

BAS 851 tank-mixtures with auxin herbicides for burndown weed control in no-till soybean

Trial ID: NTS05-21 Study Dir.: Sprague, Stiles, Powell
 Conducted: Campus, C-13 Investigator: Christy Sprague

Planting Date: 5-18-21 **Row Spacing:** 30 IN
Variety: AG24XF1 **No. of Reps:** 4
Population: 155000 seeds/A **% OM:** 2.9
Soil Type: CL clay loam **pH:** 7.2
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: No-tilled into standing corn stubble
Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	STEME	common chickweed	Stellaria media
2	TAROF	dandelion	Taraxacum officinale
3	CAPBP	shepherd's purse	Capsella bursa-pastoris
4	ERICA	horseweed (marestail)	Erigeron canadensis
5	CHEAL	common lambsquarters	Chenopodium album
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

Application Timing: A
 7 EPP
Date Treated: 5-10-21
Time Treated: 12:05 PM
% Cloud Cover: 90
Air Temp., Unit: 48 F
% Relative Humidity: 46
Wind Speed/Unit/Dir: 5.5 MPH NW
Soil Temp, Unit: 54 F
Leaf Moist/Dew Presence (Y/N): N
Soil Moist: 5

Crop Stage at Each Application

Crop 1 Name: A
 GLXMA
Height:
Stage:

Weed Stage at Each Application

Weed 1 Name: A
 STEME
Height: 5-10 " (7.5)
Stage: MAT
Weed 2 Name: TAROF
Height: 6-10 " (8)
Stage: 8L-10L (9L)
Weed 3 Name: CAPBP
Height: 10-13 " (11.5)
Stage: 8L-12L (10L)
Weed 4 Name: ERICA
Height: 1-5 " (3)
Stage: 6L-10L (8L)
Weed 5 Name: CHEAL
Height: 1-2 " (1)
Stage: 4L

Weed Density

	1	2	3	4	5
Date:	5-10-21	5-10-21	5-10-21	5-10-21	5-10-21
Weed Name:	STEME	TAROF	CAPBP	ERICA	CHEAL
Density:	3.5 FT2	2 FT2	1 FT2	2 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		3.8 MPH	TTI/AIXR	11003	24.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	

Comments: TTI nozzles at 25 PSI; AIXR nozzles at 30 PSI

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 Study Director: Sprague, Stiles, Powell

Pest Code	STEME TAROF CAPBP STEME TAROF CAPBP STEME TAROF CAPBP ERICA STEME TAROF
Crop Type, Code	
Rating Date	5-13-21 5-13-21 5-13-21 5-17-21 5-17-21 5-17-21 5-24-21 5-24-21 5-24-21 5-24-21 5-31-21 5-31-21
Rating Type	control control control control control control control control control control control control
Rating Unit	% % % % % % % % % % % %
Trt-Eval Interval	3 DA-A 3 DA-A 3 DA-A 7 DA-A 7 DA-A 7 DA-A 14 DA-A 14 DA-A 14 DA-A 14 DA-A 21 DA-A 21 DA-A

Trt No.	Treatment Name	Rate Unit	Appl Code	STEME 3 DA-A	TAROF 3 DA-A	CAPBP 3 DA-A	STEME 7 DA-A	TAROF 7 DA-A	CAPBP 7 DA-A	STEME 14 DA-A	TAROF 14 DA-A	CAPBP 14 DA-A	ERICA 14 DA-A	STEME 21 DA-A	TAROF 21 DA-A
12	TTI nozzle		A	28	15	16	26	19	20	100	73	98	100	100	90
12	Engenia	12.8 fl oz/a	A												
12	Roundup PowerMax 3	30 fl oz/a	A												
12	Sentris	8 fl oz/a	A												
12	Induce	0.25 % v/v	A												
13	TTI nozzle		A	34	39	15	66	92	84	100	98	100	100	100	99
13	BAS 85101H	1 fl oz/a	A												
13	Engenia	12.8 fl oz/a	A												
13	Roundup PowerMax 3	30 fl oz/a	A												
13	Sentris	8 fl oz/a	A												
13	MSO	1 % v/v	A												
13	Intact	0.5 % v/v	A												
LSD P=.05				9.7	11.4	7.3	13.6	7.1	6.3	3.8	7.3	6.0	2.5	7.0	10.1
Standard Deviation				6.7	7.9	5.1	9.5	4.9	4.4	2.7	5.1	4.2	1.7	4.9	7.0
CV				25.37	25.85	31.84	17.72	7.84	8.12	3.44	6.83	5.32	1.88	6.74	9.32

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Pest Code	CAPBP	ERICA	C, GLXMA	STEME	TAROF	CAPBP	ERICA	CHEAL	C, GLXMA	C, GLXMA
Crop Type, Code										
Rating Date	5-31-21	5-31-21	6-7-21	6-7-21	6-7-21	6-7-21	6-7-21	6-7-21	6-14-21	6-14-21
Rating Type	control	control	injury	control	control	control	control	control	injury stand	count
Rating Unit	%	%	%	%	%	%	%	%	%	/10 ft
Trt-Eval Interval	21 DA-A	21 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	35 DA-A	35 DA-A

Trt No.	Treatment Name	Rate Unit	Appl Code	21 DA-A	21 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	35 DA-A	35 DA-A
12	TTI nozzle		A	100	100	0	100	90	100	100	100	0	81
12	Engenia	12.8 fl oz/a	A										
12	Roundup PowerMax 3	30 fl oz/a	A										
12	Sentris	8 fl oz/a	A										
12	Induce	0.25 % v/v	A										
13	TTI nozzle		A	100	100	0	100	98	100	100	100	4	83
13	BAS 85101H	1 fl oz/a	A										
13	Engenia	12.8 fl oz/a	A										
13	Roundup PowerMax 3	30 fl oz/a	A										
13	Sentris	8 fl oz/a	A										
13	MSO	1 % v/v	A										
13	Intact	0.5 % v/v	A										
LSD P=.05				4.6	1.9	.	10.7	12.3	4.3	8.2	.	3.9	6.7
Standard Deviation				3.2	1.3	0.0	7.4	8.5	3.0	5.7	0.0	2.7	4.6
CV				3.56	1.45	0.0	10.48	11.65	3.31	6.35	0.0	70.29	5.82

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Pest Code STEME TAROF ERICA
 Crop Type, Code
 Rating Date 6-14-21 6-14-21 6-14-21
 Rating Type control control control
 Rating Unit % % %
 Trt-Eval Interval 35 DA-A 35 DA-A 35 DA-A

Trt No.	Treatment Name	Rate Rate Unit	Appl Code			
1	Untreated			0	0	0
2	AIXR nozzle		A	0	25	80
	2 BAS 85101H	1 fl oz/a	A			
	2 MSO	1 % v/v	A			
	2 AMS	8.5 lb/100 gal	A			
3	AIXR nozzle		A	5	35	80
	3 BAS 85101H	1.4 fl oz/a	A			
	3 MSO	1 % v/v	A			
	3 AMS	8.5 lb/100 gal	A			
4	AIXR nozzle		A	100	76	100
	4 Enlist One	32 fl oz/a	A			
	4 Induce	0.25 % v/v	A			
	4 AMS	8.5 lb/100 gal	A			
5	AIXR nozzle		A	97	97	100
	5 BAS 85101H	1 fl oz/a	A			
	5 Enlist One	32 fl oz/a	A			
	5 MSO	1 % v/v	A			
	5 AMS	8.5 lb/100 gal	A			
6	AIXR nozzle		A	100	97	84
	6 BAS 85101H	1 fl oz/a	A			
	6 Roundup PowerMax 3	30 fl oz/a	A			
	6 MSO	1 % v/v	A			
	6 AMS	8.5 lb/100 gal	A			
7	AIXR nozzle		A	100	96	71
	7 BAS 85101H	1.4 fl oz/a	A			
	7 Roundup PowerMax 3	30 fl oz/a	A			
	7 MSO	1 % v/v	A			
	7 AMS	8.5 lb/100 gal	A			
8	AIXR nozzle		A	100	95	99
	8 Enlist One	32 fl oz/a	A			
	8 Roundup PowerMax 3	30 fl oz/a	A			
	8 Induce	0.25 % v/v	A			
	8 AMS	8.5 lb/100 gal	A			
9	AIXR nozzle		A	100	100	98
	9 BAS 85101H	1 fl oz/a	A			
	9 Enlist One	32 fl oz/a	A			
	9 Roundup PowerMax 3	30 fl oz/a	A			
	9 Induce	0.25 % v/v	A			
	9 AMS	8.5 lb/100 gal	A			
10	TTI nozzle		A	95	63	100
	10 Engenia	12.8 fl oz/a	A			
	10 Sentris	8 fl oz/a	A			
	10 Induce	0.25 % v/v	A			
11	TTI nozzle		A	88	95	100
	11 BAS 85101H	1 fl oz/a	A			
	11 Engenia	12.8 fl oz/a	A			
	11 Sentris	8 fl oz/a	A			
	11 MSO	1 % v/v	A			
	11 Intact	0.5 % v/v	A			

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Pest Code	STEME TAROF ERICA		
Crop Type, Code			
Rating Date	6-14-21	6-14-21	6-14-21
Rating Type	control	control	control
Rating Unit	%	%	%
Trt-Eval Interval	35 DA-A	35 DA-A	35 DA-A

Trt No.	Treatment Name	Rate Unit	Appl Code			
12	TTI nozzle		A	100	94	100
12	Engenia	12.8 fl oz/a	A			
12	Roundup PowerMax 3	30 fl oz/a	A			
12	Sentris	8 fl oz/a	A			
12	Induce	0.25 % v/v	A			
13	TTI nozzle		A	100	95	100
13	BAS 85101H	1 fl oz/a	A			
13	Engenia	12.8 fl oz/a	A			
13	Roundup PowerMax 3	30 fl oz/a	A			
13	Sentris	8 fl oz/a	A			
13	MSO	1 % v/v	A			
13	Intact	0.5 % v/v	A			

LSD P=.05	5.5	11.6	13.7
Standard Deviation	3.9	8.1	9.5
CV	5.09	10.88	11.15