

Weed control strategies using Zidua + Pursuit in no-till Enlist E3 soybean

Trial ID: NTS01-23 Study Dir.: Sprague, Stiles
 Conducted: Campus, C-13 Investigator: Christy Sprague

Planting Date: May-15-2023 **Row Spacing:** 30 IN
Variety: P25A16E **No. of Reps:** 4
Population: 150000 seeds/A **% OM:** 2.7
Soil Type: CL clay loam **pH:** 7.0
Plot Size: 10 X 25 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: No-tilled into corn stubble.

Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	STEME	chickweed	Stellaria media
2	TAROF	dandelion	Taraxacum officinale
3	ERICA	horseweed (marestail)	Conyza canadensis
4	CAPBU	shepherd's-purse	Capsella bursa-pastoris
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

	A	B	C
Application Timing:	PRE	EPOS	POST
Date Treated:	May-15-2023	Jun-5-2023	Jun-28-2023
Time Treated:	11:00 AM	3:30 PM	4:00 PM
% Cloud Cover:	0	65	75
Air Temp., Unit:	60 F	80 F	76 F
% Relative Humidity:	41	30	51
Wind Speed/Unit/Dir:	2 MPH NNE	6 MPH NW	3 MPH NE
Soil Temp, Unit:	63 F	80 F	76 F
Leaf Moist/Dew Presence (Y/N):	N	N	N
Soil Moist:	5	5	5

Crop Stage at Each Application

	A	B	C
Crop 1 Name:	GLXMA	GLXMA	GLXMA
Height:		2-4 " (3)	6 "
Stage:		VC	V3

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	STEME	STEME	STEME
Height:	9-20 " (10)	9-20 " (10)	
Stage:	flower	flower	
Weed 2 Name:	TAROF	TAROF	TAROF
Height:	4-7 " (5)	5-10 " (6)	8-10 "
Stage:	5-8L	flower	flower
Weed 3 Name:	ERICA	ERICA	ERICA
Height:	1-3 " (2)	1-10 " (6)	1 "
Stage:	bolt	bolt	8-many
Weed 4 Name:	CAPBU	CAPBU	CAPBU
Height:	10-18 " (16)	10-18 " (16)	
Stage:	flower	flower	

Weed Density

	1	2	3	4
Date:	Jun-5-2023	Jun-5-2023	Jun-5-2023	Jun-5-2023
Weed Name:	STEME	TAROF	ERICA	CAPBU
Density:	4 FT2	2 FT2	1 FT2	1 FT2

Application Equipment

Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	CUB	3.8 MPH	AIXR	11003	18.0 "	20.0 "	100.0 "	19 GPA	WATER	30 PSI
B	CUB	3.8 MPH	AIXR	11003	18.0 "	20.0 "	100.0 "	19 GPA	WATER	30 PSI
C	CUB	3.8 MPH	AIXR	11003	24.0 "	20.0 "	100.0 "	19 GPA	WATER	30 PSI

Comments: Horseweed (ERICA) at this location is resistant to the Group 2 (ALS-inhibiting) and Group 9 (glyphosate) herbicides.

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Trial ID: NTS01-23

Protocol ID: NTS01-23 Location: Campus, C-13 Trial Year: 2023

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	May-29-2023	May-29-2023	May-29-2023	Jun-5-2023	Jun-5-2023	Jun-5-2023	Jun-5-2023
Rating Type	control	control	control	injury	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code				C, GLXMA			
Pest Code	STEME	TAROF	ERICA		STEME	TAROF	CAPBU
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing	May-29-2023 control	May-29-2023 control	May-29-2023 control	Jun-5-2023 injury	Jun-5-2023 control	Jun-5-2023 control	Jun-5-2023 control
1	Zidua SC	3.25 fl oz/a	A		PRE	100	89	90	0	100	90	100
	Enlist One	32 fl oz/a	A		PRE							
	Roundup PowerMax 3	30 fl oz/a	A		PRE							
	Crop oil concentrate	1 % v/v	A		PRE							
	AMS	3 lb/a	A		PRE							
2	Zidua SC	3.25 fl oz/a	A		PRE	100	87	91	0	100	87	100
	Pursuit	4 fl oz/a	A		PRE							
	Enlist One	32 fl oz/a	A		PRE							
	Roundup PowerMax 3	30 fl oz/a	A		PRE							
	Crop oil concentrate	1 % v/v	A		PRE							
	AMS	3 lb/a	A		PRE							
3	Verdict	5 fl oz/a	A		PRE	100	100	99	0	100	90	100
	Zidua SC	3.25 fl oz/a	A		PRE							
	Pursuit	4 fl oz/a	A		PRE							
	Roundup PowerMax 3	30 fl oz/a	A		PRE							
	MSO	1 % v/v	A		PRE							
	AMS	3 lb/a	A		PRE							
4	Metribuzin	4 oz/a	A		PRE	100	96	96	0	100	92	100
	Zidua SC	3.25 fl oz/a	A		PRE							
	Pursuit	4 fl oz/a	A		PRE							
	Enlist One	32 fl oz/a	A		PRE							
	Roundup PowerMax 3	30 fl oz/a	A		PRE							
	Crop oil concentrate	1 % v/v	A		PRE							
	AMS	3 lb/a	A		PRE							
5	Untreated					0	0	0	0	0	0	0
6	Zidua SC	3.25 fl oz/a	B		EPOS	0	0	0	0	0	0	0
	Pursuit	4 fl oz/a	B		EPOS							
	Enlist One	32 fl oz/a	B		EPOS							
	Roundup PowerMax 3	30 fl oz/a	B		EPOS							
	Crop oil concentrate	1 % v/v	B		EPOS							
	AMS	3 lb/a	B		EPOS							
7	Zidua SC	3.25 fl oz/a	B		EPOS	0	0	0	0	0	0	0
	Pursuit	4 fl oz/a	B		EPOS							
	Liberty	36 fl oz/a	B		EPOS							
	Roundup PowerMax 3	30 fl oz/a	B		EPOS							
	AMS	3 lb/a	B		EPOS							
8	Prefix	32 fl oz/a	B		EPOS	0	0	0	0	0	0	0
	Liberty	36 fl oz/a	B		EPOS							
	Roundup PowerMax 3	30 fl oz/a	B		EPOS							
	Crop oil concentrate	1 % v/v	B		EPOS							
	AMS	3 lb/a	B		EPOS							
9	Anthem MAXX	3.25 fl oz/a	B		EPOS	0	0	0	0	0	0	0
	Liberty	36 fl oz/a	B		EPOS							
	Roundup PowerMax 3	30 fl oz/a	B		EPOS							
	AMS	3 lb/a	B		EPOS							
10	Liberty	36 fl oz/a	B		EPOS	0	0	0	0	0	0	0
	AMS	3 lb/a	B		EPOS							

Excluded replicate 2 in column 6

Could not calculate LSD (% mean diff) for columns 1,4,5,7,9,10,14,15,20,26 because error mean square = 0.

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Investigator: Christy Sprague

Rating Date	May-29-2023	May-29-2023	May-29-2023	Jun-5-2023	Jun-5-2023	Jun-5-2023	Jun-5-2023
Rating Type	control	control	control	injury	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code	C, GLXMA						
Pest Code	STEME	TAROF	ERICA		STEME	TAROF	CAPBU
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing	May-29-2023 control	May-29-2023 control	May-29-2023 control	Jun-5-2023 injury	Jun-5-2023 control	Jun-5-2023 control	Jun-5-2023 control
11	Zidua SC	3.25 fl oz/a	A	PRE		100	88	91	0	100	92	100
	Pursuit	4 fl oz/a	A	PRE								
	Enlist One	32 fl oz/a	A	PRE								
	Roundup PowerMax 3	30 fl oz/a	A	PRE								
	Crop oil concentrate	1 % v/v	A	PRE								
	AMS	3 lb/a	A	PRE								
	Outlook	12 fl oz/a	C	POST								
	Liberty	36 fl oz/a	C	POST								
	Roundup PowerMax 3	30 fl oz/a	C	POST								
	AMS	3 lb/a	C	POST								
12	Fierce EZ	6 fl oz/a	A	PRE		100	95	91	0	100	97	100
	Enlist Duo	4.75 pt/a	A	PRE								
	AMS	3 lb/a	A	PRE								
	Perpetuo	6 fl oz/a	C	POST								
	Enlist Duo	4.75 pt/a	C	POST								
	Surfactant	0.25 % v/v	C	POST								
	AMS	3 lb/a	C	POST								
13	Fierce MTZ	16 fl oz/a	A	PRE		100	99	97	0	100	95	100
	Enlist Duo	4.75 pt/a	A	PRE								
	AMS	3 lb/a	A	PRE								
	Perpetuo	6 fl oz/a	C	POST								
	Enlist Duo	4.75 pt/a	C	POST								
	Surfactant	0.25 % v/v	C	POST								
	AMS	3 lb/a	C	POST								
14	Fierce XLT	4 oz/a	A	PRE		100	97	98	0	100	95	100
	Enlist Duo	4.75 pt/a	A	PRE								
	AMS	3 lb/a	A	PRE								
	Perpetuo	6 fl oz/a	C	POST								
	Enlist Duo	4.75 pt/a	C	POST								
	Surfactant	0.25 % v/v	C	POST								
	AMS	3 lb/a	C	POST								
	LSD P=.05					.	4.8	5.6	.	.	7.2	.
	Standard Deviation					0.0	3.4	3.9	0.0	0.0	4.3	0.0
	CV					0.0	6.31	7.32	0.0	0.0	8.19	0.0

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Rating Date	Jun-5-2023	Jun-5-2023	Jun-12-2023	Jun-12-2023	Jun-12-2023	Jun-12-2023	Jun-26-2023
Rating Type	control	control	injury	control	control	control	injury
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code			C, GLXMA				C, GLXMA
Pest Code	ERICA	AMBEL		STEME	TAROF	ERICA	
Trt-Eval Interval	21 DA-A	21 DA-A	7 DA-B	7 DA-B	7 DA-B	7 DA-B	21 DA-B
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing	Jun-5-2023 control	Jun-5-2023 control	Jun-12-2023 injury	Jun-12-2023 control	Jun-12-2023 control	Jun-12-2023 control	Jun-26-2023 injury
1	Zidua SC	3.25 fl oz/a	A	PRE		89	100	0	100	91	89	0
	Enlist One	32 fl oz/a	A	PRE								
	Roundup PowerMax 3	30 fl oz/a	A	PRE								
	Crop oil concentrate	1 % v/v	A	PRE								
	AMS	3 lb/a	A	PRE								
2	Zidua SC	3.25 fl oz/a	A	PRE		91	100	0	100	90	91	0
	Pursuit	4 fl oz/a	A	PRE								
	Enlist One	32 fl oz/a	A	PRE								
	Roundup PowerMax 3	30 fl oz/a	A	PRE								
	Crop oil concentrate	1 % v/v	A	PRE								
	AMS	3 lb/a	A	PRE								
3	Verdict	5 fl oz/a	A	PRE		96	100	0	100	79	80	0
	Zidua SC	3.25 fl oz/a	A	PRE								
	Pursuit	4 fl oz/a	A	PRE								
	Roundup PowerMax 3	30 fl oz/a	A	PRE								
	MSO	1 % v/v	A	PRE								
	AMS	3 lb/a	A	PRE								
4	Metribuzin	4 oz/a	A	PRE		97	100	0	100	88	94	0
	Zidua SC	3.25 fl oz/a	A	PRE								
	Pursuit	4 fl oz/a	A	PRE								
	Enlist One	32 fl oz/a	A	PRE								
	Roundup PowerMax 3	30 fl oz/a	A	PRE								
	Crop oil concentrate	1 % v/v	A	PRE								
	AMS	3 lb/a	A	PRE								
5	Untreated					0	0	0	0	0	0	0
6	Zidua SC	3.25 fl oz/a	B	EPOS		0	0	0	94	21	38	0
	Pursuit	4 fl oz/a	B	EPOS								
	Enlist One	32 fl oz/a	B	EPOS								
	Roundup PowerMax 3	30 fl oz/a	B	EPOS								
	Crop oil concentrate	1 % v/v	B	EPOS								
	AMS	3 lb/a	B	EPOS								
7	Zidua SC	3.25 fl oz/a	B	EPOS		0	0	0	99	68	85	0
	Pursuit	4 fl oz/a	B	EPOS								
	Liberty	36 fl oz/a	B	EPOS								
	Roundup PowerMax 3	30 fl oz/a	B	EPOS								
	AMS	3 lb/a	B	EPOS								
8	Prefix	32 fl oz/a	B	EPOS		0	0	0	100	73	73	0
	Liberty	36 fl oz/a	B	EPOS								
	Roundup PowerMax 3	30 fl oz/a	B	EPOS								
	Crop oil concentrate	1 % v/v	B	EPOS								
	AMS	3 lb/a	B	EPOS								
9	Anthem MAXX	3.25 fl oz/a	B	EPOS		0	0	0	100	69	75	0
	Liberty	36 fl oz/a	B	EPOS								
	Roundup PowerMax 3	30 fl oz/a	B	EPOS								
	AMS	3 lb/a	B	EPOS								
10	Liberty	36 fl oz/a	B	EPOS		0	0	0	100	71	76	0
	AMS	3 lb/a	B	EPOS								

Excluded replicate 2 in column 6

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Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Jun-5-2023	Jun-5-2023	Jun-12-2023	Jun-12-2023	Jun-12-2023	Jun-12-2023	Jun-26-2023
Rating Type	control	control	injury	control	control	control	injury
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code			C, GLXMA				C, GLXMA
Pest Code	ERICA	AMBEL		STEME	TAROF	ERICA	
Trt-Eval Interval	21 DA-A	21 DA-A	7 DA-B	7 DA-B	7 DA-B	7 DA-B	21 DA-B
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing	Jun-5-2023 control	Jun-5-2023 control	Jun-12-2023 injury	Jun-12-2023 control	Jun-12-2023 control	Jun-12-2023 control	Jun-26-2023 injury
11	Zidua SC	3.25	fl oz/a	A	PRE	90	100	0	100	91	88	0
	Pursuit	4	fl oz/a	A	PRE							
	Enlist One	32	fl oz/a	A	PRE							
	Roundup PowerMax 3	30	fl oz/a	A	PRE							
	Crop oil concentrate	1	% v/v	A	PRE							
	AMS	3	lb/a	A	PRE							
	Outlook	12	fl oz/a	C	POST							
	Liberty	36	fl oz/a	C	POST							
	Roundup PowerMax 3	30	fl oz/a	C	POST							
	AMS	3	lb/a	C	POST							
12	Fierce EZ	6	fl oz/a	A	PRE	91	100	0	100	89	85	0
	Enlist Duo	4.75	pt/a	A	PRE							
	AMS	3	lb/a	A	PRE							
	Perpetuo	6	fl oz/a	C	POST							
	Enlist Duo	4.75	pt/a	C	POST							
	Surfactant	0.25	% v/v	C	POST							
	AMS	3	lb/a	C	POST							
13	Fierce MTZ	16	fl oz/a	A	PRE	96	100	0	100	91	90	0
	Enlist Duo	4.75	pt/a	A	PRE							
	AMS	3	lb/a	A	PRE							
	Perpetuo	6	fl oz/a	C	POST							
	Enlist Duo	4.75	pt/a	C	POST							
	Surfactant	0.25	% v/v	C	POST							
	AMS	3	lb/a	C	POST							
14	Fierce XLT	4	oz/a	A	PRE	97	100	0	100	95	96	0
	Enlist Duo	4.75	pt/a	A	PRE							
	AMS	3	lb/a	A	PRE							
	Perpetuo	6	fl oz/a	C	POST							
	Enlist Duo	4.75	pt/a	C	POST							
	Surfactant	0.25	% v/v	C	POST							
	AMS	3	lb/a	C	POST							
	LSD P=.05					6.1	.	.	3.0	9.3	10.1	.
	Standard Deviation					4.3	0.0	0.0	2.1	6.5	7.0	0.0
	CV					8.02	0.0	0.0	2.25	8.98	9.32	0.0

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Investigator: Christy Sprague

Rating Date	Jun-26-2023	Jun-26-2023	Jun-26-2023	Jun-26-2023	Jul-12-2023	Jul-12-2023	Jul-12-2023
Rating Type	control	control	control	control	injury	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code					C, GLXMA		
Pest Code	STEME	TAROF	ERICA	CHEAL		STEME	TAROF
Trt-Eval Interval	21 DA-B	21 DA-B	21 DA-B	21 DA-B	14 DA-C	14 DA-C	14 DA-C
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing	Jun-26-2023 control	Jun-26-2023 control	Jun-26-2023 control	Jun-26-2023 control	Jul-12-2023 injury	Jul-12-2023 control	Jul-12-2023 control
1	Zidua SC	3.25 fl oz/a	A		PRE	100	88	88	98	0	100	83
	Enlist One	32 fl oz/a	A		PRE							
	Roundup PowerMax 3	30 fl oz/a	A		PRE							
	Crop oil concentrate	1 % v/v	A		PRE							
	AMS	3 lb/a	A		PRE							
2	Zidua SC	3.25 fl oz/a	A		PRE	100	88	93	100	0	100	89
	Pursuit	4 fl oz/a	A		PRE							
	Enlist One	32 fl oz/a	A		PRE							
	Roundup PowerMax 3	30 fl oz/a	A		PRE							
	Crop oil concentrate	1 % v/v	A		PRE							
	AMS	3 lb/a	A		PRE							
3	Verdict	5 fl oz/a	A		PRE	100	63	77	95	0	100	66
	Zidua SC	3.25 fl oz/a	A		PRE							
	Pursuit	4 fl oz/a	A		PRE							
	Roundup PowerMax 3	30 fl oz/a	A		PRE							
	MSO	1 % v/v	A		PRE							
	AMS	3 lb/a	A		PRE							
4	Metribuzin	4 oz/a	A		PRE	100	84	92	100	0	100	88
	Zidua SC	3.25 fl oz/a	A		PRE							
	Pursuit	4 fl oz/a	A		PRE							
	Enlist One	32 fl oz/a	A		PRE							
	Roundup PowerMax 3	30 fl oz/a	A		PRE							
	Crop oil concentrate	1 % v/v	A		PRE							
	AMS	3 lb/a	A		PRE							
5	Untreated					0	0	0	0	0	0	0
6	Zidua SC	3.25 fl oz/a	B		EPOS	100	85	70	100	0	100	93
	Pursuit	4 fl oz/a	B		EPOS							
	Enlist One	32 fl oz/a	B		EPOS							
	Roundup PowerMax 3	30 fl oz/a	B		EPOS							
	Crop oil concentrate	1 % v/v	B		EPOS							
	AMS	3 lb/a	B		EPOS							
7	Zidua SC	3.25 fl oz/a	B		EPOS	100	100	100	100	0	100	93
	Pursuit	4 fl oz/a	B		EPOS							
	Liberty	36 fl oz/a	B		EPOS							
	Roundup PowerMax 3	30 fl oz/a	B		EPOS							
	AMS	3 lb/a	B		EPOS							
8	Prefix	32 fl oz/a	B		EPOS	100	90	97	100	0	100	82
	Liberty	36 fl oz/a	B		EPOS							
	Roundup PowerMax 3	30 fl oz/a	B		EPOS							
	Crop oil concentrate	1 % v/v	B		EPOS							
	AMS	3 lb/a	B		EPOS							
9	Anthem MAXX	3.25 fl oz/a	B		EPOS	100	93	91	92	0	100	83
	Liberty	36 fl oz/a	B		EPOS							
	Roundup PowerMax 3	30 fl oz/a	B		EPOS							
	AMS	3 lb/a	B		EPOS							
10	Liberty	36 fl oz/a	B		EPOS	100	99	100	91	0	100	98
	AMS	3 lb/a	B		EPOS							

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Investigator: Christy Sprague

Rating Date	Jun-26-2023	Jun-26-2023	Jun-26-2023	Jun-26-2023	Jul-12-2023	Jul-12-2023	Jul-12-2023
Rating Type	control	control	control	control	injury	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code					C, GLXMA		
Pest Code	STEME	TAROF	ERICA	CHEAL		STEME	TAROF
Trt-Eval Interval	21 DA-B	21 DA-B	21 DA-B	21 DA-B	14 DA-C	14 DA-C	14 DA-C
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing							
11	Zidua SC	3.25 fl oz/a	A	PRE		100	95	84	96	5	100	100
	Pursuit	4 fl oz/a	A	PRE								
	Enlist One	32 fl oz/a	A	PRE								
	Roundup PowerMax 3	30 fl oz/a	A	PRE								
	Crop oil concentrate	1 % v/v	A	PRE								
	AMS	3 lb/a	A	PRE								
	Outlook	12 fl oz/a	C	POST								
	Liberty	36 fl oz/a	C	POST								
	Roundup PowerMax 3	30 fl oz/a	C	POST								
	AMS	3 lb/a	C	POST								
12	Fierce EZ	6 fl oz/a	A	PRE		100	90	73	95	6	100	99
	Enlist Duo	4.75 pt/a	A	PRE								
	AMS	3 lb/a	A	PRE								
	Perpetuo	6 fl oz/a	C	POST								
	Enlist Duo	4.75 pt/a	C	POST								
	Surfactant	0.25 % v/v	C	POST								
	AMS	3 lb/a	C	POST								
13	Fierce MTZ	16 fl oz/a	A	PRE		100	80	86	98	7	100	98
	Enlist Duo	4.75 pt/a	A	PRE								
	AMS	3 lb/a	A	PRE								
	Perpetuo	6 fl oz/a	C	POST								
	Enlist Duo	4.75 pt/a	C	POST								
	Surfactant	0.25 % v/v	C	POST								
	AMS	3 lb/a	C	POST								
14	Fierce XLT	4 oz/a	A	PRE		100	91	90	100	7	100	99
	Enlist Duo	4.75 pt/a	A	PRE								
	AMS	3 lb/a	A	PRE								
	Perpetuo	6 fl oz/a	C	POST								
	Enlist Duo	4.75 pt/a	C	POST								
	Surfactant	0.25 % v/v	C	POST								
	AMS	3 lb/a	C	POST								
	LSD P=.05					.	14.7	12.0	10.3	0.9	.	10.0
	Standard Deviation					0.0	10.3	8.4	7.2	0.6	0.0	7.0
	CV					0.0	12.6	10.28	7.96	37.7	0.0	8.35

Excluded replicate 2 in column 6

Could not calculate LSD (% mean diff) for columns 1,4,5,7,9,10,14,15,20,26 because error mean square = 0.

Michigan State University

Weed control strategies using Zidua + Pursuit in no-till Enlist E3 soybean

Trial ID: NTS01-23

Protocol ID: NTS01-23 Location: Campus, C-13 Trial Year: 2023

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Jul-12-2023	Jul-12-2023	Jul-12-2023	Jul-12-2023	Aug-2-2023	Aug-2-2023	Aug-2-2023
Rating Type	control	control	control	control	injury	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code					C, GLXMA		
Pest Code	ERICA	ANGR	CHEAL	AMBEL		TAROF	ERICA
Trt-Eval Interval	14 DA-C	14 DA-C	14 DA-C	14 DA-C	35 DA-C	35 DA-C	35 DA-C
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing	78	93	98	96	0	80	70
1	Zidua SC	3.25 fl oz/a	A	PRE								
	Enlist One	32 fl oz/a	A	PRE								
	Roundup PowerMax 3	30 fl oz/a	A	PRE								
	Crop oil concentrate	1 % v/v	A	PRE								
	AMS	3 lb/a	A	PRE								
2	Zidua SC	3.25 fl oz/a	A	PRE		84	93	99	93	0	80	70
	Pursuit	4 fl oz/a	A	PRE								
	Enlist One	32 fl oz/a	A	PRE								
	Roundup PowerMax 3	30 fl oz/a	A	PRE								
	Crop oil concentrate	1 % v/v	A	PRE								
3	Verdict	5 fl oz/a	A	PRE		75	98	95	96	0	70	69
	Zidua SC	3.25 fl oz/a	A	PRE								
	Pursuit	4 fl oz/a	A	PRE								
	Roundup PowerMax 3	30 fl oz/a	A	PRE								
	MSO	1 % v/v	A	PRE								
4	AMS	3 lb/a	A	PRE								
	Metribuzin	4 oz/a	A	PRE		84	99	100	100	0	83	80
	Zidua SC	3.25 fl oz/a	A	PRE								
	Pursuit	4 fl oz/a	A	PRE								
	Enlist One	32 fl oz/a	A	PRE								
5	Roundup PowerMax 3	30 fl oz/a	A	PRE								
	Crop oil concentrate	1 % v/v	A	PRE								
	AMS	3 lb/a	A	PRE								
	Untreated					0	0	0	0	0	0	0
	Zidua SC	3.25 fl oz/a	B	EPOS		92	100	100	100	0	85	91
6	Pursuit	4 fl oz/a	B	EPOS								
	Enlist One	32 fl oz/a	B	EPOS								
	Roundup PowerMax 3	30 fl oz/a	B	EPOS								
	Crop oil concentrate	1 % v/v	B	EPOS								
	AMS	3 lb/a	B	EPOS								
7	Zidua SC	3.25 fl oz/a	B	EPOS		94	100	100	96	0	88	84
	Pursuit	4 fl oz/a	B	EPOS								
	Liberty	36 fl oz/a	B	EPOS								
	Roundup PowerMax 3	30 fl oz/a	B	EPOS								
	AMS	3 lb/a	B	EPOS								
8	Prefix	32 fl oz/a	B	EPOS		90	100	100	100	0	73	71
	Liberty	36 fl oz/a	B	EPOS								
	Roundup PowerMax 3	30 fl oz/a	B	EPOS								
	Crop oil concentrate	1 % v/v	B	EPOS								
	AMS	3 lb/a	B	EPOS								
9	Anthem MAXX	3.25 fl oz/a	B	EPOS		82	100	86	90	0	78	81
	Liberty	36 fl oz/a	B	EPOS								
	Roundup PowerMax 3	30 fl oz/a	B	EPOS								
	AMS	3 lb/a	B	EPOS								
	Liberty	36 fl oz/a	B	EPOS		91	94	81	99	0	80	81
10	AMS	3 lb/a	B	EPOS								

Excluded replicate 2 in column 6

Could not calculate LSD (% mean diff) for columns 1,4,5,7,9,10,14,15,20,26 because error mean square = 0.

Michigan State University

Weed control strategies using Zidua + Pursuit in no-till Enlist E3 soybean

Trial ID: NTS01-23

Protocol ID: NTS01-23 Location: Campus, C-13 Trial Year: 2023

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Jul-12-2023	Jul-12-2023	Jul-12-2023	Jul-12-2023	Aug-2-2023	Aug-2-2023	Aug-2-2023
Rating Type	control	control	control	control	injury	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code	C, GLXMA						
Pest Code	ERICA	ANGR	CHEAL	AMBEL		TAROF	ERICA
Trt-Eval Interval	14 DA-C	14 DA-C	14 DA-C	14 DA-C	35 DA-C	35 DA-C	35 DA-C
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing							
11	Zidua SC	3.25	fl oz/a	A	PRE	100	100	100	100	0	99	100
	Pursuit	4	fl oz/a	A	PRE							
	Enlist One	32	fl oz/a	A	PRE							
	Roundup PowerMax 3	30	fl oz/a	A	PRE							
	Crop oil concentrate	1	% v/v	A	PRE							
	AMS	3	lb/a	A	PRE							
	Outlook	12	fl oz/a	C	POST							
	Liberty	36	fl oz/a	C	POST							
	Roundup PowerMax 3	30	fl oz/a	C	POST							
	AMS	3	lb/a	C	POST							
12	Fierce EZ	6	fl oz/a	A	PRE	91	100	100	100	0	96	99
	Enlist Duo	4.75	pt/a	A	PRE							
	AMS	3	lb/a	A	PRE							
	Perpetuo	6	fl oz/a	C	POST							
	Enlist Duo	4.75	pt/a	C	POST							
	Surfactant	0.25	% v/v	C	POST							
	AMS	3	lb/a	C	POST							
13	Fierce MTZ	16	fl oz/a	A	PRE	95	100	100	100	0	99	98
	Enlist Duo	4.75	pt/a	A	PRE							
	AMS	3	lb/a	A	PRE							
	Perpetuo	6	fl oz/a	C	POST							
	Enlist Duo	4.75	pt/a	C	POST							
	Surfactant	0.25	% v/v	C	POST							
	AMS	3	lb/a	C	POST							
14	Fierce XLT	4	oz/a	A	PRE	97	100	100	100	0	97	100
	Enlist Duo	4.75	pt/a	A	PRE							
	AMS	3	lb/a	A	PRE							
	Perpetuo	6	fl oz/a	C	POST							
	Enlist Duo	4.75	pt/a	C	POST							
	Surfactant	0.25	% v/v	C	POST							
	AMS	3	lb/a	C	POST							
LSD P=.05						9.4	7.0	9.0	8.7	.	10.9	12.4
Standard Deviation						6.6	4.9	6.3	6.1	0.0	7.6	8.7
CV						8.02	5.36	7.01	6.73	0.0	9.61	11.12

Excluded replicate 2 in column 6

Could not calculate LSD (% mean diff) for columns 1,4,5,7,9,10,14,15,20,26 because error mean square = 0.

Michigan State University

Weed control strategies using Zidua + Pursuit in no-till Enlist E3 soybean

Trial ID: NTS01-23

Protocol ID: NTS01-23 Location: Campus, C-13 Trial Year: 2023

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Aug-2-2023	Aug-2-2023	Oct-31-2023	Oct-31-2023
Rating Type	control	control	moisture	yield
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	bu/A, -, -
Crop Type, Code			C, GLXMA	C, GLXMA
Pest Code	ANGR	AMBEL		
Trt-Eval Interval	35 DA-C	35 DA-C	125 DA-C	@13% mois
Number of Decimals	0	0	1	1

Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing	Aug-2-2023 control	Aug-2-2023 control	Oct-31-2023 moisture	Oct-31-2023 yield
1	Zidua SC	3.25 fl oz/a	A		PRE	88	91	17.7	57.9
	Enlist One	32 fl oz/a	A		PRE				
	Roundup PowerMax 3	30 fl oz/a	A		PRE				
	Crop oil concentrate	1 % v/v	A		PRE				
	AMS	3 lb/a	A		PRE				
2	Zidua SC	3.25 fl oz/a	A		PRE	98	93	18.5	60.3
	Pursuit	4 fl oz/a	A		PRE				
	Enlist One	32 fl oz/a	A		PRE				
	Roundup PowerMax 3	30 fl oz/a	A		PRE				
	Crop oil concentrate	1 % v/v	A		PRE				
	AMS	3 lb/a	A		PRE				
3	Verdict	5 fl oz/a	A		PRE	95	86	19.4	56.3
	Zidua SC	3.25 fl oz/a	A		PRE				
	Pursuit	4 fl oz/a	A		PRE				
	Roundup PowerMax 3	30 fl oz/a	A		PRE				
	MSO	1 % v/v	A		PRE				
	AMS	3 lb/a	A		PRE				
4	Metribuzin	4 oz/a	A		PRE	99	99	18.9	61.6
	Zidua SC	3.25 fl oz/a	A		PRE				
	Pursuit	4 fl oz/a	A		PRE				
	Enlist One	32 fl oz/a	A		PRE				
	Roundup PowerMax 3	30 fl oz/a	A		PRE				
	Crop oil concentrate	1 % v/v	A		PRE				
	AMS	3 lb/a	A		PRE				
5	Untreated					0	0	19.5	22.8
6	Zidua SC	3.25 fl oz/a	B		EPOS	98	99	20.3	49.7
	Pursuit	4 fl oz/a	B		EPOS				
	Enlist One	32 fl oz/a	B		EPOS				
	Roundup PowerMax 3	30 fl oz/a	B		EPOS				
	Crop oil concentrate	1 % v/v	B		EPOS				
	AMS	3 lb/a	B		EPOS				
7	Zidua SC	3.25 fl oz/a	B		EPOS	98	93	19.9	51.9
	Pursuit	4 fl oz/a	B		EPOS				
	Liberty	36 fl oz/a	B		EPOS				
	Roundup PowerMax 3	30 fl oz/a	B		EPOS				
	AMS	3 lb/a	B		EPOS				
8	Prefix	32 fl oz/a	B		EPOS	99	98	19.9	52.2
	Liberty	36 fl oz/a	B		EPOS				
	Roundup PowerMax 3	30 fl oz/a	B		EPOS				
	Crop oil concentrate	1 % v/v	B		EPOS				
	AMS	3 lb/a	B		EPOS				
9	Anthem MAXX	3.25 fl oz/a	B		EPOS	96	83	20.8	45.2
	Liberty	36 fl oz/a	B		EPOS				
	Roundup PowerMax 3	30 fl oz/a	B		EPOS				
	AMS	3 lb/a	B		EPOS				
10	Liberty	36 fl oz/a	B		EPOS	0	93	19.0	42.2
	AMS	3 lb/a	B		EPOS				

Excluded replicate 2 in column 6

Could not calculate LSD (% mean diff) for columns 1,4,5,7,9,10,14,15,20,26 because error mean square = 0.

Michigan State University

Weed control strategies using Zidua + Pursuit in no-till Enlist E3 soybean

Trial ID: NTS01-23

Protocol ID: NTS01-23 Location: Campus, C-13 Trial Year: 2023

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Aug-2-2023	Aug-2-2023	Oct-31-2023	Oct-31-2023
Rating Type	control	control	moisture	yield
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	bu/A, -, -
Crop Type, Code			C, GLXMA	C, GLXMA
Pest Code	ANGR	AMBEL		
Trt-Eval Interval	35 DA-C	35 DA-C	125 DA-C	@13% mois
Number of Decimals	0	0	1	1

Trt No.	Treatment Name	Rate Unit	Appl Code	Appl Timing				
11	Zidua SC	3.25 fl oz/a	A	PRE	100	99	19.0	71.6
	Pursuit	4 fl oz/a	A	PRE				
	Enlist One	32 fl oz/a	A	PRE				
	Roundup PowerMax 3	30 fl oz/a	A	PRE				
	Crop oil concentrate	1 % v/v	A	PRE				
	AMS	3 lb/a	A	PRE				
	Outlook	12 fl oz/a	C	POST				
	Liberty	36 fl oz/a	C	POST				
	Roundup PowerMax 3	30 fl oz/a	C	POST				
	AMS	3 lb/a	C	POST				
12	Fierce EZ	6 fl oz/a	A	PRE	99	100	18.2	68.1
	Enlist Duo	4.75 pt/a	A	PRE				
	AMS	3 lb/a	A	PRE				
	Perpetuo	6 fl oz/a	C	POST				
	Enlist Duo	4.75 pt/a	C	POST				
	Surfactant	0.25 % v/v	C	POST				
	AMS	3 lb/a	C	POST				
13	Fierce MTZ	16 fl oz/a	A	PRE	100	100	17.5	66.9
	Enlist Duo	4.75 pt/a	A	PRE				
	AMS	3 lb/a	A	PRE				
	Perpetuo	6 fl oz/a	C	POST				
	Enlist Duo	4.75 pt/a	C	POST				
	Surfactant	0.25 % v/v	C	POST				
	AMS	3 lb/a	C	POST				
14	Fierce XLT	4 oz/a	A	PRE	100	100	18.5	66.9
	Enlist Duo	4.75 pt/a	A	PRE				
	AMS	3 lb/a	A	PRE				
	Perpetuo	6 fl oz/a	C	POST				
	Enlist Duo	4.75 pt/a	C	POST				
	Surfactant	0.25 % v/v	C	POST				
	AMS	3 lb/a	C	POST				
	LSD P=.05				5.2	10.5	1.38	9.61
	Standard Deviation				3.6	7.3	0.96	6.72
	CV				4.33	8.34	5.05	12.16

Excluded replicate 2 in column 6

Could not calculate LSD (% mean diff) for columns 1,4,5,7,9,10,14,15,20,26 because error mean square = 0.