

Burndown weed control with Rapidilicil in no-till soybean

Trial ID: NTS02-24 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

Application Timing: A
 PRE
Date Treated: May-14-2024
Time Treated: 12:30 PM
% Cloud Cover: 100
Air Temp., Unit: 58 F
% Relative Humidity: 66
Wind Speed/Unit/Dir: 8 MPH NNE
Soil Temp, Unit: 61 F
Leaf Moist/Dew Presence (Y/N): N
Soil Moist: 3

Crop Stage at Each Application

A
Crop 1 Name: GLXMA
Height:
Stage:

Weed Stage at Each Application

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

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:	1 FT2	3 FT2	4 FT2	4 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

Comments: Horseweed (marestail) at this loaction is Group 2 and Group 9 resistant.

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Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	May-17-2024	May-17-2024	May-17-2024	May-17-2024	May-21-2024	May-21-2024
Rating Type	control	control	control	control	control	control
Rating Unit	%	%	%	%	%	%
Crop Type, Code						
Pest Code	POAAN	STEME	TAROF	ERICA	STEME	TAROF
Trt-Eval Interval	3 DA-A	3 DA-A	3 DA-A	3 DA-A	7 DA-A	7 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing	May-17-2024 control %	May-17-2024 control %	May-17-2024 control %	May-17-2024 control %	May-21-2024 control %	May-21-2024 control %
1	Untreated					0	0	0	0	0	0
2	Roundup PowerMax 3	30 fl oz/a		A	PRE	0	10	10	3	74	25
	AMS	17 lb/100 gal	gal	A	PRE						
3	Enlist One	32 fl oz/a		A	PRE	0	13	13	18	75	50
	Roundup PowerMax 3	30 fl oz/a		A	PRE						
	AMS	17 lb/100 gal	gal	A	PRE						
4	Rapidicil	5 fl oz/a		A	PRE	0	53	41	45	99	88
	Roundup PowerMax 3	30 fl oz/a		A	PRE						
	Crop oil concentrate	1 % v/v		A	PRE						
	AMS	17 lb/100 gal	gal	A	PRE						
5	Rapidicil	5 fl oz/a		A	PRE	0	48	40	53	99	95
	Metribuzin	6 oz/a		A	PRE						
	Roundup PowerMax 3	30 fl oz/a		A	PRE						
	Crop oil concentrate	1 % v/v		A	PRE						
	AMS	17 lb/100 gal	gal	A	PRE						
6	Rapidicil	5 fl oz/a		A	PRE	0	55	48	50	100	93
	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	17 lb/100 gal	gal	A	PRE						
7	Rapidicil	5 fl oz/a		A	PRE	0	53	53	50	95	96
	Fierce EZ	6 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	17 lb/100 gal	gal	A	PRE						
8	Rapidicil	5 fl oz/a		A	PRE	0	58	54	55	100	90
	Fierce MTZ	16 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	17 lb/100 gal	gal	A	PRE						
9	Roundup PowerMax 3	30 fl oz/a		A	PRE	0	18	18	5	79	30
	MSO	1 % v/v		A	PRE						
	AMS	17 lb/100 gal	gal	A	PRE						
	LSD P=.05					.	9.6	9.6	9.4	6.6	9.8
	Standard Deviation					0.0	6.5	6.6	6.5	4.5	6.7
	CV					0.0	19.31	21.63	20.99	5.67	10.68

Could not calculate LSD (% mean diff) or mean separation letters for columns 1,8,9,10,13,14,17,20 because error variance is 0. Mean separation letters are 'na' (not applicable) when error variance is 0

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Rating Date	May-21-2024	May-28-2024	May-28-2024	May-28-2024	May-28-2024	May-28-2024
Rating Type	control	injury	control	control	control	control
Rating Unit	%	%	%	%	%	%
Crop Type, Code	C, GLXMA					
Pest Code	ERICA		POAAN	STEME	TAROF	ERICA
Trt-Eval Interval	7 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing	May-21-2024 control %	May-28-2024 injury %	May-28-2024 control %	May-28-2024 control %	May-28-2024 control %	May-28-2024 control %
1	Untreated					0	0	0	0	0	0
2	Roundup PowerMax 3	30 fl oz/a		A	PRE	23	0	100	100	74	20
	AMS	17 lb/100 gal	gal	A	PRE						
3	Enlist One	32 fl oz/a		A	PRE	70	0	100	100	64	79
	Roundup PowerMax 3	30 fl oz/a		A	PRE						
	AMS	17 lb/100 gal	gal	A	PRE						
4	Rapidicil	5 fl oz/a		A	PRE	77	0	100	100	89	56
	Roundup PowerMax 3	30 fl oz/a		A	PRE						
	Crop oil concentrate	1 % v/v		A	PRE						
	AMS	17 lb/100 gal	gal	A	PRE						
5	Rapidicil	5 fl oz/a		A	PRE	83	0	100	100	86	86
	Metribuzin	6 oz/a		A	PRE						
	Roundup PowerMax 3	30 fl oz/a		A	PRE						
	Crop oil concentrate	1 % v/v		A	PRE						
	AMS	17 lb/100 gal	gal	A	PRE						
6	Rapidicil	5 fl oz/a		A	PRE	79	0	100	100	96	90
	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	17 lb/100 gal	gal	A	PRE						
7	Rapidicil	5 fl oz/a		A	PRE	76	0	100	100	95	88
	Fierce EZ	6 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	17 lb/100 gal	gal	A	PRE						
8	Rapidicil	5 fl oz/a		A	PRE	85	0	100	100	93	95
	Fierce MTZ	16 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	17 lb/100 gal	gal	A	PRE						
9	Roundup PowerMax 3	30 fl oz/a		A	PRE	25	0	100	100	68	20
	MSO	1 % v/v		A	PRE						
	AMS	17 lb/100 gal	gal	A	PRE						
	LSD P=.05					8.0	.	.	.	12.1	11.3
	Standard Deviation					5.5	0.0	0.0	0.0	8.3	7.8
	CV					9.59	0.0	0.0	0.0	11.23	13.07

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Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Jun-11-2024	Jun-11-2024	Jun-11-2024	Jun-11-2024	Jun-25-2024	Jun-25-2024
Rating Type	injury	control	control	control	injury	control
Rating Unit	%	%	%	%	%	%
Crop Type, Code	C, GLXMA			C, GLXMA		
Pest Code		STEME	TAROF	ERICA		TAROF
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A	28 DA-A	42 DA-A	42 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing	Jun-11-2024 injury %	Jun-11-2024 control %	Jun-11-2024 control %	Jun-11-2024 control %	Jun-25-2024 injury %	Jun-25-2024 control %
1	Untreated					0	0	0	0	0	0
2	Roundup PowerMax 3	30 fl oz/a		A	PRE	0	100	91	30	0	88
	AMS	17 lb/100 gal	gal	A	PRE						
3	Enlist One	32 fl oz/a		A	PRE	0	100	82	95	0	82
	Roundup PowerMax 3	30 fl oz/a		A	PRE						
	AMS	17 lb/100 gal	gal	A	PRE						
4	Rapidicil	5 fl oz/a		A	PRE	0	100	86	45	0	73
	Roundup PowerMax 3	30 fl oz/a		A	PRE						
	Crop oil concentrate	1 % v/v		A	PRE						
	AMS	17 lb/100 gal	gal	A	PRE						
5	Rapidicil	5 fl oz/a		A	PRE	0	100	73	73	0	30
	Metribuzin	6 oz/a		A	PRE						
	Roundup PowerMax 3	30 fl oz/a		A	PRE						
	Crop oil concentrate	1 % v/v		A	PRE						
	AMS	17 lb/100 gal	gal	A	PRE						
6	Rapidicil	5 fl oz/a		A	PRE	0	100	94	91	0	86
	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	17 lb/100 gal	gal	A	PRE						
7	Rapidicil	5 fl oz/a		A	PRE	0	100	93	91	0	90
	Fierce EZ	6 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	17 lb/100 gal	gal	A	PRE						
8	Rapidicil	5 fl oz/a		A	PRE	0	100	82	93	0	68
	Fierce MTZ	16 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	17 lb/100 gal	gal	A	PRE						
9	Roundup PowerMax 3	30 fl oz/a		A	PRE	0	100	82	35	0	89
	MSO	1 % v/v		A	PRE						
	AMS	17 lb/100 gal	gal	A	PRE						
	LSD P=.05					.	.	7.6	11.6	.	11.6
	Standard Deviation					0.0	0.0	5.2	7.9	0.0	7.9
	CV					0.0	0.0	6.91	12.91	0.0	11.8

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Investigator: Christy Sprague

Rating Date	Jun-25-2024	Jul-9-2024	Jul-9-2024	Jul-9-2024	Jul-9-2024	Jul-9-2024
Rating Type	control	injury	control	control	control	control
Rating Unit	%	%	%	%	%	%
Crop Type, Code	C, GLXMA					
Pest Code	ERICA		TAROF	ERICA	ANGR	CHEAL
Trt-Eval Interval	42 DA-A	56 DA-A	56 DA-A	56 DA-A	56 DA-A	56 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing	Jun-25-2024 control %	Jul-9-2024 injury %	Jul-9-2024 control %	Jul-9-2024 control %	Jul-9-2024 control %	Jul-9-2024 control %
1	Untreated					0	0	0	0	0	0
2	Roundup PowerMax 3	30 fl oz/a		A	PRE	30	0	83	23	0	0
	AMS	17 lb/100 gal	gal	A	PRE						
3	Enlist One	32 fl oz/a		A	PRE	85	0	75	78	0	0
	Roundup PowerMax 3	30 fl oz/a		A	PRE						
	AMS	17 lb/100 gal	gal	A	PRE						
4	Rapidicil	5 fl oz/a		A	PRE	43	0	84	25	0	0
	Roundup PowerMax 3	30 fl oz/a		A	PRE						
	Crop oil concentrate	1 % v/v		A	PRE						
	AMS	17 lb/100 gal	gal	A	PRE						
5	Rapidicil	5 fl oz/a		A	PRE	74	0	3	63	99	93
	Metribuzin	6 oz/a		A	PRE						
	Roundup PowerMax 3	30 fl oz/a		A	PRE						
	Crop oil concentrate	1 % v/v		A	PRE						
	AMS	17 lb/100 gal	gal	A	PRE						
6	Rapidicil	5 fl oz/a		A	PRE	86	0	83	75	0	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	17 lb/100 gal	gal	A	PRE						
7	Rapidicil	5 fl oz/a		A	PRE	90	0	83	84	99	96
	Fierce EZ	6 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	17 lb/100 gal	gal	A	PRE						
8	Rapidicil	5 fl oz/a		A	PRE	91	0	61	86	100	100
	Fierce MTZ	16 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	17 lb/100 gal	gal	A	PRE						
9	Roundup PowerMax 3	30 fl oz/a		A	PRE	35	0	78	25	0	0
	MSO	1 % v/v		A	PRE						
	AMS	17 lb/100 gal	gal	A	PRE						
	LSD P=.05					10.7	.	10.3	18.3	1.8	5.6
	Standard Deviation					7.4	0.0	7.0	12.5	1.2	3.8
	CV					12.44	0.0	11.56	24.65	3.64	11.95

Could not calculate LSD (% mean diff) or mean separation letters for columns 1,8,9,10,13,14,17,20 because error variance is 0. Mean separation letters are 'na' (not applicable) when error variance is 0