

Southern Illinois University

Fall and Spring Residual Herbicides for Marestalk Control in Soybean.

Trial ID: 12-YRC-MonFall
 Location: Young Res. Center

Investigator: Bryan Young

General Trial Information	
Study Director: Bryan Young	Title: Professor
Investigator: Bryan Young	Title: Professor
Trial Status: F - one-year/final	
Initiation Date: 11-23-11	
Trial Location	
City: Murphysboro	
State/Prov.: IL	
Postal Code: 62966	
Country: USA	

Objectives:
 Evaluate the benefit of fall- and spring-applied residual herbicides for control of marestalk in soybean.

Personnel	
Study Director: Bryan Young	Title: Professor
Affiliation: SIUC	
Postal Code: 62901 E-mail: bgyoung@siu.edu	
Investigator: Bryan Young	Title: Professor
Affiliation: Southern Illinois University	
Address: 1205 Lincoln Drive - AG 176 - MC 4415	
Location: Carbondale IL	
Postal Code: 62901 E-mail: bgyoung@siu.edu	
Phone No.: 618-453-7679 Mobile No.: 618-713-6471	

Crop Description	
Crop 1: GLXMA Glycine max Soybean	Description: RR2Y
Variety: AG3832	Planting Date: 5-1-12
BBCH Scale: BSOY	Rate, Unit: 155000 S/A
Planting Method: SEEDED	
Depth, Unit: 2.0 IN	
Row Spacing, Unit: 30 IN	

Pest Description	
Pest 1 Type: W Code: ERICA - Conyza canadensis (L.) Crong.	Common Name: horseweed
Description: glyphosate-resistant marestalk	
Pest 2 Type: W Code: LAMAM - Lamium amplexicaule L.	Common Name: henbit
Pest 3 Type: W Code: STEME - Stellaria media (L.) Vill.	Common Name: chickweed, common
Pest 4 Type: W Code: VERPG - Veronica peregrina L.	Common Name: speedwell, purslane
Pest 5 Type: W Code: AMATA - Amaranthus rudis Sauer	Common Name: waterhemp, common
Description: glyphosate-resistant waterhemp	
Pest 6 Type: W Code: PANDI - Panicum dichotomiflorum Michx.	Common Name: panicum, fall

Site and Design	
Plot Width, Unit: 10 FT	Site Type: FIELD field
Plot Length, Unit: 30 FT	
Plot Area, Unit: 300 FT2	Tillage Type: NOTILL no-till
Replications: 4	Study Design: RACOB L Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	ZEAMD	2011

Maintenance	
No.	Maintenance Treatment Name
1.	N 27 LB/A, P205 69 LB/A, K20 90 LB/A

Soil Description	
% OM: 1.82	Texture: SIL SILT LOAM
pH: 6.2	Soil Name: ALVIN
CEC: 6.16	

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Additional Measured Elements

Element	Quantity	Unit
P1	154	LB/A
K	264	LB/A

Moisture and Weather Conditions

Overall Moisture Conditions: BELNOR below normal
 Closest Weather Station: SOUTHERN IL AIRPORT (93810) Distance, Unit: 3.5 MI

Application Description

	A	B	C	D
Application Date:	11-23-11	3-29-12	4-24-12	5-29-12
Time of Day:	14:30	10:45	8:30	14:00
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	FALL	30DBP	1-7DBP	POST
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	RJW	LAH	LAH	LAH
Air Temperature, Unit:	52 F	69 F	59 F	89 F
% Relative Humidity:	74	63	53	37
Wind Velocity, Unit:	2 MPH	3 MPH	4 MPH	4 MPH
Wind Direction:	E	N	SW	SE
Dew Presence (Y/N):	N no	N no	Y yes	N no
Soil Temperature, Unit:	51 F	63 F	52 F	83 F
Soil Moisture:	ABONOR	NORMAL	NORMAL	NORMAL
% Cloud Cover:	100	40	95	40
Next Rain Occurred On:	11-26-11	4-3-12	4-30-12	5-31-12

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC	DESC	DESC
Stage Majority, Percent:	NA	NA	NA	V3
Stage Minimum, Percent:				V2
Stage Maximum, Percent:				V3
Height, Unit:				5 IN
Height Minimum, Maximum:				3 5

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Pest Stage At Each Application								
	A		B		C		D	
Pest 1 Code, Type, Scale:	ERICA	W DESC	ERICA	W DESC	ERICA	W DESC	ERICA	W DESC
Stage Majority, Percent:	10		15		10		40	
Stage Minimum, Percent:	5		5		6		20	
Stage Maximum, Percent:	15		25		20		50	
Height, Unit:	0.5	IN	1.5	IN	4	IN	10	IN
Height Minimum, Maximum:	0.5	1.5	0.5	3	2	6	4	14
Density, Unit:	1	FT2	1	FT2	0.5	FT2	1	FT2
Pest 2 Code, Type, Scale:	LAMAM	W DESC	LAMAM	W DESC	LAMAM	W DESC	LAMAM	W DESC
Stage Majority, Percent:	8		15		NA		NA	
Stage Minimum, Percent:	2		12					
Stage Maximum, Percent:	10		20					
Height, Unit:	2	IN	8	IN				
Height Minimum, Maximum:	0.5	4	5	10				
Density, Unit:	1	FT2	1	FT2				
Pest 3 Code, Type, Scale:	STEME	W DESC	STEME	W DESC	STEME	W DESC	STEME	W DESC
Stage Majority, Percent:	15		50+		NA		NA	
Stage Minimum, Percent:	4							
Stage Maximum, Percent:	20							
Height, Unit:	0.5	IN	10	IN				
Height Minimum, Maximum:	0.5	1	8	12				
Density, Unit:	0.8	FT2	0.5	FT2				
Pest 4 Code, Type, Scale:	VERPG	W DESC	VERPG	W DESC	VERPG	W DESC	VERPG	W DESC
Stage Majority, Percent:	NA		50+		50+		NA	
Stage Minimum, Percent:			30		30			
Stage Maximum, Percent:			50+		50+			
Height, Unit:			9	IN	9	IN		
Height Minimum, Maximum:			8	10	8	10		
Density, Unit:			20	FT2	20	FT2		
Pest 5 Code, Type, Scale:	AMATA	W DESC	AMATA	W DESC	AMATA	W DESC	AMATA	W DESC
Stage Majority, Percent:	NA		Coty		6		20	
Stage Minimum, Percent:			Coty		Coty		Coty	
Stage Maximum, Percent:			2		8		50+	
Height, Unit:			0.5	IN	3	IN	8	IN
Height Minimum, Maximum:			0.25	0.5	0.25	5	0.25	24
Density, Unit:			0.3	FT2	0.5	FT2	0.5	FT2
Pest 6 Code, Type, Scale:	PANDI	W DESC	PANDI	W DESC	PANDI	W DESC	PANDI	W DESC
Stage Majority, Percent:	NA		NA		NA		10	
Stage Minimum, Percent:							6	
Stage Maximum, Percent:							20	
Height, Unit:							6	IN
Height Minimum, Maximum:							3	12
Density, Unit:							1	FT2

Application Equipment								
	A		B		C		D	
Appl. Equipment:	CO2 sprayer		CO2 sprayer		CO2 sprayer		CO2 sprayer	
Operation Pressure, Unit:	30	PSI	30	PSI	30	PSI	30	PSI
Nozzle Type:	Flat fan		Flat fan		Flat fan		Flat fan	
Nozzle Size:	XR 8002		XR 8002		XR 8002		XR 8002	
Boom Length, Unit:	6.67 FT		6.67 FT		6.67 FT		6.67 FT	
Spray Volume, Unit:	15	GPA	15	GPA	15	GPA	15	GPA

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval								GLXMA 5-29-12 Injury Percent	ERICA-HR 3-29-12 Control Percent	ERICA-HR 4-23-12 Control Percent	ERICA-HR 5-29-12 Control Percent		
								0 DA-D	0 DA-B	-1 DA-C	0 DA-D		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Unit	Growth Stage	Appl Code				
1	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B	0 a		64 f	63 d
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	30DBP	B				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	POST	D				
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	POST	D				
2	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B	0 a		88 cde	87 bc
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	30DBP	B				
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	30DBP	B				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	POST	D				
3	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B	0 a		99 a	98 a
	CLARITY	4	SL	0.5	lb ae/a	0.5	qt/a	30DBP	B				
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	30DBP	B				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	POST	D				
4	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C	0 a			92 ab
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C				
	MSO (MSO ULTRA)	100	SL		1 % v/v		1 % v/v	1-7DBP	C				
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	1-7DBP	C				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	POST	D				
5	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C	0 a			93 a
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C				
	COC (PRIME OIL)	100	SL		1 % v/v		1 % v/v	1-7DBP	C				
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	1-7DBP	C				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	POST	D				
6	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	FALL	A	0 a	94 a	86 de	95 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	FALL	A				
	VALOR XLT	40.3	WG	0.0756	lb ai/a	3	oz/a	FALL	A				
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	FALL	A				
	COC (PRIME OIL)	100	SL		1 % v/v		1 % v/v	FALL	A				
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	FALL	A				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C				
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C				
	MSO (MSO ULTRA)	100	SL		1 % v/v		1 % v/v	1-7DBP	C				
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	1-7DBP	C				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	POST	D				
7	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B	0 a		98 a	96 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	30DBP	B				
	VALOR XLT	40.3	WG	0.0756	lb ai/a	3	oz/a	30DBP	B				
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz wt/a	30DBP	B				
	COC (PRIME OIL)	100	SL		1 % v/v		1 % v/v	30DBP	B				
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	30DBP	B				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	POST	D				

Means followed by same letter do not significantly differ (P=0.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval								GLXMA 5-29-12 Injury Percent	ERICA-HR 3-29-12 Control Percent	ERICA-HR 4-23-12 Control Percent	ERICA-HR 5-29-12 Control Percent		
								0 DA-D	0 DA-B	-1 DA-C	0 DA-D		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Unit	Growth Stage	Appl Code				
8	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	FALL	A	0 a	75 b	54 g	96 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	FALL	A				
	AUTHORITY MTZ	45	WG	0.31	lb ai/a	11	oz/a	FALL	A				
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	FALL	A				
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	FALL	A				
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	FALL	A				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C				
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C				
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	1-7DBP	C				
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	1-7DBP	C				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST	D				
9	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B	0 a		84 e	82 c
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	30DBP	B				
	AUTHORITY MTZ	45	WG	0.31	lb ai/a	11	oz/a	30DBP	B				
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	30DBP	B				
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	30DBP	B				
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	30DBP	B				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST	D				
10	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	FALL	A	0 a	99 a	91 b-e	98 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	FALL	A				
	AUTHORITY XL	70	WG	0.175	lb ai/a	4	oz/a	FALL	A				
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	FALL	A				
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	FALL	A				
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	FALL	A				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C				
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C				
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	1-7DBP	C				
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	1-7DBP	C				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST	D				
11	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B	0 a		99 a	96 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	30DBP	B				
	AUTHORITY XL	70	WG	0.175	lb ai/a	4	oz/a	30DBP	B				
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	30DBP	B				
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	30DBP	B				
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	30DBP	B				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST	D				
12	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	FALL	A	0 a	78 b	60 fg	97 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	FALL	A				
	WARRANT	3	CS	1.125	lb ai/a	48	fl oz/a	FALL	A				
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	FALL	A				
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	FALL	A				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C				
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C				
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	1-7DBP	C				
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	1-7DBP	C				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST	D				
13	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B	0 a		95 ab	93 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	30DBP	B				
	WARRANT	3	CS	1.125	lb ai/a	48	fl oz/a	30DBP	B				
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	30DBP	B				
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	30DBP	B				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST	D				

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 Location: Young Res. Center

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Pest Code								GLXMA	ERICA-HR	ERICA-HR	ERICA-HR		
Crop Code								5-29-12	3-29-12	4-23-12	5-29-12		
Rating Date								Injury	Control	Control	Control		
Rating Type								Percent	Percent	Percent	Percent		
Rating Unit													
Rating Timing													
Trt-Eval Interval								0 DA-D	0 DA-B	-1 DA-C	0 DA-D		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code				
14	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	FALL	A	0 a	97 a	84 e	98 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	FALL	A				
	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.45	oz/a	FALL	A				
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	FALL	A				
	COC (PRIME OIL)	100	SL	1 %	v/v	1 %	v/v	FALL	A				
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	FALL	A				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C				
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C				
	MSO (MSO ULTRA)	100	SL	1 %	v/v	1 %	v/v	1-7DBP	C				
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	1-7DBP	C				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	POST	D				
15	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B	0 a		99 a	98 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	30DBP	B				
	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.45	oz/a	30DBP	B				
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	30DBP	B				
	COC (PRIME OIL)	100	SL	1 %	v/v	1 %	v/v	30DBP	B				
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	30DBP	B				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	POST	D				
16	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	FALL	A	0 a	96 a	93 abc	97 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	FALL	A				
	CANOPY EX	29.5	WG	0.037	lb ai/a	2	oz/a	FALL	A				
	COC (PRIME OIL)	100	SL	1 %	v/v	1 %	v/v	FALL	A				
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	FALL	A				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C				
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C				
	MSO (MSO ULTRA)	100	SL	1 %	v/v	1 %	v/v	1-7DBP	C				
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	1-7DBP	C				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	POST	D				
17	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	FALL	A	0 a	97 a	93 a-d	97 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	FALL	A				
	CANOPY EX	29.5	WG	0.037	lb ai/a	2	oz/a	FALL	A				
	COC (PRIME OIL)	100	SL	1 %	v/v	1 %	v/v	FALL	A				
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	FALL	A				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C				
	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.45	oz/a	1-7DBP	C				
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	1-7DBP	C				
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D				
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	POST	D				
LSD (P=.05)								0.0	11.7	6.8	6.0		
Standard Deviation								0.0	7.9	4.8	4.2		
CV								0.0	8.71	5.54	4.54		
Replicate F								0.000	0.626	0.308	1.319		
Replicate Prob(F)								1.0000	0.6074	0.8196	0.2792		
Treatment F								0.000	6.426	38.423	16.863		
Treatment Prob(F)								1.0000	0.0009	0.0001	0.0001		

Southern Illinois University

Fall and Spring Residual Herbicides for Marestalk Control in Soybean.

Trial ID: 12-YRC-MonFall
Location: Young Res. Center

Investigator: Bryan Young

Pest Code								LAMAM	LAMAM	STEME	VERPG	VERPG
Crop Code								3-29-12	4-23-12	3-29-12	3-29-12	4-23-12
Rating Date								Control	Control	Control	Control	Control
Rating Type								Percent	Percent	Percent	Percent	Percent
Rating Unit												
Rating Timing												
Trt-Eval Interval								0 DA-B	-1 DA-C	0 DA-B	0 DA-B	-1 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Unit	Growth Stage	Appl Code			
1	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B		96 ab	99 a
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	30DBP	B			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	POST	D			
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	POST	D			
2	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B		99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	30DBP	B			
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	30DBP	B			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	POST	D			
3	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B		98 a	99 a
	CLARITY	4	SL	0.5	lb ae/a	0.5	qt/a	30DBP	B			
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	30DBP	B			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	POST	D			
4	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C			
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C			
	MSO (MSO ULTRA)	100	SL		1 % v/v		1 % v/v	1-7DBP	C			
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	1-7DBP	C			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	POST	D			
5	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C			
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C			
	COC (PRIME OIL)	100	SL		1 % v/v		1 % v/v	1-7DBP	C			
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	1-7DBP	C			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	POST	D			
6	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	FALL	A	99 a	98 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	FALL	A			90 ab
	VALOR XLT	40.3	WG	0.0756	lb ai/a	3	oz/a	FALL	A			84 b
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	FALL	A			
	COC (PRIME OIL)	100	SL		1 % v/v		1 % v/v	FALL	A			
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	FALL	A			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C			
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C			
	MSO (MSO ULTRA)	100	SL		1 % v/v		1 % v/v	1-7DBP	C			
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	1-7DBP	C			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	POST	D			
7	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B		99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	30DBP	B			
	VALOR XLT	40.3	WG	0.0756	lb ai/a	3	oz/a	30DBP	B			
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz wt/a	30DBP	B			
	COC (PRIME OIL)	100	SL		1 % v/v		1 % v/v	30DBP	B			
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	30DBP	B			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	N-PAK AMS	100	SL		5 % v/v		5 % v/v	POST	D			

Southern Illinois University

Fall and Spring Residual Herbicides for Marestalk Control in Soybean.

Trial ID: 12-YRC-MonFall
 Location: Young Res. Center

Investigator: Bryan Young

Pest Code								LAMAM	LAMAM	STEME	VERPG	VERPG		
Crop Code								3-29-12	4-23-12	3-29-12	3-29-12	4-23-12		
Rating Date								Control	Control	Control	Control	Control		
Rating Type								Percent	Percent	Percent	Percent	Percent		
Rating Unit								0 DA-B	-1 DA-C	0 DA-B	0 DA-B	-1 DA-C		
Rating Timing														
Trt-Eval Interval														
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Unit	Growth Stage	Appl Code					
8	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	FALL	A	88 b	83 c	97 b	70 c	35 c
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	FALL	A					
	AUTHORITY MTZ	45	WG	0.31	lb ai/a	11	oz/a	FALL	A					
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	FALL	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	FALL	A					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	FALL	A					
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C					
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C					
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	1-7DBP	C					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	1-7DBP	C					
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST	D					
9	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B		98 a			99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	30DBP	B					
	AUTHORITY MTZ	45	WG	0.31	lb ai/a	11	oz/a	30DBP	B					
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	30DBP	B					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	30DBP	B					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	30DBP	B					
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST	D					
10	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	FALL	A	99 a	98 a	99 a	93 a	82 b
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	FALL	A					
	AUTHORITY XL	70	WG	0.175	lb ai/a	4	oz/a	FALL	A					
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	FALL	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	FALL	A					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	FALL	A					
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C					
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C					
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	1-7DBP	C					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	1-7DBP	C					
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST	D					
11	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B		99 a			99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	30DBP	B					
	AUTHORITY XL	70	WG	0.175	lb ai/a	4	oz/a	30DBP	B					
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	30DBP	B					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	30DBP	B					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	30DBP	B					
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST	D					
12	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	FALL	A	96 a	93 b	99 a	81 b	41 c
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	FALL	A					
	WARRANT	3	CS	1.125	lb ai/a	48	fl oz/a	FALL	A					
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	FALL	A					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	FALL	A					
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C					
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C					
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	1-7DBP	C					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	1-7DBP	C					
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST	D					
13	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B		99 a			99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	30DBP	B					
	WARRANT	3	CS	1.125	lb ai/a	48	fl oz/a	30DBP	B					
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	30DBP	B					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	30DBP	B					
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D					
	N-PAK AMS	100	SL	5	% v/v	5	% v/v	POST	D					

Southern Illinois University

Fall and Spring Residual Herbicides for Marestalk Control in Soybean.

Trial ID: 12-YRC-MonFall
 Location: Young Res. Center

Investigator: Bryan Young

Pest Code							LAMAM	LAMAM	STEME	VERPG	VERPG		
Crop Code													
Rating Date							3-29-12	4-23-12	3-29-12	3-29-12	4-23-12		
Rating Type							Control	Control	Control	Control	Control		
Rating Unit							Percent	Percent	Percent	Percent	Percent		
Rating Timing													
Trt-Eval Interval							0 DA-B	-1 DA-C	0 DA-B	0 DA-B	-1 DA-C		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Unit	Growth Stage	Appl Code					
14	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a	21.3 fl oz/a		FALL	A	98 a	96 ab	99 a	50 d	21 d
	2,4-D LV 4	3.8	EC	0.475 lb ae/a	0.5 qt/a		FALL	A					
	AUTHORITY FIRST	70	WG	0.282 lb ai/a	6.45 oz/a		FALL	A					
	EXPRESS	50	SG	0.00313 lb ai/a	0.1 oz/a		FALL	A					
	COC (PRIME OIL)	100	SL	1 % v/v	1 % v/v		FALL	A					
	N-PAK AMS	100	SL	5 % v/v	5 % v/v		FALL	A					
	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a	21.3 fl oz/a		1-7DBP	C					
	SHARPEN	2.85	SC	0.0223 lb ai/a	1 fl oz/a		1-7DBP	C					
	MSO (MSO ULTRA)	100	SL	1 % v/v	1 % v/v		1-7DBP	C					
	N-PAK AMS	100	SL	5 % v/v	5 % v/v		1-7DBP	C					
	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a	21.3 fl oz/a		POST	D					
	N-PAK AMS	100	SL	5 % v/v	5 % v/v		POST	D					
15	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a	21.3 fl oz/a		30DBP	B		99 a			99 a
	2,4-D LV 4	3.8	EC	0.475 lb ae/a	0.5 qt/a		30DBP	B					
	AUTHORITY FIRST	70	WG	0.282 lb ai/a	6.45 oz/a		30DBP	B					
	EXPRESS	50	SG	0.00313 lb ai/a	0.1 oz/a		30DBP	B					
	COC (PRIME OIL)	100	SL	1 % v/v	1 % v/v		30DBP	B					
	N-PAK AMS	100	SL	5 % v/v	5 % v/v		30DBP	B					
	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a	21.3 fl oz/a		POST	D					
	N-PAK AMS	100	SL	5 % v/v	5 % v/v		POST	D					
16	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a	21.3 fl oz/a		FALL	A	98 a	97 a	99 a	91 ab	87 ab
	2,4-D LV 4	3.8	EC	0.475 lb ae/a	0.5 qt/a		FALL	A					
	CANOPY EX	29.5	WG	0.037 lb ai/a	2 oz/a		FALL	A					
	COC (PRIME OIL)	100	SL	1 % v/v	1 % v/v		FALL	A					
	N-PAK AMS	100	SL	5 % v/v	5 % v/v		FALL	A					
	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a	21.3 fl oz/a		1-7DBP	C					
	SHARPEN	2.85	SC	0.0223 lb ai/a	1 fl oz/a		1-7DBP	C					
	MSO (MSO ULTRA)	100	SL	1 % v/v	1 % v/v		1-7DBP	C					
	N-PAK AMS	100	SL	5 % v/v	5 % v/v		1-7DBP	C					
	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a	21.3 fl oz/a		POST	D					
	N-PAK AMS	100	SL	5 % v/v	5 % v/v		POST	D					
17	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a	21.3 fl oz/a		FALL	A	98 a	97 a	99 a	91 ab	88 ab
	2,4-D LV 4	3.8	EC	0.475 lb ae/a	0.5 qt/a		FALL	A					
	CANOPY EX	29.5	WG	0.037 lb ai/a	2 oz/a		FALL	A					
	COC (PRIME OIL)	100	SL	1 % v/v	1 % v/v		FALL	A					
	N-PAK AMS	100	SL	5 % v/v	5 % v/v		FALL	A					
	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a	21.3 fl oz/a		1-7DBP	C					
	AUTHORITY FIRST	70	WG	0.282 lb ai/a	6.45 oz/a		1-7DBP	C					
	N-PAK AMS	100	SL	5 % v/v	5 % v/v		1-7DBP	C					
	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a	21.3 fl oz/a		POST	D					
	N-PAK AMS	100	SL	5 % v/v	5 % v/v		POST	D					
LSD (P=.05)							3.7	3.8	1.3	10.9	13.6		
Standard Deviation							2.5	2.7	0.9	7.3	9.5		
CV							2.61	2.78	0.88	9.06	11.63		
Replicate F							1.652	1.643	1.000	1.215	0.999		
Replicate Prob(F)							0.2128	0.1938	0.4155	0.3329	0.4028		
Treatment F							9.899	9.777	3.000	18.654	31.247		
Treatment Prob(F)							0.0001	0.0001	0.0327	0.0001	0.0001		

Southern Illinois University

Fall and Spring Residual Herbicides for Marestalk Control in Soybean.

Trial ID: 12-YRC-MonFall
 Location: Young Res. Center

Investigator: Bryan Young

Pest Code									AMATA-HR	AMATA-HR	PANDI	
Crop Code												
Rating Date									4-23-12	5-29-12	5-29-12	
Rating Type									Control	Control	Control	
Rating Unit									Percent	Percent	Percent	
Rating Timing												
Trt-Eval Interval									-1 DA-C	0 DA-D	0 DA-D	
Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B	92 a	20 j	3 g
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	30DBP	B			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	POST	D			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	POST	D			
2	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B	97 a	31 ij	0 g
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	30DBP	B			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	30DBP	B			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	POST	D			
3	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B	99 a	45 hi	0 g
	CLARITY	4	SL	0.5	lb ae/a	0.5	qt/a	30DBP	B			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	30DBP	B			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	POST	D			
4	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C		77 a-d	84 abc
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C			
	MSO (MSO ULTRA)	100	SL	1 %	v/v	1 %	v/v	1-7DBP	C			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	1-7DBP	C			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	POST	D			
5	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C		81 abc	81 bcd
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C			
	COC (PRIME OIL)	100	SL	1 %	v/v	1 %	v/v	1-7DBP	C			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	1-7DBP	C			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	POST	D			
6	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	FALL	A	68 b	61 efg	74 de
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	FALL	A			
	VALOR XLT	40.3	WG	0.0756	lb ai/a	3	oz/a	FALL	A			
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	FALL	A			
	COC (PRIME OIL)	100	SL	1 %	v/v	1 %	v/v	FALL	A			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	FALL	A			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C			
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C			
	MSO (MSO ULTRA)	100	SL	1 %	v/v	1 %	v/v	1-7DBP	C			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	1-7DBP	C			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	POST	D			
7	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B	99 a	69 c-f	78 bcd
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	30DBP	B			
	VALOR XLT	40.3	WG	0.0756	lb ai/a	3	oz/a	30DBP	B			
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz wt/a	30DBP	B			
	COC (PRIME OIL)	100	SL	1 %	v/v	1 %	v/v	30DBP	B			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	30DBP	B			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	POST	D			

Southern Illinois University

Fall and Spring Residual Herbicides for Marestalk Control in Soybean.

Trial ID: 12-YRC-MonFall
Location: Young Res. Center

Investigator: Bryan Young

Pest Code									AMATA-HR	AMATA-HR	PANDI	
Crop Code												
Rating Date									4-23-12	5-29-12	5-29-12	
Rating Type									Control	Control	Control	
Rating Unit									Percent	Percent	Percent	
Rating Timing												
Trt-Eval Interval									-1 DA-C	0 DA-D	0 DA-D	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
8	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a		21.3 fl oz/a		FALL	A	26 e	66 c-f	84 abc
	2,4-D LV 4	3.8	EC	0.475 lb ae/a		0.5 qt/a		FALL	A			
	AUTHORITY MTZ	45	WG	0.31 lb ai/a		11 oz/a		FALL	A			
	EXPRESS	50	SG	0.00313 lb ai/a		0.1 oz/a		FALL	A			
	COC (PRIME OIL)	100	SL	1 % v/v		1 % v/v		FALL	A			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		FALL	A			
	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a		21.3 fl oz/a		1-7DBP	C			
	SHARPEN	2.85	SC	0.0223 lb ai/a		1 fl oz/a		1-7DBP	C			
	MSO (MSO ULTRA)	100	SL	1 % v/v		1 % v/v		1-7DBP	C			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		1-7DBP	C			
	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a		21.3 fl oz/a		POST	D			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		POST	D			
9	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a		21.3 fl oz/a		30DBP	B			
	2,4-D LV 4	3.8	EC	0.475 lb ae/a		0.5 qt/a		30DBP	B			
	AUTHORITY MTZ	45	WG	0.31 lb ai/a		11 oz/a		30DBP	B			
	EXPRESS	50	SG	0.00313 lb ai/a		0.1 oz/a		30DBP	B			
	COC (PRIME OIL)	100	SL	1 % v/v		1 % v/v		30DBP	B			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		30DBP	B			
	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a		21.3 fl oz/a		POST	D			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		POST	D			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		POST	D			
10	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a		21.3 fl oz/a		FALL	A	48 d	55 fgh	75 cde
	2,4-D LV 4	3.8	EC	0.475 lb ae/a		0.5 qt/a		FALL	A			
	AUTHORITY XL	70	WG	0.175 lb ai/a		4 oz/a		FALL	A			
	EXPRESS	50	SG	0.00313 lb ai/a		0.1 oz/a		FALL	A			
	COC (PRIME OIL)	100	SL	1 % v/v		1 % v/v		FALL	A			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		FALL	A			
	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a		21.3 fl oz/a		1-7DBP	C			
	SHARPEN	2.85	SC	0.0223 lb ai/a		1 fl oz/a		1-7DBP	C			
	MSO (MSO ULTRA)	100	SL	1 % v/v		1 % v/v		1-7DBP	C			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		1-7DBP	C			
	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a		21.3 fl oz/a		POST	D			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		POST	D			
11	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a		21.3 fl oz/a		30DBP	B			
	2,4-D LV 4	3.8	EC	0.475 lb ae/a		0.5 qt/a		30DBP	B			
	AUTHORITY XL	70	WG	0.175 lb ai/a		4 oz/a		30DBP	B			
	EXPRESS	50	SG	0.00313 lb ai/a		0.1 oz/a		30DBP	B			
	COC (PRIME OIL)	100	SL	1 % v/v		1 % v/v		30DBP	B			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		30DBP	B			
	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a		21.3 fl oz/a		POST	D			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		POST	D			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		POST	D			
12	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a		21.3 fl oz/a		FALL	A	63 bc	65 def	79 bcd
	2,4-D LV 4	3.8	EC	0.475 lb ae/a		0.5 qt/a		FALL	A			
	WARRANT	3	CS	1.125 lb ai/a		48 fl oz/a		FALL	A			
	EXPRESS	50	SG	0.00313 lb ai/a		0.1 oz/a		FALL	A			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		FALL	A			
	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a		21.3 fl oz/a		1-7DBP	C			
	SHARPEN	2.85	SC	0.0223 lb ai/a		1 fl oz/a		1-7DBP	C			
	MSO (MSO ULTRA)	100	SL	1 % v/v		1 % v/v		1-7DBP	C			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		1-7DBP	C			
	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a		21.3 fl oz/a		POST	D			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		POST	D			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		POST	D			
13	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a		21.3 fl oz/a		30DBP	B			
	2,4-D LV 4	3.8	EC	0.475 lb ae/a		0.5 qt/a		30DBP	B			
	WARRANT	3	CS	1.125 lb ai/a		48 fl oz/a		30DBP	B			
	EXPRESS	50	SG	0.00313 lb ai/a		0.1 oz/a		30DBP	B			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		30DBP	B			
	ROUNDUP POWERMAX	4.5	SL	0.75 lb ae/a		21.3 fl oz/a		POST	D			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		POST	D			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		POST	D			
	N-PAK AMS	100	SL	5 % v/v		5 % v/v		POST	D			

Southern Illinois University

Fall and Spring Residual Herbicides for Marestalk Control in Soybean.

Trial ID: 12-YRC-MonFall
 Location: Young Res. Center

Investigator: Bryan Young

Pest Code									AMATA-HR	AMATA-HR	PANDI	
Crop Code												
Rating Date									4-23-12	5-29-12	5-29-12	
Rating Type									Control	Control	Control	
Rating Unit									Percent	Percent	Percent	
Rating Timing												
Trt-Eval Interval									-1 DA-C	0 DA-D	0 DA-D	
Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
14	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	FALL	A	49 cd	61 efg	86 ab
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	FALL	A			
	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.45	oz/a	FALL	A			
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	FALL	A			
	COC (PRIME OIL)	100	SL	1 %	v/v	1 %	v/v	FALL	A			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	FALL	A			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C			
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C			
	MSO (MSO ULTRA)	100	SL	1 %	v/v	1 %	v/v	1-7DBP	C			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	1-7DBP	C			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	POST	D			
15	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	30DBP	B	99 a	85 ab	83 a-d
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	30DBP	B			
	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.45	oz/a	30DBP	B			
	EXPRESS	50	SG	0.00313	lb ai/a	0.1	oz/a	30DBP	B			
	COC (PRIME OIL)	100	SL	1 %	v/v	1 %	v/v	30DBP	B			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	30DBP	B			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	POST	D			
16	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	FALL	A	28 e	48 gh	74 cde
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	FALL	A			
	CANOPY EX	29.5	WG	0.037	lb ai/a	2	oz/a	FALL	A			
	COC (PRIME OIL)	100	SL	1 %	v/v	1 %	v/v	FALL	A			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	FALL	A			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C			
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	1-7DBP	C			
	MSO (MSO ULTRA)	100	SL	1 %	v/v	1 %	v/v	1-7DBP	C			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	1-7DBP	C			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	POST	D			
17	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	FALL	A	60 bcd	89 a	92 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	0.5	qt/a	FALL	A			
	CANOPY EX	29.5	WG	0.037	lb ai/a	2	oz/a	FALL	A			
	COC (PRIME OIL)	100	SL	1 %	v/v	1 %	v/v	FALL	A			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	FALL	A			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	1-7DBP	C			
	AUTHORITY FIRST	70	WG	0.282	lb ai/a	6.45	oz/a	1-7DBP	C			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	1-7DBP	C			
	ROUNDUP POWERMAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	POST	D			
	N-PAK AMS	100	SL	5 %	v/v	5 %	v/v	POST	D			
LSD (P=.05)									13.8	15.3	10.0	
Standard Deviation									9.7	10.7	7.0	
CV									12.91	17.31	11.3	
Replicate F									1.649	0.089	0.532	
Replicate Prob(F)									0.1926	0.9660	0.6628	
Treatment F									32.687	11.790	91.864	
Treatment Prob(F)									0.0001	0.0001	0.0001	

Fall and Spring Residual Herbicides for Marestalk Control in Soybean.

Trial ID: 12-YRC-MonFall
Location: Young Res. Center

Investigator: Bryan Young

Trial Comments

1. Protocol: Monsanto (24-05).
2. Ratings: WC prior to B, C, and D applications.
3. Target marestalk.
4. ERICA-HR = Herbicide-resistant marestalk (glyphosate).
AMATA-HR = Herbicide-resistant waterhemp (glyphosate).
5. At application C, for treatments 4 and 5, ERICA was twice as big as in other plots.
6. Not harvested.