

Fall-applied herbicides for weed control in no-till soybean

Trial ID: FSB01-09 Study Dir.: Sprague, Powell
Conducted: C-13 Campus Investigator: Christy Sprague

Date Planted: 5/20/09 Row Spacing: 7.5 IN
Variety: Asgrow 2107 No. of Reps: 4
Population: 200,000 % OM: 3.7
Soil Type: Loam pH: 7.1
Plot Size: 10 X 30 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: No-Till drilled into standing corn stalks
Fertilizer: None

Crop and Weed Description

Table with 4 columns: Weed, Code, Common Name, Scientific Name. Lists weeds 1-4 and crop 1 (Soybeans).

Application Description

Table with 4 columns: Application Timing, Date Treated, Time Treated, % Cloud Cover, Air Temp., % Relative Humidity, Wind Speed/Unit/Dir, Soil Temp., Soil/Leaf Surface M, Soil Moist (1=w 5=d). Rows A, B, C.

Crop Stage at Each Application

Table with 4 columns: Crop Name, Height (In.), Stage (L). Rows A, B, C.

Weed Stage at Each Application

Table with 4 columns: Weed Name, Height (In.), Stage (L). Lists weeds 1-4 across rows A, B, C.

Weed Density (plants/sq. ft.)

Table with 8 columns: Weed Name, Density. Lists weeds TAROF, ERIST, STEME, RUMCR, MELAL, ANGR, AMBEL.

Application Equipment

Table with 12 columns: Appl, Sprayer Type, Speed MPH, Nozzle Type, Nozzle Size, Nozzle Height, Nozzle Spacing, Boom Width, GPA, Carrier, PSI. Rows A, B, C.

Comments: A blanket treatment of Roundup Weathermax at 22 fl oz/A + AMS at 17 lb/100 gal.

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Weed Code	STEME	VERPG	MELAL	TAROF	ERIST	AMBEL	STEME							
Crop Code														
Rating Data Type	control	control	control	control	control	control	control							
Rating Unit	percent	percent	percent	percent	percent	percent	percent							
Rating Date	5/18/09	5/18/09	5/18/09	5/18/09	5/18/09	5/18/09	6/15/09							
Trt-Eval Interval	221 DA-A	221 DA-A	221 DA-A	221 DA-A	221 DA-A	221 DA-A	249 DA-A							
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code							
1	Canopy EX (1.1 oz)							99	99	90	99	99	95	99
1	Classic	25	WG	1	oz/a	E. Fall	A							
1	Express	50	SG	0.15	oz/a	E. Fall	A							
1	2,4-D ester	4	SL	1	pt/a	E. Fall	A							
1	Herbimax (COC)		L	1	% v/v	E. Fall	A							
2	Canopy EX (1.65 oz)							99	99	99	99	99	95	99
2	Classic	25	WG	1.5	oz/a	E. Fall	A							
2	Express	50	SG	0.23	oz/a	E. Fall	A							
2	2,4-D ester	4	SL	1	pt/a	E. Fall	A							
2	Herbimax (COC)		L	1	% v/v	E. Fall	A							
3	Envive (3.5 oz)							99	99	99	99	99	99	99
3	Classic	25	WG	1.28	oz/a	E. Fall	A							
3	Harmony GT	50	SG	0.2	oz/a	E. Fall	A							
3	Valor	51	WG	1.96	oz/a	E. Fall	A							
3	2,4-D ester	4	SL	1	pt/a	E. Fall	A							
3	Herbimax (COC)		L	1	% v/v	E. Fall	A							
4	Roundup PowerMAX	4.5	SL	22	fl oz/a	E. Fall	A	82	96	93	92	89	0	87
4	2,4-D ester	4	SL	1	pt/a	E. Fall	A							
4	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	E. Fall	A							
5	Untreated							0	0	0	0	0	0	0
6	Canopy EX (1.1 oz)							99	99	97	92	97	97	99
6	Classic	25	WG	1	oz/a	L. Fall	B							
6	Express	50	SG	0.15	oz/a	L. Fall	B							
6	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
6	Herbimax (COC)		L	1	% v/v	L. Fall	B							
7	Canopy EX (1.65 oz)							99	99	99	99	99	98	99
7	Classic	25	WG	1.5	oz/a	L. Fall	B							
7	Express	50	SG	0.23	oz/a	L. Fall	B							
7	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
7	Herbimax (COC)		L	1	% v/v	L. Fall	B							
8	Envive (3.5 oz)							99	99	92	99	99	99	99
8	Classic	25	WG	1.28	oz/a	L. Fall	B							
8	Harmony GT	50	SG	0.2	oz/a	L. Fall	B							
8	Valor	51	WG	1.96	oz/a	L. Fall	B							
8	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
8	Herbimax (COC)		L	1	% v/v	L. Fall	B							
9	Roundup PowerMAX	4.5	SL	22	fl oz/a	L. Fall	B	89	99	80	99	99	0	55
9	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
9	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B							
10	Valor	51	WG	2	oz/a	L. Fall	B	99	99	98	82	98	93	87
10	Roundup PowerMAX	4.5	SL	11	fl oz/a	L. Fall	B							
10	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
10	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B							
11	Express	50	SG	0.4	oz/a	L. Fall	B	99	97	92	97	97	0	96
11	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
11	Herbimax (COC)		L	1	% v/v	L. Fall	B							
12	Autumn	10	DF	0.3	oz/a	L. Fall	B	99	94	43	80	99	0	96
12	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
12	Herbimax (COC)		L	1	% v/v	L. Fall	B							
12	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B							
13	IMS + TCM	51	WG	0.476	oz/a	L. Fall	B	99	99	15	99	99	0	92
13	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
13	Herbimax (COC)		L	1	% v/v	L. Fall	B							
13	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B							

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Weed Code	STEME	VERPG	MELAL	TAROF	ERIST	AMBEL	STEME
Crop Code							
Rating Data Type	control	control	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Rating Date	5/18/09	5/18/09	5/18/09	5/18/09	5/18/09	5/18/09	6/15/09
Trt-Eval Interval	221 DA-A	221 DA-A	221 DA-A	221 DA-A	221 DA-A	221 DA-A	249 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	STEME	VERPG	MELAL	TAROF	ERIST	AMBEL	STEME
14	IMS + TCM	51	WG	0.476	oz/a	L. Fall	B	94	99	90	98	97	15	86
14	Roundup PowerMAX	4.5	SL	11	fl oz/a	L. Fall	B							
14	Herbimax (COC)		L	1	% v/v	L. Fall	B							
14	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B							
15	Roundup PowerMAX	4.5	SL	11	fl oz/a	L. Fall	B	91	99	97	94	99	0	80
15	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
15	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B							
16	Roundup PowerMAX	4.5	SL	22	fl oz/a	7 EPP	C	75	60	55	60	60	60	99
16	2,4-D ester	4	SL	1	pt/a	7 EPP	C							
16	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	7 EPP	C							
LSD (P=.05)								7.7	4.4	14.5	10.2	3.9	7.5	12.2
Standard Deviation								5.4	3.1	10.2	7.2	2.7	5.2	8.5
CV								6.1	3.46	13.16	8.25	3.07	11.17	9.95

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Weed Code	VERPG	MELAL	TAROF	ERIST	GLXMA	ANGR	AMBEL							
Crop Code					injury									
Rating Data Type	control	control	control	control	percent	control	control							
Rating Unit	percent	percent	percent	percent	percent	percent	percent							
Rating Date	6/15/09	6/15/09	6/15/09	6/15/09	6/15/09	6/15/09	6/15/09							
Trt-Eval Interval	249 DA-A	249 DA-A	249 DA-A	249 DA-A	249 DA-A	249 DA-A	249 DA-A							
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code							
1	Canopy EX (1.1 oz)							99	90	99	99	0	61	79
1	Classic	25	WG	1	oz/a	E. Fall	A							
1	Express	50	SG	0.15	oz/a	E. Fall	A							
1	2,4-D ester	4	SL	1	pt/a	E. Fall	A							
1	Herbimax (COC)		L	1	% v/v	E. Fall	A							
2	Canopy EX (1.65 oz)							99	99	99	99	0	70	84
2	Classic	25	WG	1.5	oz/a	E. Fall	A							
2	Express	50	SG	0.23	oz/a	E. Fall	A							
2	2,4-D ester	4	SL	1	pt/a	E. Fall	A							
2	Herbimax (COC)		L	1	% v/v	E. Fall	A							
3	Envive (3.5 oz)							99	97	99	98	0	92	94
3	Classic	25	WG	1.28	oz/a	E. Fall	A							
3	Harmony GT	50	SG	0.2	oz/a	E. Fall	A							
3	Valor	51	WG	1.96	oz/a	E. Fall	A							
3	2,4-D ester	4	SL	1	pt/a	E. Fall	A							
3	Herbimax (COC)		L	1	% v/v	E. Fall	A							
4	Roundup PowerMAX	4.5	SL	22	fl oz/a	E. Fall	A	49	96	92	89	0	71	0
4	2,4-D ester	4	SL	1	pt/a	E. Fall	A							
4	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	E. Fall	A							
5	Untreated							0	0	0	0	0	0	0
6	Canopy EX (1.1 oz)							99	99	92	95	0	78	84
6	Classic	25	WG	1	oz/a	L. Fall	B							
6	Express	50	SG	0.15	oz/a	L. Fall	B							
6	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
6	Herbimax (COC)		L	1	% v/v	L. Fall	B							
7	Canopy EX (1.65 oz)							99	99	99	99	0	80	88
7	Classic	25	WG	1.5	oz/a	L. Fall	B							
7	Express	50	SG	0.23	oz/a	L. Fall	B							
7	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
7	Herbimax (COC)		L	1	% v/v	L. Fall	B							
8	Envive (3.5 oz)							99	91	97	99	0	80	97
8	Classic	25	WG	1.28	oz/a	L. Fall	B							
8	Harmony GT	50	SG	0.2	oz/a	L. Fall	B							
8	Valor	51	WG	1.96	oz/a	L. Fall	B							
8	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
8	Herbimax (COC)		L	1	% v/v	L. Fall	B							
9	Roundup PowerMAX	4.5	SL	22	fl oz/a	L. Fall	B	90	98	97	99	0	71	0
9	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
9	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B							
10	Valor	51	WG	2	oz/a	L. Fall	B	98	94	69	99	0	78	81
10	Roundup PowerMAX	4.5	SL	11	fl oz/a	L. Fall	B							
10	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
10	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B							
11	Express	50	SG	0.4	oz/a	L. Fall	B	85	99	94	93	0	88	0
11	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
11	Herbimax (COC)		L	1	% v/v	L. Fall	B							
12	Autumn	10	DF	0.3	oz/a	L. Fall	B	89	63	85	99	0	78	0
12	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
12	Herbimax (COC)		L	1	% v/v	L. Fall	B							
12	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B							
13	IMS + TCM	51	WG	0.476	oz/a	L. Fall	B	98	15	94	96	0	63	0
13	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
13	Herbimax (COC)		L	1	% v/v	L. Fall	B							
13	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B							

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Weed Code	VERPG	MELAL	TAROF	ERIST	GLXMA	ANGR	AMBEL
Crop Code							
Rating Data Type	control	control	control	control	injury	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Rating Date	6/15/09	6/15/09	6/15/09	6/15/09	6/15/09	6/15/09	6/15/09
Trt-Eval Interval	249 DA-A	249 DA-A	249 DA-A	249 DA-A	249 DA-A	249 DA-A	249 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	VERPG	MELAL	TAROF	ERIST	GLXMA	ANGR	AMBEL
14	IMS + TCM	51	WG	0.476	oz/a	L. Fall	B	97	96	99	99	0	68	0
14	Roundup PowerMAX	4.5	SL	11	fl oz/a	L. Fall	B							
14	Herbimax (COC)		L	1	% v/v	L. Fall	B							
14	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B							
15	Roundup PowerMAX	4.5	SL	11	fl oz/a	L. Fall	B	75	98	94	90	0	70	0
15	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
15	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B							
16	Roundup PowerMAX	4.5	SL	22	fl oz/a	7 EPP	C	99	87	97	99	0	78	99
16	2,4-D ester	4	SL	1	pt/a	7 EPP	C							
16	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	7 EPP	C							
LSD (P=.05)								8.7	12.7	11.3	6.9	0.0	16.7	7.3
Standard Deviation								6.1	8.9	7.9	4.8	0.0	11.7	5.1
CV								7.12	10.73	9.01	5.33	0.0	16.63	11.61

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Weed Code						CHEAL	GLXMA	NOTILL	ANGR	AMBEL	GLXMA	GLXMA	
Crop Code						control	injury	control	control	control	moisture	yield	
Rating Data Type						percent	percent	percent	percent	percent	percent	bu/acre	
Rating Unit						6/15/09	7/16/09	7/16/09	7/16/09	7/16/09	10/12/09	10/12/09	
Rating Date						249 DA-A	280 DA-A	280 DA-A	280 DA-A	280 DA-A	368 DA-A	at 13% M	
Trt-Eval Interval													
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
1	Canopy EX (1.1 oz)							99	0	96	99	15.9	76.8
1	Classic	25	WG	1	oz/a	E. Fall	A						
1	Express	50	SG	0.15	oz/a	E. Fall	A						
1	2,4-D ester	4	SL	1	pt/a	E. Fall	A						
1	Herbimax (COC)		L	1	% v/v	E. Fall	A						
2	Canopy EX (1.65 oz)							99	0	97	97	15.9	68.9
2	Classic	25	WG	1.5	oz/a	E. Fall	A						
2	Express	50	SG	0.23	oz/a	E. Fall	A						
2	2,4-D ester	4	SL	1	pt/a	E. Fall	A						
2	Herbimax (COC)		L	1	% v/v	E. Fall	A						
3	Envive (3.5 oz)							99	0	99	98	16.0	76.5
3	Classic	25	WG	1.28	oz/a	E. Fall	A						
3	Harmony GT	50	SG	0.2	oz/a	E. Fall	A						
3	Valor	51	WG	1.96	oz/a	E. Fall	A						
3	2,4-D ester	4	SL	1	pt/a	E. Fall	A						
3	Herbimax (COC)		L	1	% v/v	E. Fall	A						
4	Roundup PowerMAX	4.5	SL	22	fl oz/a	E. Fall	A	78	0	94	98	16.1	73.2
4	2,4-D ester	4	SL	1	pt/a	E. Fall	A						
4	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	E. Fall	A						
5	Untreated							0	0	81	99	16.3	53.7
6	Canopy EX (1.1 oz)							99	0	98	97	16.0	73.8
6	Classic	25	WG	1	oz/a	L. Fall	B						
6	Express	50	SG	0.15	oz/a	L. Fall	B						
6	2,4-D ester	4	SL	1	pt/a	L. Fall	B						
6	Herbimax (COC)		L	1	% v/v	L. Fall	B						
7	Canopy EX (1.65 oz)							99	0	97	96	15.8	77.3
7	Classic	25	WG	1.5	oz/a	L. Fall	B						
7	Express	50	SG	0.23	oz/a	L. Fall	B						
7	2,4-D ester	4	SL	1	pt/a	L. Fall	B						
7	Herbimax (COC)		L	1	% v/v	L. Fall	B						
8	Envive (3.5 oz)							99	0	99	96	15.9	74.3
8	Classic	25	WG	1.28	oz/a	L. Fall	B						
8	Harmony GT	50	SG	0.2	oz/a	L. Fall	B						
8	Valor	51	WG	1.96	oz/a	L. Fall	B						
8	2,4-D ester	4	SL	1	pt/a	L. Fall	B						
8	Herbimax (COC)		L	1	% v/v	L. Fall	B						
9	Roundup PowerMAX	4.5	SL	22	fl oz/a	L. Fall	B	77	0	94	98	16.2	65.8
9	2,4-D ester	4	SL	1	pt/a	L. Fall	B						
9	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B						
10	Valor	51	WG	2	oz/a	L. Fall	B	99	0	97	98	15.7	74.3
10	Roundup PowerMAX	4.5	SL	11	fl oz/a	L. Fall	B						
10	2,4-D ester	4	SL	1	pt/a	L. Fall	B						
10	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B						
11	Express	50	SG	0.4	oz/a	L. Fall	B	86	0	93	98	16.7	67.3
11	2,4-D ester	4	SL	1	pt/a	L. Fall	B						
11	Herbimax (COC)		L	1	% v/v	L. Fall	B						
12	Autumn	10	DF	0.3	oz/a	L. Fall	B	91	0	94	96	16.5	71.7
12	2,4-D ester	4	SL	1	pt/a	L. Fall	B						
12	Herbimax (COC)		L	1	% v/v	L. Fall	B						
12	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B						
13	IMS + TCM	51	WG	0.476	oz/a	L. Fall	B	86	0	94	98	16.0	70.9
13	2,4-D ester	4	SL	1	pt/a	L. Fall	B						
13	Herbimax (COC)		L	1	% v/v	L. Fall	B						
13	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B						

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Weed Code	CHEAL													
Crop Code														
Rating Data Type	control	GLXMA	NOTILL	ANGR	AMBEL	GLXMA	GLXMA							
Rating Unit	percent	injury	control	control	control	moisture	yield							
Rating Date	6/15/09	7/16/09	7/16/09	7/16/09	7/16/09	10/12/09	10/12/09							
Trt-Eval Interval	249 DA-A	280 DA-A	280 DA-A	280 DA-A	280 DA-A	368 DA-A	at 13% M							

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	CHEAL	GLXMA	NOTILL	ANGR	AMBEL	GLXMA	GLXMA
14	IMS + TCM	51	WG	0.476	oz/a	L. Fall	B	97	0	95	98	98	16.3	72.6
14	Roundup PowerMAX	4.5	SL	11	fl oz/a	L. Fall	B							
14	Herbimax (COC)		L	1	% v/v	L. Fall	B							
14	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B							
15	Roundup PowerMAX	4.5	SL	11	fl oz/a	L. Fall	B	83	0	91	98	96	16.1	70.1
15	2,4-D ester	4	SL	1	pt/a	L. Fall	B							
15	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	L. Fall	B							
16	Roundup PowerMAX	4.5	SL	22	fl oz/a	7 EPP	C	99	0	95	99	99	16.1	68.1
16	2,4-D ester	4	SL	1	pt/a	7 EPP	C							
16	Ammonium Sulfate (AMS)		WG	17	lb/100 gal	7 EPP	C							
LSD (P=.05)								11.0	0.0	6.9	2.2	4.7	0.86	5.97
Standard Deviation								7.7	0.0	4.9	1.5	3.3	0.60	4.18
CV								8.89	0.0	5.14	1.55	3.36	3.75	5.89