

## Evaluation of Outlook and Standard Programs in Soybean.

00-21M-W50

**OBJECTIVE:** Evaluate the utility of Outlook in glyphosate-resistant soybean compared to standard herbicide programs.

**SUMMARY:** Soybean injury prior to application of postemergence herbicides was 2 to 13% from Outlook applied preemergence. Soybean injury 14 days after postemergence herbicide applications (DAPO) was 8 to 25% from treatments that included Rezult, Storm or Raptor. By 56 DAPO, no soybean injury was observed from any treatment.

All herbicide treatment except Prowl followed by Storm controlled at least 90% of giant foxtail at 56 DAPO. Yellow nutsedge control 56 DAPO was at least 82% from all treatments except Outlook followed by Roundup Ultra, Roundup Ultra alone, Outlook followed by Extreme, Glyphomax Plus and Glyphomax Plus plus FirstRate. Common cocklebur control prior to postemergence applications was less than 20% from Outlook or Prowl preemergence. Only Extreme, Glyphomax Plus and Glyphomax Plus plus FirstRate controlled at least 90% of common cocklebur at 56 DAPO.

Soybean yield ranged from 16 bu/A in nontreated plots to 84 bu/A. Soybean yield was probably a reflection of plot location within the study rather than differences in weed control.

### HERBICIDES

BASAGRAN 4 SL  
CANOPY XL 56.3 WG  
EXTREME 2.17 SL  
FIRSTRATE 84 WG  
GLYPHOMAX PLUS 3 SL  
OUTLOOK 6 EC  
PINNACLE 25 WG  
POAST PLUS 1 EC  
PROWL 3.3 EC  
RAPTOR 1 AS  
REZULT  
ROUNDUP ULTRA 3 SL  
STORM 4 EC  
ULTRA BLAZER 2 SL

### WEEDS

COCKLEBUR, COMMON  
FOXTAIL, GIANT  
NUTSEDGE, YELLOW

### CROP

SOYBEAN

Bryan Young and Scott Nolte

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

## Evaluation of Outlook and Standard Programs in Soybean.

Project Code: 00-21M-W50      Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

Weed Code	Common Name	Scientific Name
1. SETFA	FOXTAIL, GIANT	SETARIA FABERI HERRM.
2. CYPES	NUTSEDGE, YELLOW	CYPERUS ESCULENTUS L.
3. XANST	COCKLEBUR, COMMON	XANTHIUM STRUMARIUM L. SSP. STRUMARIUM

Crop 1:	GLXMA SOYBEAN	Variety:	B-T 369CR
Planting Method:	SEEDED	Planting Date:	May-5-00
Rate:	75 LB/A	Depth:	1.0 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	30 FT	Reps:	3
Tillage Type:	REDUCED-TILL	Study Design:	RCB		
Previous Crop, Year:	ZEAMX, 1999	Fertilizer applied:	N 0 LB/A,	P <sub>2</sub> O <sub>5</sub>	50 LB/A,    K <sub>2</sub> O 150 LB/A

Soil Name:	EBBERT	% OM:	2.6	pH:	5.7	CEC:	14
Texture:	SILT LOAM	P <sub>1</sub> :	72 LB/A,	K:	351 LB/A		

## APPLICATION DESCRIPTION

	A	B	C
Application Date:	May-5-00	May-30-00	Jun-6-00
Time of Day:	18:00	13:30	8:30
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	2-4"W	4-6"W
Applic. Placement:	BROSOL	BROFOL	BROFOL
Air Temp., Unit:	80 F	78 F	60 F
% Relative Humidity:	96	65	30
Wind Velocity, Unit:	5 MPH	2-3 MPH	2-3 MPH
Soil Moisture:	DRY	NORMAL	NORMAL
% Cloud Cover:		0	0

## CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	NA	GLXMA V1	GLXMA V2
Height, Unit:	NA	3-4 IN	4-6 IN

## WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code:		SETFA	SETFA
Stage(leaves):		3-4	4-5
Height(inches):		2-4	3-8
Density:		MEDIUM	MEDIUM
Weed 2 Code:		CYPES	CYPES
Stage(leaves):		4-5	5-6
Height(inches):		2-3	4-6
Density:		MEDIUM	LOW
Weed 3 Code:		XANST	XANST
Stage(leaves):		4-5	5-6
Height(inches):		2-4	4-7
Density:		HIGH	HIGH

## APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	CO <sub>2</sub> SPRAY	CO <sub>2</sub> SPRAY	CO <sub>2</sub> SPRAY
Operating Pressure:	40 PSI	40 PSI	40 PSI
Nozzle Type:	FLAT FAN	FLAT FAN	FLAT FAN
Nozzle Size:	8003	8002	8002
Boom Length, Unit:	7.33 FT	7.33 FT	7.33 FT
Spray Volume, Unit:	20 GPA	20 GPA	20 GPA

## NOTES:

Harvested Oct-23-00, (2) 30 inch rows by 27 ft.

TABLE. EVALUATION OF OUTLOOK AND STANDARD PROGRAMS IN SOYBEAN. PROJECT CODE:00-21M-W50

TREATMENT	FORM.	RATE	UNIT	PROD	RATE	APPL TIME	APPL CODE	YIELD	GLXMA INJURY				CONTROL																								
									POST	DAT			SETFA				CYPES				XANST																
										14	28	56	POST	14	28	56	POST	14	28	56	POST	14	28	56													
																									AT	14	28	56	AT	14	28	56	AT	14	28	56	
BU/A	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%																			
1 NONTREATED								16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 OUTLOOK	6 EC	0.52	LB A/A	11.1	OZ/A	PRE	A	47	8	18	2	0	98	96	94	93	99	96	96	93	18	93	86	57													
2 REZULT						2-4"W	B																														
2 ->BASAGRAN	4 SL	1.0	LB A/A	2.0	PT/A	2-4"W	B																														
2 ->POAST PLUS	1 EC	0.2	LB A/A	1.6	PT/A	2-4"W	B																														
2 PINNACLE	25 WG	0.002	LB A/A	0.128	OZ/A	2-4"W	B																														
2 28% UAN	100 LIQ	1.25	% V/V	1.25	%V/V	2-4"W	B																														
3 OUTLOOK	6 EC	0.52	LB A/A	11.1	OZ/A	PRE	A	35	8	25	10	0	66	95	93	91	65	92	91	89	13	92	86	60													
3 REZULT						2-4"W	B																														
3 ->BASAGRAN	4 SL	1.0	LB A/A	2.0	PT/A	2-4"W	B																														
3 ->POAST PLUS	1 EC	0.2	LB A/A	1.6	PT/A	2-4"W	B																														
3 ULTRA BLAZER	2 SL	0.16	LB A/A	10.2	OZ/A	2-4"W	B																														
3 28% UAN	100 LIQ	1.25	% V/V	1.25	%V/V	2-4"W	B																														
4 OUTLOOK	6 EC	0.52	LB A/A	11.1	OZ/A	PRE	A	75	2	8	0	0	97	94	92	90	98	94	92	90	0	96	93	86													
4 REZULT						2-4"W	B																														
4 ->BASAGRAN	4 SL	1.0	LB A/A	2.0	PT/A	2-4"W	B																														
4 ->POAST PLUS	1 EC	0.2	LB A/A	1.6	PT/A	2-4"W	B																														
4 FIRSTRATE	84 WG	0.013	LB A/A	0.248	OZ/A	2-4"W	B																														
4 28% UAN	100 LIQ	1.25	% V/V	1.25	%V/V	2-4"W	B																														
5 OUTLOOK	6 EC	0.52	LB A/A	11.1	OZ/A	PRE	A	62	10	8	0	0	96	97	96	94	96	90	89	87	60	92	88	79													
5 CANOPY XL	56.3 WG			2.0	OZ/A	PRE	A																														
5 ->CLASSIC	25 WG	0.0117	LB A/A			PRE	A																														
5 ->AUTHORITY	75 WG	0.058	LB A/A			PRE	A																														
5 REZULT						2-4"W	B																														
5 ->BASAGRAN	4 SL	1.0	LB A/A	2.0	PT/A	2-4"W	B																														
5 ->POAST PLUS	1 EC	0.2	LB A/A	1.6	PT/A	2-4"W	B																														
5 28% UAN	100 LIQ	1.25	% V/V	1.25	%V/V	2-4"W	B																														
6 PROWL	3.3 EC	1.24	LB A/A	3.0	PT/A	PRE	A	45	3	23	5	0	80	96	96	92	77	93	90	88	0	91	89	78													
6 RAPTOR	1 AS	0.031	LB A/A	4.0	OZ/A	2-4"W	B																														
6 SUN-IT II	100 LIQ	0.94	% V/V	0.94	%V/V	2-4"W	B																														
6 28% UAN	100 LIQ	1.25	% V/V	1.25	%V/V	2-4"W	B																														
7 OUTLOOK	6 EC	0.75	LB A/A	16.0	OZ/A	PRE	A	55	13	13	5	0	98	98	97	92	98	92	91	89	7	91	85	65													
7 STORM	4 EC	0.75	LB A/A	1.5	PT/A	2-4"W	B																														
7 28% UAN	100 LIQ	1.25	% V/V	1.25	%V/V	2-4"W	B																														

(CONTINUED)

TABLE. EVALUATION OF OUTLOOK AND STANDARD PROGRAMS IN SOYBEAN. PROJECT CODE:00-21M-W50 (CONTINUED)

TREATMENT	FORM.	RATE	UNIT	PROD RATE	APPL TIME	APPL CODE	YIELD	GLXMA								CONTROL								
								INJURY				SETFA				CYPES				XANST				
								AT	DAT			AT	DAT			AT	DAT			AT	DAT			
								POST	14	28	56	POST	14	28	56	POST	14	28	56	POST	14	28	56	
BU/A	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%								
8 PROWL	3.3 EC	1.24	LB A/A	3.0	PT/A	PRE	A	43	10	10	0	0	78	80	70	65	82	88	82	82	7	91	87	70
8 STORM	4 EC	0.75	LB A/A	1.5	PT/A	2-4"W	B																	
8 28% UAN	100 LIQ	1.25	% V/V	1.25	%V/V	2-4"W	B																	
9 OUTLOOK	6 EC	0.52	LB A/A	11.1	OZ/A	PRE	A	63		5	0	0	97	92	95		67	62	65		95	80	89	
9 ROUNDUP ULTRA	3 SL	0.75	LB AE/A	2.0	PT/A	4-6"W	C																	
9 AMS	100 DRY	2.5	LB/A	2.5	LB/A	4-6"W	C																	
10 ROUNDUP ULTRA	3 SL	0.75	LB AE/A	2.0	PT/A	2-4"W	B	70		2	0	0	98	97	95		89	89	85		94	91	80	
10 OUTLOOK	6 EC	0.52	LB A/A	11.1	OZ/A	2-4"W	B																	
10 AMS	100 DRY	2.5	LB/A	2.5	LB/A	2-4"W	B																	
11 ROUNDUP ULTRA	3 SL	0.75	LB AE/A	2.0	PT/A	4-6"W	C	54		4	0	0	98	92	93		68	62	62		97	87	88	
11 AMS	100 DRY	2.5	LB/A	2.5	LB/A	4-6"W	C																	
12 EXTREME	2.17 SL	0.814	LB A/A	3.0	PT/A	2-4"W	B	58		10	0	0	97	97	94		91	91	89		94	91	78	
12 ACTIVATOR 90	100 LIQ	0.25	% V/V	0.25	%V/V	2-4"W	B																	
12 AMS	100 DRY	2.5	LB/A	2.5	LB/A	2-4"W	B																	
13 OUTLOOK	6 EC	0.52	LB A/A	11.1	OZ/A	PRE	A	76		5	0	0	98	95	95		65	62	63		91	87	90	
13 EXTREME	2.17 SL	0.814	LB A/A	3.0	PT/A	4-6"W	C																	
13 ACTIVATOR 90	100 LIQ	0.25	% V/V	0.25	%V/V	4-6"W	C																	
13 AMS	100 DRY	2.5	LB/A	2.5	LB/A	4-6"W	C																	
14 GLYPHOMAX PLUS	3 SL	0.75	LB AE/A	2.0	PT/A	4-6"W	C	84		5	0	0	98	94	95		80	63	65		98	88	90	
14 AMS	100 DRY	2.0	% W/W	2.0	%W/W	4-6"W	C																	
15 GLYPHOMAX PLUS	3 SL	0.75	LB AE/A	2.0	PT/A	4-6"W	C	82		5	0	0	97	94	95		68	62	67		98	92	94	
15 FIRSTRATE	84 WG	0.016	LB A/A	0.305	OZ/A	4-6"W	C																	
15 ACTIVATOR 90	100 LIQ	0.25	% V/V	0.25	%V/V	4-6"W	C																	
15 AMS	100 DRY	2.0	% W/W	2.0	%W/W	4-6"W	C																	
LSD								19	7	3	1	0	36	3	3	3	36	7	3	5	12	2	3	7
P								0.01	0.02	0.01	0.01	1.0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

1. PROTOCOL: BASF TRTS 1-12 (H00460GLS3); DOW TRTS 14-15.
2. AT POST = RATED PRIOR TO 2-4"W APPLICATION.
3. RATING DATES:  
 14 DAYS AFTER 2-4"W AND 4-6"W APPLICATION ON JUN-13-00 AND JUN-20-00, RESPECTIVELY.  
 28 DAYS AFTER 2-4"W AND 4-6"W APPLICATION ON JUN-27-00 AND JUL-4-00, RESPECTIVELY.  
 56 DAYS AFTER 2-4"W AND 4-6"W APPLICATION ON JUL-25-00 AND AUG-1-00, RESPECTIVELY.