

MSU Weed Science Research Program

Effectiveness and longevity of residual herbicides in soybean

Trial ID: SOY06-10 Study Dir.: Sprague, Powell
Conducted: T-12 East Investigator: Christy Sprague

Date Planted: 5/19/2010 Row Spacing: 30 IN
Variety: Pioneer 92M61 No. of Reps: 4
Population: 155,000 Seeds/Acre % OM: 3.7
Soil Type: Loam pH: 7.0
Plot Size: 10 X 35 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow and spring soil finish
Fertilizer: None

Crop and Weed Description

Table with 4 columns: Weed, Code, Common Name, Scientific Name. Lists weeds like ANGR, CHEAL, AMASS, AMBEL, ABUTH and crop GLXMA (SOYBEAN).

Application Description

Application Timing: PRE
Date Treated: 5/19/2010
Time Treated: 8:15 pm
% Cloud Cover: 15
Air Temp., Unit: 78 F
% Relative Humidity: 29
Wind Speed/Unit/Dir: 0 mph
Soil Temp., Unit: 65 F
Soil/Leaf Surface M: 4 -
Soil Moist (1=w 5=d): 3

Crop Stage at Each Application

Crop Name: GLXMA
Height (In.): -
Stage (L): -

Weed Stage at Each Application

Weed 1 Name: ANGR
Height (In.): -
Stage (L): -
Weed 2 Name: CHEAL
Height (In.): -
Stage (L): -
Weed 3 Name: AMASS
Height (In.): -
Stage (L): -
Weed 4 Name: AMBEL
Height (In.): -
Stage (L): -
Weed 5 Name: ABUTH
Height (In.): -
Stage (L): -

Weed Density (plants/sq. ft.)

Table with 5 columns: Weed Name, Density. Rows for ANGR, CHEAL, AMBEL, ABUTH, AMASS.

Application Equipment

Table with 11 columns: Appl, Sprayer, Speed, Nozzle, Nozzle, Nozzle, Boom, Width, GPA, Carrier, PSI. Row A: Cub, 3.8, AirMix, 11003, 21", 20", 100", 19, water, 28.

Comments: 6/28/10 - Roundup WeatherMax at 22 fl oz/A + AMS at 17 lb/100 gal was applied POST to all treatments

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Weed Code									ANGR	CHEAL	AMASS	AMBEL	ABUTH
Crop Code									GLXMA				
Rating Data Type									injury	control	control	control	control
Rating Unit									percent	percent	percent	percent	percent
Rating Date									6/14/2010	6/14/2010	6/14/2010	6/14/2010	6/14/2010
Trt-Eval Interval									26 DA-A	26 DA-A	26 DA-A	26 DA-A	26 DA-A
# Subsamples, Dec.									0	0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
1	Untreated							0	0	0	0	0	0
2	Valor	51	WG	2	oz/a	PRE	A	3	40	95	98	61	93
3	Valor XLT	40.3	WG	3	oz/a	PRE	A	4	66	99	99	97	99
4	Gangster FR (FirstRate)	84	WG	0.4	oz/a	PRE	A	3	63	99	99	99	99
4	Gangster V (Valor)	51	WG	2	oz/a	PRE	A						
5	V-10233	76	WG	3	oz/a	PRE	A	9	70	95	99	81	96
6	Authority Assist	4	L	5	fl oz/a	PRE	A	1	48	99	99	55	98
7	Prefix	5.29	L	2	pt/a	PRE	A	4	96	97	99	88	66
8	Authority First	70	WG	3.2	oz/a	PRE	A	4	50	99	98	93	99
9	V-10233	76	WG	3.75	oz/a	PRE	A	19	84	96	99	91	98
10	OpTill	68	WG	2	oz/a	PRE	A	8	70	99	99	75	99
11	V-10206	85	WG	1	oz/a	PRE	A	19	79	99	99	98	99
11	Valor XLT	40.3	WG	3	oz/a	PRE	A						
12	Prowl H2O	3.8	L	2.5	pt/a	PRE	A	8	68	89	68	0	64
13	Valor	51	WG	2	oz/a	PRE	A	15	69	96	99	75	96
13	V-10206	85	WG	1	oz/a	PRE	A						
LSD (P=.05)								7.0	10.6	4.6	8.4	11.7	5.2
Standard Deviation								4.9	7.4	3.2	5.9	8.2	3.7
CV								67.53	12.06	3.58	6.59	11.72	4.3

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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Crop Code									GLXMA				
Rating Data Type									injury	control	control	control	control
Rating Unit									percent	percent	percent	percent	percent
Rating Date									6/23/2010	6/23/2010	6/23/2010	6/23/2010	6/23/2010
Trt-Eval Interval									35 DA-A	35 DA-A	35 DA-A	35 DA-A	35 DA-A
# Subsamples, Dec.									0	0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
1	Untreated							0	0	0	0	0	0
2	Valor	51	WG	2	oz/a	PRE	A	0	25	97	99	63	92
3	Valor XLT	40.3	WG	3	oz/a	PRE	A	4	66	99	99	88	99
4	Gangster FR (FirstRate)	84	WG	0.4	oz/a	PRE	A	0	59	99	99	92	99
4	Gangster V (Valor)	51	WG	2	oz/a	PRE	A						
5	V-10233	76	WG	3	oz/a	PRE	A	0	59	96	99	73	94
6	Authority Assist	4	L	5	fl oz/a	PRE	A	0	50	99	99	62	98
7	Prefix	5.29	L	2	pt/a	PRE	A	3	94	84	99	81	55
8	Authority First	70	WG	3.2	oz/a	PRE	A	5	53	99	99	83	99
9	V-10233	76	WG	3.75	oz/a	PRE	A	20	82	92	99	82	98
10	OpTill	68	WG	2	oz/a	PRE	A	10	67	99	99	71	99
11	V-10206	85	WG	1	oz/a	PRE	A	30	77	99	99	93	99
11	Valor XLT	40.3	WG	3	oz/a	PRE	A						
12	Prowl H2O	3.8	L	2.5	pt/a	PRE	A	0	70	99	74	0	81
13	Valor	51	WG	2	oz/a	PRE	A	16	69	99	99	76	99
13	V-10206	85	WG	1	oz/a	PRE	A						
LSD (P=.05)								5.6	11.2	3.5	1.0	7.0	5.5
Standard Deviation								3.9	7.8	2.4	0.7	4.9	3.8
CV								57.38	13.16	2.71	0.79	7.35	4.45

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	# Subsamples, Dec.	GLXMA injury percent 8/2/2010 35 DA-B	ANGR control percent 8/2/2010 35 DA-B	CHEAL control percent 8/2/2010 35 DA-B	AMASS control percent 8/2/2010 35 DA-B	AMBEL control percent 8/2/2010 35 DA-B	ABUTH control percent 8/2/2010 35 DA-B
1	Untreated						18	91	92	89	89	99
2	Valor	51	WG	2	oz/a	PRE A	4	96	99	99	97	99
3	Valor XLT	40.3	WG	3	oz/a	PRE A	0	98	99	99	98	99
4	Gangster FR (FirstRate)	84	WG	0.4	oz/a	PRE A	0	98	99	99	99	99
4	Gangster V (Valor)	51	WG	2	oz/a	PRE A						
5	V-10233	76	WG	3	oz/a	PRE A	0	99	99	99	98	99
6	Authority Assist	4	L	5	fl oz/a	PRE A	5	95	99	97	93	99
7	Prefix	5.29	L	2	pt/a	PRE A	0	98	99	99	98	99
8	Authority First	70	WG	3.2	oz/a	PRE A	0	99	99	99	97	99
9	V-10233	76	WG	3.75	oz/a	PRE A	0	99	99	99	99	99
10	OpTill	68	WG	2	oz/a	PRE A	0	97	99	97	92	99
11	V-10206	85	WG	1	oz/a	PRE A	0	97	99	99	99	99
11	Valor XLT	40.3	WG	3	oz/a	PRE A						
12	Prowl H2O	3.8	L	2.5	pt/a	PRE A	11	99	99	95	78	99
13	Valor	51	WG	2	oz/a	PRE A	0	98	99	99	99	99
13	V-10206	85	WG	1	oz/a	PRE A						
LSD (P=.05)							4.9	3.8	5.9	5.3	9.0	0.4
Standard Deviation							3.4	2.6	4.1	3.7	6.3	0.3
CV							118.18	2.73	4.13	3.78	6.59	0.28

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Weed Code									
Crop Code								GLXMA	GLXMA
Rating Data Type								moisture	yield
Rating Unit								percent	bu/acre
Rating Date								10/18/2010	10/18/2010
Trt-Eval Interval								152 DA-A	at 13% M
# Subsamples, Dec.								1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
1	Untreated							10.2	42.2
2	Valor	51	WG	2	oz/a	PRE	A	10.1	51.6
3	Valor XLT	40.3	WG	3	oz/a	PRE	A	10.2	56.4
4	Gangster FR (FirstRate)	84	WG	0.4	oz/a	PRE	A	10.3	55.0
4	Gangster V (Valor)	51	WG	2	oz/a	PRE	A		
5	V-10233	76	WG	3	oz/a	PRE	A	10.2	58.2
6	Authority Assist	4	L	5	fl oz/a	PRE	A	10.2	51.9
7	Prefix	5.29	L	2	pt/a	PRE	A	10.3	56.8
8	Authority First	70	WG	3.2	oz/a	PRE	A	10.1	53.4
9	V-10233	76	WG	3.75	oz/a	PRE	A	10.2	56.2
10	OpTill	68	WG	2	oz/a	PRE	A	10.3	53.2
11	V-10206	85	WG	1	oz/a	PRE	A	10.2	56.2
11	Valor XLT	40.3	WG	3	oz/a	PRE	A		
12	Prowl H2O	3.8	L	2.5	pt/a	PRE	A	10.0	42.2
13	Valor	51	WG	2	oz/a	PRE	A	10.2	54.4
13	V-10206	85	WG	1	oz/a	PRE	A		

LSD (P=.05)	0.43	5.40
Standard Deviation	0.30	3.78
CV	2.98	7.15

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