

MSU Weed Science Research Program

Brimstone as an additive to glyphosate + Cadet in soybean

Trial ID: SOY06-11 Study Dir.: Sprague, Powell
Conducted: C-14C Crops Investigator: Christy Sprague

Date Planted: 5/10/2011 Row Spacing: 30 IN
Variety: Pioneer 92M61 No. of Reps: 4
Population: 155,000 % OM: 2.8
Soil Type: Silt Loam pH: 6.8
Plot Size: 10 X 30 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fallow 2010- Installed tile drainage, spring soil finish.
Fertilizer: None at planting.

Crop and Weed Description

Table with 4 columns: Weed, Code, Common Name, Scientific Name. Lists weeds 1-5 and crop 1 with their respective codes and names.

Application Description

A
Application Timing: POST
Date Treated: 6/13/2011
Time Treated: 9:00 AM
% Cloud Cover: 0
Air Temp., Unit: 62 F
% Relative Humidity: 57
Wind Speed/Unit/Dir: 4 mph NW
Soil Temp., Unit: 58 F
Soil/Leaf Surface M: 5 5
Soil Moist (1=w 5=d): 3

Crop Stage at Each Application

A
Crop Name: GLXMA
Height (In.): 3-4"
Stage (L): V2

Weed Stage at Each Application

A
Weed 1 Name: ANGR
Height (In.): 5-8"
Stage (L): 5
Weed 2 Name: CHEAL
Height (In.): 2-3"
Stage (L): 10-18
Weed 3 Name: AMBEL
Height (In.): 1-3"
Stage (L): 4-8
Weed 4 Name: ABUTH
Height (In.): 2-3"
Stage (L): 4-5
Weed 5 Name: SINAR
Height (In.): 6-10"
Stage (L): flowering

Weed Density (plants/sq. ft.)

Table with 5 columns: Weed Name, Density. Lists weeds ANGR, CHEAL, AMBEL, ABUTH, SINAR and their densities.

Application Equipment

Table with 10 columns: Appl, Sprayer, Speed, Nozzle, Nozzle, Nozzle, Nozzle, Boom, Width, GPA, Carrier, PSI. Lists application parameters for treatment A.

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Weed Code		ANGR	CHEAL	AMBEL	ABUTH	SINAR
Crop Code	GLXMA					
Rating Data Type	injury	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Rating Date	6/20/2011	6/20/2011	6/20/2011	6/20/2011	6/20/2011	6/20/2011
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A
# Subsamples, Dec.						

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
1	AMS		WG	8.5	lb/100 gal	POST	A	0.0	96.0	99.0	93.0	92.3	97.5
1	Buccaneer Plus 4	4	L	32	fl oz/a	POST	A						
2	Brimstone		L	1.5	pt/a	POST	A	2.0	98.3	99.0	95.0	99.0	98.3
2	Buccaneer Plus 4	4	L	32	fl oz/a	POST	A						
3	Brimstone		L	3	pt/a	POST	A	5.5	99.0	99.0	96.0	98.5	96.8
3	Buccaneer Plus 4	4	L	32	fl oz/a	POST	A						
4	Brimstone		L	6	pt/a	POST	A	6.8	99.0	99.0	94.0	99.0	97.5
4	Buccaneer Plus 4	4	L	32	fl oz/a	POST	A						
5	AMS		WG	8.5	lb/100 gal	POST	A	20.0	6.3	70.0	47.5	99.0	73.8
5	Cadet	0.91	L	0.9	fl oz/a	POST	A						
5	R-11		L	0.25	% v/v	POST	A						
6	Brimstone		L	1.5	pt/a	POST	A	20.0	8.3	70.0	58.3	99.0	74.7
6	Cadet	0.91	L	0.9	fl oz/a	POST	A						
6	R-11		L	0.25	% v/v	POST	A						
7	Brimstone		L	3	pt/a	POST	A	20.0	5.0	78.3	61.3	99.0	80.8
7	Cadet	0.91	L	0.9	fl oz/a	POST	A						
7	R-11		L	0.25	% v/v	POST	A						
8	Brimstone		L	6	pt/a	POST	A	21.3	3.8	85.0	58.8	99.0	75.0
8	Cadet	0.91	L	0.9	fl oz/a	POST	A						
8	R-11		L	0.25	% v/v	POST	A						
9	Untreated							0.0	0.0	0.0	0.0	0.0	0.0
LSD (P=.05)								2.72	2.23	7.07	5.67	3.42	5.30
Standard Deviation								1.85	1.52	4.71	3.87	2.33	3.62
CV								17.46	3.29	6.07	5.76	2.67	4.69

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code ANGR AMBEL ABUTH SINAR ANGR
Crop Code GLXMA GLXMA
Rating Data Type injury control control control control injury control
Rating Unit percent percent percent percent percent percent percent
Rating Date 6/27/2011 6/27/2011 6/27/2011 6/27/2011 6/27/2011 7/5/2011 7/5/2011
Trt-Eval Interval 14 DA-A 14 DA-A 14 DA-A 14 DA-A 14 DA-A 22 DA-A 22 DA-A
# Subsamples, Dec.

Table with columns: Trt No., Treatment Name, Form Conc, Form Type, Rate, Rate Unit, Grow Stg, Appl Code, and various injury/control percentages for treatments 1-9, including AMS, Brimstone, Cadet, R-11, and Untreated.

Means followed by same letter do not significantly differ (P=.05, LSD)
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Weed Code	AMBEL	ABUTH	SINAR
Crop Code			
Rating Data Type	control	control	control
Rating Unit	percent	percent	percent
Rating Date	7/5/2011	7/5/2011	7/5/2011
Trt-Eval Interval	22 DA-A	22 DA-A	22 DA-A
# Subsamples, Dec.			

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	AMS		WG	8.5	lb/100 gal	POST	A	95.5	98.5	99.0
1	Buccaneer Plus	4	L	32	fl oz/a	POST	A			
2	Brimstone		L	1.5	pt/a	POST	A	97.7	95.0	99.0
2	Buccaneer Plus	4	L	32	fl oz/a	POST	A			
3	Brimstone		L	3	pt/a	POST	A	97.0	97.5	99.0
3	Buccaneer Plus	4	L	32	fl oz/a	POST	A			
4	Brimstone		L	6	pt/a	POST	A	93.5	97.5	99.0
4	Buccaneer Plus	4	L	32	fl oz/a	POST	A			
5	AMS		WG	8.5	lb/100 gal	POST	A	40.0	99.0	89.8
5	Cadet	0.91	L	0.9	fl oz/a	POST	A			
5	R-11		L	0.25	% v/v	POST	A			
6	Brimstone		L	1.5	pt/a	POST	A	43.3	99.0	89.3
6	Cadet	0.91	L	0.9	fl oz/a	POST	A			
6	R-11		L	0.25	% v/v	POST	A			
7	Brimstone		L	3	pt/a	POST	A	52.5	99.0	92.5
7	Cadet	0.91	L	0.9	fl oz/a	POST	A			
7	R-11		L	0.25	% v/v	POST	A			
8	Brimstone		L	6	pt/a	POST	A	52.5	99.0	84.3
8	Cadet	0.91	L	0.9	fl oz/a	POST	A			
8	R-11		L	0.25	% v/v	POST	A			
9	Untreated							0.0	0.0	0.0
LSD (P=.05)								8.70	3.17	10.65
Standard Deviation								5.93	2.16	7.26
CV								9.34	2.48	8.7

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.