

Weed control strategies using BAS 842 in no-till Enlist E3 soybean

Trial ID: NTS03-24 Study Dir.: Sprague, Stiles
 Conducted: Campus, T-18 Investigator: Christy Sprague

Planting Date: May-13-2024 **Row Spacing:** 30 IN
Variety: P25A16E **No. of Reps:** 4
Population: 150000 S/A **% OM:** 2.8
Soil Type: L loam **pH:** 6.3
Plot Size: 10 X 35 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	POAAN	annual bluegrass	Poa annua
2	STEME	common chickweed	Stellaria media
3	TAROF	dandelion	Taraxacum officinale
4	ERICA	horseweed (marestail)	Erigeron canadensis
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

	A	B
Application Timing:	PRE	EPOS
Date Treated:	May-14-2024	Jun-3-2024
Time Treated:	1:00 PM	11:00 AM
% Cloud Cover:	100	40
Air Temp., Unit:	58 F	68 F
% Relative Humidity:	66	73
Wind Speed/Unit/Dir:	8 MPH NNE	1 MPH SW
Soil Temp, Unit:	60 F	66 F
Leaf Moist/Dew Presence (Y/N):	N	N
Soil Moist:	3	5

Crop Stage at Each Application

	A	B
Crop 1 Name:	GLXMA	GLXMA
Height:		1-2 " (2)
Stage:		VE-VC

Weed Stage at Each Application

	A	B
Weed 1 Name:	POAAN	POAAN
Height:	4-6 " (5)	4-6 " (5)
Stage:	flower	flower
Weed 2 Name:	STEME	STEME
Height:	4-6 " (5)	4-6 " (5)
Stage:	flower	flower
Weed 3 Name:	TAROF	TAROF
Height:	6-12 " (9)	6-12 " (9)
Stage:	flower	flower
Weed 4 Name:	ERICA	ERICA
Height:	2-6 " (4)	2-14 " (8)
Stage:	15-20L	bolt

Weed Density

	1	2	3	4
Date:	May-14-2024	May-14-2024	May-14-2024	May-14-2024
Weed Name:	POAAN	STEME	TAROF	ERICA
Density:	2 FT2	4 FT2	3 FT2	5 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	24.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI
B	CUB	3.8 MPH	AIXR	11003	28.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI

Comments: The horseweed population at this location is resistant to the Group 2 and 9 herbicides.

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Protocol ID: NTS03-24 Location: Campus, T-18 Trial Year: 2024

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	May-28-2024	May-28-2024	May-28-2024	May-28-2024	May-28-2024	Jun-4-2024				
Rating Type	injury	control	control	control	control	injury				
Rating Unit	%	%	%	%	%	%				
Crop Type, Code	C, GLXMA					C, GLXMA				
Pest Code		POAAN	STEME	TAROF	ERICA					
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	21 DA-A				
Number of Decimals	0	0	0	0	0	0				
Trt Treatment	Rate	Appl	Appl							
No. Name	Rate Unit	Code	Timing							
1	Zidua SC	3.25 fl oz/a	A	PRE	0	100	100	74	71	0
	Enlist One	32 fl oz/a	A	PRE						
	Roundup PowerMax 3	30 fl oz/a	A	PRE						
	AMS	3 lb/a	A	PRE						
2	BAS 842	6 fl oz/a	A	PRE	0	100	100	71	75	0
	Enlist One	32 fl oz/a	A	PRE						
	Roundup PowerMax 3	30 fl oz/a	A	PRE						
	AMS	3 lb/a	A	PRE						
3	Verdict	5 fl oz/a	A	PRE	0	100	100	97	99	0
	BAS 842	6 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	0	100	100	74	53	0
	BAS 842	6 fl oz/a	A	PRE						
	Roundup PowerMax 3	30 fl oz/a	A	PRE						
	AMS	3 lb/a	A	PRE						
5	Untreated				0	0	0	0	0	0
6	BAS 842	6 fl oz/a	B	EPOS	0	0	0	0	0	0
	Enlist One	32 fl oz/a	B	EPOS						
	Roundup PowerMax 3	30 fl oz/a	B	EPOS						
	AMS	3 lb/a	B	EPOS						
LSD P=.05					.	.	.	6.4	6.6	.
Standard Deviation					0.0	0.0	0.0	4.2	4.4	0.0
CV					0.0	0.0	0.0	8.03	8.89	0.0

Could not calculate LSD (% mean diff) or mean separation letters for columns 1,2,3,6,7,8,11,12,13,16,17,20 because error variance is 0. Mean separation letters are 'na' (not applicable) when error variance is 0

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Investigator: Christy Sprague

Rating Date	Jun-4-2024	Jun-4-2024	Jun-4-2024	Jun-4-2024	Jun-11-2024	Jun-11-2024	Jun-11-2024
Rating Type	control	control	control	control	injury	control	control
Rating Unit	%	%	%	%	%	%	%
Crop Type, Code	C, POAAN	C, STEME	C, TAROF	C, ERICA	C, GLXMA		
Pest Code						POAAN	STEME
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	21 DA-A	28 DA-A	28 DA-A	28 DA-A
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing							
1	Zidua SC	3.25 fl oz/a	A	PRE		100	100	75	85	0	100	100
	Enlist One	32 fl oz/a	A	PRE								
	Roundup PowerMax 3	30 fl oz/a	A	PRE								
	AMS	3 lb/a	A	PRE								
2	BAS 842	6 fl oz/a	A	PRE		100	100	75	86	0	100	100
	Enlist One	32 fl oz/a	A	PRE								
	Roundup PowerMax 3	30 fl oz/a	A	PRE								
	AMS	3 lb/a	A	PRE								
3	Verdict	5 fl oz/a	A	PRE		100	100	91	94	0	100	100
	BAS 842	6 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	100	76	52	0	100	100
	BAS 842	6 fl oz/a	A	PRE								
	Roundup PowerMax 3	30 fl oz/a	A	PRE								
	AMS	3 lb/a	A	PRE								
5	Untreated					0	0	0	0	0	0	0
6	BAS 842	6 fl oz/a	B	EPOS		0	0	10	15	7	100	100
	Enlist One	32 fl oz/a	B	EPOS								
	Roundup PowerMax 3	30 fl oz/a	B	EPOS								
	AMS	3 lb/a	B	EPOS								
	LSD P=.05					.	.	6.8	10.6	.	.	.
	Standard Deviation					0.0	0.0	4.5	7.0	0.0	0.0	0.0
	CV					0.0	0.0	8.29	12.75	0.0	0.0	0.0

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Investigator: Christy Sprague

Rating Date	Jun-11-2024	Jun-11-2024	Jun-11-2024	Jun-25-2024	Jun-25-2024	Jun-25-2024	Jul-9-2024				
Rating Type	control	control	control	injury	control	control	injury				
Rating Unit	%	%	%	%	%	%	%				
Crop Type, Code				C, GLXMA		C, GLXMA					
Pest Code	TAROF	ERICA	CHEAL		TAROF	ERICA					
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A	42 DA-A	42 DA-A	42 DA-A	56 DA-A				
Number of Decimals	0	0	0	0	0	0	0				
Trt Treatment	Rate	Appl	Appl								
No. Name	Rate Unit	Code	Timing								
1	Zidua SC	3.25 fl oz/a	A	PRE	82	91	100	0	84	86	0
	Enlist One	32 fl oz/a	A	PRE							
	Roundup PowerMax 3	30 fl oz/a	A	PRE							
	AMS	3 lb/a	A	PRE							
2	BAS 842	6 fl oz/a	A	PRE	80	93	100	0	83	94	0
	Enlist One	32 fl oz/a	A	PRE							
	Roundup PowerMax 3	30 fl oz/a	A	PRE							
	AMS	3 lb/a	A	PRE							
3	Verdict	5 fl oz/a	A	PRE	87	93	100	0	80	90	0
	BAS 842	6 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	83	35	100	0	86	43	0
	BAS 842	6 fl oz/a	A	PRE							
	Roundup PowerMax 3	30 fl oz/a	A	PRE							
	AMS	3 lb/a	A	PRE							
5	Untreated				0	0	0	0	0	0	0
6	BAS 842	6 fl oz/a	B	EPOS	73	66	100	0	85	88	0
	Enlist One	32 fl oz/a	B	EPOS							
	Roundup PowerMax 3	30 fl oz/a	B	EPOS							
	AMS	3 lb/a	B	EPOS							
LSD P=.05					4.9	7.9	.	.	4.8	8.2	.
Standard Deviation					3.2	5.2	0.0	0.0	3.2	5.5	0.0
CV					4.83	8.3	0.0	0.0	4.59	8.19	0.0

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Rating Date	Jul-9-2024	Jul-9-2024	Jul-9-2024	Jul-9-2024
Rating Type	control	control	control	control
Rating Unit				
Crop Type, Code				
Pest Code	TAROF	ERICA	ANGR	CHEAL
Trt-Eval Interval	56 DA-A	56 DA-A	56 DA-A	56 DA-A
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Timing				
1	Zidua SC	3.25 fl oz/a	A	PRE		71	79	100	95
	Enlist One	32 fl oz/a	A	PRE					
	Roundup PowerMax 3	30 fl oz/a	A	PRE					
	AMS	3 lb/a	A	PRE					
2	BAS 842	6 fl oz/a	A	PRE		65	86	100	99
	Enlist One	32 fl oz/a	A	PRE					
	Roundup PowerMax 3	30 fl oz/a	A	PRE					
	AMS	3 lb/a	A	PRE					
3	Verdict	5 fl oz/a	A	PRE		54	85	99	100
	BAS 842	6 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		79	20	100	100
	BAS 842	6 fl oz/a	A	PRE					
	Roundup PowerMax 3	30 fl oz/a	A	PRE					
	AMS	3 lb/a	A	PRE					
5	Untreated					0	0	0	0
6	BAS 842	6 fl oz/a	B	EPOS		66	86	100	100
	Enlist One	32 fl oz/a	B	EPOS					
	Roundup PowerMax 3	30 fl oz/a	B	EPOS					
	AMS	3 lb/a	B	EPOS					
	LSD P=.05					11.3	11.0	1.5	6.0
	Standard Deviation					7.5	7.3	1.0	4.0
	CV					13.48	12.27	1.23	4.87

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