AI/100 GAL	2.5 %v/v			A		15 GAL/AC 2 L		49.99 mL/mx					
	MSO	100 %	SL	1 % V/V				A		15 GAL/AC 2 L		20.0 mL/mx					
4	ENLIST ONE	456 GA/L	SL	32.0 FL OZ/A	1066.0 g Al/ha			A	VA	15 GAL/AC 2 L		33.33 mL/mx	104	202	305	406	
	DIMETRIC DF 75%	75 %	WG	4.0 OZ WT/A	210.0 g Al/ha			A	VA	15 GAL/AC 2 L		3.994 g/mx					
	ZIDUA SC	500 GA/L	SC	3.25 FL OZ/A	119.0 g Al/ha			A	VA	15 GAL/AC 2 L		3.385 mL/mx					
	PURSUIT	240 GA/L	SL	4.0 FL OZ/A	70.0 g Al/ha			A	VA	15 GAL/AC 2 L		4.167 mL/mx					
	ROUNDUP POWERMAX3	575 GA/L	SL	30.0 FL OZ/A	1260.0 g Al/ha			A	VA	15 GAL/AC 2 L		31.25 mL/mx					
	AMS - Liquid	3.4 lba/gal	SL	8.5 LB AI/100 GAL	2.5 %v/v			A		15 GAL/AC 2 L		49.99 mL/mx					
5	ENLIST ONE	456 GA/L	SL	32.0 FL OZ/A	1066.0 g Al/ha			B	NA1	15 GAL/AC 2 L		33.33 mL/mx	105	207	308	409	
	ZIDUA SC	500 GA/L	SC	3.25 FL OZ/A	119.0 g Al/ha			B	NA1	15 GAL/AC 2 L		3.385 mL/mx					
	PURSUIT	240 GA/L	SL	4.0 FL OZ/A	70.0 g Al/ha			B	NA1	15 GAL/AC 2 L		4.167 mL/mx					
	ROUNDUP POWERMAX3	575 GA/L	SL	30.0 FL OZ/A	1260.0 g Al/ha			B	NA1	15 GAL/AC 2 L		31.25 mL/mx					
	AMS - Liquid	3.4 lba/gal	SL	8.5 LB AI/100 GAL	2.5 %v/v			B		15 GAL/AC 2 L		49.99 mL/mx					
6	LIBERTY 280 SL	281.8 GA/L	SL	36.0 FL OZ/A	740.0 g Al/ha			C	NA1	20 GAL/AC 2.5 L		35.16 mL/mx	106	210	303	402	
	AMSOL	408 GA/L	SL	48.0 FL OZ/A	1430.0 g Al/ha			C	NA1	20 GAL/AC 2.5 L		46.87 mL/mx					
	ZIDUA SC	500 GA/L	SC	3.25 FL OZ/A	119.0 g Al/ha			C	NA1	20 GAL/AC 2.5 L		3.174 mL/mx					
	PURSUIT	240 GA/L	SL	4.0 FL OZ/A	70.0 g Al/ha			C	NA1	20 GAL/AC 2.5 L		3.906 mL/mx					
	ROUNDUP POWERMAX3	575 GA/L	SL	30.0 FL OZ/A	1260.0 g Al/ha			C	NA1	20 GAL/AC 2.5 L		29.3 mL/mx					
7	PREFIX	634.8 GA/L	ME	32.0 FL OZ/A	1484.0 g Al/ha			C	NA1	20 GAL/AC 2.5 L		31.25 mL/mx	107	203	309	405	
	LIBERTY 280 SL	281.8 GA/L	SL	36.0 FL OZ/A	740.0 g Al/ha			C	NA1	20 GAL/AC 2.5 L		35.16 mL/mx					
	AMSOL	408 GA/L	SL	48.0 FL OZ/A	1430.0 g Al/ha			C	NA1	20 GAL/AC 2.5 L		46.87 mL/mx					
	ROUNDUP POWERMAX3	575 GA/L	SL	30.0 FL OZ/A	1260.0 g Al/ha			C	NA1	20 GAL/AC 2.5 L		29.3 mL/mx					
8	ANTHEM MAXX	516 GA/L	SC	3.25 FL OZ/A	122.5 g Al/ha			C	NA1	20 GAL/AC 2.5 L		3.174 mL/mx	108	201	307	401	
	LIBERTY 280 SL	281.8 GA/L	SL	36.0 FL OZ/A	740.0 g Al/ha			C	NA1	20 GAL/AC 2.5 L		35.16 mL/mx					
	AMSOL	408 GA/L	SL	48.0 FL OZ/A	1430.0 g Al/ha			C	NA1	20 GAL/AC 2.5 L		46.87 mL/mx					
	ROUNDUP POWERMAX3	575 GA/L	SL	30.0 FL OZ/A	1260.0 g Al/ha			C	NA1	20 GAL/AC 2.5 L		29.3 mL/mx					
9	LIBERTY 280 SL	281.8 GA/L	SL	36.0 FL OZ/A	740.0 g Al/ha			C	NA1	20 GAL/AC 2.5 L		35.16 mL/mx	109	205	304	410	
	AMSOL	408 GA/L	SL	48.0 FL OZ/A	1430.0 g Al/ha			C	NA1	20 GAL/AC 2.5 L		46.87 mL/mx					
10	ENLIST ONE	456 GA/L	SL	16.8 FL OZ/A	560.0 g Al/ha			A	VA	15 GAL/AC 2 L		17.5 mL/mx	110	206	310	407	
	ZIDUA SC	500 GA/L	SC	3.25 FL OZ/A	119.0 g Al/ha			A	VA	15 GAL/AC 2 L		3.385 mL/mx					
	PURSUIT	240 GA/L	SL	4.0 FL OZ/A	70.0 g Al/ha			A	VA	15 GAL/AC 2 L		4.167 mL/mx					
	ROUNDUP POWERMAX3	575 GA/L	SL	30.0 FL OZ/A	1260.0 g Al/ha			A	VA	15 GAL/AC 2 L		31.25 mL/mx					
	AMS - Liquid	3.4 lba/gal	SL	8.5 LB AI/100 GAL	2.5 %v/v			A		15 GAL/AC 2 L		49.99 mL/mx					
	LIBERTY 280 SL	281.8 GA/L	SL	36.0 FL OZ/A	740.0 g Al/ha			D	NA2	20 GAL/AC 2.5 L		35.16 mL/mx					
	AMSOL	408 GA/L	SL	48.0 FL OZ/A	1430.0 g Al/ha			D	NA2	20 GAL/AC 2.5 L		46.87 mL/mx					
	OUTLOOK	720 GA/L	EC	12.0 FL OZ/A	630.0 g Al/ha			D	NA2	20 GAL/AC 2.5 L		11.72 mL/mx					

Sort Order: Treatment

Product quantities required for listed treatments and applications of trials included in this table:

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Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
150.833	mL	ENLIST ONE	456	GA/L	SL	
23.486	mL	ZIDUA SC	500	GA/L	SC	
275.390	mL	ROUNDUP POWERMAX3	575	GA/L	SL	
299.967	mL	AMS - Liquid	3.4	lba/gal	SL	
24.740	mL	PURSUIT	240	GA/L	SL	
5.208	mL	VERDICT	668	GA/L	EC	
19.998	mL	MSO	100	%	SL	
3.994	g	DIMETRIC DF 75%	75	%	WG	
175.781	mL	LIBERTY 280 SL	281.8	GA/L	SL	
234.375	mL	AMSOL	408	GA/L	SL	
31.250	mL	PREFIX	634.8	GA/L	ME	
3.174	mL	ANTHEM MAXX	516	GA/L	SC	
11.719	mL	OUTLOOK	720	GA/L	EC	

\* 'Per area' calculations based on application amount= 15,20 GAL/AC, mix size= 2,2.5 L (mix size basis).  
 \* 'Per volume' calculations use spray volume= 15,20 GAL/AC, mix size= 2,2.5 L.

### General Trial Information

**Study Director:** Matt Inman  
**Investigator:** INMAN MATT

**Status:** E established

**ARM Trial Created On:** 4-7-2023

### Trial Location

**City:** Princeton **Country:** USA United States  
**State/Prov.:** Kentucky **County:** Caldwell  
**Postal Code:** 42445

### Regulations

**Conducted Under GLP:** No  
**Conducted Under GEP:** No

### Contacts

**Role:** STYDIR study director  
**Study Director:** Matt Inman  
**Role:** INVEST investigator  
**Investigator:** INMAN MATT

### Crop Description

**Crop 1:** C GLXMA Glycine max Soybean **BBCH Scale:** BSOY  
**Entry Date:** 10-25-2023 **Stage Scale:** BBCH  
**Variety:** SC7390E  
**Attributes:** Enlist E3  
**Planting Date:** 5-24-2023 **Planting Rate:** 140000 S/A  
**Depth:** 1.25 IN  
**Planting Method:** PLANTD planted  
**Row Spacing:** 20 IN **Planting Equipment:** VP vacuum planter  
**Spacing within Row:** 15 IN

### Pest Description

- Pest 1 Type:** W **Code:** AMBTR **Ambrosia trifida** **Entry Date:** 11-8-2023  
**Common Name:** Giant ragweed **Stage Scale:** BBCH
- Pest 2 Type:** W **Code:** STEME **Stellaria media** **Entry Date:** 11-8-2023  
**Common Name:** chickweed **Stage Scale:** BBCH
- Pest 3 Type:** W **Code:** ERICA **Erigeron canadensis** **Entry Date:** 11-8-2023  
**Common Name:** mare's-tail **Stage Scale:** BBCH
- Pest 4 Type:** W **Code:** ALLVI **Allium vineale** **Entry Date:** 11-8-2023  
**Common Name:** Field garlic **Stage Scale:** BBCH
- Pest 5 Type:** W **Code:** HORPU **Hordeum pusillum** **Entry Date:** 11-8-2023  
**Common Name:** Little barley **Stage Scale:** BBCH
- Pest 6 Type:** W **Code:** VIOAR **Viola arvensis** **Entry Date:** 11-8-2023  
**Common Name:** Field pansy **Stage Scale:** BBCH
- Pest 7 Type:** W **Code:** SIDSP **Sida spinosa** **Entry Date:** 11-8-2023  
**Common Name:** Prickly sida **Stage Scale:** BBCH
- Pest 8 Type:** W **Code:** IPOHE **Ipomoea hederacea** **Entry Date:** 11-8-2023  
**Common Name:** ivy-leaf morning glory **Stage Scale:** BBCH
- Pest 9 Type:** W **Code:** ACCOS **Acalypha persimilis** **Entry Date:** 11-8-2023  
**Common Name:** Pineland three-seed mercury **Stage Scale:** BBCH

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## Site and Design

Treated Plot Width: 10 FT  
 Treated Plot Length: 30 FT  
 Treated Plot Area: 300.0 FT<sup>2</sup>  
 Replications: 4 Treatments: 10 Plots: 40  
 Distance between Blocks: 1 FT  
 Distance between 'Plot' Experimental Units: 0.5 FT

Site Type: FIELD field  
 Experimental Unit: 1 PLOT plot  
 Tillage Type: NOTILL no-till  
 Study Design: RACOB L Randomized Complete Block (RCB)

## Maintenance

No.	Date	Type	Product Name	Rate	Unit
1.	4-12-2023	FERT	Phosphorus	46	lbs
2.	4-12-2023	FERT	Nitrogen	18	lbs
3.	4-12-2023	FERT	Potassium	30	lbs

## Soil Description

Description Name: 201-D  
 % Sand: 3.4 % OM: 2.4 Texture: SIL silt loam  
 % Silt: 79.9 Soil Name: Crider Silt Loam  
 % Clay: 16.7  
 pH: 5.66 CEC: 10.62

## Application Description

	A	B	C	D
Date	5-26-2023	6-15-2023	6-15-2023	7-6-2023
Start Time	2:11 PM	11:14 AM	11:23 AM	1:15 PM
Stop Time	2:34 PM	11:16 AM	11:33 AM	1:22 PM
Interval to Prev. Appl.		20 DAYS	7 MINS	21 DAYS
Method	spray	spary	spray	spray
Timing	VA	NA1	NA1	NA2
Placement	foliar	foliar	foliar	foliar
Applied By	JLG	JLG	JLG	CMY
Entry Date	10-25-2023	10-25-2023	10-25-2023	10-25-2023
Air Temperature Start, Stop	82.9, 81.7 F	82.5, 81.7 F	84.2, 84.8 F	86.8, 86.7 F
% Relative Humidity Start, Stop	35.3, 32.3	48.7, 53.5	47.1, 46.1	59.7, 59.1
Wind Velocity+Dir. Start	1.9 MPH, SW	3 MPH, N	2.2 MPH, N	4.3 MPH, -
Wind Velocity+Dir. Stop	1.3 MPH, SW	2.4 MPH, N	2.7 MPH, N	1.6 MPH, -
Wind Velocity+Dir. Max	1.9 MPH, SW	5.2 MPH, N	7.5 MPH, N	11.6 MPH, -
Wet Leaves (Y/N)	N, no	N, no		
Soil Moisture	DRY	DRY	DRY	DRY
% Cloud Cover	1	5	5	70

## Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY	GLXMA, BSOY	GLXMA, BSOY
Stage Majority, Percent	VC, -	VC, -	V1, -	V5, -
Stage Minimum, Percent	VC, -	VC, -	V1, -	V4, -
Stage Maximum, Percent	VC, -	VC, -	V2, -	V6, -
Height Average	2.875 IN	2.875 IN	3.5 IN	
Height Minimum, Maximum	2.75, 3	2.75, 3	3, 4	



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## Pest Stage At Each Application

	A	B	C	D
<b>Pest 1 Code, Type, Scale</b>	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
<b>Height Average</b>	18.5 IN	14 IN	9.5 IN	5.5 IN
<b>Height Minimum, Maximum</b>	13, 24	9, 19	0, 19	0, 11
<b>Density Average</b>	2 ft2	0.75 ft2	0.75 ft2	0.25 ft2
<b>Density Minimum, Maximum</b>	1, 3	0, 3	0, 3	0, 1
<b>Pest 2 Code, Type, Scale</b>	STEME, W, BBCH	STEME, W, BBCH	STEME, W, BBCH	STEME, W, BBCH
<b>Height Average</b>	3 IN			
<b>Height Minimum, Maximum</b>	0, 6			
<b>Density Average</b>	0.25 ft2			
<b>Density Minimum, Maximum</b>	0, 1			
<b>Pest 3 Code, Type, Scale</b>	ERICA, W, BBCH	ERICA, W, BBCH	ERICA, W, BBCH	ERICA, W, BBCH
<b>Height Average</b>	0.625 IN		11.5 IN	4 IN
<b>Height Minimum, Maximum</b>	0.25, 1		3, 20	2, 6
<b>Density Average</b>	0.5 ft2		0.75 ft2	0.5 ft2
<b>Density Minimum, Maximum</b>	0, 1		0, 2	0, 2
<b>Pest 4 Code, Type, Scale</b>	ALLVI, W, BBCH	ALLVI, W, BBCH	ALLVI, W, BBCH	ALLVI, W, BBCH
<b>Height Average</b>	30 IN			
<b>Height Minimum, Maximum</b>	29, 30.25			
<b>Density Average</b>	0.5 ft2			
<b>Density Minimum, Maximum</b>	0, 2			
<b>Pest 5 Code, Type, Scale</b>	HORPU, W, BBCH	HORPU, W, BBCH	HORPU, W, BBCH	HORPU, W, BBCH
<b>Height Average</b>	4 IN			
<b>Height Minimum, Maximum</b>	4, 4.25			
<b>Density Average</b>	0.5 ft2			
<b>Density Minimum, Maximum</b>	0, 2			
<b>Pest 6 Code, Type, Scale</b>	VIOAR, W, BBCH	VIOAR, W, BBCH	VIOAR, W, BBCH	VIOAR, W, BBCH
<b>Height Average</b>	8.5 IN		9.25 IN	
<b>Height Minimum, Maximum</b>	7.5, 9.5		2.5, 16	
<b>Density Average</b>	0.5 ft2		2 ft2	
<b>Density Minimum, Maximum</b>	0, 2		0, 5	
<b>Pest 7 Code, Type, Scale</b>	SIDSP, W, BBCH	SIDSP, W, BBCH	SIDSP, W, BBCH	SIDSP, W, BBCH
<b>Height Average</b>				0.5 IN
<b>Height Minimum, Maximum</b>				0, 1
<b>Density Average</b>				0.25 ft2
<b>Density Minimum, Maximum</b>				0, 1
<b>Pest 8 Code, Type, Scale</b>	IPOHE, W, BBCH	IPOHE, W, BBCH	IPOHE, W, BBCH	IPOHE, W, BBCH
<b>Height Average</b>				0.5 IN
<b>Height Minimum, Maximum</b>				0, 1
<b>Density Average</b>				0.25 ft2
<b>Density Minimum, Maximum</b>				0, 1
<b>Pest 9 Code, Type, Scale</b>	ACCOS, W, BBCH	ACCOS, W, BBCH	ACCOS, W, BBCH	ACCOS, W, BBCH
<b>Height Average</b>				0.5 IN
<b>Height Minimum, Maximum</b>				0.5, 0.5
<b>Density Average</b>				3.25 ft2
<b>Density Minimum, Maximum</b>				0, 11

## Application Equipment

	A	B	C	D
<b>Equipment Type</b>	BACCAI	BACCAI	BACCAI	BACCAI
<b>Operation Pressure</b>	50 PSI	50 PSI	35 PSI	35 PSI
<b>Nozzle Model</b>		TTI 110015	AIXR 11002	AIXR 11002
<b>Nozzle Type</b>		TEEJAI	FLAFAI	FLAFAI
<b>Nozzle TradeName</b>		TEEJET	TEEJET	TEEJET
<b>Nozzle Tip Size, Color</b>		015, Green	02, Yellow	02, Yellow
<b>Nozzle Spacing</b>	20.0 IN	20.0 IN	20.0 IN	20.0 IN
<b>Boom ID</b>	BLUE	WHITE	BLUE	
<b>Boom Length</b>	10.0 FT	10.0 FT	10.0 FT	10.0 FT
<b>Boom Height</b>	18.0 IN	18.0 IN	18.0 IN	18.0 IN
<b>Ground Speed</b>	3 MPH	3 MPH	3 MPH	3 MPH
<b>Carrier</b>	H2O	H2O	H2O	H2O
<b>Application Amount</b>	15 GAL/AC	15 GAL/AC	20 GAL/AC	20 GAL/AC
<b>Mix Size</b>	2.0 L	2.0 L	2.5 L	2.5 L
<b>Propellant</b>	comco2	comco2	COMCO2	COMCO2

Equipment Comment:Application A: TRT 3 - AIXR11002 @ 37 PSI; Trt 1,2,4&5 - TTI110015 @ 50PSI

Protocol Equipment Comment:

# ENLIST APPS: TTI nozzles AIXR nozzles; LIBERTY TMTS

## Notes

Context	Date	By	Notes
STATUS	4-7-2023	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	10-25-2023	Travis Legleiter	Automatically added by ARM: Status changed to: E: changed by (EKYLET).
STATUS	10-25-2023	Travis Legleiter	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

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## SE Definitions

SE Name	1.	2.	3.	4.	5.	6.
SE Description	%	%	%	%	TS_SOY_H US_Tech	
	CONTR	CONTR	CONTR	CONTR	Service	
	OL OF	OL OF	OL OF	OL OF	Soy	
	UNTREA	UNTREA	UNTREA	UNTREA	Herbicide	
	TED	TED	TED	TED	Trials -	
	CHECK	CHECK	CHECK	CHECK	stand	

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## BAS842 IN E3 NO-TILL SOYBEANS

Trial ID: 23-34 SOY-REC  
 Protocol ID: MKD-FI-2023-US-D65-A-01.0 Location: University of Kentucky  
 Project ID: Project ID 2: Project ID 3: Cooperator Trial ID:  
 Study Director: Matt Inman Sponsor Contact: Trial Year: 2023  
 Investigator: INMAN MATT

Rating Date	6-9-2023	6-9-2023	6-9-2023	6-16-2023	6-16-2023
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, C	PLANT, P
Rating Type	PHYGEN	CONTROL	CONTROL	PHYGEN	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Crop Type, Code	C, GLXMA			C, GLXMA	
BBCH Scale	BSOY			BSOY	
Crop Scientific Name	Glycine max			Glycine max	
Crop Name	Soybean			Soybean	
Pest Type		W, Weed	W, Weed		W, Weed
Pest Code		AMBTR	ERICA		AMBTR
Pest Scientific Name		Ambrosia trifida	Erigeron canade>		Ambrosia trifida
Pest Name		Giant ragweed	mare's-tail		Giant ragweed
Pest Stage Scale		BBCH	BBCH		BBCH
Rating Timing					
Days After First/Last Applic.	14, 14	14, 14	14, 14	21, 1	21, 1
Trt-Eval Interval					
Plant-Eval Interval	16 DP-1	16 DP-1	16 DP-1	23 DP-1	23 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes			AA		
Number of Decimals					
Data Entry Date	11-8-2023	11-8-2023	11-8-2023	11-8-2023	11-8-2023

Trt No.	Treatment Name	Rate	Appl Code	Plot	1	2	3	4	5
1	ENLIST ONE	32.0 FL OZ/A	A	101	0.0	90.0	90.0	0.0	97.0
	ZIDUA SC	3.25 FL OZ/A	A	209	0.0	90.0	80.0	0.0	100.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A	302	0.0	80.0	80.0	0.0	97.0
	AMS - Liquid	8.5 LB AI/100 GAL A	A	403	0.0	70.0	70.0	0.0	97.0
	Mean =				0.0	82.5	80.5d	0.0	97.8
2	ENLIST ONE	32.0 FL OZ/A	A	102	0.0	90.0	90.0	0.0	100.0
	ZIDUA SC	3.25 FL OZ/A	A	208	0.0	90.0	90.0	0.0	90.0
	PURSUIT	4.0 FL OZ/A	A	306	0.0	95.0	80.0	0.0	90.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A	408	0.0	80.0	80.0	0.0	90.0
	AMS - Liquid	8.5 LB AI/100 GAL A	A						
Mean =				0.0	88.8	85.4d	0.0	92.5	
3	VERDICT	5.0 FL OZ/A	A	103	0.0	100.0	100.0	0.0	90.0
	ZIDUA SC	3.25 FL OZ/A	A	204	0.0	97.0	95.0	0.0	100.0
	PURSUIT	4.0 FL OZ/A	A	301	0.0	100.0	100.0	0.0	97.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A	404	0.0	100.0	100.0	0.0	100.0
	AMS - Liquid	8.5 LB AI/100 GAL A	A						
MSO	1 % V/V	A							
Mean =				0.0	99.3	99.7d	0.0	96.8	
4	ENLIST ONE	32.0 FL OZ/A	A	104	0.0	90.0	100.0	0.0	97.0
	DIMETRIC DF 75%	4.0 OZ WT/A	A	202	0.0	80.0	90.0	0.0	95.0
	ZIDUA SC	3.25 FL OZ/A	A	305	0.0	80.0	90.0	0.0	97.0
	PURSUIT	4.0 FL OZ/A	A	406	0.0	90.0	90.0	0.0	100.0
	AMS - Liquid	8.5 LB AI/100 GAL A	A						
Mean =				0.0	85.0	94.3d	0.0	97.3	
5	ENLIST ONE	32.0 FL OZ/A	B	105	0.0	0.0	0.0	0.0	0.0
	ZIDUA SC	3.25 FL OZ/A	B	207	0.0	0.0	0.0	0.0	0.0
	PURSUIT	4.0 FL OZ/A	B	308	0.0	0.0	0.0	0.0	0.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	B	409	0.0	0.0	0.0	0.0	0.0
	AMS - Liquid	8.5 LB AI/100 GAL B	B						
Mean =				0.0	0.0	0.0d	0.0	0.0	
6	LIBERTY 280 SL	36.0 FL OZ/A	C	106	0.0	0.0	0.0	0.0	0.0
	AMSOL	48.0 FL OZ/A	C	210	0.0	0.0	0.0	0.0	0.0
	ZIDUA SC	3.25 FL OZ/A	C	303	0.0	0.0	0.0	0.0	0.0
	PURSUIT	4.0 FL OZ/A	C	402	0.0	0.0	0.0	0.0	0.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C						
Mean =				0.0	0.0	0.0d	0.0	0.0	

d=Means are reported in de-transformed data units

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Rating Date	6-9-2023	6-9-2023	6-9-2023	6-16-2023	6-16-2023
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, C	PLANT, P
Rating Type	PHYGEN	CONTROL	CONTROL	PHYGEN	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Crop Type, Code	C, GLXMA			C, GLXMA	
BBCH Scale	BSOY			BSOY	
Crop Scientific Name	Glycine max			Glycine max	
Crop Name	Soybean			Soybean	
Pest Type		W, Weed	W, Weed		W, Weed
Pest Code		AMBTR	ERICA		AMBTR
Pest Scientific Name		Ambrosia trifida	Erigeron canadensis		Ambrosia trifida
Pest Name		Giant ragweed	mare's-tail		Giant ragweed
Pest Stage Scale		BBCH	BBCH		BBCH
Rating Timing					
Days After First/Last Applic.	14, 14	14, 14	14, 14	21, 1	21, 1
Trt-Eval Interval					
Plant-Eval Interval	16 DP-1	16 DP-1	16 DP-1	23 DP-1	23 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes			AA		
Number of Decimals					
Data Entry Date	11-8-2023	11-8-2023	11-8-2023	11-8-2023	11-8-2023

Trt	Treatment	Rate	Appl	Rating				
No.	Name	Rate Unit	Code Plot	1	2	3	4	5
7	PREFIX	32.0 FL OZ/A	C 107	0.0	0.0	0.0	0.0	0.0
	LIBERTY 280 SL	36.0 FL OZ/A	C 203	0.0	0.0	0.0	0.0	0.0
	AMSOL	48.0 FL OZ/A	C 309	0.0	0.0	0.0	0.0	0.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C 405	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0d	0.0	0.0
8	ANTHEM MAXX	3.25 FL OZ/A	C 108	0.0	0.0	0.0	0.0	0.0
	LIBERTY 280 SL	36.0 FL OZ/A	C 201	0.0	0.0	0.0	0.0	0.0
	AMSOL	48.0 FL OZ/A	C 307	0.0	0.0	0.0	0.0	0.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C 401	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0d	0.0	0.0
9	LIBERTY 280 SL	36.0 FL OZ/A	C 109	0.0	0.0	0.0	0.0	0.0
	AMSOL	48.0 FL OZ/A	C 205	0.0	0.0	0.0	0.0	0.0
			304	0.0	0.0	0.0	0.0	0.0
			410	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0d	0.0	0.0
10	ENLIST ONE	16.8 FL OZ/A	A 110	0.0	80.0	90.0	0.0	95.0
	ZIDUA SC	3.25 FL OZ/A	A 206	0.0	80.0	80.0	0.0	90.0
	PURSUIT	4.0 FL OZ/A	A 310	0.0	80.0	70.0	0.0	80.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A 407	0.0	80.0	75.0	0.0	90.0
	AMS - Liquid	8.5 LB AI/100 GAL	A					
	LIBERTY 280 SL	36.0 FL OZ/A	D					
	AMSOL	48.0 FL OZ/A	D					
	OUTLOOK	12.0 FL OZ/A	D					
			Mean =	0.0	80.0	79.3d	0.0	88.8

d=Means are reported in de-transformed data units

# University of Kentucky

			6-16-2023	6-23-2023	6-23-2023	6-23-2023	7-7-2023
Rating Date			6-16-2023	6-23-2023	6-23-2023	6-23-2023	7-7-2023
Part Rated			PLANT, P	PLANT, C	PLANT, P	PLANT, P	PLANT, P
Rating Type			CONTROL	PHYGEN	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max			% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples			1	1	1	1	1
Crop Type, Code				C, GLXMA			
BBCH Scale				BSOY			
Crop Scientific Name				Glycine max			
Crop Name				Soybean			
Pest Type			W, Weed		W, Weed	W, Weed	W, Weed
Pest Code			ERICA		AMBTR	ERICA	AMBTR
Pest Scientific Name			Erigeron canadensis		Ambrosia trifida	Erigeron canadensis	Ambrosia trifida
Pest Name			mare's-tail		Giant ragweed	mare's-tail	Giant ragweed
Pest Stage Scale			BBCH		BBCH	BBCH	BBCH
Rating Timing							
Days After First/Last Applic.			21, 1	28, 8	28, 8	28, 8	42, 1
Trt-Eval Interval							
Plant-Eval Interval			23 DP-1	30 DP-1	30 DP-1	30 DP-1	44 DP-1
Days After Emergence							
Pest Est.-Eval Interval							
Equipment							
EDC App			Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability							
ARM Action Codes			AA		ET5		AA
Number of Decimals							
Data Entry Date			11-8-2023	11-8-2023	11-8-2023	11-8-2023	11-8-2023

  

Trt	Treatment	Rate	Appl	6		7		8		9		10	
No.	Name	Rate Unit	Code Plot										
1	ENLIST ONE	32.0 FL OZ/A	A 101	97.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	85.0	
	ZIDUA SC	3.25 FL OZ/A	A 209	97.0	0.0	100.0	97.0	97.0	97.0	97.0	97.0	100.0	
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A 302	97.0	0.0	97.0	97.0	97.0	97.0	97.0	97.0	70.0	
	AMS - Liquid	8.5 LB AI/100 GAL A	A 403	100.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	90.0	
			Mean =	98.3d	0.0	99.3	98.5	98.5	98.5	98.5	98.5	89.8d	
2	ENLIST ONE	32.0 FL OZ/A	A 102	100.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	90.0	
	ZIDUA SC	3.25 FL OZ/A	A 208	95.0	0.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	
	PURSUIT	4.0 FL OZ/A	A 306	90.0	0.0	100.0	97.0	97.0	97.0	97.0	97.0	97.0	
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A 408	95.0	0.0	90.0	90.0	90.0	90.0	90.0	90.0	50.0	
	AMS - Liquid	8.5 LB AI/100 GAL A	A										
			Mean =	96.3d	0.0	95.0	94.3	94.3	94.3	94.3	94.3	84.8d	
3	VERDICT	5.0 FL OZ/A	A 103	100.0	0.0	80.0	95.0	95.0	95.0	95.0	95.0	50.0	
	ZIDUA SC	3.25 FL OZ/A	A 204	97.0	0.0	90.0	90.0	90.0	90.0	90.0	90.0	50.0	
	PURSUIT	4.0 FL OZ/A	A 301	100.0	0.0	90.0	100.0	100.0	100.0	100.0	100.0	70.0	
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A 404	100.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	
	AMS - Liquid	8.5 LB AI/100 GAL A	A										
	MSO	1 % V/V	A										
			Mean =	99.8d	0.0	90.0	96.3	96.3	96.3	96.3	96.3	69.9d	
4	ENLIST ONE	32.0 FL OZ/A	A 104	100.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	90.0	
	DIMETRIC DF 75%	4.0 OZ WT/A	A 202	97.0	0.0	95.0	90.0	90.0	90.0	90.0	90.0	50.0	
	ZIDUA SC	3.25 FL OZ/A	A 305	97.0	0.0	90.0	90.0	90.0	90.0	90.0	90.0	75.0	
	PURSUIT	4.0 FL OZ/A	A 406	97.0	0.0	90.0	90.0	90.0	90.0	90.0	90.0	70.0	
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A										
	AMS - Liquid	8.5 LB AI/100 GAL A	A										
			Mean =	98.3d	0.0	93.8	92.5	92.5	92.5	92.5	92.5	72.4d	
5	ENLIST ONE	32.0 FL OZ/A	B 105	0.0	0.0	10.0	10.0	10.0	10.0	10.0	10.0	98.0	
	ZIDUA SC	3.25 FL OZ/A	B 207	0.0	0.0	10.0	10.0	10.0	10.0	10.0	10.0	80.0	
	PURSUIT	4.0 FL OZ/A	B 308	0.0	0.0	10.0	5.0	5.0	5.0	5.0	5.0	97.0	
	ROUNDUP POWERMAX3	30.0 FL OZ/A	B 409	0.0	0.0	10.0	10.0	10.0	10.0	10.0	10.0	90.0	
	AMS - Liquid	8.5 LB AI/100 GAL B	B										
			Mean =	0.0d	0.0	10.0	8.8	8.8	8.8	8.8	8.8	92.6d	
6	LIBERTY 280 SL	36.0 FL OZ/A	C 106	0.0	0.0	90.0	100.0	100.0	100.0	100.0	100.0	50.0	
	AMSOL	48.0 FL OZ/A	C 210	0.0	0.0	97.0	97.0	97.0	97.0	97.0	97.0	70.0	
	ZIDUA SC	3.25 FL OZ/A	C 303	0.0	0.0	70.0	70.0	70.0	70.0	70.0	70.0	50.0	
	PURSUIT	4.0 FL OZ/A	C 402	0.0	0.0	70.0	80.0	80.0	80.0	80.0	80.0	40.0	
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C										
			Mean =	0.0d	0.0	81.8	86.8	86.8	86.8	86.8	86.8	52.6d	

d=Means are reported in de-transformed data units

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Rating Date	6-16-2023	6-23-2023	6-23-2023	6-23-2023	7-7-2023
Part Rated	PLANT, P	PLANT, C	PLANT, P	PLANT, P	PLANT, P
Rating Type	CONTROL	PHYGEN	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Crop Type, Code		C, GLXMA			
BBCH Scale		BSOY			
Crop Scientific Name		Glycine max			
Crop Name		Soybean			
Pest Type	W, Weed		W, Weed	W, Weed	W, Weed
Pest Code	ERICA		AMBTR	ERICA	AMBTR
Pest Scientific Name	Erigeron canadensis		Ambrosia trifida	Erigeron canadensis	Ambrosia trifida
Pest Name	mare's-tail		Giant ragweed	mare's-tail	Giant ragweed
Pest Stage Scale	BBCH		BBCH	BBCH	BBCH
Rating Timing					
Days After First/Last Applic.	21, 1	28, 8	28, 8	28, 8	42, 1
Trt-Eval Interval					
Plant-Eval Interval	23 DP-1	30 DP-1	30 DP-1	30 DP-1	44 DP-1
Days After Emergence					
Pest Est.-Eval Interval					
Equipment					
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability					
ARM Action Codes	AA		ET5		AA
Number of Decimals					
Data Entry Date	11-8-2023	11-8-2023	11-8-2023	11-8-2023	11-8-2023

Trt	Treatment	Rate	Appl	Rating Shell		Rating Shell		Rating Shell	
No.	Name	Rate Unit	Code Plot	6	7	8	9	10	
7	PREFIX	32.0 FL OZ/A	C 107	0.0	0.0	90.0	100.0	50.0	
	LIBERTY 280 SL	36.0 FL OZ/A	C 203	0.0	0.0	80.0	80.0	30.0	
	AMSOL	48.0 FL OZ/A	C 309	0.0	0.0	80.0	90.0	50.0	
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C 405	0.0	0.0	70.0	80.0	30.0	
			Mean =	0.0d	0.0	80.0	87.5	39.8d	
8	ANTHEM MAXX	3.25 FL OZ/A	C 108	0.0	0.0	90.0	100.0	50.0	
	LIBERTY 280 SL	36.0 FL OZ/A	C 201	0.0	0.0	80.0	80.0	30.0	
	AMSOL	48.0 FL OZ/A	C 307	0.0	0.0	80.0	70.0	50.0	
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C 401	0.0	0.0	70.0	80.0	25.0	
			Mean =	0.0d	0.0	80.0	82.5	38.4d	
9	LIBERTY 280 SL	36.0 FL OZ/A	C 109	0.0	0.0	90.0	100.0	25.0	
	AMSOL	48.0 FL OZ/A	C 205	0.0	0.0	70.0	80.0	25.0	
			304	0.0	0.0	70.0	80.0	40.0	
			410	0.0	0.0	70.0	80.0	25.0	
			Mean =	0.0d	0.0	75.0	85.0	28.6d	
10	ENLIST ONE	16.8 FL OZ/A	A 110	100.0	0.0	97.0	97.0	97.0	
	ZIDUA SC	3.25 FL OZ/A	A 206	97.0	0.0	97.0	100.0	97.0	
	PURSUIT	4.0 FL OZ/A	A 310	95.0	0.0	90.0	90.0	97.0	
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A 407	90.0	0.0	90.0	80.0	90.0	
	AMS - Liquid	8.5 LB AI/100 GAL	A						
	LIBERTY 280 SL	36.0 FL OZ/A	D						
	AMSOL	48.0 FL OZ/A	D						
	OUTLOOK	12.0 FL OZ/A	D						
			Mean =	96.8d	0.0	93.5	91.8	95.6d	

d=Means are reported in de-transformed data units

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				7-7-2023	7-7-2023	7-7-2023	7-21-2023	7-21-2023
				PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
				CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
				% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
				1	1	1	1	1
				W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
				ERICA	SIDSP	IPHOE	AMBTR	ERICA
				Erigeron canadense>	Sida spinosa	Ipomoea hederac>	Ambrosia trifida	Erigeron canadense>
				mare's-tail	Prickly sida	ivy-leaf mornin>	Giant ragweed	mare's-tail
				BBCH	BBCH	BBCH	BBCH	BBCH
				42, 1	42, 1	42, 1	56, 15	56, 15
				44 DP-1	44 DP-1	44 DP-1	58 DP-1	58 DP-1
				Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
				AA			ER1	AA
				11-8-2023	11-8-2023	11-8-2023	11-8-2023	11-8-2023
Trt	Treatment	Rate	Appl					
No.	Name	Rate Unit	Code Plot	11	12	13	14	15
1	ENLIST ONE	32.0 FL OZ/A	A 101	90.0	90.0	90.0		90.0
	ZIDUA SC	3.25 FL OZ/A	A 209	70.0	90.0	80.0	70.0	70.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A 302	80.0	100.0	100.0	60.0	80.0
	AMS - Liquid	8.5 LB AI/100 GAL A	A 403	100.0	100.0	100.0	90.0	90.0
			Mean =	88.8d	95.0	92.5	73.3	83.2d
2	ENLIST ONE	32.0 FL OZ/A	A 102	85.0	100.0	100.0		80.0
	ZIDUA SC	3.25 FL OZ/A	A 208	90.0	100.0	100.0	80.0	90.0
	PURSUIT	4.0 FL OZ/A	A 306	80.0	100.0	100.0	80.0	80.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A 408	100.0	100.0	100.0	50.0	100.0
	AMS - Liquid	8.5 LB AI/100 GAL A	A					
			Mean =	91.5d	100.0	100.0	70.0	90.6d
3	VERDICT	5.0 FL OZ/A	A 103	100.0	80.0	100.0		100.0
	ZIDUA SC	3.25 FL OZ/A	A 204	100.0	100.0	100.0	20.0	100.0
	PURSUIT	4.0 FL OZ/A	A 301	100.0	100.0	100.0	50.0	100.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A 404	100.0	100.0	100.0	97.0	100.0
	AMS - Liquid	8.5 LB AI/100 GAL A	A					
	MISO	1 % V/V	A					
			Mean =	100.0d	95.0	100.0	55.7	100.0d
4	ENLIST ONE	32.0 FL OZ/A	A 104	90.0	100.0	100.0		90.0
	DIMETRIC DF 75%	4.0 OZ WT/A	A 202	100.0	100.0	100.0	20.0	100.0
	ZIDUA SC	3.25 FL OZ/A	A 305	100.0	100.0	100.0	60.0	100.0
	PURSUIT	4.0 FL OZ/A	A 406	100.0	100.0	100.0	50.0	100.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A					
	AMS - Liquid	8.5 LB AI/100 GAL A	A					
			Mean =	99.4d	100.0	100.0	43.3	99.4d
5	ENLIST ONE	32.0 FL OZ/A	B 105	80.0	100.0	100.0		80.0
	ZIDUA SC	3.25 FL OZ/A	B 207	50.0	100.0	100.0	80.0	70.0
	PURSUIT	4.0 FL OZ/A	B 308	50.0	100.0	100.0	90.0	50.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	B 409	90.0	100.0	100.0	90.0	90.0
	AMS - Liquid	8.5 LB AI/100 GAL B	B					
			Mean =	69.1d	100.0	100.0	86.7	73.8d
6	LIBERTY 280 SL	36.0 FL OZ/A	C 106	100.0	100.0	100.0		100.0
	AMSOL	48.0 FL OZ/A	C 210	90.0	100.0	90.0	50.0	90.0
	ZIDUA SC	3.25 FL OZ/A	C 303	100.0	100.0	100.0	0.0	100.0
	PURSUIT	4.0 FL OZ/A	C 402	100.0	100.0	100.0	20.0	100.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C					
			Mean =	99.4d	100.0	97.5	23.3	99.4d

d=Means are reported in de-transformed data units

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Rating Date	7-7-2023	7-7-2023	7-7-2023	7-21-2023	7-21-2023		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1		
Crop Type, Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	ERICA	SIDSP	IPHOE	AMBTR	ERICA		
Pest Scientific Name	Erigeron canadensis	Sida spinosa	Ipomoea hederacea	Ambrosia trifida	Erigeron canadensis		
Pest Name	mare's-tail	Prickly sida	ivy-leaf mornin	Giant ragweed	mare's-tail		
Pest Stage Scale	BBCH	BBCH	BBCH	BBCH	BBCH		
Rating Timing							
Days After First/Last Applic.	42, 1	42, 1	42, 1	56, 15	56, 15		
Trt-Eval Interval							
Plant-Eval Interval	44 DP-1	44 DP-1	44 DP-1	58 DP-1	58 DP-1		
Days After Emergence							
Pest Est.-Eval Interval							
Equipment							
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability							
ARM Action Codes	AA			ER1	AA		
Number of Decimals							
Data Entry Date	11-8-2023	11-8-2023	11-8-2023	11-8-2023	11-8-2023		
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	11	12	13	14	15
7 PREFIX	32.0 FL OZ/A	C 107	100.0	90.0	90.0		100.0
LIBERTY 280 SL	36.0 FL OZ/A	C 203	100.0	100.0	100.0	0.0	100.0
AMSOL	48.0 FL OZ/A	C 309	70.0	25.0	0.0	20.0	50.0
ROUNDUP POWERMAX3	30.0 FL OZ/A	C 405	100.0	100.0	100.0	0.0	100.0
		Mean =	97.9d	78.8	72.5	6.7	96.2d
8 ANTHEM MAXX	3.25 FL OZ/A	C 108	100.0	90.0	90.0		100.0
LIBERTY 280 SL	36.0 FL OZ/A	C 201	100.0	100.0	100.0	0.0	100.0
AMSOL	48.0 FL OZ/A	C 307	90.0	100.0	100.0	0.0	90.0
ROUNDUP POWERMAX3	30.0 FL OZ/A	C 401	100.0	100.0	90.0	0.0	100.0
		Mean =	99.4d	97.5	95.0	0.0	99.4d
9 LIBERTY 280 SL	36.0 FL OZ/A	C 109	80.0	70.0	70.0		70.0
AMSOL	48.0 FL OZ/A	C 205	100.0	100.0	90.0	0.0	100.0
		304	100.0	80.0	50.0	0.0	100.0
		410	95.0	100.0	100.0	0.0	90.0
		Mean =	97.1d	87.5	77.5	0.0	95.0d
10 ENLIST ONE	16.8 FL OZ/A	A 110	100.0	100.0	100.0		100.0
ZIDUA SC	3.25 FL OZ/A	A 206	100.0	100.0	100.0	100.0	100.0
PURSUIT	4.0 FL OZ/A	A 310	90.0	100.0	100.0	90.0	90.0
ROUNDUP POWERMAX3	30.0 FL OZ/A	A 407	90.0	100.0	100.0	90.0	90.0
AMS - Liquid	8.5 LB AI/100 GAL	A					
LIBERTY 280 SL	36.0 FL OZ/A	D					
AMSOL	48.0 FL OZ/A	D					
OUTLOOK	12.0 FL OZ/A	D					
		Mean =	97.4d	100.0	100.0	93.3	97.4d

d=Means are reported in de-transformed data units



# University of Kentucky

Rating Date	7-21-2023	7-21-2023
Part Rated	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT
Number of Subsamples	1	1
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Pest Type	W, Weed	W, Weed
Pest Code	SIDSP	IPOHE
Pest Scientific Name	Sida spinosa	Ipomoea hederac>
Pest Name	Prickly sida	ivy-leaf mornin>
Pest Stage Scale	BBCH	BBCH
Rating Timing		
Days After First/Last Applic.	56, 15	56, 15
Trt-Eval Interval		
Plant-Eval Interval	58 DP-1	58 DP-1
Days After Emergence		
Pest Est.-Eval Interval		
Equipment		
EDC App	Rating Shell	Rating Shell
Data Reliability		
ARM Action Codes		
Number of Decimals		
Data Entry Date	11-8-2023	11-8-2023

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	16	17
1	ENLIST ONE	32.0	FL OZ/A	A	101	90.0	90.0
	ZIDUA SC	3.25	FL OZ/A	A	209	90.0	80.0
	ROUNDUP POWERMAX3	30.0	FL OZ/A	A	302	100.0	100.0
	AMS - Liquid	8.5	LB AI/100 GAL	A	403	100.0	100.0
					Mean =	95.0	92.5
2	ENLIST ONE	32.0	FL OZ/A	A	102	100.0	100.0
	ZIDUA SC	3.25	FL OZ/A	A	208	100.0	100.0
	PURSUIT	4.0	FL OZ/A	A	306	100.0	100.0
	ROUNDUP POWERMAX3	30.0	FL OZ/A	A	408	100.0	100.0
	AMS - Liquid	8.5	LB AI/100 GAL	A			
					Mean =	100.0	100.0
3	VERDICT	5.0	FL OZ/A	A	103	80.0	100.0
	ZIDUA SC	3.25	FL OZ/A	A	204	100.0	100.0
	PURSUIT	4.0	FL OZ/A	A	301	100.0	100.0
	ROUNDUP POWERMAX3	30.0	FL OZ/A	A	404	100.0	100.0
	AMS - Liquid	8.5	LB AI/100 GAL	A			
	MSO	1	% V/V	A			
					Mean =	95.0	100.0
4	ENLIST ONE	32.0	FL OZ/A	A	104	100.0	100.0
	DIMETRIC DF 75%	4.0	OZ WT/A	A	202	100.0	100.0
	ZIDUA SC	3.25	FL OZ/A	A	305	100.0	100.0
	PURSUIT	4.0	FL OZ/A	A	406	100.0	100.0
	ROUNDUP POWERMAX3	30.0	FL OZ/A	A			
	AMS - Liquid	8.5	LB AI/100 GAL	A			
					Mean =	100.0	100.0
5	ENLIST ONE	32.0	FL OZ/A	B	105	100.0	100.0
	ZIDUA SC	3.25	FL OZ/A	B	207	100.0	100.0
	PURSUIT	4.0	FL OZ/A	B	308	100.0	100.0
	ROUNDUP POWERMAX3	30.0	FL OZ/A	B	409	100.0	100.0
	AMS - Liquid	8.5	LB AI/100 GAL	B			
					Mean =	100.0	100.0
6	LIBERTY 280 SL	36.0	FL OZ/A	C	106	100.0	100.0
	AMSOL	48.0	FL OZ/A	C	210	100.0	100.0*
	ZIDUA SC	3.25	FL OZ/A	C	303	100.0	100.0
	PURSUIT	4.0	FL OZ/A	C	402	100.0	100.0
	ROUNDUP POWERMAX3	30.0	FL OZ/A	C			
					Mean =	100.0	100.0

d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	7-21-2023	7-21-2023
Part Rated	PLANT, P	PLANT, P
Rating Type	CONTROL	CONTROL
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT
Number of Subsamples	1	1
Crop Type, Code		
BBCH Scale		
Crop Scientific Name		
Crop Name		
Pest Type	W, Weed	W, Weed
Pest Code	SIDSP	IPHOE
Pest Scientific Name	Sida spinosa	Ipomoea hederac>
Pest Name	Prickly sida	ivy-leaf mornin>
Pest Stage Scale	BBCH	BBCH
Rating Timing		
Days After First/Last Applic.	56, 15	56, 15
Trt-Eval Interval		
Plant-Eval Interval	58 DP-1	58 DP-1
Days After Emergence		
Pest Est.-Eval Interval		
Equipment		
EDC App	Rating Shell	Rating Shell
Data Reliability		
ARM Action Codes		
Number of Decimals		
Data Entry Date	11-8-2023	11-8-2023

Trt	Treatment	Rate	Appl		
No.	Name	Rate Unit	Code Plot	16	17
7	PREFIX	32.0 FL OZ/A	C 107	90.0	90.0
	LIBERTY 280 SL	36.0 FL OZ/A	C 203	100.0	100.0
	AMSOL	48.0 FL OZ/A	C 309	0.0	0.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C 405	100.0	100.0
			Mean =	72.5	72.5
8	ANTHEM MAXX	3.25 FL OZ/A	C 108	90.0	90.0
	LIBERTY 280 SL	36.0 FL OZ/A	C 201	100.0	100.0
	AMSOL	48.0 FL OZ/A	C 307	100.0	100.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C 401	100.0	90.0
			Mean =	97.5	95.0
9	LIBERTY 280 SL	36.0 FL OZ/A	C 109	70.0	70.0
	AMSOL	48.0 FL OZ/A	C 205	100.0	90.0
			304	80.0	50.0
			410	100.0	100.0
			Mean =	87.5	77.5
10	ENLIST ONE	16.8 FL OZ/A	A 110	100.0	100.0
	ZIDUA SC	3.25 FL OZ/A	A 206	100.0	100.0
	PURSUIT	4.0 FL OZ/A	A 310	100.0	100.0
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A 407	100.0	100.0
	AMS - Liquid	8.5 LB AI/100 GAL	A		
	LIBERTY 280 SL	36.0 FL OZ/A	D		
	AMSOL	48.0 FL OZ/A	D		
	OUTLOOK	12.0 FL OZ/A	D		
			Mean =	100.0	100.0

# University of Kentucky

## BAS842 IN E3 NO-TILL SOYBEANS

Trial ID: 23-34 SOY-REC  
 Protocol ID: MKD-FI-2023-US-D65-A-01.0 Location: University of Kentucky Cooperator Trial ID:  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: Matt Inman Sponsor Contact:  
 Investigator: INMAN MATT

### Part Rated

PLANT = plant  
 C = Crop is Part Rated  
 P = Pest is Part Rated

### Rating Type

PHYGEN = phytotoxicity - general / injury

### Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

PLOT = total plot

PLOT = total plot

### Crop Type Code

C = EPPO species (Bayer) codes  
 GLXMA, BSOY, Glycine max, Soybean = US

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US  
 ERICA, Erigeron canadensis, mare's-tail = US  
 SIDSP, Sida spinosa, Prickly sida = US  
 IPOHE, Ipomoea hederacea, ivy-leaf morning glory = US

### Plant-Eval Interval

16 DP-1 = 1 GLXMA 5-24-2023  
 23 DP-1 = 1 GLXMA 5-24-2023  
 30 DP-1 = 1 GLXMA 5-24-2023  
 44 DP-1 = 1 GLXMA 5-24-2023  
 58 DP-1 = 1 GLXMA 5-24-2023

### EDC App

Rating Shell = Data pulled from Excel Rating Shell

### ARM Action Codes

AA = Automatic arcsine square root % transformation  
 ET5 = Excluded treatment 5  
 ER1 = Excluded replicate 1

# University of Kentucky

## BAS842 IN E3 NO-TILL SOYBEANS

Trial ID: 23-34 SOY-REC  
 Protocol ID: MKD-FI-2023-US-D65-A-01.0 Location: University of Kentucky Cooperator Trial ID:  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: Matt Inman Sponsor Contact:  
 Investigator: INMAN MATT

Rating Date	6-9-2023	6-9-2023	6-9-2023	6-16-2023	6-16-2023	6-16-2023
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTROL	CONTROL	PHYGEN	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA			C, GLXMA		
BBCH Scale	BSOY			BSOY		
Crop Scientific Name	Glycine max			Glycine max		
Crop Name	Soybean			Soybean		
Pest Type		W, Weed	W, Weed		W, Weed	W, Weed
Pest Code		AMBTR	ERICA		AMBTR	ERICA
Pest Scientific Name		Ambrosia trifida	Erigeron canadensis		Ambrosia trifida	Erigeron canadensis
Pest Name		Giant ragweed	mare's-tail		Giant ragweed	mare's-tail
Pest Stage Scale		BBCH	BBCH		BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	14, 14	14, 14	14, 14	21, 1	21, 1	21, 1
Trt-Eval Interval						
Plant-Eval Interval	16 DP-1	16 DP-1	16 DP-1	23 DP-1	23 DP-1	23 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes			AA			AA
Number of Decimals						
Data Entry Date	11-8-2023	11-8-2023	11-8-2023	11-8-2023	11-8-2023	11-8-2023

Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6
		Unit				dAA			dAA
1	ENLIST ONE	32.0 FL OZ/A	A	0.0 a	82.5 bc	80.5 c	0.0 a	97.8 a	98.3 a
	ZIDUA SC	3.25 FL OZ/A	A						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A						
	AMS - Liquid	8.5 LB AI/100 GAL	A						
2	ENLIST ONE	32.0 FL OZ/A	A	0.0 a	88.8 b	85.4 c	0.0 a	92.5 ab	96.3 a
	ZIDUA SC	3.25 FL OZ/A	A						
	PURSUIT	4.0 FL OZ/A	A						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A						
	AMS - Liquid	8.5 LB AI/100 GAL	A						
3	VERDICT	5.0 FL OZ/A	A	0.0 a	99.3 a	99.7 a	0.0 a	96.8 a	99.8 a
	ZIDUA SC	3.25 FL OZ/A	A						
	PURSUIT	4.0 FL OZ/A	A						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A						
	AMS - Liquid	8.5 LB AI/100 GAL	A						
	MISO	1 % V/V	A						
4	ENLIST ONE	32.0 FL OZ/A	A	0.0 a	85.0 bc	94.3 b	0.0 a	97.3 a	98.3 a
	DIMETRIC DF 75%	4.0 OZ WT/A	A						
	ZIDUA SC	3.25 FL OZ/A	A						
	PURSUIT	4.0 FL OZ/A	A						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A						
	AMS - Liquid	8.5 LB AI/100 GAL	A						
5	ENLIST ONE	32.0 FL OZ/A	B	0.0 a	0.0 d	0.0 d	0.0 a	0.0 c	0.0 b
	ZIDUA SC	3.25 FL OZ/A	B						
	PURSUIT	4.0 FL OZ/A	B						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	B						
	AMS - Liquid	8.5 LB AI/100 GAL	B						
6	LIBERTY 280 SL	36.0 FL OZ/A	C	0.0 a	0.0 d	0.0 d	0.0 a	0.0 c	0.0 b
	AMSOL	48.0 FL OZ/A	C						
	ZIDUA SC	3.25 FL OZ/A	C						
	PURSUIT	4.0 FL OZ/A	C						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C						

Means followed by same letter or symbol do not significantly differ (P=0.05, Student-Newman-Keuls).  
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Missing data estimates are included in columns: Yates=17  
 Excluded replicate 1 in column 14  
 Could not calculate LSD (% mean diff) for columns 1,4,7 because error mean square = 0.  
 ^Calculated from residual.  
 d=Means are reported in de-transformed data units

# University of Kentucky

		6-9-2023	6-9-2023	6-9-2023	6-16-2023	6-16-2023	6-16-2023		
Rating Date		6-9-2023	6-9-2023	6-9-2023	6-16-2023	6-16-2023	6-16-2023		
Part Rated		PLANT, C	PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P		
Rating Type		PHYGEN	CONTROL	CONTROL	PHYGEN	CONTROL	CONTROL		
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Collection Basis		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Reporting Basis		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples		1	1	1	1	1	1		
Crop Type, Code		C, GLXMA			C, GLXMA				
BBCH Scale		BSOY			BSOY				
Crop Scientific Name		Glycine max			Glycine max				
Crop Name		Soybean			Soybean				
Pest Type			W, Weed	W, Weed		W, Weed	W, Weed		
Pest Code			AMBTR	ERICA		AMBTR	ERICA		
Pest Scientific Name			Ambrosia trifida	Erigeron canad>		Ambrosia trifida	Erigeron canad>		
Pest Name			Giant ragweed	mare's-tail		Giant ragweed	mare's-tail		
Pest Stage Scale			BBCH	BBCH		BBCH	BBCH		
Rating Timing									
Days After First/Last Applic.		14, 14	14, 14	14, 14	21, 1	21, 1	21, 1		
Trt-Eval Interval									
Plant-Eval Interval		16 DP-1	16 DP-1	16 DP-1	23 DP-1	23 DP-1	23 DP-1		
Days After Emergence									
Pest Est.-Eval Interval									
Equipment									
EDC App		Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell		
Data Reliability									
ARM Action Codes				AA			AA		
Number of Decimals									
Data Entry Date		11-8-2023	11-8-2023	11-8-2023	11-8-2023	11-8-2023	11-8-2023		
Trt No.	Treatment Name	Rate Unit	Appl Code	1	2	3 dAA	4	5	6 dAA
7	PREFIX	32.0 FL OZ/A	C	0.0 a	0.0 d	0.0 d	0.0 a	0.0 c	0.0 b
	LIBERTY 280 SL	36.0 FL OZ/A	C						
	AMSOL	48.0 FL OZ/A	C						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C						
8	ANTHEM MAXX	3.25 FL OZ/A	C	0.0 a	0.0 d	0.0 d	0.0 a	0.0 c	0.0 b
	LIBERTY 280 SL	36.0 FL OZ/A	C						
	AMSOL	48.0 FL OZ/A	C						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C						
9	LIBERTY 280 SL	36.0 FL OZ/A	C	0.0 a	0.0 d	0.0 d	0.0 a	0.0 c	0.0 b
	AMSOL	48.0 FL OZ/A	C						
10	ENLIST ONE	16.8 FL OZ/A	A	0.0 a	80.0 c	79.3 c	0.0 a	88.8 b	96.8 a
	ZIDUA SC	3.25 FL OZ/A	A						
	PURSUIT	4.0 FL OZ/A	A						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A						
	AMS - Liquid	8.5 LB AI/100 GAL	A						
	LIBERTY 280 SL	36.0 FL OZ/A	D						
	AMSOL	48.0 FL OZ/A	D						
	OUTLOOK	12.0 FL OZ/A	D						
LSD P=.05					5.96	2.35 - 7.98		4.50	2.01 - 2.92
Standard Deviation				0.00	4.11	4.25t	0.00	3.10	4.16t
CV				0.0	9.43	11.9t	0.0	6.56	10.12t
Levene's F^					5.202*	0.513		0.979	0.883
Levene's Prob(F)					0.00*	0.854		0.477	0.551
Shapiro-Wilk^					0.9025*	0.9374*		0.884*	0.9496
P(Shapiro-Wilk)^					0.0023*	0.0283*		0.0007*	0.0734
Skewness^					-0.5148	0.1244		-0.4673	0.2469
P(Skewness)^					0.1919	0.7501		0.2352	0.528
Kurtosis^					2.542*	0.8438		3.3768*	0.8444
P(Kurtosis)^					0.0018*	0.2735		0.0*	0.2732
Replicate F				0.000	0.896	3.484	0.000	0.692	2.290
Replicate Prob(F)				1.0000	0.4561	0.0294	1.0000	0.5647	0.1009
Treatment F				0.000	505.950	323.595	0.000	1035.374	434.875
Treatment Prob(F)				1.0000	0.0001	0.0001	1.0000	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).  
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Missing data estimates are included in columns: Yates=17  
Excluded replicate 1 in column 14  
Could not calculate LSD (% mean diff) for columns 1,4,7 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-23-2023	6-23-2023	6-23-2023	7-7-2023	7-7-2023	7-7-2023
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P
Rating Type	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1	1
Crop Type, Code	C, GLXMA					
BBCH Scale	BSOY					
Crop Scientific Name	Glycine max					
Crop Name	Soybean					
Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code		AMBTR	ERICA	AMBTR	ERICA	SIDSP
Pest Scientific Name		Ambrosia trifida	Erigeron canadensis	Ambrosia trifida	Erigeron canadensis	Sida spinosa
Pest Name		Giant ragweed	mare's-tail	Giant ragweed	mare's-tail	Prickly sida
Pest Stage Scale		BBCH	BBCH	BBCH	BBCH	BBCH
Rating Timing						
Days After First/Last Applic.	28, 8	28, 8	28, 8	42, 1	42, 1	42, 1
Trt-Eval Interval						
Plant-Eval Interval	30 DP-1	30 DP-1	30 DP-1	44 DP-1	44 DP-1	44 DP-1
Days After Emergence						
Pest Est.-Eval Interval						
Equipment						
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell
Data Reliability						
ARM Action Codes		ET5		AA	AA	
Number of Decimals						
Data Entry Date	11-8-2023	11-8-2023	11-8-2023	11-8-2023	11-8-2023	11-8-2023

Trt No.	Treatment Name	Rate	Unit	Appl Code	7	8	9	10	11	12
								dAA	dAA	
1	ENLIST ONE	32.0	FL OZ/A	A	0.0 a	99.3 a	98.5 a	89.8 a	88.8 ab	95.0 a
	ZIDUA SC	3.25	FL OZ/A	A						
	ROUNDUP POWERMAX3	30.0	FL OZ/A	A						
	AMS - Liquid	8.5	LB AI/100 GAL	A						
2	ENLIST ONE	32.0	FL OZ/A	A	0.0 a	95.0 ab	94.3 a	84.8 a	91.5 ab	100.0 a
	ZIDUA SC	3.25	FL OZ/A	A						
	PURSUIT	4.0	FL OZ/A	A						
	ROUNDUP POWERMAX3	30.0	FL OZ/A	A						
	AMS - Liquid	8.5	LB AI/100 GAL	A						
3	VERDICT	5.0	FL OZ/A	A	0.0 a	90.0 ab	96.3 a	69.9 ab	100.0 a	95.0 a
	ZIDUA SC	3.25	FL OZ/A	A						
	PURSUIT	4.0	FL OZ/A	A						
	ROUNDUP POWERMAX3	30.0	FL OZ/A	A						
	AMS - Liquid	8.5	LB AI/100 GAL	A						
	MISO	1	% V/V	A						
4	ENLIST ONE	32.0	FL OZ/A	A	0.0 a	93.8 ab	92.5 a	72.4 ab	99.4 a	100.0 a
	DIMETRIC DF 75%	4.0	OZ WT/A	A						
	ZIDUA SC	3.25	FL OZ/A	A						
	PURSUIT	4.0	FL OZ/A	A						
	ROUNDUP POWERMAX3	30.0	FL OZ/A	A						
	AMS - Liquid	8.5	LB AI/100 GAL	A						
5	ENLIST ONE	32.0	FL OZ/A	B	0.0 a	10.0	8.8 b	92.6 a	69.1 b	100.0 a
	ZIDUA SC	3.25	FL OZ/A	B						
	PURSUIT	4.0	FL OZ/A	B						
	ROUNDUP POWERMAX3	30.0	FL OZ/A	B						
	AMS - Liquid	8.5	LB AI/100 GAL	B						
6	LIBERTY 280 SL	36.0	FL OZ/A	C	0.0 a	81.8 bc	86.8 a	52.6 bc	99.4 a	100.0 a
	AMSOL	48.0	FL OZ/A	C						
	ZIDUA SC	3.25	FL OZ/A	C						
	PURSUIT	4.0	FL OZ/A	C						
	ROUNDUP POWERMAX3	30.0	FL OZ/A	C						

Means followed by same letter or symbol do not significantly differ (P=0.05, Student-Newman-Keuls).  
t=Mean descriptions are reported in transformed data units, and are not de-transformed.  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Missing data estimates are included in columns: Yates=17  
Excluded replicate 1 in column 14  
Could not calculate LSD (% mean diff) for columns 1,4,7 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

Rating Date	6-23-2023	6-23-2023	6-23-2023	7-7-2023	7-7-2023	7-7-2023			
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P			
Rating Type	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL			
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100			
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT			
Number of Subsamples	1	1	1	1	1	1			
Crop Type, Code	C, GLXMA								
BBCH Scale	BSOY								
Crop Scientific Name	Glycine max								
Crop Name	Soybean								
Pest Type		W, Weed	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code		AMBTR	ERICA	AMBTR	ERICA	SIDSP			
Pest Scientific Name		Ambrosia trifida	Erigeron canad>	Ambrosia trifida	Erigeron canad>	Sida spinosa			
Pest Name		Giant ragweed	mare's-tail	Giant ragweed	mare's-tail	Prickly sida			
Pest Stage Scale		BBCH	BBCH	BBCH	BBCH	BBCH			
Rating Timing									
Days After First/Last Applic.	28, 8	28, 8	28, 8	42, 1	42, 1	42, 1			
Trt-Eval Interval									
Plant-Eval Interval	30 DP-1	30 DP-1	30 DP-1	44 DP-1	44 DP-1	44 DP-1			
Days After Emergence									
Pest Est.-Eval Interval									
Equipment									
EDC App	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell			
Data Reliability									
ARM Action Codes		ET5		AA	AA				
Number of Decimals									
Data Entry Date	11-8-2023	11-8-2023	11-8-2023	11-8-2023	11-8-2023	11-8-2023			
Trt No.	Treatment Name	Rate Unit	Appl Code	7	8	9	10 dAA	11 dAA	12
7	PREFIX	32.0 FL OZ/A	C	0.0 a	80.0 bc	87.5 a	39.8 bc	97.9 a	78.8 a
	LIBERTY 280 SL	36.0 FL OZ/A	C						
	AMSOL	48.0 FL OZ/A	C						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C						
8	ANTHEM MAXX	3.25 FL OZ/A	C	0.0 a	80.0 bc	82.5 a	38.4 bc	99.4 a	97.5 a
	LIBERTY 280 SL	36.0 FL OZ/A	C						
	AMSOL	48.0 FL OZ/A	C						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C						
9	LIBERTY 280 SL	36.0 FL OZ/A	C	0.0 a	75.0 c	85.0 a	28.6 c	97.1 a	87.5 a
	AMSOL	48.0 FL OZ/A	C						
10	ENLIST ONE	16.8 FL OZ/A	A	0.0 a	93.5 ab	91.8 a	95.6 a	97.4 a	100.0 a
	ZIDUA SC	3.25 FL OZ/A	A						
	PURSUIT	4.0 FL OZ/A	A						
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A						
	AMS - Liquid	8.5 LB AI/100 GAL	A						
	LIBERTY 280 SL	36.0 FL OZ/A	D						
	AMSOL	48.0 FL OZ/A	D						
	OUTLOOK	12.0 FL OZ/A	D						
LSD P=.05					10.37	10.01	16.88 - 26.11	7.60 - 21.58	18.46
Standard Deviation				0.00	7.11	6.90	10.60t	11.03t	12.72
CV				0.0	8.11	8.38	18.86t	13.99t	13.34
Levene's F^					1.841	1.808	1.065	0.908	0.626
Levene's Prob(F)					0.113	0.108	0.416	0.531	0.766
Shapiro-Wilk^					0.9535	0.9851	0.9552	0.9576	0.79*
P(Shapiro-Wilk)^					0.1352	0.8672	0.1149	0.1383	0.0*
Skewness^					0.2133	-0.0644	0.5108	-0.3693	-2.3908*
P(Skewness)^					0.605	0.8689	0.1953	0.3466	0.0*
Kurtosis^					1.4353	-0.4542	1.7077*	-0.8251	11.1003*
P(Kurtosis)^					0.0813	0.5534	0.0303*	0.2842	0.0*
Replicate F				0.000	3.233	5.997	0.701	1.928	1.435
Replicate Prob(F)				1.0000	0.0401	0.0029	0.5597	0.1488	0.2545
Treatment F				0.000	5.718	58.418	9.604	3.218	1.236
Treatment Prob(F)				1.0000	0.0004	0.0001	0.0001	0.0089	0.3154

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
Missing data estimates are included in columns: Yates=17  
Excluded replicate 1 in column 14  
Could not calculate LSD (% mean diff) for columns 1,4,7 because error mean square = 0.  
^Calculated from residual.  
d=Means are reported in de-transformed data units

# University of Kentucky

			7-7-2023	7-21-2023	7-21-2023	7-21-2023	7-21-2023	
Rating Date			7-7-2023	7-21-2023	7-21-2023	7-21-2023	7-21-2023	
Part Rated			PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	
Rating Type			CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	
Rating Unit/Min/Max			%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	
Sample Size			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Collection Basis			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Reporting Basis			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples			1	1	1	1	1	
Crop Type, Code								
BBCH Scale								
Crop Scientific Name								
Crop Name								
Pest Type			W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	
Pest Code			IPOHE	AMBTR	ERICA	SIDSP	IPOHE	
Pest Scientific Name			Ipomoea hederac>	Ambrosia trifida	Erigeron canad>	Sida spinosa	Ipomoea hederac>	
Pest Name			ivy-leaf mornin>	Giant ragweed	mare's-tail	Prickly sida	ivy-leaf mornin>	
Pest Stage Scale			BBCH	BBCH	BBCH	BBCH	BBCH	
Rating Timing								
Days After First/Last Applic.			42, 1	56, 15	56, 15	56, 15	56, 15	
Trt-Eval Interval								
Plant-Eval Interval			44 DP-1	58 DP-1	58 DP-1	58 DP-1	58 DP-1	
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App			Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	
Data Reliability				ER1	AA			
ARM Action Codes								
Number of Decimals								
Data Entry Date			11-8-2023	11-8-2023	11-8-2023	11-8-2023	11-8-2023	
Trt	Treatment	Rate	13	14	15	16	17	
No.	Name	Unit			dAA			
1	ENLIST ONE	32.0 FL OZ/A	A	92.5 a	73.3 ab	83.2 ab	95.0 a	92.5 a
	ZIDUA SC	3.25 FL OZ/A	A					
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A					
	AMS - Liquid	8.5 LB AI/100 GAL	A					
2	ENLIST ONE	32.0 FL OZ/A	A	100.0 a	70.0 ab	90.6 ab	100.0 a	100.0 a
	ZIDUA SC	3.25 FL OZ/A	A					
	PURSUIT	4.0 FL OZ/A	A					
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A					
	AMS - Liquid	8.5 LB AI/100 GAL	A					
3	VERDICT	5.0 FL OZ/A	A	100.0 a	55.7 abc	100.0 a	95.0 a	100.0 a
	ZIDUA SC	3.25 FL OZ/A	A					
	PURSUIT	4.0 FL OZ/A	A					
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A					
	AMS - Liquid	8.5 LB AI/100 GAL	A					
	MSO	1 % V/V	A					
4	ENLIST ONE	32.0 FL OZ/A	A	100.0 a	43.3 bcd	99.4 ab	100.0 a	100.0 a
	DIMETRIC DF 75%	4.0 OZ WT/A	A					
	ZIDUA SC	3.25 FL OZ/A	A					
	PURSUIT	4.0 FL OZ/A	A					
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A					
	AMS - Liquid	8.5 LB AI/100 GAL	A					
5	ENLIST ONE	32.0 FL OZ/A	B	100.0 a	86.7 ab	73.8 b	100.0 a	100.0 a
	ZIDUA SC	3.25 FL OZ/A	B					
	PURSUIT	4.0 FL OZ/A	B					
	ROUNDUP POWERMAX3	30.0 FL OZ/A	B					
	AMS - Liquid	8.5 LB AI/100 GAL	B					
6	LIBERTY 280 SL	36.0 FL OZ/A	C	97.5 a	23.3 cd	99.4 ab	100.0 a	100.0 a
	AMSOL	48.0 FL OZ/A	C					
	ZIDUA SC	3.25 FL OZ/A	C					
	PURSUIT	4.0 FL OZ/A	C					
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C					

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Missing data estimates are included in columns: Yates=17  
Excluded replicate 1 in column 14  
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# University of Kentucky

			7-7-2023	7-21-2023	7-21-2023	7-21-2023	7-21-2023	
Rating Date			7-7-2023	7-21-2023	7-21-2023	7-21-2023	7-21-2023	
Part Rated			PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	
Rating Type			CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	
Rating Unit/Min/Max			%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	
Sample Size			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Collection Basis			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Reporting Basis			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples			1	1	1	1	1	
Crop Type, Code								
BBCH Scale								
Crop Scientific Name								
Crop Name								
Pest Type			W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	
Pest Code			IPOHE	AMBTR	ERICA	SIDSP	IPOHE	
Pest Scientific Name			Ipomoea hederac>	Ambrosia trifida	Erigeron canad>	Sida spinosa	Ipomoea hederac>	
Pest Name			ivy-leaf mornin>	Giant ragweed	mare's-tail	Prickly sida	ivy-leaf mornin>	
Pest Stage Scale			BBCH	BBCH	BBCH	BBCH	BBCH	
Rating Timing								
Days After First/Last Applic.			42, 1	56, 15	56, 15	56, 15	56, 15	
Trt-Eval Interval								
Plant-Eval Interval			44 DP-1	58 DP-1	58 DP-1	58 DP-1	58 DP-1	
Days After Emergence								
Pest Est.-Eval Interval								
Equipment								
EDC App			Rating Shell	Rating Shell	Rating Shell	Rating Shell	Rating Shell	
Data Reliability								
ARM Action Codes				ER1	AA			
Number of Decimals								
Data Entry Date			11-8-2023	11-8-2023	11-8-2023	11-8-2023	11-8-2023	
Trt	Treatment	Rate	Appl	13	14	15	16	17
No.	Name	Unit	Code			dAA		
7	PREFIX	32.0 FL OZ/A	C	72.5 a	6.7 d	96.2 ab	72.5 a	72.5 a
	LIBERTY 280 SL	36.0 FL OZ/A	C					
	AMSOL	48.0 FL OZ/A	C					
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C					
8	ANTHEM MAXX	3.25 FL OZ/A	C	95.0 a	0.0 d	99.4 ab	97.5 a	95.0 a
	LIBERTY 280 SL	36.0 FL OZ/A	C					
	AMSOL	48.0 FL OZ/A	C					
	ROUNDUP POWERMAX3	30.0 FL OZ/A	C					
9	LIBERTY 280 SL	36.0 FL OZ/A	C	77.5 a	0.0 d	95.0 ab	87.5 a	77.5 a
	AMSOL	48.0 FL OZ/A	C					
10	ENLIST ONE	16.8 FL OZ/A	A	100.0 a	93.3 a	97.4 ab	100.0 a	100.0 a
	ZIDUA SC	3.25 FL OZ/A	A					
	PURSUIT	4.0 FL OZ/A	A					
	ROUNDUP POWERMAX3	30.0 FL OZ/A	A					
	AMS - Liquid	8.5 LB AI/100 GAL	A					
	LIBERTY 280 SL	36.0 FL OZ/A	D					
	AMSOL	48.0 FL OZ/A	D					
	OUTLOOK	12.0 FL OZ/A	D					
LSD P=.05				24.83	32.31	8.75 - 20.70	23.75	25.14
Standard Deviation				17.12	18.84	11.86t	16.37	17.30
CV				18.31	41.65	15.21t	17.28	18.45
Levene's F^				0.86	2.524*	0.918	0.635	0.767
Levene's Prob(F)				0.57	0.027*	0.524	0.758	0.647
Shapiro-Wilk^				0.8102*	0.9228*	0.9683	0.7394*	0.8013*
P(Shapiro-Wilk)^				0.0*	0.0094*	0.3185	0.0*	0.0*
Skewness^				-2.1313*	0.5933	-0.6772	-2.6993*	-2.1288*
P(Skewness)^				0.0*	0.134	0.0885	0.0*	0.0*
Kurtosis^				9.7921*	2.4664*	0.4322	13.7251*	9.6813*
P(Kurtosis)^				0.0*	0.0024*	0.5727	0.0*	0.0*
Replicate F				1.240	0.317	1.429	1.228	1.279
Replicate Prob(F)				0.3145	0.7320	0.2562	0.3187	0.3024
Treatment F				1.407	10.901	2.695	1.149	1.416
Treatment Prob(F)				0.2340	0.0001	0.0223	0.3647	0.2321

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# University of Kentucky

## BAS842 IN E3 NO-TILL SOYBEANS

Trial ID: 23-34 SOY-REC  
 Protocol ID: MKD-FI-2023-US-D65-A-01.0 Location: University of Kentucky Cooperator Trial ID:  
 Project ID: Project ID 2: Project ID 3: Trial Year: 2023  
 Study Director: Matt Inman Sponsor Contact:  
 Investigator: INMAN MATT

### Part Rated

PLANT = plant  
 C = Crop is Part Rated  
 P = Pest is Part Rated

### Rating Type

PHYGEN = phytotoxicity - general / injury

### Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

PLOT = total plot

PLOT = total plot

### Crop Type Code

C = EPPO species (Bayer) codes  
 GLXMA, BSOY, Glycine max, Soybean = US

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US  
 ERICA, Erigeron canadensis, mare's-tail = US  
 SIDSP, Sida spinosa, Prickly sida = US  
 IPOHE, Ipomoea hederacea, ivy-leaf morning glory = US

### Plant-Eval Interval

16 DP-1 = 1 GLXMA 5-24-2023  
 23 DP-1 = 1 GLXMA 5-24-2023  
 30 DP-1 = 1 GLXMA 5-24-2023  
 44 DP-1 = 1 GLXMA 5-24-2023  
 58 DP-1 = 1 GLXMA 5-24-2023

### EDC App

Rating Shell = Data pulled from Excel Rating Shell

### ARM Action Codes

AA = Automatic arcsine square root % transformation  
 ET5 = Excluded treatment 5  
 ER1 = Excluded replicate 1