

MSU Weed Science Research Program

Weed control options in non-GMO soybean

Trial ID: SOY09-14 Study Dir.: Sprague and Powell
 Conducted: Campus T-12 Investigator: Christy Sprague

Date Planted: May/21/2014 Row Spacing: 30 IN
 Variety: ZFS 1326 No. of Reps: 4
 Population: 150,000 seeds/A % OM: 4
 Soil Type: Loam pH: 6.8
 Plot Size: 10 x 35 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow. Spring soil finish 2x.
 Fertilizer: None

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	ANGR	mainly foxtail species	SETARIA SP.
2.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
3.	AMAPO	AMARANTH, POWELL	AMARANTHUS POWELLII S.WATS.
4.	AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIIFOLIA L.
5.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

Application Description

	A	B	C
Application Timing:	PRE	POST	LPOS
Date Treated:	May/22/2014	Jun/14/2014	Jun/16/2014
Time Treated:	9:40 AM	11:10 AM	11:46 AM
% Cloud Cover:	20	10	70
Air Temp., Unit:	64 F	61 F	82 F
% Relative Humidity:	63	50	46
wind Speed/Unit/Dir:	8 mph NW	3 mph NE	5 mph W
Soil Temp., Unit:	60 F	58 F	77 F
Soil/Leaf Surface M:	5 -	5 5	5 5
Soil Moist (1=w 5=d):	5	5	5

Crop Stage at Each Application

	A	B	C
Crop Name:	GLXMA	GLXMA	GLXMA
Height (In.):	-	6"	7"
Stage (L):	-	V2-V3	V2-V3

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	ANGR	ANGR	ANGR
Height (In.):	-	4-10"	4-10"
Stage (L):	-	3-5	3-5
Weed 2 Name:	CHEAL	CHEAL	CHEAL
Height (In.):	-	3-4"	2-6"
Stage (L):	-	12-18	6-12
Weed 3 Name:	AMAPO	AMAPO	AMAPO
Height (In.):	-	3"	3"
Stage (L):	-	8	8
Weed 4 Name:	AMBEL	AMBEL	AMBEL
Height (In.):	-	2-4"	4"
Stage (L):	-	6	6
Weed 5 Name:	ABUTH	ABUTH	ABUTH
Height (In.):	-	3-4"	4"
Stage (L):	-	4	4

Weed Density (plants/sq. ft.)

	1	2	3	4	5
Date:	Jul/17/2014	Jul/17/2014	Jul/17/2014	Jul/17/2014	Jul/17/2014
Weed Name:	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Density:	40	2	<1	5	<1

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom	GPA	Carrier	PSI
	Type	MPH	Type	Size	Height	Spacing	width			
A	Cub	3.8	AIXR	11003	21"	20"	100"	19	Water	30
B	Cub	3.8	AIXR	11003	25"	20"	100"	19	Water	30
C	Cub	3.8	AIXR	11003	26"	20"	100"	19	Water	30

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Weed Code											
Crop Code											
Rating Data Type											
Rating Unit											
Rating Date											
Trt-Eval Interval											
# Subsamples, Dec.											

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		ANGR control percent Jun/13/2014 22 DA-A	CHEAL control percent Jun/13/2014 22 DA-A	AMAPO control percent Jun/13/2014 22 DA-A
1	Valor	51	WG	2.5	oz/a	PRE	A	6	77	91	99
1	Prowl H2O	3.8	L	2	pt/a	PRE	A				
1	Cobra	2	L	8	fl oz/a	POST	B				
1	SelectMax	0.97	L	12	fl oz/a	POST	B				
1	Crop oil concentrate		L	0.5	% v/v	POST	B				
1	AMS		WG	2.5	lb/a	POST	B				
2	Fierce	76	WG	3.75	oz/a	PRE	A	7	78	85	99
2	Flexstar	1.88	L	1	pt/a	POST	B				
2	SelectMax	0.97	L	12	fl oz/a	POST	B				
2	Crop oil concentrate		L	1	% v/v	POST	B				
2	AMS		WG	2.5	lb/a	POST	B				
3	Valor XLT	40.3	WG	4	oz/a	PRE	A	9	77	86	99
3	Zidua	85	WG	2.5	oz/a	PRE	A				
3	Ultra Blazer	2	L	1.5	pt/a	POST	B				
3	SelectMax	0.97	L	12	fl oz/a	POST	B				
3	Crop oil concentrate		L	0.5	% v/v	POST	B				
3	AMS		WG	2.5	lb/a	POST	B				
4	Trivence	61.3	WG	8	oz/a	PRE	A	6	80	89	99
4	Zidua	85	WG	2.5	oz/a	PRE	A				
4	FirstRate	84	WG	0.3	oz/a	POST	B				
4	Assure II	0.88	L	7	fl oz/a	POST	B				
4	Crop oil concentrate		L	1	% v/v	POST	B				
4	AMS		WG	2.5	lb/a	POST	B				
5	Trivence	61.3	WG	10	oz/a	PRE	A	6	69	88	99
5	Flexstar	1.88	L	1	pt/a	POST	B				
5	Assure II	0.88	L	7	fl oz/a	POST	B				
5	Crop oil concentrate		L	1	% v/v	POST	B				
5	AMS		WG	2.5	lb/a	POST	B				
6	Boundary	6.5	L	2.4	pt/a	PRE	A	3	86	73	97
6	Flexstar	1.88	L	1	pt/a	POST	B				
6	Harmony SG	50	SG	0.125	oz/a	POST	B				
6	SelectMax	0.97	L	12	fl oz/a	POST	B				
6	Crop oil concentrate		L	1	% v/v	POST	B				
7	Python	80	WG	0.8	oz/a	PRE	A	2	83	79	99
7	Boundary	6.5	L	2	pt/a	PRE	A				
7	Synchrony XP	28.4	WG	0.375	oz/a	POST	B				
7	Assure II	0.88	L	7	fl oz/a	POST	B				
7	Surfactant		L	0.25	% v/v	POST	B				
7	AMS		WG	2.5	lb/a	POST	B				
8	Authority MAXX	66	WG	6	oz/a	PRE	A	2	85	97	99
8	Boundary	6.5	L	2	pt/a	PRE	A				
8	Flexstar	1.88	L	1	pt/a	POST	B				
8	SelectMax	0.97	L	9	fl oz/a	POST	B				
8	Crop oil concentrate		L	1	% v/v	POST	B				
8	AMS		WG	2.5	lb/a	POST	B				

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Weed Code											
Crop Code											
Rating Data Type											
Rating Unit											
Rating Date											
Trt-Eval Interval											
# Subsamples, Dec.											

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		ANGR	CHEAL	AMAPO
9	Canopy	75	WG	2.25	oz/a	PRE	A	2	73	65	99
9	Prefix	5.29	L	2	pt/a	PRE	A				
9	SelectMax	0.97	L	9	fl oz/a	POST	B				
9	Crop oil concentrate		L	1	% v/v	POST	B				
9	AMS		WG	2.5	lb/a	POST	B				
9	Flexstar	1.88	L	1	pt/a	LPOS	C				
9	Harmony SG	50	SG	0.125	oz/a	LPOS	C				
9	Surfactant		L	0.25	% v/v	LPOS	C				
9	AMS		WG	2.5	lb/a	LPOS	C				
10	Optill Pro - Optill	68	WG	2	oz/a	PRE	A	0	63	53	99
10	Optill Pro - Outlook	6	L	10	fl oz/a	PRE	A				
10	Outlook	6	L	8	fl oz/a	PRE	A				
10	Metribuzin	75	WG	5	oz/a	PRE	A				
10	Assure II	0.88	L	7	fl oz/a	POST	B				
10	Crop oil concentrate		L	1	% v/v	POST	B				
10	AMS		WG	2.5	lb/a	POST	B				
10	Cobra	2	L	8	fl oz/a	LPOS	C				
10	Harmony SG	50	SG	0.125	oz/a	LPOS	C				
10	Surfactant		L	0.25	% v/v	LPOS	C				
10	AMS		WG	2.5	lb/a	LPOS	C				
11	Metribuzin	75	WG	5	oz/a	PRE	A	3	87	89	99
11	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A				
11	Linex	4	L	1	pt/a	PRE	A				
11	Raptor	1	L	5	fl oz/a	POST	B				
11	Crop oil concentrate		L	1	% v/v	POST	B				
11	AMS		WG	2.5	lb/a	POST	B				
12	Untreated							0	0	0	0
13	Sonic	70	WG	6.4	oz/a	PRE	A	2	78	93	99
13	Warrant	3	L	3	pt/a	PRE	A				
13	Cobra	2	L	8	fl oz/a	POST	B				
13	SelectMax	0.97	L	12	fl oz/a	POST	B				
13	Crop oil concentrate		L	0.5	% v/v	POST	B				
13	AMS		WG	2.5	lb/a	POST	B				
14	Authority MTZ	45	WG	13	oz/a	PRE	A	3	83	99	99
14	Warrant	3	L	3	pt/a	PRE	A				
14	Flexstar	1.88	L	1	pt/a	POST	B				
14	Fusilade DX	2	L	12	fl oz/a	POST	B				
14	Crop oil concentrate		L	1	% v/v	POST	B				
14	AMS		WG	2.5	lb/a	POST	B				
15	Authority MTZ	45	WG	13	oz/a	PRE	A	0	67	85	99
15	Marvel	3	L	7.25	fl oz/a	POST	B				
15	Select Max	0.97	L	9	fl oz/a	POST	B				
15	Crop oil concentrate		L	1	% v/v	POST	B				
15	AMS		WG	2.5	lb/a	POST	B				

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Crop Code											
Rating Data Type											
Rating Unit											
Rating Date											
Trt-Eval Interval											
# Subsamples, Dec.											

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
16	Authority MTZ	45	WG	13	oz/a	PRE	A	3	84	89	99
16	Dual II Magnum	7.64	L	1	pt/a	PRE	A				
16	Marvel	3	L	7.25	fl oz/a	POST	B				
16	Select Max	0.97	L	9	fl oz/a	POST	B				
16	Crop oil concentrate		L	1	% v/v	POST	B				
16	AMS		WG	2.5	lb/a	POST	B				
17	Authority MTZ	45	WG	13	oz/a	PRE	A	2	79	89	99
17	Anthem	2.15	L	6	fl oz/a	PRE	A				
17	Marvel	3	L	7.25	fl oz/a	POST	B				
17	Select Max	0.97	L	9	fl oz/a	POST	B				
17	Crop oil concentrate		L	1	% v/v	POST	B				
17	AMS		WG	2.5	lb/a	POST	B				
18	Authority MTZ	45	WG	13	oz/a	PRE	A	0	91	91	97
18	Command	3	L	20	fl oz/a	PRE	A				
18	Marvel	3	L	7.25	fl oz/a	POST	B				
18	Select Max	0.97	L	9	fl oz/a	POST	B				
18	Crop oil concentrate		L	1	% v/v	POST	B				
18	AMS		WG	2.5	lb/a	POST	B				
LSD (P=.05)								1.8	8.5	12.3	1.7
CV								42.62	8.06	10.9	1.31

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

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Crop Code				
Rating Data Type	control	control	injury	injury
Rating Unit	percent	percent	percent	percent
Rating Date	Jun/13/2014	Jun/13/2014	Jun/21/2014	Jun/30/2014
Trt-Eval Interval	22 DA-A	22 DA-A	7 DA-B	14 DA-C
# Subsamples, Dec.				

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code				
1	Valor	51	WG	2.5	oz/a	PRE	A	83	95	23	5
1	Prowl H2O	3.8	L	2	pt/a	PRE	A				
1	Cobra	2	L	8	fl oz/a	POST	B				
1	SelectMax	0.97	L	12	fl oz/a	POST	B				
1	Crop oil concentrate		L	0.5	% v/v	POST	B				
1	AMS		WG	2.5	lb/a	POST	B				
2	Fierce	76	WG	3.75	oz/a	PRE	A	87	97	20	4
2	Flexstar	1.88	L	1	pt/a	POST	B				
2	SelectMax	0.97	L	12	fl oz/a	POST	B				
2	Crop oil concentrate		L	1	% v/v	POST	B				
2	AMS		WG	2.5	lb/a	POST	B				
3	Valor XLT	40.3	WG	4	oz/a	PRE	A	85	98	44	40
3	Zidua	85	WG	2.5	oz/a	PRE	A				
3	Ultra Blazer	2	L	1.5	pt/a	POST	B				
3	SelectMax	0.97	L	12	fl oz/a	POST	B				
3	Crop oil concentrate		L	0.5	% v/v	POST	B				
3	AMS		WG	2.5	lb/a	POST	B				
4	Trivence	61.3	WG	8	oz/a	PRE	A	88	99	0	0
4	Zidua	85	WG	2.5	oz/a	PRE	A				
4	FirstRate	84	WG	0.3	oz/a	POST	B				
4	Assure II	0.88	L	7	fl oz/a	POST	B				
4	Crop oil concentrate		L	1	% v/v	POST	B				
4	AMS		WG	2.5	lb/a	POST	B				
5	Trivence	61.3	WG	10	oz/a	PRE	A	82	99	19	5
5	Flexstar	1.88	L	1	pt/a	POST	B				
5	Assure II	0.88	L	7	fl oz/a	POST	B				
5	Crop oil concentrate		L	1	% v/v	POST	B				
5	AMS		WG	2.5	lb/a	POST	B				
6	Boundary	6.5	L	2.4	pt/a	PRE	A	75	96	36	25
6	Flexstar	1.88	L	1	pt/a	POST	B				
6	Harmony SG	50	SG	0.125	oz/a	POST	B				
6	SelectMax	0.97	L	12	fl oz/a	POST	B				
6	Crop oil concentrate		L	1	% v/v	POST	B				
7	Python	80	WG	0.8	oz/a	PRE	A	76	98	20	5
7	Boundary	6.5	L	2	pt/a	PRE	A				
7	Synchrony XP	28.4	WG	0.375	oz/a	POST	B				
7	Assure II	0.88	L	7	fl oz/a	POST	B				
7	Surfactant		L	0.25	% v/v	POST	B				
7	AMS		WG	2.5	lb/a	POST	B				
8	Authority MAXX	66	WG	6	oz/a	PRE	A	68	96	15	6
8	Boundary	6.5	L	2	pt/a	PRE	A				
8	Flexstar	1.88	L	1	pt/a	POST	B				
8	SelectMax	0.97	L	9	fl oz/a	POST	B				
8	Crop oil concentrate		L	1	% v/v	POST	B				
8	AMS		WG	2.5	lb/a	POST	B				

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Weed Code	AMBEL	ABUTH	GLXMA	GLXMA
Crop Code				
Rating Data Type	control	control	injury	injury
Rating Unit	percent	percent	percent	percent
Rating Date	Jun/13/2014	Jun/13/2014	Jun/21/2014	Jun/30/2014
Trt-Eval Interval	22 DA-A	22 DA-A	7 DA-B	14 DA-C
# Subsamples, Dec.				

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code				
9	Canopy	75	WG	2.25	oz/a	PRE	A	63	99	28	15
9	Prefix	5.29	L	2	pt/a	PRE	A				
9	SelectMax	0.97	L	9	fl oz/a	POST	B				
9	Crop oil concentrate		L	1	% v/v	POST	B				
9	AMS		WG	2.5	lb/a	POST	B				
9	Flexstar	1.88	L	1	pt/a	LPOS	C				
9	Harmony SG	50	SG	0.125	oz/a	LPOS	C				
9	Surfactant		L	0.25	% v/v	LPOS	C				
9	AMS		WG	2.5	lb/a	LPOS	C				
10	Optill Pro - Optill	68	WG	2	oz/a	PRE	A	64	92	29	18
10	Optill Pro - Outlook	6	L	10	fl oz/a	PRE	A				
10	Outlook	6	L	8	fl oz/a	PRE	A				
10	Metribuzin	75	WG	5	oz/a	PRE	A				
10	Assure II	0.88	L	7	fl oz/a	POST	B				
10	Crop oil concentrate		L	1	% v/v	POST	B				
10	AMS		WG	2.5	lb/a	POST	B				
10	Cobra	2	L	8	fl oz/a	LPOS	C				
10	Harmony SG	50	SG	0.125	oz/a	LPOS	C				
10	Surfactant		L	0.25	% v/v	LPOS	C				
10	AMS		WG	2.5	lb/a	LPOS	C				
11	Metribuzin	75	WG	5	oz/a	PRE	A	77	99	16	6
11	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A				
11	Linex	4	L	1	pt/a	PRE	A				
11	Raptor	1	L	5	fl oz/a	POST	B				
11	Crop oil concentrate		L	1	% v/v	POST	B				
11	AMS		WG	2.5	lb/a	POST	B				
12	Untreated							0	0	0	0
13	Sonic	70	WG	6.4	oz/a	PRE	A	81	99	20	11
13	Warrant	3	L	3	pt/a	PRE	A				
13	Cobra	2	L	8	fl oz/a	POST	B				
13	SelectMax	0.97	L	12	fl oz/a	POST	B				
13	Crop oil concentrate		L	0.5	% v/v	POST	B				
13	AMS		WG	2.5	lb/a	POST	B				
14	Authority MTZ	45	WG	13	oz/a	PRE	A	75	97	19	5
14	Warrant	3	L	3	pt/a	PRE	A				
14	Flexstar	1.88	L	1	pt/a	POST	B				
14	Fusilade DX	2	L	12	fl oz/a	POST	B				
14	Crop oil concentrate		L	1	% v/v	POST	B				
14	AMS		WG	2.5	lb/a	POST	B				
15	Authority MTZ	45	WG	13	oz/a	PRE	A	52	96	35	18
15	Marvel	3	L	7.25	fl oz/a	POST	B				
15	Select Max	0.97	L	9	fl oz/a	POST	B				
15	Crop oil concentrate		L	1	% v/v	POST	B				
15	AMS		WG	2.5	lb/a	POST	B				

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Crop Code				
Rating Data Type	control	control	injury	injury
Rating Unit	percent	percent	percent	percent
Rating Date	Jun/13/2014	Jun/13/2014	Jun/21/2014	Jun/30/2014
Trt-Eval Interval	22 DA-A	22 DA-A	7 DA-B	14 DA-C
# Subsamples, Dec.				

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code				
16	Authority MTZ	45	WG	13	oz/a	PRE	A	73	99	35	16
16	Dual II Magnum	7.64	L	1	pt/a	PRE	A				
16	Marvel	3	L	7.25	fl oz/a	POST	B				
16	Select Max	0.97	L	9	fl oz/a	POST	B				
16	Crop oil concentrate		L	1	% v/v	POST	B				
16	AMS		WG	2.5	lb/a	POST	B				
17	Authority MTZ	45	WG	13	oz/a	PRE	A	79	97	35	20
17	Anthem	2.15	L	6	fl oz/a	PRE	A				
17	Marvel	3	L	7.25	fl oz/a	POST	B				
17	Select Max	0.97	L	9	fl oz/a	POST	B				
17	Crop oil concentrate		L	1	% v/v	POST	B				
17	AMS		WG	2.5	lb/a	POST	B				
18	Authority MTZ	45	WG	13	oz/a	PRE	A	83	98	35	19
18	Command	3	L	20	fl oz/a	PRE	A				
18	Marvel	3	L	7.25	fl oz/a	POST	B				
18	Select Max	0.97	L	9	fl oz/a	POST	B				
18	Crop oil concentrate		L	1	% v/v	POST	B				
18	AMS		WG	2.5	lb/a	POST	B				
LSD (P=.05)								10.4	3.7	3.0	3.9
CV								10.26	2.89	8.79	22.76

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

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Crop Code				
Rating Data Type	control	control	control	control
Rating Unit	percent	percent	percent	percent
Rating Date	Jun/30/2014	Jun/30/2014	Jun/30/2014	Jun/30/2014
Trt-Eval Interval	14 DA-C	14 DA-C	14 DA-C	14 DA-C
# Subsamples, Dec.				

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Valor	51	WG	2.5	oz/a	PRE	A	96	93	99	99
1	Prowl H2O	3.8	L	2	pt/a	PRE	A				
1	Cobra	2	L	8	fl oz/a	POST	B				
1	SelectMax	0.97	L	12	fl oz/a	POST	B				
1	Crop oil concentrate		L	0.5	% v/v	POST	B				
1	AMS		WG	2.5	lb/a	POST	B				
2	Fierce	76	WG	3.75	oz/a	PRE	A	98	97	99	99
2	Flexstar	1.88	L	1	pt/a	POST	B				
2	SelectMax	0.97	L	12	fl oz/a	POST	B				
2	Crop oil concentrate		L	1	% v/v	POST	B				
2	AMS		WG	2.5	lb/a	POST	B				
3	Valor XLT	40.3	WG	4	oz/a	PRE	A	99	99	99	99
3	Zidua	85	WG	2.5	oz/a	PRE	A				
3	Ultra Blazer	2	L	1.5	pt/a	POST	B				
3	SelectMax	0.97	L	12	fl oz/a	POST	B				
3	Crop oil concentrate		L	0.5	% v/v	POST	B				
3	AMS		WG	2.5	lb/a	POST	B				
4	Trivence	61.3	WG	8	oz/a	PRE	A	82	89	99	99
4	Zidua	85	WG	2.5	oz/a	PRE	A				
4	FirstRate	84	WG	0.3	oz/a	POST	B				
4	Assure II	0.88	L	7	fl oz/a	POST	B				
4	Crop oil concentrate		L	1	% v/v	POST	B				
4	AMS		WG	2.5	lb/a	POST	B				
5	Trivence	61.3	WG	10	oz/a	PRE	A	90	95	99	99
5	Flexstar	1.88	L	1	pt/a	POST	B				
5	Assure II	0.88	L	7	fl oz/a	POST	B				
5	Crop oil concentrate		L	1	% v/v	POST	B				
5	AMS		WG	2.5	lb/a	POST	B				
6	Boundary	6.5	L	2.4	pt/a	PRE	A	97	99	99	99
6	Flexstar	1.88	L	1	pt/a	POST	B				
6	Harmony SG	50	SG	0.125	oz/a	POST	B				
6	SelectMax	0.97	L	12	fl oz/a	POST	B				
6	Crop oil concentrate		L	1	% v/v	POST	B				
7	Python	80	WG	0.8	oz/a	PRE	A	83	98	99	86
7	Boundary	6.5	L	2	pt/a	PRE	A				
7	Synchrony XP	28.4	WG	0.375	oz/a	POST	B				
7	Assure II	0.88	L	7	fl oz/a	POST	B				
7	Surfactant		L	0.25	% v/v	POST	B				
7	AMS		WG	2.5	lb/a	POST	B				
8	Authority MAXX	66	WG	6	oz/a	PRE	A	97	99	99	99
8	Boundary	6.5	L	2	pt/a	PRE	A				
8	Flexstar	1.88	L	1	pt/a	POST	B				
8	SelectMax	0.97	L	9	fl oz/a	POST	B				
8	Crop oil concentrate		L	1	% v/v	POST	B				
8	AMS		WG	2.5	lb/a	POST	B				

MSU Weed Science Research Program

Weed control options in non-GMO soybean

Trial ID: SOY09-14
 Conducted: Campus T-12

Study Dir.: Sprague and Powell
 Investigator: Christy Sprague

Weed Code	ANGR	CHEAL	AMAPO	AMBEL
Crop Code				
Rating Data Type	control	control	control	control
Rating Unit	percent	percent	percent	percent
Rating Date	Jun/30/2014	Jun/30/2014	Jun/30/2014	Jun/30/2014
Trt-Eval Interval	14 DA-C	14 DA-C	14 DA-C	14 DA-C
# Subsamples, Dec.				

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
9	Canopy	75	WG	2.25	oz/a	PRE	A	98	99	99	99
9	Prefix	5.29	L	2	pt/a	PRE	A				
9	SelectMax	0.97	L	9	fl oz/a	POST	B				
9	Crop oil concentrate		L	1	% v/v	POST	B				
9	AMS		WG	2.5	lb/a	POST	B				
9	Flexstar	1.88	L	1	pt/a	LPOS	C				
9	Harmony SG	50	SG	0.125	oz/a	LPOS	C				
9	Surfactant		L	0.25	% v/v	LPOS	C				
9	AMS		WG	2.5	lb/a	LPOS	C				
10	Optill Pro - Optill	68	WG	2	oz/a	PRE	A	90	99	99	99
10	Optill Pro - Outlook	6	L	10	fl oz/a	PRE	A				
10	Outlook	6	L	8	fl oz/a	PRE	A				
10	Metribuzin	75	WG	5	oz/a	PRE	A				
10	Assure II	0.88	L	7	fl oz/a	POST	B				
10	Crop oil concentrate		L	1	% v/v	POST	B				
10	AMS		WG	2.5	lb/a	POST	B				
10	Cobra	2	L	8	fl oz/a	LPOS	C				
10	Harmony SG	50	SG	0.125	oz/a	LPOS	C				
10	Surfactant		L	0.25	% v/v	LPOS	C				
10	AMS		WG	2.5	lb/a	LPOS	C				
11	Metribuzin	75	WG	5	oz/a	PRE	A	97	99	99	83
11	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A				
11	Linex	4	L	1	pt/a	PRE	A				
11	Raptor	1	L	5	fl oz/a	POST	B				
11	Crop oil concentrate		L	1	% v/v	POST	B				
11	AMS		WG	2.5	lb/a	POST	B				
12	Untreated							0	0	0	0
13	Sonic	70	WG	6.4	oz/a	PRE	A	95	95	99	99
13	Warrant	3	L	3	pt/a	PRE	A				
13	Cobra	2	L	8	fl oz/a	POST	B				
13	SelectMax	0.97	L	12	fl oz/a	POST	B				
13	Crop oil concentrate		L	0.5	% v/v	POST	B				
13	AMS		WG	2.5	lb/a	POST	B				
14	Authority MTZ	45	WG	13	oz/a	PRE	A	94	98	99	99
14	Warrant	3	L	3	pt/a	PRE	A				
14	Flexstar	1.88	L	1	pt/a	POST	B				
14	Fusilade DX	2	L	12	fl oz/a	POST	B				
14	Crop oil concentrate		L	1	% v/v	POST	B				
14	AMS		WG	2.5	lb/a	POST	B				
15	Authority MTZ	45	WG	13	oz/a	PRE	A	96	99	99	99
15	Marvel	3	L	7.25	fl oz/a	POST	B				
15	Select Max	0.97	L	9	fl oz/a	POST	B				
15	Crop oil concentrate		L	1	% v/v	POST	B				
15	AMS		WG	2.5	lb/a	POST	B				

MSU Weed Science Research Program

Weed control options in non-GMO soybean

Trial ID: SOY09-14 Study Dir.: Sprague and Powell
 Conducted: Campus T-12 Investigator: Christy Sprague

Weed Code	ANGR	CHEAL	AMAPO	AMBEL
Crop Code				
Rating Data Type	control	control	control	control
Rating Unit	percent	percent	percent	percent
Rating Date	Jun/30/2014	Jun/30/2014	Jun/30/2014	Jun/30/2014
Trt-Eval Interval	14 DA-C	14 DA-C	14 DA-C	14 DA-C
# Subsamples, Dec.				

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	ANGR	CHEAL	AMAPO	AMBEL
16	Authority MTZ	45	WG	13	oz/a	PRE	A	98	99	99	99
16	Dual II Magnum	7.64	L	1	pt/a	PRE	A				
16	Marvel	3	L	7.25	fl oz/a	POST	B				
16	Select Max	0.97	L	9	fl oz/a	POST	B				
16	Crop oil concentrate		L	1	% v/v	POST	B				
16	AMS		WG	2.5	lb/a	POST	B				
17	Authority MTZ	45	WG	13	oz/a	PRE	A	95	98	99	99
17	Anthem	2.15	L	6	fl oz/a	PRE	A				
17	Marvel	3	L	7.25	fl oz/a	POST	B				
17	Select Max	0.97	L	9	fl oz/a	POST	B				
17	Crop oil concentrate		L	1	% v/v	POST	B				
17	AMS		WG	2.5	lb/a	POST	B				
18	Authority MTZ	45	WG	13	oz/a	PRE	A	99	99	99	98
18	Command	3	L	20	fl oz/a	PRE	A				
18	Marvel	3	L	7.25	fl oz/a	POST	B				
18	Select Max	0.97	L	9	fl oz/a	POST	B				
18	Crop oil concentrate		L	1	% v/v	POST	B				
18	AMS		WG	2.5	lb/a	POST	B				
LSD (P=.05)								2.9	3.4	0.0	1.7
CV								2.3	2.66	0.0	1.32

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

MSU Weed Science Research Program

Weed control options in non-GMO soybean

Trial ID: SOY09-14
 Conducted: Campus T-12

Study Dir.: Sprague and Powell
 Investigator: Christy Sprague

Weed Code	ABUTH	GLXMA	ANGR	CHEAL	AMAPO
Crop Code					
Rating Data Type	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jun/30/2014	Jul/11/2014	Jul/11/2014	Jul/11/2014	Jul/11/2014
Trt-Eval Interval	14 DA-C	25 DA-C	25 DA-C	25 DA-C	25 DA-C
# Subsamples, Dec.					

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code					
1	Valor	51	WG	2.5	oz/a	PRE	A	99	0	91	93	99
1	Prowl H2O	3.8	L	2	pt/a	PRE	A					
1	Cobra	2	L	8	fl oz/a	POST	B					
1	SelectMax	0.97	L	12	fl oz/a	POST	B					
1	Crop oil concentrate		L	0.5	% v/v	POST	B					
1	AMS		WG	2.5	lb/a	POST	B					
2	Fierce	76	WG	3.75	oz/a	PRE	A	99	0	98	99	99
2	Flexstar	1.88	L	1	pt/a	POST	B					
2	SelectMax	0.97	L	12	fl oz/a	POST	B					
2	Crop oil concentrate		L	1	% v/v	POST	B					
2	AMS		WG	2.5	lb/a	POST	B					
3	Valor XLT	40.3	WG	4	oz/a	PRE	A	99	28	98	99	99
3	Zidua	85	WG	2.5	oz/a	PRE	A					
3	Ultra Blazer	2	L	1.5	pt/a	POST	B					
3	SelectMax	0.97	L	12	fl oz/a	POST	B					
3	Crop oil concentrate		L	0.5	% v/v	POST	B					
3	AMS		WG	2.5	lb/a	POST	B					
4	Trivence	61.3	WG	8	oz/a	PRE	A	99	0	85	92	99
4	Zidua	85	WG	2.5	oz/a	PRE	A					
4	FirstRate	84	WG	0.3	oz/a	POST	B					
4	Assure II	0.88	L	7	fl oz/a	POST	B					
4	Crop oil concentrate		L	1	% v/v	POST	B					
4	AMS		WG	2.5	lb/a	POST	B					
5	Trivence	61.3	WG	10	oz/a	PRE	A	99	0	93	99	99
5	Flexstar	1.88	L	1	pt/a	POST	B					
5	Assure II	0.88	L	7	fl oz/a	POST	B					
5	Crop oil concentrate		L	1	% v/v	POST	B					
5	AMS		WG	2.5	lb/a	POST	B					
6	Boundary	6.5	L	2.4	pt/a	PRE	A	99	9	96	99	99
6	Flexstar	1.88	L	1	pt/a	POST	B					
6	Harmony SG	50	SG	0.125	oz/a	POST	B					
6	SelectMax	0.97	L	12	fl oz/a	POST	B					
6	Crop oil concentrate		L	1	% v/v	POST	B					
7	Python	80	WG	0.8	oz/a	PRE	A	99	0	82	99	99
7	Boundary	6.5	L	2	pt/a	PRE	A					
7	Synchrony XP	28.4	WG	0.375	oz/a	POST	B					
7	Assure II	0.88	L	7	fl oz/a	POST	B					
7	Surfactant		L	0.25	% v/v	POST	B					
7	AMS		WG	2.5	lb/a	POST	B					
8	Authority MAXX	66	WG	6	oz/a	PRE	A	99	0	98	99	99
8	Boundary	6.5	L	2	pt/a	PRE	A					
8	Flexstar	1.88	L	1	pt/a	POST	B					
8	SelectMax	0.97	L	9	fl oz/a	POST	B					
8	Crop oil concentrate		L	1	% v/v	POST	B					
8	AMS		WG	2.5	lb/a	POST	B					

MSU Weed Science Research Program

Weed control options in non-GMO soybean

Trial ID: SOY09-14 Study Dir.: Sprague and Powell
 Conducted: Campus T-12 Investigator: Christy Sprague

Weed Code	ABUTH	GLXMA	ANGR	CHEAL	AMAPO
Crop Code					
Rating Data Type	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jun/30/2014	Jul/11/2014	Jul/11/2014	Jul/11/2014	Jul/11/2014
Trt-Eval Interval	14 DA-C	25 DA-C	25 DA-C	25 DA-C	25 DA-C
# Subsamples, Dec.					

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
9	Canopy	75	WG	2.25	oz/a	PRE	A	99	0	98	99	99
9	Prefix	5.29	L	2	pt/a	PRE	A					
9	SelectMax	0.97	L	9	fl oz/a	POST	B					
9	Crop oil concentrate		L	1	% v/v	POST	B					
9	AMS		WG	2.5	lb/a	POST	B					
9	Flexstar	1.88	L	1	pt/a	LPOS	C					
9	Harmony SG	50	SG	0.125	oz/a	LPOS	C					
9	Surfactant		L	0.25	% v/v	LPOS	C					
9	AMS		WG	2.5	lb/a	LPOS	C					
10	Optill Pro - Optill	68	WG	2	oz/a	PRE	A	99	1	92	99	99
10	Optill Pro - Outlook	6	L	10	fl oz/a	PRE	A					
10	Outlook	6	L	8	fl oz/a	PRE	A					
10	Metribuzin	75	WG	5	oz/a	PRE	A					
10	Assure II	0.88	L	7	fl oz/a	POST	B					
10	Crop oil concentrate		L	1	% v/v	POST	B					
10	AMS		WG	2.5	lb/a	POST	B					
10	Cobra	2	L	8	fl oz/a	LPOS	C					
10	Harmony SG	50	SG	0.125	oz/a	LPOS	C					
10	Surfactant		L	0.25	% v/v	LPOS	C					
10	AMS		WG	2.5	lb/a	LPOS	C					
11	Metribuzin	75	WG	5	oz/a	PRE	A	99	0	99	99	99
11	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A					
11	Linex	4	L	1	pt/a	PRE	A					
11	Raptor	1	L	5	fl oz/a	POST	B					
11	Crop oil concentrate		L	1	% v/v	POST	B					
11	AMS		WG	2.5	lb/a	POST	B					
12	Untreated							0	0	0	0	0
13	Sonic	70	WG	6.4	oz/a	PRE	A	99	0	95	96	99
13	Warrant	3	L	3	pt/a	PRE	A					
13	Cobra	2	L	8	fl oz/a	POST	B					
13	SelectMax	0.97	L	12	fl oz/a	POST	B					
13	Crop oil concentrate		L	0.5	% v/v	POST	B					
13	AMS		WG	2.5	lb/a	POST	B					
14	Authority MTZ	45	WG	13	oz/a	PRE	A	99	1	97	99	99
14	Warrant	3	L	3	pt/a	PRE	A					
14	Flexstar	1.88	L	1	pt/a	POST	B					
14	Fusilade DX	2	L	12	fl oz/a	POST	B					
14	Crop oil concentrate		L	1	% v/v	POST	B					
14	AMS		WG	2.5	lb/a	POST	B					
15	Authority MTZ	45	WG	13	oz/a	PRE	A	99	5	91	99	99
15	Marvel	3	L	7.25	fl oz/a	POST	B					
15	Select Max	0.97	L	9	fl oz/a	POST	B					
15	Crop oil concentrate		L	1	% v/v	POST	B					
15	AMS		WG	2.5	lb/a	POST	B					

MSU Weed Science Research Program

Weed control options in non-GMO soybean

Trial ID: SOY09-14 Study Dir.: Sprague and Powell
 Conducted: Campus T-12 Investigator: Christy Sprague

Weed Code	ABUTH		ANGR	CHEAL	AMAPO
Crop Code		GLXMA			
Rating Data Type	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jun/30/2014	Jul/11/2014	Jul/11/2014	Jul/11/2014	Jul/11/2014
Trt-Eval Interval	14 DA-C	25 DA-C	25 DA-C	25 DA-C	25 DA-C
# Subsamples, Dec.					

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code					
16	Authority MTZ	45	WG	13	oz/a	PRE	A	99	7	98	99	99
16	Dual II Magnum	7.64	L	1	pt/a	PRE	A					
16	Marvel	3	L	7.25	fl oz/a	POST	B					
16	Select Max	0.97	L	9	fl oz/a	POST	B					
16	Crop oil concentrate		L	1	% v/v	POST	B					
16	AMS		WG	2.5	lb/a	POST	B					
17	Authority MTZ	45	WG	13	oz/a	PRE	A	99	7	96	98	99
17	Anthem	2.15	L	6	fl oz/a	PRE	A					
17	Marvel	3	L	7.25	fl oz/a	POST	B					
17	Select Max	0.97	L	9	fl oz/a	POST	B					
17	Crop oil concentrate		L	1	% v/v	POST	B					
17	AMS		WG	2.5	lb/a	POST	B					
18	Authority MTZ	45	WG	13	oz/a	PRE	A	99	5	98	99	99
18	Command	3	L	20	fl oz/a	PRE	A					
18	Marvel	3	L	7.25	fl oz/a	POST	B					
18	Select Max	0.97	L	9	fl oz/a	POST	B					
18	Crop oil concentrate		L	1	% v/v	POST	B					
18	AMS		WG	2.5	lb/a	POST	B					
LSD (P=.05)								0.5	2.2	3.7	3.1	0.0
CV								0.35	45.38	2.94	2.39	0.0

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

MSU Weed Science Research Program

Weed control options in non-GMO soybean

Trial ID: SOY09-14
 Conducted: Campus T-12

Study Dir.: Sprague and Powell
 Investigator: Christy Sprague

Weed Code	AMBEL	ABUTH	GLXMA	GLXMA
Crop Code				
Rating Data Type	control	control	moisture	yield
Rating Unit	percent	percent	percent	bu/acre
Rating Date	Jul/11/2014	Jul/11/2014	Nov/03/2014	Nov/03/2014
Trt-Eval Interval	25 DA-C	25 DA-C	140 DA-C	at 13% M
# Subsamples, Dec.				

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code				
1	Valor	51	WG	2.5	oz/a	PRE	A	99	99	12.8	70.2
1	Prowl H2O	3.8	L	2	pt/a	PRE	A				
1	Cobra	2	L	8	fl oz/a	POST	B				
1	SelectMax	0.97	L	12	fl oz/a	POST	B				
1	Crop oil concentrate		L	0.5	% v/v	POST	B				
1	AMS		WG	2.5	lb/a	POST	B				
2	Fierce	76	WG	3.75	oz/a	PRE	A	99	99	13.0	72.4
2	Flexstar	1.88	L	1	pt/a	POST	B				
2	SelectMax	0.97	L	12	fl oz/a	POST	B				
2	Crop oil concentrate		L	1	% v/v	POST	B				
2	AMS		WG	2.5	lb/a	POST	B				
3	Valor XLT	40.3	WG	4	oz/a	PRE	A	98	99	13.0	63.8
3	Zidua	85	WG	2.5	oz/a	PRE	A				
3	Ultra Blazer	2	L	1.5	pt/a	POST	B				
3	SelectMax	0.97	L	12	fl oz/a	POST	B				
3	Crop oil concentrate		L	0.5	% v/v	POST	B				
3	AMS		WG	2.5	lb/a	POST	B				
4	Trivence	61.3	WG	8	oz/a	PRE	A	97	99	13.5	71.0
4	Zidua	85	WG	2.5	oz/a	PRE	A				
4	FirstRate	84	WG	0.3	oz/a	POST	B				
4	Assure II	0.88	L	7	fl oz/a	POST	B				
4	Crop oil concentrate		L	1	% v/v	POST	B				
4	AMS		WG	2.5	lb/a	POST	B				
5	Trivence	61.3	WG	10	oz/a	PRE	A	99	99	13.1	72.8
5	Flexstar	1.88	L	1	pt/a	POST	B				
5	Assure II	0.88	L	7	fl oz/a	POST	B				
5	Crop oil concentrate		L	1	% v/v	POST	B				
5	AMS		WG	2.5	lb/a	POST	B				
6	Boundary	6.5	L	2.4	pt/a	PRE	A	99	99	13.0	66.5
6	Flexstar	1.88	L	1	pt/a	POST	B				
6	Harmony SG	50	SG	0.125	oz/a	POST	B				
6	SelectMax	0.97	L	12	fl oz/a	POST	B				
6	Crop oil concentrate		L	1	% v/v	POST	B				
7	Python	80	WG	0.8	oz/a	PRE	A	80	99	12.8	65.5
7	Boundary	6.5	L	2	pt/a	PRE	A				
7	Synchrony XP	28.4	WG	0.375	oz/a	POST	B				
7	Assure II	0.88	L	7	fl oz/a	POST	B				
7	Surfactant		L	0.25	% v/v	POST	B				
7	AMS		WG	2.5	lb/a	POST	B				
8	Authority MAXX	66	WG	6	oz/a	PRE	A	98	99	12.3	72.6
8	Boundary	6.5	L	2	pt/a	PRE	A				
8	Flexstar	1.88	L	1	pt/a	POST	B				
8	SelectMax	0.97	L	9	fl oz/a	POST	B				
8	Crop oil concentrate		L	1	% v/v	POST	B				
8	AMS		WG	2.5	lb/a	POST	B				

MSU Weed Science Research Program

Weed control options in non-GMO soybean

Trial ID: SOY09-14 Study Dir.: Sprague and Powell
 Conducted: Campus T-12 Investigator: Christy Sprague

Weed Code	AMBEL	ABUTH		
Crop Code			GLXMA	GLXMA
Rating Data Type	control	control	moisture	yield
Rating Unit	percent	percent	percent	bu/acre
Rating Date	Jul/11/2014	Jul/11/2014	Nov/03/2014	Nov/03/2014
Trt-Eval Interval	25 DA-C	25 DA-C	140 DA-C	at 13% M
# Subsamples, Dec.				

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	AMBEL	ABUTH	GLXMA moisture	GLXMA yield
9	Canopy	75	WG	2.25	oz/a	PRE	A	99	99	13.4	68.4
9	Prefix	5.29	L	2	pt/a	PRE	A				
9	SelectMax	0.97	L	9	fl oz/a	POST	B				
9	Crop oil concentrate		L	1	% v/v	POST	B				
9	AMS		WG	2.5	lb/a	POST	B				
9	Flexstar	1.88	L	1	pt/a	LPOS	C				
9	Harmony SG	50	SG	0.125	oz/a	LPOS	C				
9	Surfactant		L	0.25	% v/v	LPOS	C				
9	AMS		WG	2.5	lb/a	LPOS	C				
10	Optill Pro - Optill	68	WG	2	oz/a	PRE	A	94	99	13.4	69.6
10	Optill Pro - Outlook	6	L	10	fl oz/a	PRE	A				
10	Outlook	6	L	8	fl oz/a	PRE	A				
10	Metribuzin	75	WG	5	oz/a	PRE	A				
10	Assure II	0.88	L	7	fl oz/a	POST	B				
10	Crop oil concentrate		L	1	% v/v	POST	B				
10	AMS		WG	2.5	lb/a	POST	B				
10	Cobra	2	L	8	fl oz/a	LPOS	C				
10	Harmony SG	50	SG	0.125	oz/a	LPOS	C				
10	Surfactant		L	0.25	% v/v	LPOS	C				
10	AMS		WG	2.5	lb/a	LPOS	C				
11	Metribuzin	75	WG	5	oz/a	PRE	A	83	99	13.2	70.6
11	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A				
11	Linex	4	L	1	pt/a	PRE	A				
11	Raptor	1	L	5	fl oz/a	POST	B				
11	Crop oil concentrate		L	1	% v/v	POST	B				
11	AMS		WG	2.5	lb/a	POST	B				
12	Untreated							0	0	12.5	25.1
13	Sonic	70	WG	6.4	oz/a	PRE	A	99	99	12.5	71.8
13	Warrant	3	L	3	pt/a	PRE	A				
13	Cobra	2	L	8	fl oz/a	POST	B				
13	SelectMax	0.97	L	12	fl oz/a	POST	B				
13	Crop oil concentrate		L	0.5	% v/v	POST	B				
13	AMS		WG	2.5	lb/a	POST	B				
14	Authority MTZ	45	WG	13	oz/a	PRE	A	99	99	12.8	71.0
14	Warrant	3	L	3	pt/a	PRE	A				
14	Flexstar	1.88	L	1	pt/a	POST	B				
14	Fusilade DX	2	L	12	fl oz/a	POST	B				
14	Crop oil concentrate		L	1	% v/v	POST	B				
14	AMS		WG	2.5	lb/a	POST	B				
15	Authority MTZ	45	WG	13	oz/a	PRE	A	97	99	12.6	71.3
15	Marvel	3	L	7.25	fl oz/a	POST	B				
15	Select Max	0.97	L	9	fl oz/a	POST	B				
15	Crop oil concentrate		L	1	% v/v	POST	B				
15	AMS		WG	2.5	lb/a	POST	B				

MSU Weed Science Research Program

Weed control options in non-GMO soybean

Trial ID: SOY09-14
 Conducted: Campus T-12

Study Dir.: Sprague and Powell
 Investigator: Christy Sprague

Weed Code	AMBEL	ABUTH	GLXMA	GLXMA
Crop Code				
Rating Data Type	control	control	moisture	yield
Rating Unit	percent	percent	percent	bu/acre
Rating Date	Jul/11/2014	Jul/11/2014	Nov/03/2014	Nov/03/2014
Trt-Eval Interval	25 DA-C	25 DA-C	140 DA-C	at 13% M
# Subsamples, Dec.				

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	AMBEL	ABUTH	GLXMA moisture	GLXMA yield
16	Authority MTZ	45	WG	13	oz/a	PRE	A	99	99	12.7	67.2
16	Dual II Magnum	7.64	L	1	pt/a	PRE	A				
16	Marvel	3	L	7.25	fl oz/a	POST	B				
16	Select Max	0.97	L	9	fl oz/a	POST	B				
16	Crop oil concentrate		L	1	% v/v	POST	B				
16	AMS		WG	2.5	lb/a	POST	B				
17	Authority MTZ	45	WG	13	oz/a	PRE	A	99	99	12.9	68.6
17	Anthem	2.15	L	6	fl oz/a	PRE	A				
17	Marvel	3	L	7.25	fl oz/a	POST	B				
17	Select Max	0.97	L	9	fl oz/a	POST	B				
17	Crop oil concentrate		L	1	% v/v	POST	B				
17	AMS		WG	2.5	lb/a	POST	B				
18	Authority MTZ	45	WG	13	oz/a	PRE	A	98	99	12.0	68.5
18	Command	3	L	20	fl oz/a	PRE	A				
18	Marvel	3	L	7.25	fl oz/a	POST	B				
18	Select Max	0.97	L	9	fl oz/a	POST	B				
18	Crop oil concentrate		L	1	% v/v	POST	B				
18	AMS		WG	2.5	lb/a	POST	B				
LSD (P=.05)								2.7	0.0	0.83	3.79
CV								2.11	0.0	4.56	3.99

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