

MSU Weed Science Research Program

Postemergence broadleaf weed control with Cadet in soybean

Trial ID: SOY02-13 Study Dir.: Sprague, Powell  
 Conducted: Campus C-12 Investigator: Christy Sprague

**Date Planted:** May/08/2013 **Row Spacing:** 30 IN  
**Variety:** AG2433RR **No. of Reps:** 4  
**Population:** 155,000 seeds/A **% OM:** 4.0  
**Soil Type:** Silt loam **pH:** 7.4  
**Plot Size:** 10 X 30 FT **Design:** RANDOMIZED COMPLETE BLOCK

**Tillage:** Fall chisel plow, spring soil finish x2  
**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.	AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIIFOLIA L.
4.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

**Application Description**

**A**  
**Application Timing:** POST  
**Date Treated:** Jun/19/2013  
**Time Treated:** 9:35 AM  
**% Cloud Cover:** 0  
**Air Temp., Unit:** 63 F  
**% Relative Humidity:** 47  
**Wind Speed/Unit/Dir:** 4 mph NE  
**Soil Temp., Unit:** 60 F  
**Soil/Leaf Surface M:** 2 4  
**Soil Moist (1=w 5=d):** 2

**Crop Stage at Each Application**

**A**  
**Crop Name:** GLXMA  
**Height (In.):** 7"  
**Stage (L):** V3-V4

**Weed Stage at Each Application**

**A**  
**Weed 1 Name:** ANGR  
**Height (In.):** 2"  
**Stage (L):** 4  
**Weed 2 Name:** CHEAL  
**Height (In.):** 4"  
**Stage (L):** 12  
**Weed 3 Name:** AMBEL  
**Height (In.):** 6"  
**Stage (L):** many  
**Weed 4 Name:** ABUTH  
**Height (In.):** 2.5  
**Stage (L):** 4"

**Weed Density (plants/sq. ft.)**

Date:	1	2	3	4
Weed Name:	ANGR	CHEAL	AMBEL	ABUTH
Density:	7	5	35	<1

**Application Equipment**

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom			
A	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI
A	Cub	3.8	AIXR	11003	25"	20"	100"	19	water	35

**Comments:** Broadcast application of Dual II Magnum at 12 fl oz/A was applied PRE on 5/8/13.

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 Conducted: Campus C-12                Investigator: Christy Sprague

Weed Code								ANGR	CHEAL	AMBEL
Crop Code						GLXMA	GLXMA			
Rating Data Type						injury	injury	control	control	control
Rating Unit						percent	percent	percent	percent	percent
Rating Date						Jun/22/2013	Jun/26/2013	Jun/26/2013	Jun/26/2013	Jun/26/2013
Trt-Eval Interval						3 DA-A	7 DA-A	7 DA-A	7 DA-A	7 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	Roundup PowerMax AMS	4.5	SL	16	fl oz/a	POST	A	0	0	95	82	67
			WG	17	lb/100 gal	POST	A					
2	Cadet	0.91	L	0.6	fl oz/a	POST	A	15	15	96	91	80
	Roundup PowerMax AMS	4.5	SL	16	fl oz/a	POST	A					
			WG	17	lb/100 gal	POST	A					
3	Cadet	0.91	L	0.9	fl oz/a	POST	A	19	16	97	93	81
	Roundup PowerMax AMS	4.5	SL	16	fl oz/a	POST	A					
			WG	17	lb/100 gal	POST	A					
4	Untreated							0	0	0	0	0
5	Roundup PowerMax AMS	4.5	SL	22	fl oz/a	POST	A	0	0	99	85	73
			WG	17	lb/100 gal	POST	A					
6	Cadet	0.91	L	0.6	fl oz/a	POST	A	15	15	98	94	81
	Roundup PowerMax AMS	4.5	SL	22	fl oz/a	POST	A					
			WG	17	lb/100 gal	POST	A					
7	Cadet	0.91	L	0.9	fl oz/a	POST	A	25	25	99	89	89
	Roundup PowerMax AMS	4.5	SL	22	fl oz/a	POST	A					
			WG	17	lb/100 gal	POST	A					
8	Marvel	3	L	7.25	fl oz/a	POST	A	18	21	99	97	91
	Roundup PowerMax AMS	4.5	SL	22	fl oz/a	POST	A					
			WG	17	lb/100 gal	POST	A					
9	Marvel	3	L	7.25	fl oz/a	POST	A	28	20	50	63	84
	SelectMax	0.97	L	9	fl oz/a	POST	A					
	COC		L	1	qt/a	POST	A					
10	Cadet	0.91	L	0.9	fl oz/a	POST	A	34	20	50	73	79
	Basagran	4	L	12	fl oz/a	POST	A					
	SelectMax	0.97	L	9	fl oz/a	POST	A					
	COC		L	1	qt/a	POST	A					
LSD (P=.05)								3.3	2.9	2.8	10.4	3.7
CV								14.68	15.04	2.49	9.37	3.49

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

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Weed Code	ABUTH	GLXMA	ANGR	CHEAL	AMBEL
Crop Code					
Rating Data Type	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jun/26/2013	Jul/02/2013	Jul/03/2013	Jul/03/2013	Jul/03/2013
Trt-Eval Interval	7 DA-A	13 DA-A	14 DA-A	14 DA-A	14 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	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	A	63	0	99	96	79
	AMS		WG	17	lb/100 gal	POST	A					
2	Cadet	0.91	L	0.6	fl oz/a	POST	A	99	10	99	96	81
	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	A					
	AMS		WG	17	lb/100 gal	POST	A					
3	Cadet	0.91	L	0.9	fl oz/a	POST	A	99	13	99	98	80
	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	A					
	AMS		WG	17	lb/100 gal	POST	A					
4	Untreated							0	0	0	0	0
5	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	58	0	99	96	85
	AMS		WG	17	lb/100 gal	POST	A					
6	Cadet	0.91	L	0.6	fl oz/a	POST	A	99	10	99	98	82
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A					
	AMS		WG	17	lb/100 gal	POST	A					
7	Cadet	0.91	L	0.9	fl oz/a	POST	A	99	17	99	97	90
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A					
	AMS		WG	17	lb/100 gal	POST	A					
8	Marvel	3	L	7.25	fl oz/a	POST	A	98	12	99	98	97
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A					
	AMS		WG	17	lb/100 gal	POST	A					
9	Marvel	3	L	7.25	fl oz/a	POST	A	99	10	73	51	84
	SelectMax	0.97	L	9	fl oz/a	POST	A					
	COC		L	1	qt/a	POST	A					
10	Cadet	0.91	L	0.9	fl oz/a	POST	A	99	10	60	61	55
	Basagran	4	L	12	fl oz/a	POST	A					
	SelectMax	0.97	L	9	fl oz/a	POST	A					
	COC		L	1	qt/a	POST	A					

LSD (P=.05)	8.3	1.3	8.4	4.6	4.1
CV	7.05	10.83	7.05	4.03	3.83

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

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Weed Code	ABUTH	GLXMA	ANGR	CHEAL	AMBEL
Crop Code					
Rating Data Type	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jul/03/2013	Jul/17/2013	Jul/17/2013	Jul/17/2013	Jul/17/2013
Trt-Eval Interval	14 DA-A	28 DA-A	28 DA-A	28 DA-A	28 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	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	A	93	0	94	93	85
	AMS		WG	17	lb/100 gal	POST	A					
2	Cadet	0.91	L	0.6	fl oz/a	POST	A	99	0	95	93	81
	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	A					
	AMS		WG	17	lb/100 gal	POST	A					
3	Cadet	0.91	L	0.9	fl oz/a	POST	A	99	0	95	91	79
	Roundup PowerMax	4.5	SL	16	fl oz/a	POST	A					
	AMS		WG	17	lb/100 gal	POST	A					
4	Untreated							0	0	0	0	0
5	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	92	0	95	95	90
	AMS		WG	17	lb/100 gal	POST	A					
6	Cadet	0.91	L	0.6	fl oz/a	POST	A	99	0	90	97	84
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A					
	AMS		WG	17	lb/100 gal	POST	A					
7	Cadet	0.91	L	0.9	fl oz/a	POST	A	99	0	90	92	82
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A					
	AMS		WG	17	lb/100 gal	POST	A					
8	Marvel	3	L	7.25	fl oz/a	POST	A	98	0	97	94	94
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A					
	AMS		WG	17	lb/100 gal	POST	A					
9	Marvel	3	L	7.25	fl oz/a	POST	A	99	0	33	35	65
	SelectMax	0.97	L	9	fl oz/a	POST	A					
	COC		L	1	qt/a	POST	A					
10	Cadet	0.91	L	0.9	fl oz/a	POST	A	99	0	60	85	28
	Basagran	4	L	12	fl oz/a	POST	A					
	SelectMax	0.97	L	9	fl oz/a	POST	A					
	COC		L	1	qt/a	POST	A					

LSD (P=.05)	4.4	0.0	9.5	11.1	8.2
CV	3.43	0.0	8.76	9.92	8.23

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

MSU Weed Science Research Program

Weed Code	ABUTH		
Crop Code		GLXMA	GLXMA
Rating Data Type	control	moisture	yield
Rating Unit	percent	percent	bu/acre
Rating Date	Jul/17/2013	Oct/11/2013	Oct/11/2013
Trt-Eval Interval	28 DA-A	114 DA-A	at 13% M
# Subsamples, Dec.	0	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	Roundup PowerMax	4.5	SL	16	fl oz/a	POST A	96	12.1	73.4	
	AMS		WG	17	lb/100 gal	POST A				
2	Cadet	0.91	L	0.6	fl oz/a	POST A	97	11.9	70.7	
	Roundup PowerMax	4.5	SL	16	fl oz/a	POST A				
	AMS		WG	17	lb/100 gal	POST A				
3	Cadet	0.91	L	0.9	fl oz/a	POST A	96	12.0	71.7	
	Roundup PowerMax	4.5	SL	16	fl oz/a	POST A				
	AMS		WG	17	lb/100 gal	POST A				
4	Untreated						0	12.6	25.1	
5	Roundup PowerMax	4.5	SL	22	fl oz/a	POST A	92	11.7	72.6	
	AMS		WG	17	lb/100 gal	POST A				
6	Cadet	0.91	L	0.6	fl oz/a	POST A	98	11.8	73.3	
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST A				
	AMS		WG	17	lb/100 gal	POST A				
7	Cadet	0.91	L	0.9	fl oz/a	POST A	99	11.6	67.1	
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST A				
	AMS		WG	17	lb/100 gal	POST A				
8	Marvel	3	L	7.25	fl oz/a	POST A	96	11.7	70.1	
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST A				
	AMS		WG	17	lb/100 gal	POST A				
9	Marvel	3	L	7.25	fl oz/a	POST A	99	11.7	59.6	
	SelectMax	0.97	L	9	fl oz/a	POST A				
	COC		L	1	qt/a	POST A				
10	Cadet	0.91	L	0.9	fl oz/a	POST A	99	12.1	46.1	
	Basagran	4	L	12	fl oz/a	POST A				
	SelectMax	0.97	L	9	fl oz/a	POST A				
	COC		L	1	qt/a	POST A				

LSD (P=.05)	6.0	0.37	8.59
CV	4.78	2.14	9.4

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