

Burndown effectiveness of Gramoxone Magnum in no-till soybean

Trial ID: NTS02-19 Study Dir.: Sprague, Powell, Stiles
 Conducted: Campus, C-13 Investigator: Christy Sprague

Planting Date: Jun-3-2019 **Row Spacing:** 30 IN
Variety: Asgrow AG26X8 **No. of Reps:** 4
Population: 156000 seeds/A **% OM:** 3.2
Soil Type: CL clay loam **pH:** 6.9
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Standing corn stalks
Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	STEME	chickweed, common	Stellaria media
2	TAROF	dandelion	Taraxacum officinale
3	ERICA	horseweed	Conyza canadensis
4	CHEAL	lambsquarters, common	Chenopodium album
5	AMBEL	ragweed, common	Ambrosia artemisiifolia
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

Application Timing: A PRE
Date Treated: May-27-2019
Time Treated: 9:10 AM
% Cloud Cover: 5
Air Temp., Unit: 63 F
% Relative Humidity: 71
Wind Speed/Unit/Dir: 5 mph E
Soil Temp, Unit: 62 F
Leaf Moist/Dew Presence (Y/N): 4
Soil Moist: 4

Crop Stage at Each Application

A
Crop 1 Name: GLXMA
Height:
Stage:

Weed Stage at Each Application

A
Weed 1 Name: STEME
Height: 2-3 " (2)
Stage: flower
Weed 2 Name: TAROF
Height: 8-12 " (10)
Stage: flower
Weed 3 Name: ERICA
Height: 3-6 " (4.5)
Stage: bolt
Weed 4 Name: CHEAL
Height: 2-3 " (2)
Stage: 4-8L
Weed 5 Name: AMBEL
Height: 1-2 " (2)
Stage: 2-6L

Weed Density

	1	2	3	4	5	6
Date:	May-27-2019	May-27-2019	May-27-2019	May-27-2019	May-27-2019	May-27-2019
Weed Name:	STEME	TAROF	ERICA	CHEAL	AMBEL	
Density:	8 ft2	1 ft2	1 ft2	1 ft2	2 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 "	20 "	100 "	19 GPA	WATER	30 psi

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Comments:

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Pest Code					STEME	ERICA	CHEAL	AMBEL	STEME	
Crop Type, Code					Jun-3-2019	Jun-3-2019	Jun-3-2019	Jun-3-2019	Jun-10-2019	
Rating Date					control	control	control	control	control	
Rating Type					percent	percent	percent	percent	percent	
Rating Unit					7 DA-A	7 DA-A	7 DA-A	7 DA-A	14 DA-A	
Trt-Eval Interval					0	0	0	0	0	
Number of Decimals										
Trt Treatment	Form	Form	Rate	Appl						
No. Name	Conc	Type	Rate	Unit	Timing	Code				
1 Gramoxone	3 L		1.78 pt/a		PREPLANT A		100	99	100	100
1 Surfactant	L		0.25 % v/v		PREPLANT A					
2 Gramoxone Magnum	3.3 L		4 pt/a		PREPLANT A		99	100	100	100
2 Surfactant	L		0.25 % v/v		PREPLANT A					
3 Gramoxone Magnum	3.3 L		5 pt/a		PREPLANT A		100	100	100	99
3 Surfactant	L		0.25 % v/v		PREPLANT A					
4 Untreated							0	0	0	0
5 Metribuzin	75 WG		6 oz/a		PREPLANT A		100	100	100	100
5 Gramoxone Magnum	3.3 L		4 pt/a		PREPLANT A					
5 Surfactant	L		0.25 % v/v		PREPLANT A					
6 Authority MTZ	45 WG		16 oz/a		PREPLANT A		100	100	100	100
6 Gramoxone Magnum	3.3 L		4 pt/a		PREPLANT A					
6 Surfactant	L		0.25 % v/v		PREPLANT A					
LSD P=.05							0.9	1.5	.	0.9
Standard Deviation							0.6	1.0	0.0	0.6
CV							0.74	1.23	0.0	0.74

Could not calculate LSD (% mean diff) for columns 3,4,16 because error mean square = 0.

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Pest Code		TAROF	ERICA	CHEAL	AMBEL	GLXMA
Crop Type, Code		Jun-10-2019	Jun-10-2019	Jun-10-2019	Jun-10-2019	Jun-24-2019
Rating Date		control	control	control	control	injury
Rating Type		percent	percent	percent	percent	percent
Rating Unit		14 DA-A	14 DA-A	14 DA-A	14 DA-A	28 DA-A
Trt-Eval Interval		0	0	0	0	0
Number of Decimals						
Trt Treatment	Form Form	Rate	Appl	Appl		
No. Name	Conc Type	Rate Unit	Timing	Code		
1 Gramoxone	3 L	1.78 pt/a	PREPLANT A		43	100
1 Surfactant	L	0.25 % v/v	PREPLANT A			95
						96
2 Gramoxone Magnum	3.3 L	4 pt/a	PREPLANT A		51	99
2 Surfactant	L	0.25 % v/v	PREPLANT A			100
						100
3 Gramoxone Magnum	3.3 L	5 pt/a	PREPLANT A		60	100
3 Surfactant	L	0.25 % v/v	PREPLANT A			100
						100
4 Untreated					0	0
						0
5 Metribuzin	75 WG	6 oz/a	PREPLANT A		65	100
5 Gramoxone Magnum	3.3 L	4 pt/a	PREPLANT A			100
5 Surfactant	L	0.25 % v/v	PREPLANT A			100
						100
6 Authority MTZ	45 WG	16 oz/a	PREPLANT A		78	100
6 Gramoxone Magnum	3.3 L	4 pt/a	PREPLANT A			100
6 Surfactant	L	0.25 % v/v	PREPLANT A			100
						100
LSD P=.05					20.9	1.5
Standard Deviation					13.8	1.0
CV					28.03	1.23
						6.2
						4.1
						4.4
						2.9
						1.1
						172.48

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Pest Code	STEME	TAROF	ERICA	CHEAL	AMBEL
Crop Type, Code					
Rating Date	Jun-24-2019	Jun-24-2019	Jun-24-2019	Jun-24-2019	Jun-24-2019
Rating Type	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Timing	Appl Code	STEME	TAROF	ERICA	CHEAL	AMBEL
1	Gramoxone	3 L	L	1.78 pt/a		PREPLANT A		96	20	91	91	75
1	Surfactant	L	L	0.25 % v/v		PREPLANT A						
2	Gramoxone Magnum	3.3 L	L	4 pt/a		PREPLANT A		96	28	100	95	88
2	Surfactant	L	L	0.25 % v/v		PREPLANT A						
3	Gramoxone Magnum	3.3 L	L	5 pt/a		PREPLANT A		99	35	100	99	90
3	Surfactant	L	L	0.25 % v/v		PREPLANT A						
4	Untreated							0	0	0	0	0
5	Metribuzin	75 WG		6 oz/a		PREPLANT A		99	35	100	100	92
5	Gramoxone Magnum	3.3 L	L	4 pt/a		PREPLANT A						
5	Surfactant	L	L	0.25 % v/v		PREPLANT A						
6	Authority MTZ	45 WG		16 oz/a		PREPLANT A		98	43	100	100	95
6	Gramoxone Magnum	3.3 L	L	4 pt/a		PREPLANT A						
6	Surfactant	L	L	0.25 % v/v		PREPLANT A						
	LSD P=.05							3.5	18.2	6.3	12.0	12.4
	Standard Deviation							2.4	12.1	4.2	8.0	8.3
	CV							2.89	45.24	5.14	9.88	11.28

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Pest Code		ANGR	CHEAL	AMBEL	TAROF	ERICA
Crop Type, Code	GLXMA					
Rating Date	Jul-8-2019	Jul-8-2019	Jul-8-2019	Jul-8-2019	Jul-8-2019	Jul-8-2019
Rating Type	injury	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	42 DA-A	42 DA-A	42 DA-A	42 DA-A	42 DA-A	42 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Timing	Appl Code						
1	Gramoxone	3 L		1.78 pt/a		PREPLANT A		0	20	46	53	35	58
1	Surfactant	L		0.25 % v/v		PREPLANT A							
2	Gramoxone Magnum	3.3 L		4 pt/a		PREPLANT A		0	89	68	61	40	95
2	Surfactant	L		0.25 % v/v		PREPLANT A							
3	Gramoxone Magnum	3.3 L		5 pt/a		PREPLANT A		0	99	78	75	48	93
3	Surfactant	L		0.25 % v/v		PREPLANT A							
4	Untreated							0	0	0	0	0	0
5	Metribuzin	75 WG		6 oz/a		PREPLANT A		0	97	95	74	43	100
5	Gramoxone Magnum	3.3 L		4 pt/a		PREPLANT A							
5	Surfactant	L		0.25 % v/v		PREPLANT A							
6	Authority MTZ	45 WG		16 oz/a		PREPLANT A		0	99	100	76	43	100
6	Gramoxone Magnum	3.3 L		4 pt/a		PREPLANT A							
6	Surfactant	L		0.25 % v/v		PREPLANT A							
	LSD P=.05							.	24.3	22.0	23.2	15.9	10.5
	Standard Deviation							0.0	16.1	14.6	15.4	10.6	7.0
	CV							0.0	23.97	22.63	27.23	30.59	9.37