

Comparison of Postemergence PPO Inhibitors in Soybean

Trial ID: SOY07-08
 Conducted: T-12 Botany

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Date Planted: 5/8/08
 Variety: Pioneer 92M33
 Population: 154,000 seeds/Acre
 Soil Type: Clay Loam
 Plot Size: 10 X 35 FT
 Row Spacing: 30 IN
 No. of Reps: 4
 % OM: 3.3
 pH: 7.2
 Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow, soil finish x2 on 5/8/08
 Fertilizer: None at planting

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	ANGR	mainly foxtail species	SETARIA SP.
2.	AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIFOLIA L.
3.	BRAKA	MUSTARD, WILD	BRASSICA KABER
4.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
5.	AMASS	REDROOT PIGWEED, POWELL AMARANTH	AMARANTHUS SP.
6.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

Application Description

	A	B
Application Timing:	PRE	POST
Date Treated:	5/8/08	6/12/08
Time Treated:	7:30 PM	2:00 PM
% Cloud Cover:	95	90
Air Temp., Unit:	56 F	81 F
% Relative Humidity:	49	56
Wind Speed/Unit/Dir:	6 mph E	5 mph SW
Soil Temp., Unit:	61 F	75 F
Soil/Leaf Surface M:	5 -	4 5
Soil Moist (1=w 5=d):	5	3

Crop Stage at Each Application

	A	B
Crop Name:	GLXMA	GLXMA
Height (In.):	--	6-8
Stage (L):	--	V2

Weed Stage at Each Application

	A	B
Weed 1 Name:	ANGR	ANGR
Height (In.):	--	1-5
Stage (L):	--	2-3
Weed 2 Name:	AMBEL	AMBEL
Height (In.):	--	.5-3
Stage (L):	--	2-6
Weed 3 Name:	BRAKA	BRAKA
Height (In.):	--	4-12
Stage (L):	--	flowering
Weed 4 Name:	CHEAL	CHEAL
Height (In.):	--	.5-3
Stage (L):	--	4-8
Weed 5 Name:	AMASS	AMASS
Height (In.):	--	.5-3
Stage (L):	--	4-8
Weed 6 Name:	ABUTH	ABUTH
Height (In.):	-	-
Stage (L):	-	-

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Weed Density (plants/sq. ft.)

	1	2	3	4	5	6
Date:	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08
Weed Name:	CHEAL	ABUTH	ANGR	BRAKA	AMBEL	AMAPO
Density:	20.875	0.25	113.75	3.75	9.625	0.625

Application Equipment

Appl	Sprayer Type	Speed MPH	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	GPA	Carrier	PSI
A	Cub	3.8	AirMix	11003	24	20	100	19	water	28
B	Cub	3.8	AirMix	11003	23	20	100	19	water	28

Comments: Previous Crop- Fallow

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								ANGR	CHEAL	AMBEL	
								GLXMA			
								injury	control	control	control
								percent	percent	percent	percent
								6/19/08	6/19/08	6/19/08	6/19/08
								42 DA-A	42 DA-A	42 DA-A	42 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Dual II Magnum	7.64	EC	1.33	pt/a	PRE	A	23	70	77	45
1	Cadet	0.91	EC	0.6	fl oz/a	POST	B				
1	Crop Oil Concentrate		L	1	% v/v	POST	B				
2	Cadet	0.91	EC	0.4	fl oz/a	POST	B	20	91	99	92
2	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B				
2	AMS		WG	17	lb/100 gal	POST	B				
3	Dual II Magnum	7.64	EC	1.33	pt/a	PRE	A	18	74	81	65
3	Resource	0.86	L	6	fl oz/a	POST	B				
3	Crop Oil Concentrate		L	1	% v/v	POST	B				
4	Resource	0.86	L	4	fl oz/a	POST	B	21	96	99	95
4	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B				
4	AMS		WG	17	lb/100 gal	POST	B				
5	Dual II Magnum	7.64	EC	1.33	pt/a	PRE	A	25	96	66	99
5	Flexstar	1.88	L	1	pt/a	POST	B				
5	Crop Oil Concentrate		L	1	% v/v	POST	B				
5	AMS		WG	8.5	lb/100 gal	POST	B				
6	Flexstar	1.88	L	12	fl oz/a	POST	B	24	96	99	99
6	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B				
6	AMS		WG	17	lb/100 gal	POST	B				
7	Dual II Magnum	7.64	EC	1.33	pt/a	PRE	A	45	87	63	99
7	Cobra	2	EC	8	fl oz/a	POST	B				
7	Crop Oil Concentrate		L	0.5	% v/v	POST	B				
8	Cobra	2	EC	6	fl oz/a	POST	B	45	94	99	99
8	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B				
8	AMS		WG	17	lb/100 gal	POST	B				
9	Untreated							0	0	0	0
10	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B	8	88	99	90
10	AMS		WG	17	lb/100 gal	POST	B				
LSD (P=.10)								5.9	6.2	6.0	9.7
Standard Deviation								4.9	5.2	5.0	8.1
CV								21.57	6.56	6.43	10.33

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Weed Code	AMAPO	BRAKA	GLXMA	ANGR
Crop Code				
Rating Data Type	control	control	injury	control
Rating Unit	percent	percent	percent	percent
Rating Date	6/19/08	6/19/08	6/26/08	6/26/08
Trt-Eval Interval	42 DA-A	42 DA-A	49 DA-A	49 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code				
1	Dual II Magnum	7.64	EC	1.33	pt/a	PRE	A	98	56	8	82
1	Cadet	0.91	EC	0.6	fl oz/a	POST	B				
1	Crop Oil Concentrate		L	1	% v/v	POST	B				
2	Cadet	0.91	EC	0.4	fl oz/a	POST	B	99	96	16	98
2	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B				
2	AMS		WG	17	lb/100 gal	POST	B				
3	Dual II Magnum	7.64	EC	1.33	pt/a	PRE	A	99	15	8	88
3	Resource	0.86	L	6	fl oz/a	POST	B				
3	Crop Oil Concentrate		L	1	% v/v	POST	B				
4	Resource	0.86	L	4	fl oz/a	POST	B	99	96	12	98
4	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B				
4	AMS		WG	17	lb/100 gal	POST	B				
5	Dual II Magnum	7.64	EC	1.33	pt/a	PRE	A	99	99	6	88
5	Flexstar	1.88	L	1	pt/a	POST	B				
5	Crop Oil Concentrate		L	1	% v/v	POST	B				
5	AMS		WG	8.5	lb/100 gal	POST	B				
6	Flexstar	1.88	L	12	fl oz/a	POST	B	99	99	15	99
6	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B				
6	AMS		WG	17	lb/100 gal	POST	B				
7	Dual II Magnum	7.64	EC	1.33	pt/a	PRE	A	99	99	23	89
7	Cobra	2	EC	8	fl oz/a	POST	B				
7	Crop Oil Concentrate		L	0.5	% v/v	POST	B				
8	Cobra	2	EC	6	fl oz/a	POST	B	99	99	24	98
8	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B				
8	AMS		WG	17	lb/100 gal	POST	B				
9	Untreated							0	0	0	0
10	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B	99	97	10	95
10	AMS		WG	17	lb/100 gal	POST	B				

LSD (P=.10)	0.8	7.7	4.8	4.1
Standard Deviation	0.6	6.4	4.0	3.4
CV	0.71	8.42	32.61	4.08

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Weed Code	CHEAL	AMAPO	AMBEL	ABUTH
Crop Code				
Rating Data Type	control	control	control	control
Rating Unit	percent	percent	percent	percent
Rating Date	6/26/08	6/26/08	6/26/08	6/26/08
Trt-Eval Interval	49 DA-A	49 DA-A	49 DA-A	49 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code				
1	Dual II Magnum	7.64	EC	1.33	pt/a	PRE	A	75	99	34	99
1	Cadet	0.91	EC	0.6	fl oz/a	POST	B				
1	Crop Oil Concentrate		L	1	% v/v	POST	B				
2	Cadet	0.91	EC	0.4	fl oz/a	POST	B	98	99	96	99
2	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B				
2	AMS		WG	17	lb/100 gal	POST	B				
3	Dual II Magnum	7.64	EC	1.33	pt/a	PRE	A	74	99	35	99
3	Resource	0.86	L	6	fl oz/a	POST	B				
3	Crop Oil Concentrate		L	1	% v/v	POST	B				
4	Resource	0.86	L	4	fl oz/a	POST	B	99	99	97	99
4	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B				
4	AMS		WG	17	lb/100 gal	POST	B				
5	Dual II Magnum	7.64	EC	1.33	pt/a	PRE	A	39	99	99	99
5	Flexstar	1.88	L	1	pt/a	POST	B				
5	Crop Oil Concentrate		L	1	% v/v	POST	B				
5	AMS		WG	8.5	lb/100 gal	POST	B				
6	Flexstar	1.88	L	12	fl oz/a	POST	B	99	99	99	99
6	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B				
6	AMS		WG	17	lb/100 gal	POST	B				
7	Dual II Magnum	7.64	EC	1.33	pt/a	PRE	A	30	99	99	99
7	Cobra	2	EC	8	fl oz/a	POST	B				
7	Crop Oil Concentrate		L	0.5	% v/v	POST	B				
8	Cobra	2	EC	6	fl oz/a	POST	B	99	99	99	99
8	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B				
8	AMS		WG	17	lb/100 gal	POST	B				
9	Untreated							0	0	0	0
10	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B	99	99	96	99
10	AMS		WG	17	lb/100 gal	POST	B				
LSD (P=.10)								8.4	0.0	8.1	0.0
Standard Deviation								7.0	0.0	6.8	0.0
CV								9.79	0.0	8.97	0.0

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Weed Code BRAKA
 Crop Code
 Rating Data Type control
 Rating Unit percent
 Rating Date 6/26/08
 Trt-Eval Interval 49 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	
1	Dual II Magnum	7.64	EC	1.33	pt/a	PRE	A	35
1	Cadet	0.91	EC	0.6	fl oz/a	POST	B	
1	Crop Oil Concentrate		L	1	% v/v	POST	B	
2	Cadet	0.91	EC	0.4	fl oz/a	POST	B	99
2	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B	
2	AMS		WG	17	lb/100 gal	POST	B	
3	Dual II Magnum	7.64	EC	1.33	pt/a	PRE	A	0
3	Resource	0.86	L	6	fl oz/a	POST	B	
3	Crop Oil Concentrate		L	1	% v/v	POST	B	
4	Resource	0.86	L	4	fl oz/a	POST	B	99
4	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B	
4	AMS		WG	17	lb/100 gal	POST	B	
5	Dual II Magnum	7.64	EC	1.33	pt/a	PRE	A	99
5	Flexstar	1.88	L	1	pt/a	POST	B	
5	Crop Oil Concentrate		L	1	% v/v	POST	B	
5	AMS		WG	8.5	lb/100 gal	POST	B	
6	Flexstar	1.88	L	12	fl oz/a	POST	B	99
6	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B	
6	AMS		WG	17	lb/100 gal	POST	B	
7	Dual II Magnum	7.64	EC	1.33	pt/a	PRE	A	99
7	Cobra	2	EC	8	fl oz/a	POST	B	
7	Crop Oil Concentrate		L	0.5	% v/v	POST	B	
8	Cobra	2	EC	6	fl oz/a	POST	B	77
8	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B	
8	AMS		WG	17	lb/100 gal	POST	B	
9	Untreated							0
10	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	B	98
10	AMS		WG	17	lb/100 gal	POST	B	
LSD (P=.10)								17.9
Standard Deviation								14.8
CV								21.08