

MSU Weed Science Research Program

Weed management systems in dicamba tolerant soybean (DTS)

Trial ID: SOY14-11 Study Dir.: Sprague, Powell
Conducted: C-27S Crops Investigator: Christy Sprague

Date Planted: 6/2/2011 Row Spacing: 30 IN
Variety: Dicamba Tolerant No. of Reps: 4
Population: 150,000 % OM: 2.4
Soil Type: Silt Loam pH: 7.1
Plot Size: 10 X 40 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow, spring soil finish (3 times)
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 (GLXMA SOYBEAN).

Application Description

Table with 4 columns: Application Timing, A, B, C. Lists application details like Date Treated, Time Treated, etc.

Crop Stage at Each Application

Table with 4 columns: Crop Name, A, B, C. Lists crop stages for GLXMA at different applications.

Weed Stage at Each Application

Table with 4 columns: Weed Name, A, B, C. Lists weed stages for ANGR, CHEAL, AMBEL, AMAPO, and ABUTH.

Weed Density (plants/sq. ft.)

Table with 5 columns: Weed Name, 1, 2, 3, 4, 5. Lists weed densities for ANGR, CHEAL, AMBEL, AMAPO, and ABUTH.

Application Equipment

Table with 11 columns: Appl, Sprayer, Speed, Nozzle, Nozzle, Nozzle, Nozzle, Boom, Width, GPA, Carrier, PSI. Lists equipment details for applications A, B, and C.

Comments: Replication 4 was dropped from the trial due to lack of enough soybean seed at planting. The trial was destroyed at soybean flowering, therefore no further evaluations were made.

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Weed Code ANGR AMBEL CHEAL ABUTH
Crop Code GLXMA GLXMA
Rating Data Type injury control control control control injury
Rating Unit percent percent percent percent percent percent
Rating Date 7/6/2011 7/6/2011 7/6/2011 7/6/2011 7/6/2011 7/12/2011
Trt-Eval Interval 34 DA-A 34 DA-A 34 DA-A 34 DA-A 34 DA-A 7 DA-B
# Subsamples, Dec.

Table with columns: Trt No., Treatment Name, Form Conc, Form Type, Rate, Rate Unit, Grow Stg, Appl Code, and injury/control values for various herbicides like Roundup WeatherMax, Clarity, Warrant, Flexstar, Activator 90, and Valor XLT.

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Weed Code	ANGR	AMBEL	CHEAL	ABUTH	
Crop Code	GLXMA				GLXMA
Rating Data Type	injury	control	control	control	injury
Rating Unit	percent	percent	percent	percent	percent
Rating Date	7/6/2011	7/6/2011	7/6/2011	7/6/2011	7/12/2011
Trt-Eval Interval	34 DA-A	34 DA-A	34 DA-A	34 DA-A	7 DA-B
# Subsamples, Dec.					

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
11	Valor XLT	40.3	WG	3	oz/a	PRE	A	15.0	88.0	93.0	97.7	99.0	0.0
11	Clarity	4	L	1	pt/a	MPOS	B						
11	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS	B						
11	Class Act NG		L	2.5	% v/v	MPOS	B						
11	Clarity	4	L	1	pt/a	LPOS	C						
11	Roundup WeatherMax	4.5	SL	22	fl oz/a	LPOS	C						
11	Class Act NG		L	2.5	% v/v	LPOS	C						
12	Valor XLT	40.3	WG	3	oz/a	PRE	A	13.3	89.3	86.7	97.7	96.0	1.0
12	Clarity	4	L	1	pt/a	MPOS	B						
12	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS	B						
12	Class Act NG		L	2.5	% v/v	MPOS	B						
12	Flexstar	1.88	L	1	pt/a	LPOS	C						
12	Roundup WeatherMax	4.5	SL	22	lb ae/a	LPOS	C						
12	Activator 90		L	0.25	% v/v	LPOS	C						
12	Class Act NG		L	2.5	% v/v	LPOS	C						
13	Valor XLT	40.3	WG	3	oz/a	PRE	A	13.3	92.7	88.0	97.7	99.0	0.0
13	Clarity	4	L	1	pt/a	MPOS	B						
13	Warrant	3	L	3	pt/a	MPOS	B						
13	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS	B						
13	Class Act NG		L	2.5	% v/v	MPOS	B						
13	Clarity	4	L	1	pt/a	LPOS	C						
13	Warrant	3	L	3	pt/a	LPOS	C						
13	Roundup WeatherMax	4.5	SL	22	fl oz/a	LPOS	C						
13	Class Act NG		L	2.5	% v/v	LPOS	C						
14	Valor XLT	40.3	WG	3	oz/a	PRE	A	6.7	93.7	89.3	97.7	99.0	0.0
14	Warrant	3	L	3	pt/a	MPOS	B						
14	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS	B						
14	Class Act NG		L	2.5	% v/v	MPOS	B						
14	Flexstar	1.88	L	1	pt/a	LPOS	C						
14	Roundup WeatherMax	4.5	SL	22	fl oz/a	LPOS	C						
14	Activator 90		L	0.25	% v/v	LPOS	C						
14	Class Act NG		L	2.5	% v/v	LPOS	C						
15	Untreated							0.0	0.0	0.0	0.0	0.0	0.0
LSD (P=.05)								5.44	9.16	3.27	1.86	2.49	0.75
Standard Deviation								3.26	5.48	1.96	1.11	1.49	0.45
CV								61.03	12.91	4.6	2.43	3.24	670.82

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 CHEAL AMAPO AMBEL ABUTH
Crop Code
Rating Data Type control control control control control GLXMA
Rating Unit percent percent percent percent percent injury
Rating Date 7/12/2011 7/12/2011 7/12/2011 7/12/2011 7/12/2011 7/19/2011
Trt-Eval Interval 7 DA-B 7 DA-B 7 DA-B 7 DA-B 7 DA-B 14 DA-B
# Subsamples, Dec.

Table with columns: Trt No., Treatment Name, Form Conc, Form Type, Rate, Rate Unit, Grow Stg, Appl Code, ANGR, CHEAL, AMAPO, AMBEL, ABUTH, GLXMA. Rows include treatments like Roundup WeatherMax, Clarity, Warrant, Flexstar, Activator 90, Valor XLT, and Class Act NG across various trial numbers (1-10).

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Table with 7 columns: Weed Code, Crop Code, Rating Data Type, Rating Unit, Rating Date, Trt-Eval Interval, # Subsamples, Dec. and 6 treatment columns (ANGR, CHEAL, AMAPO, AMBEL, ABUTH, GLXMA) with corresponding control percent and injury percent values.

Main data table with 14 columns: Trt No., Treatment Name, Form Conc, Form Type, Rate, Rate Unit, Grow Stg, Appl Code, ANGR, CHEAL, AMAPO, AMBEL, ABUTH, GLXMA. Rows include treatments 11-15 and summary statistics (LSD, Standard Deviation, CV).

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Crop Code
Rating Data Type control control control control control
Rating Unit percent percent percent percent percent
Rating Date 7/19/2011 7/19/2011 7/19/2011 7/19/2011 7/19/2011
Trt-Eval Interval 14 DA-B 14 DA-B 14 DA-B 14 DA-B 14 DA-B
# Subsamples, Dec.

Table with columns: Trt No., Treatment Name, Form Conc, Form Type, Rate, Rate Unit, Grow Stg, Appl Code, ANGR, CHEAL, AMAPO, AMBEL, ABUTH. Rows include treatments like Roundup WeatherMax, Clarity, Warrant, Flexstar, Activator 90, Valor XLT, and Class Act NG across various trial numbers (1-10).

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Rating Date 7/19/2011 7/19/2011 7/19/2011 7/19/2011 7/19/2011
Trt-Eval Interval 14 DA-B 14 DA-B 14 DA-B 14 DA-B 14 DA-B
# Subsamples, Dec.

Table with columns: Trt No., Treatment Name, Form Conc, Form Type, Rate, Rate Unit, Grow Stg, Appl Code, ANGR, CHEAL, AMAPO, AMBEL, ABUTH. Rows include treatments 11-15 and LSD/SD/CV values.

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.