

MSU Weed Science Research Program

High yielding programs with BASF management systems in no-till soybean

Trial ID: NTS02-12 Study Dir.: Sprague, Powell
 Conducted: T-18 Campus Investigator: Christy Sprague

Date Planted: May/18/2012 **Row Spacing:** 7.5 IN
Variety: See below **No. of Reps:** 6
Population: 200,000 seeds/acre **% OM:** 3.4
Soil Type: Loam **pH:** 6.6
Plot Size: 10 X 50 FT **Design:** RANDOMIZED COMPLETE BLOCK

Tillage: No-tilled into standing corn stubble
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.	STEME	CHICKWEED, COMMON	STELLARIA MEDIA (L.)
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

Application Description

	A	B	C
Application Timing:	7 EPP	POST	R3
Date Treated:	Apr/26/2012	Jun/18/2012	Jul/27/2012
Time Treated:	5:00 PM	8:30 AM	4:00 PM
% Cloud Cover:	90	60	30
Air Temp., Unit:	52 F	70 F	90 F
% Relative Humidity:	50	57	40
Wind Speed/Unit/Dir:	9 mph NW	5 mph SE	7 mph S
Soil Temp., Unit:	52 F	72 F	86 F
Soil/Leaf Surface M:	3 -	5 5	5 5
Soil Moist (1=w 5=d):	3	5	5

Crop Stage at Each Application

	A	B	C
Crop Name:	GLXMA	GLXMA	GLXMA
Height (In.):	-	6"	24"
Stage (L):	-	V2-V3	R3

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	ANGR	ANGR	ANGR
Height (In.):	0.25"	7"	-
Stage (L):	2	7	-
Weed 2 Name:	CHEAL	CHEAL	CHEAL
Height (In.):	1-3"	5"	-
Stage (L):	10-16	12	-
Weed 3 Name:	AMBEL	AMBEL	AMBEL
Height (In.):	0.5-1"	3"	-
Stage (L):	4-6	8	-
Weed 4 Name:	STEME	STEME	STEME
Height (In.):	20-30" dia	-	-
Stage (L):	flowering	-	-

Weed Density (plants/sq. ft.)

Date:	Jul/09/2012
Weed Name:	STEME
Density:	<1
Date:	Jul/09/2012
Weed Name:	ERIC A
Density:	1
Date:	Jul/09/2012
Weed Name:	ANGR
Density:	6
Date:	Jul/09/2012
Weed Name:	CHEAL
Density:	11
Date:	Jul/09/2012
Weed Name:	AMBEL
Density:	1

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Appl	Sprayer	Speed	Application Equipment					GPA	Carrier	PSI
			Nozzle	Nozzle	Nozzle	Nozzle	Boom			
A	Cub	3.8	AirMix	11003	24"	20"	100"	19	Water	28
B	Tractor	4.0	AirMix	11003	30"	20"	360"	19	Water	30
C	Cub	3.8	AirMix	11003	37"	20"	100"	19	Water	28

Comments: Plots were evaluated for differences in plant health or for diseases on August 15. There were no differences in plant health between the soybean varieties or treatments.

MSU Weed Science Research Program

High yielding programs with BASF management systems in no-till soybean

Trial ID: NTS02-12
Conducted: T-18 CampusStudy Dir.: Sprague, Powell
Investigator: Christy Sprague

Weed Code		STEME		ERICA		CHEAL		AMBEL	
Crop Code									
Rating Data Type		control		control		control		control	
Rating Unit		percent		percent		percent		percent	
Rating Date		May/18/2012		May/18/2012		May/18/2012		May/18/2012	
Trt-Eval Interval		22 DA-A		22 DA-A		22 DA-A		22 DA-A	
ARM Action Codes									
# Subsamples, Dec.		0		0		0		0	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
1	RR1- Pioneer 92Y51							0	0
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B		
	AMS		WG	17	lb/100 gal	POST	B		
2	RR2Y- AG2431							0	0
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B		
	AMS		WG	17	lb/100 gal	POST	B		
3	RR2Y- AG2431							99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A		
	2,4-D Ester	3.8	L	1	pt/a	7 EPP	A		
	AMS		WG	17	lb/100 gal	7 EPP	A		
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B		
	AMS		WG	17	lb/100 gal	POST	B		
4	RR1- Pioneer 92Y51							99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A		
	2,4-D Ester	3.8	L	1	pt/a	7 EPP	A		
	AMS		WG	17	lb/100 gal	7 EPP	A		
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B		
	AMS		WG	17	lb/100 gal	POST	B		
5	RR1- Pioneer 92Y51							99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A		
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A		
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A		
	MSO		L	1	% v/v	7 EPP	A		
	AMS		WG	17	lb/100 gal	7 EPP	A		
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B		
	AMS		WG	17	lb/100 gal	POST	B		
6	RR2Y- AG2431							99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A		
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A		
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A		
	MSO		L	1	% v/v	7 EPP	A		
	AMS		WG	17	lb/100 gal	7 EPP	A		
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B		
	AMS		WG	17	lb/100 gal	POST	B		
7	RR2Y- AG2431							99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A		
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A		
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A		
	MSO		L	1	% v/v	7 EPP	A		
	AMS		WG	17	lb/100 gal	7 EPP	A		
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B		
	AMS		WG	17	lb/100 gal	POST	B		
	Priaxor	4.17	L	4	fl oz/a	R3	C		
	Activator 90		L	0.25	% v/v	R3	C		

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Weed Code		STEME	ERICA	CHEAL	AMBEL					
Crop Code										
Rating Data Type		control	control	control	control					
Rating Unit		percent	percent	percent	percent					
Rating Date		May/18/2012	May/18/2012	May/18/2012	May/18/2012					
Trt-Eval Interval		22 DA-A	22 DA-A	22 DA-A	22 DA-A					
ARM Action Codes										
# Subsamples, Dec.		0	0	0	0					
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Grow Stg	Appl Code				
8	RR1- Pioneer 92Y51						99	99	99	99
	Roundup PowerMax	4.5	SL	22 fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2 oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10 fl oz/a	7 EPP	A				
	MSO		L	1 % v/v	7 EPP	A				
	AMS		WG	17 lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22 fl oz/a	POST	B				
	AMS		WG	17 lb/100 gal	POST	B				
	Priaxor	4.17	L	4 fl oz/a	R3	C				
	Activator 90		L	0.25 % v/v	R3	C				
9	RR1- Pioneer 92Y51						99	99	99	99
	Roundup PowerMax	4.5	SL	22 fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2 oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10 fl oz/a	7 EPP	A				
	MSO		L	1 % v/v	7 EPP	A				
	AMS		WG	17 lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22 fl oz/a	POST	B				
	AMS		WG	17 lb/100 gal	POST	B				
	Priaxor	4.17	L	4 fl oz/a	R3	C				
	Fastac	0.83	L	4 fl oz/a	R3	C				
	Activator 90		L	0.25 % v/v	R3	C				
10	RR2Y- AG2431						99	99	99	99
	Roundup PowerMax	4.5	SL	22 fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2 oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10 fl oz/a	7 EPP	A				
	MSO		L	1 % v/v	7 EPP	A				
	AMS		WG	17 lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22 fl oz/a	POST	B				
	AMS		WG	17 lb/100 gal	POST	B				
	Priaxor	4.17	L	4 fl oz/a	R3	C				
	Fastac	0.83	L	4 fl oz/a	R3	C				
	Activator 90		L	0.25 % v/v	R3	C				
LSD (P=.05)							0.0	0.0	0.6	0.0
CV							0.0	0.0	0.66	0.0

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

MSU Weed Science Research Program

Weed Code								ANGR	CHEAL	AMBEL	ERICA
Crop Code								GLXMA			
Rating Data Type								injury	control	control	control
Rating Unit								percent	percent	percent	percent
Rating Date								Jun/18/2012	Jun/18/2012	Jun/18/2012	Jun/18/2012
Trt-Eval Interval								0 DA-B	0 DA-B	0 DA-B	0 DA-B
ARM Action Codes											
# Subsamples, Dec.								0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	RR1- Pioneer 92Y51							0	0	0	0
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
2	RR2Y- AG2431							0	0	0	0
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
3	RR2Y- AG2431							0	44	76	93
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	2,4-D Ester	3.8	L	1	pt/a	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
4	RR1- Pioneer 92Y51							0	43	80	91
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	2,4-D Ester	3.8	L	1	pt/a	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
5	RR1- Pioneer 92Y51							0	87	97	94
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
6	RR2Y- AG2431							0	90	99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
7	RR2Y- AG2431							0	92	99	96
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
	Priaxor	4.17	L	4	fl oz/a	R3	C				
	Activator 90		L	0.25	% v/v	R3	C				
8	RR1- Pioneer 92Y51							0	89	99	96
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
	Priaxor	4.17	L	4	fl oz/a	R3	C				
	Activator 90		L	0.25	% v/v	R3	C				

MSU Weed Science Research Program

Weed Code							ANGR	CHEAL	AMBEL	ERICA		
Crop Code							GLXMA					
Rating Data Type							injury	control	control	control		
Rating Unit							percent	percent	percent	percent		
Rating Date							Jun/18/2012	Jun/18/2012	Jun/18/2012	Jun/18/2012		
Trt-Eval Interval							0 DA-B	0 DA-B	0 DA-B	0 DA-B		
ARM Action Codes												
# Subsamples, Dec.							0	0	0	0		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code					
9	RR1- Pioneer 92Y51							0	90	99	97	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP A						
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP A						
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP A						
	MSO		L	1	% v/v	7 EPP A						
	AMS		WG	17	lb/100 gal	7 EPP A						
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST B						
	AMS		WG	17	lb/100 gal	POST B						
	Priaxor	4.17	L	4	fl oz/a	R3	C					
	Fastac	0.83	L	4	fl oz/a	R3	C					
	Activator 90		L	0.25	% v/v	R3	C					
10	RR2Y- AG2431							0	84	99	95	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP A						
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP A						
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP A						
	MSO		L	1	% v/v	7 EPP A						
	AMS		WG	17	lb/100 gal	7 EPP A						
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST B						
	AMS		WG	17	lb/100 gal	POST B						
	Priaxor	4.17	L	4	fl oz/a	R3	C					
	Fastac	0.83	L	4	fl oz/a	R3	C					
	Activator 90		L	0.25	% v/v	R3	C					
LSD (P=.05)								0.0	11.0	5.6	6.4	0.0
CV								0.0	15.21	6.39	7.21	0.0

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

MSU Weed Science Research Program

Weed Code								ANGR	CHEAL	AMBEL	ERICA
Crop Code								GLXMA			
Rating Data Type								injury	control	control	control
Rating Unit								percent	percent	percent	percent
Rating Date								Jun/27/2012	Jun/27/2012	Jun/27/2012	Jun/27/2012
Trt-Eval Interval								9 DA-B	9 DA-B	9 DA-B	9 DA-B
ARM Action Codes											
# Subsamples, Dec.								0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	RR1- Pioneer 92Y51							0	83	42	46
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
2	RR2Y- AG2431							0	90	38	40
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
3	RR2Y- AG2431							0	90	90	94
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	2,4-D Ester	3.8	L	1	pt/a	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
4	RR1- Pioneer 92Y51							0	91	89	95
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	2,4-D Ester	3.8	L	1	pt/a	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
5	RR1- Pioneer 92Y51							0	99	99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
6	RR2Y- AG2431							0	99	99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
7	RR2Y- AG2431							0	99	99	97
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
	Priaxor	4.17	L	4	fl oz/a	R3	C				
	Activator 90		L	0.25	% v/v	R3	C				
8	RR1- Pioneer 92Y51							0	99	99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
	Priaxor	4.17	L	4	fl oz/a	R3	C				
	Activator 90		L	0.25	% v/v	R3	C				

MSU Weed Science Research Program

Weed Code							ANGR	CHEAL	AMBEL	ERICA		
Crop Code							GLXMA					
Rating Data Type							injury	control	control	control		
Rating Unit							percent	percent	percent	percent		
Rating Date							Jun/27/2012	Jun/27/2012	Jun/27/2012	Jun/27/2012		
Trt-Eval Interval							9 DA-B	9 DA-B	9 DA-B	9 DA-B		
ARM Action Codes												
# Subsamples, Dec.							0	0	0	0		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code					
9	RR1- Pioneer 92Y51							0	99	99	99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP A						
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP A						
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP A						
	MSO		L	1	% v/v	7 EPP A						
	AMS		WG	17	lb/100 gal	7 EPP A						
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST B						
	AMS		WG	17	lb/100 gal	POST B						
	Priaxor	4.17	L	4	fl oz/a	R3	C					
	Fastac	0.83	L	4	fl oz/a	R3	C					
	Activator 90		L	0.25	% v/v	R3	C					
10	RR2Y- AG2431							0	99	99	99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP A						
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP A						
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP A						
	MSO		L	1	% v/v	7 EPP A						
	AMS		WG	17	lb/100 gal	7 EPP A						
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST B						
	AMS		WG	17	lb/100 gal	POST B						
	Priaxor	4.17	L	4	fl oz/a	R3	C					
	Fastac	0.83	L	4	fl oz/a	R3	C					
	Activator 90		L	0.25	% v/v	R3	C					
LSD (P=.05)								0.0	8.2	8.8	6.9	8.3
CV								0.0	7.41	8.88	6.84	8.0

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

MSU Weed Science Research Program

Weed Code								ANGR	CHEAL	AMBEL	ERICA
Crop Code								GLXMA			
Rating Data Type								injury	control	control	control
Rating Unit								percent	percent	percent	percent
Rating Date								Jul/11/2012	Jul/11/2012	Jul/11/2012	Jul/11/2012
Trt-Eval Interval								23 DA-B	23 DA-B	23 DA-B	23 DA-B
ARM Action Codes											
# Subsamples, Dec.								0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	RR1- Pioneer 92Y51							0	99	66	75
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
2	RR2Y- AG2431							0	97	50	70
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
3	RR2Y- AG2431							0	99	94	97
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	2,4-D Ester	3.8	L	1	pt/a	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
4	RR1- Pioneer 92Y51							0	99	98	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	2,4-D Ester	3.8	L	1	pt/a	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
5	RR1- Pioneer 92Y51							0	99	99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
6	RR2Y- AG2431							0	99	99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
7	RR2Y- AG2431							0	99	99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
	Priaxor	4.17	L	4	fl oz/a	R3	C				
	Activator 90		L	0.25	% v/v	R3	C				
8	RR1- Pioneer 92Y51							0	99	99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
	Priaxor	4.17	L	4	fl oz/a	R3	C				
	Activator 90		L	0.25	% v/v	R3	C				

MSU Weed Science Research Program

Weed Code							ANGR	CHEAL	AMBEL	ERICA		
Crop Code							GLXMA					
Rating Data Type							injury	control	control	control		
Rating Unit							percent	percent	percent	percent		
Rating Date							Jul/11/2012	Jul/11/2012	Jul/11/2012	Jul/11/2012		
Trt-Eval Interval							23 DA-B	23 DA-B	23 DA-B	23 DA-B		
ARM Action Codes												
# Subsamples, Dec.							0	0	0	0		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code					
9	RR1- Pioneer 92Y51							0	99	99	99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP A						
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP A						
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP A						
	MSO		L	1	% v/v	7 EPP A						
	AMS		WG	17	lb/100 gal	7 EPP A						
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST B						
	AMS		WG	17	lb/100 gal	POST B						
	Priaxor	4.17	L	4	fl oz/a	R3 C						
	Fastac	0.83	L	4	fl oz/a	R3 C						
	Activator 90		L	0.25	% v/v	R3 C						
10	RR2Y- AG2431							0	99	99	99	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP A						
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP A						
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP A						
	MSO		L	1	% v/v	7 EPP A						
	AMS		WG	17	lb/100 gal	7 EPP A						
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST B						
	AMS		WG	17	lb/100 gal	POST B						
	Priaxor	4.17	L	4	fl oz/a	R3 C						
	Fastac	0.83	L	4	fl oz/a	R3 C						
	Activator 90		L	0.25	% v/v	R3 C						
LSD (P=.05)								0.0	2.1	8.6	7.0	8.0
CV								0.0	1.86	8.13	6.39	7.1

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

MSU Weed Science Research Program

Weed Code									ANGR	CHEAL	AMBEL
Crop Code									GLXMA		
Rating Data Type									injury	control	control
Rating Unit									percent	percent	percent
Rating Date									Aug/15/2012	Aug/15/2012	Aug/15/2012
Trt-Eval Interval									58 DA-B	58 DA-B	58 DA-B
ARM Action Codes											
# Subsamples, Dec.									0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	RR1- Pioneer 92Y51							0	95	56	64
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
2	RR2Y- AG2431							0	98	49	60
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
3	RR2Y- AG2431							0	99	85	97
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	2,4-D Ester	3.8	L	1	pt/a	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
4	RR1- Pioneer 92Y51							0	99	90	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	2,4-D Ester	3.8	L	1	pt/a	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
5	RR1- Pioneer 92Y51							0	99	98	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
6	RR2Y- AG2431							0	99	98	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
7	RR2Y- AG2431							0	99	99	97
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
	Priaxor	4.17	L	4	fl oz/a	R3	C				
	Activator 90		L	0.25	% v/v	R3	C				
8	RR1- Pioneer 92Y51							0	99	98	99
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
	Priaxor	4.17	L	4	fl oz/a	R3	C				
	Activator 90		L	0.25	% v/v	R3	C				

MSU Weed Science Research Program

Weed Code							ANGR	CHEAL	AMBEL		
Crop Code							GLXMA				
Rating Data Type							injury	control	control		
Rating Unit							percent	percent	percent		
Rating Date							Aug/15/2012	Aug/15/2012	Aug/15/2012		
Trt-Eval Interval							58 DA-B	58 DA-B	58 DA-B		
ARM Action Codes											
# Subsamples, Dec.							0	0	0		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code				
9	RR1- Pioneer 92Y51							0	99	98	98
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
	Priaxor	4.17	L	4	fl oz/a	R3	C				
	Fastac	0.83	L	4	fl oz/a	R3	C				
	Activator 90		L	0.25	% v/v	R3	C				
10	RR2Y- AG2431							0	97	99	98
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A				
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A				
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A				
	MSO		L	1	% v/v	7 EPP	A				
	AMS		WG	17	lb/100 gal	7 EPP	A				
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B				
	AMS		WG	17	lb/100 gal	POST	B				
	Priaxor	4.17	L	4	fl oz/a	R3	C				
	Fastac	0.83	L	4	fl oz/a	R3	C				
	Activator 90		L	0.25	% v/v	R3	C				
LSD (P=.05)								0.0	2.7	8.6	6.1
CV								0.0	2.34	8.45	5.77

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

MSU Weed Science Research Program

Weed Code								ERICA	GLXMA	GLXMA
Crop Code								control	moisture	yield
Rating Data Type								percent	percent	bu/acre
Rating Unit								Aug/15/2012	Oct/24/2012	Oct/24/2012
Rating Date								58 DA-B	128 DA-B	at 13% M
Trt-Eval Interval										TY1
ARM Action Codes										
# Subsamples, Dec.								0	1	1
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	RR1- Pioneer 92Y51							99	15.8	30.9
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B			
	AMS		WG	17	lb/100 gal	POST	B			
2	RR2Y- AG2431							99	14.8	26.1
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B			
	AMS		WG	17	lb/100 gal	POST	B			
3	RR2Y- AG2431							99	14.0	57.0
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A			
	2,4-D Ester	3.8	L	1	pt/a	7 EPP	A			
	AMS		WG	17	lb/100 gal	7 EPP	A			
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B			
	AMS		WG	17	lb/100 gal	POST	B			
4	RR1- Pioneer 92Y51							99	14.6	54.8
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A			
	2,4-D Ester	3.8	L	1	pt/a	7 EPP	A			
	AMS		WG	17	lb/100 gal	7 EPP	A			
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B			
	AMS		WG	17	lb/100 gal	POST	B			
5	RR1- Pioneer 92Y51							99	14.7	53.6
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A			
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A			
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A			
	MSO		L	1	% v/v	7 EPP	A			
	AMS		WG	17	lb/100 gal	7 EPP	A			
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B			
	AMS		WG	17	lb/100 gal	POST	B			
6	RR2Y- AG2431							99	14.5	58.8
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A			
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A			
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A			
	MSO		L	1	% v/v	7 EPP	A			
	AMS		WG	17	lb/100 gal	7 EPP	A			
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B			
	AMS		WG	17	lb/100 gal	POST	B			
7	RR2Y- AG2431							99	14.2	62.8
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A			
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A			
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A			
	MSO		L	1	% v/v	7 EPP	A			
	AMS		WG	17	lb/100 gal	7 EPP	A			
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B			
	AMS		WG	17	lb/100 gal	POST	B			
	Priaxor	4.17	L	4	fl oz/a	R3	C			
	Activator 90		L	0.25	% v/v	R3	C			
8	RR1- Pioneer 92Y51							99	14.5	58.4
	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	A			
	OpTill Pro - Optill	68	WG	2	oz/a	7 EPP	A			
	OpTill Pro - Outlook	6	L	10	fl oz/a	7 EPP	A			
	MSO		L	1	% v/v	7 EPP	A			
	AMS		WG	17	lb/100 gal	7 EPP	A			
	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	B			
	AMS		WG	17	lb/100 gal	POST	B			
	Priaxor	4.17	L	4	fl oz/a	R3	C			
	Activator 90		L	0.25	% v/v	R3	C			

MSU Weed Science Research Program

Weed Code	ERICA		
Crop Code		GLXMA	GLXMA
Rating Data Type	control	moisture	yield
Rating Unit	percent	percent	bu/acre
Rating Date	Aug/15/2012	Oct/24/2012	Oct/24/2012
Trt-Eval Interval	58 DA-B	128 DA-B	at 13% M
ARM Action Codes			TY1
# Subsamples, Dec.	0	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
9	RR1- Pioneer 92Y51							99	14.4	57.0
	Roundup PowerMax	4.5	SL	22	fl oz/a	7	EPP A			
	OpTill Pro - Optill	68	WG	2	oz/a	7	EPP A			
	OpTill Pro - Outlook	6	L	10	fl oz/a	7	EPP A			
	MSO		L	1	% v/v	7	EPP A			
	AMS		WG	17	lb/100 gal	7	EPP A			
	Roundup PowerMax	4.5	SL	22	fl oz/a		POST B			
	AMS		WG	17	lb/100 gal		POST B			
	Priaxor	4.17	L	4	fl oz/a	R3	C			
	Fastac	0.83	L	4	fl oz/a	R3	C			
	Activator 90		L	0.25	% v/v	R3	C			
10	RR2Y- AG2431							99	14.3	56.9
	Roundup PowerMax	4.5	SL	22	fl oz/a	7	EPP A			
	OpTill Pro - Optill	68	WG	2	oz/a	7	EPP A			
	OpTill Pro - Outlook	6	L	10	fl oz/a	7	EPP A			
	MSO		L	1	% v/v	7	EPP A			
	AMS		WG	17	lb/100 gal	7	EPP A			
	Roundup PowerMax	4.5	SL	22	fl oz/a		POST B			
	AMS		WG	17	lb/100 gal		POST B			
	Priaxor	4.17	L	4	fl oz/a	R3	C			
	Fastac	0.83	L	4	fl oz/a	R3	C			
	Activator 90		L	0.25	% v/v	R3	C			
	LSD (P=.05)							0.0	0.74	8.11
	CV							0.0	4.36	13.46

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