

Project Code: 04-52-W30 Location: Belleville Research Center
 Investigator: Bryan Young

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 10-28-04

Objective:
 Determine the rate of Blanket required to delay the length of time needed before POST glyphosate application.

Weed Code	Common Name	Scientific Name
1. AMBTR	ragweed, giant	Ambrosia trifida L.
2. ABUTH	velvetleaf	Abutilon theophrasti Medicus
3. AMATA	waterhemp, common	Amaranthus rudis Sauer
4. SETFA	foxtail, giant	Setaria faberi Herrm.

Crop 1: GLXMA soybean Variety: AG 4403 RR
 Planting Method: Seeded Planting Date: 6-11-04
 Rate: 75 lb/A Depth: 1.0 IN
 Row Spacing: 30 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 25 FT Reps: 4
 Tillage Type: Reduced-Till Study Design: Randomized complete block
 Previous Crop, Year: ZEAMX, 2003

Field Prep./Maintenance: N 0 LB/A, P2O5 50 LB/A, K2O 100 LB/A

Soil Name: Weir % OM: 2.2 pH: 6.9 CEC: 9
 Texture: Silt loam Fert. Level: P1: 107 LB/A, K: 420 LB/A

APPLICATION DESCRIPTION						
	A	B	C	D	E	F
Application Date:	6-11-04	7-6-04	7-6-04	7-6-04	7-6-04	7-6-04
Time of Day:	16:00	16:00	16:00	16:00	16:00	16:00
Application Method:	Spray	Spray	Spray	Spray	Spray	Spray
Application Timing:	PRE	4-8"W-1	4-8"W-2	4-8"W-3	4-8"W-4	4-8"W-5
Applic. Placement:	BROSOI	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	91 F	72 F	72 F	72 F	72 F	72 F
% Relative Humidity:	58	98	98	98	98	98
Wind Velocity, Unit:	6 MPH	5 MPH	5 MPH	5 MPH	5 MPH	5 MPH
Soil Moisture:	ABONOR	ABONOR	ABONOR	ABONOR	ABONOR	ABONOR

CROP STAGE AT EACH APPLICATION						
	A	B	C	D	E	F
Crop 1 Code, Stage:	GLXMA NA	GLXMA V2-V3	GLXMA V2-V3	GLXMA V2-V3	GLXMA V2-V3	GLXMA V2-V3
Height, Unit:	NA NA	6-7 IN	6-7 IN	6-7 IN	6-7 IN	6-7 IN

WEED STAGE AT EACH APPLICATION						
	A	B	C	D	E	F
Weed 1 Code:	AMBTR	AMBTR	AMBTR	AMBTR	AMBTR	AMBTR
Stage (leaves):		4-9	4-9	4-9	4-9	4-9
Height (inches):		3-8	3-8	3-8	3-8	3-8
Density:		Low	Low	Low	Low	Low
Weed 2 Code:	ABUTH	ABUTH	ABUTH	ABUTH	ABUTH	ABUTH
Stage (leaves):		4-6	4-6	4-6	4-6	4-6
Height (inches):		4-5	4-5	4-5	4-5	4-5
Density:		Low	Low	Low	Low	Low
Weed 3 Code:	AMATA	AMATA	AMATA	AMATA	AMATA	AMATA
Stage (leaves):		4-10	4-10	4-10	4-10	4-10
Height (inches):		3-18	3-18	3-18	3-18	3-18
Density:		Low	Low	Low	Low	Low
Weed 4 Code:	SETFA	SETFA	SETFA	SETFA	SETFA	SETFA
Stage (leaves):		4-5	4-5	4-5	4-5	4-5
Height (inches):		3-5	3-5	3-5	3-5	3-5
Density:		Low	Low	Low	Low	Low

APPLICATION EQUIPMENT						
	A	B	C	D	E	F
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	40 PSI	40 PSI	40 PSI	40 PSI	40 PSI	40 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan	Flat fan	Flat fan	Flat fan
Nozzle Size:	8003	8002	8002	8002	8002	8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	20 GPA	20 GPA	20 GPA	20 GPA	20 GPA	20 GPA

NOTES:
 Harvested 10-16-04, (2) 30 inch rows x 22 ft.

Southern Illinois University

Rate Titration of Blanket in Soybean.

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Weed Code		GLXMA					AMBTR	AMBTR	AMBTR	ABUTH	ABUTH	ABUTH	AMATA	AMATA	AMATA							
Crop Code	Rating Data Type	Moisture	Yield	Injury	Injury	Injury	Control	Control	Control	Control	Control	Control	Control	Control								
Rating Unit	Rating Date	Percent	bu/A	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent								
Trt-Eval Interval		10-16-04	10-16-04	7-6-04	7-20-04	8-3-04	7-6-04	7-20-04	8-3-04	7-6-04	7-20-04	8-3-04	7-6-04	7-20-04								
		0 DAT	0 DAT	14 DAT	14 DAT	28 DAT	0 DAT	14 DAT	28 DAT	0 DAT	14 DAT	28 DAT	0 DAT	14 DAT								
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code														
1	BLANKET	75	WG	0.187 LB A/A	4	OZ/A	PRE	A	14.1	54	0	0	0	86	99	99	90	99	99	100	99	99
1	BUCCANEER	3	SL	0.75 LB AE/A	32	FL OZ/A	4-8"W-1	B														
1	AMS	100	DRY	1.0 % W/W	1	% W/W	4-8"W-1	B														
1	NIS	100	LIQ	0.25 % V/V	0.25	% V/V	4-8"W-1	B														
2	BLANKET	75	WG	0.234 LB A/A	5	OZ/A	PRE	A	13.7	53	0	0	0	90	99	99	93	99	99	100	99	99
2	BUCCANEER	3	SL	0.75 LB AE/A	32	FL OZ/A	4-8"W-2	C														
2	AMS	100	DRY	1.0 % W/W	1	% W/W	4-8"W-2	C														
2	NIS	100	LIQ	0.25 % V/V	0.25	% V/V	4-8"W-2	C														
3	BLANKET	75	WG	0.28 LB A/A	6	OZ/A	PRE	A	14.0	53	0	0	0	86	98	98	94	99	99	100	99	99
3	BUCCANEER	3	SL	0.75 LB AE/A	32	FL OZ/A	4-8"W-3	D														
3	AMS	100	DRY	1.0 % W/W	1	% W/W	4-8"W-3	D														
3	NIS	100	LIQ	0.25 % V/V	0.25	% V/V	4-8"W-3	D														
4	BLANKET	75	WG	0.328 LB A/A	7	OZ/A	PRE	A	14.1	56	0	0	0	90	99	99	97	99	99	100	99	99
4	BUCCANEER	3	SL	0.75 LB AE/A	32	FL OZ/A	4-8"W-4	E														
4	AMS	100	DRY	1.0 % W/W	1	% W/W	4-8"W-4	E														
4	NIS	100	LIQ	0.25 % V/V	0.25	% V/V	4-8"W-4	E														
5	BLANKET	75	WG	0.375 LB A/A	8	OZ/A	PRE	A	13.9	53	0	0	0	91	99	99	97	99	99	100	99	99
5	BUCCANEER	3	SL	0.75 LB AE/A	32	FL OZ/A	4-8"W-5	F														
5	AMS	100	DRY	1.0 % W/W	1	% W/W	4-8"W-5	F														
5	NIS	100	LIQ	0.25 % V/V	0.25	% V/V	4-8"W-5	F														
6	NONTREATED								14.7	21	0	0	0	0	0	0	0	0	0	0	0	0
LSD (P=.05)									0.72	6.5	0.0	0.0	0.0	7.1	1.4	1.2	3.4	0.7	0.0	0.0	0.0	0.0
Replicate F									0.486	0.321	0.000	0.000	0.000	1.037	0.429	1.000	3.365	1.667	0.000	0.000	0.000	0.000
Replicate Prob(F)									0.6972	0.8101	1.0000	1.0000	1.0000	0.4045	0.7355	0.4199	0.0469	0.2166	1.0000	1.0000	1.0000	1.0000
Treatment F									1.819	39.150	0.000	0.000	0.000	234.882	7385.305	9762.400	1153.905	32539.334	0.000	0.000	0.000	0.000
Treatment Prob(F)									0.1696	0.0001	1.0000	1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	1.0000	1.0000	1.0000	1.0000

Rate Titration of Blanket in Soybean.

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Weed Code	SETFA	SETFA	SETFA
Crop Code			
Rating Data Type	Control	Control	Control
Rating Unit	Percent	Percent	Percent
Rating Date	7-6-04	7-20-04	8-3-04
Trt-Eval Interval	0 DAT	14 DAT	28 DAT

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code			
1	BLANKET	75	WG	0.187	LB A/A	4	OZ/A	PRE	A	94	99	99
1	BUCCANEER	3	SL	0.75	LB AE/A	32	FL OZ/A	4-8"W-1	B			
1	AMS	100	DRY	1.0	% W/W	1	% W/W	4-8"W-1	B			
1	NIS	100	LIQ	0.25	% V/V	0.25	% V/V	4-8"W-1	B			
2	BLANKET	75	WG	0.234	LB A/A	5	OZ/A	PRE	A	94	99	99
2	BUCCANEER	3	SL	0.75	LB AE/A	32	FL OZ/A	4-8"W-2	C			
2	AMS	100	DRY	1.0	% W/W	1	% W/W	4-8"W-2	C			
2	NIS	100	LIQ	0.25	% V/V	0.25	% V/V	4-8"W-2	C			
3	BLANKET	75	WG	0.28	LB A/A	6	OZ/A	PRE	A	97	99	99
3	BUCCANEER	3	SL	0.75	LB AE/A	32	FL OZ/A	4-8"W-3	D			
3	AMS	100	DRY	1.0	% W/W	1	% W/W	4-8"W-3	D			
3	NIS	100	LIQ	0.25	% V/V	0.25	% V/V	4-8"W-3	D			
4	BLANKET	75	WG	0.328	LB A/A	7	OZ/A	PRE	A	98	99	99
4	BUCCANEER	3	SL	0.75	LB AE/A	32	FL OZ/A	4-8"W-4	E			
4	AMS	100	DRY	1.0	% W/W	1	% W/W	4-8"W-4	E			
4	NIS	100	LIQ	0.25	% V/V	0.25	% V/V	4-8"W-4	E			
5	BLANKET	75	WG	0.375	LB A/A	8	OZ/A	PRE	A	98	99	99
5	BUCCANEER	3	SL	0.75	LB AE/A	32	FL OZ/A	4-8"W-5	F			
5	AMS	100	DRY	1.0	% W/W	1	% W/W	4-8"W-5	F			
5	NIS	100	LIQ	0.25	% V/V	0.25	% V/V	4-8"W-5	F			
6	NONTREATED									0	0	0
LSD (P=.05)										3.5	0.3	0.0
Replicate F										3.122	1.000	0.000
Replicate Prob(F)										0.0575	0.4199	1.0000
Treatment F										1119.208	156658.594	0.000
Treatment Prob(F)										0.0001	0.0001	1.0000

Trial Comments

1. Protocol: Tenkoz.
2. Ratings: CI and WC at POST, 14 and 28 DAT.
3. Yield.
4. For POST timings, evaluate weed size in each treatment.
5. DAT = Days after postemergence applications. Ratings at 0 DAT were prior to postemergence applications.
6. On 7-6-04 all weeds were approximately the same height regardless of Blanket rate.
7. Harvested 10-16-04, (2) 30 inch rows x 22 ft.