

Weed Control in Roundup Ready Soybean with Authority.

00-50E-S120

OBJECTIVE: To evaluate weed control in Roundup Ready soybean with Authority.

SUMMARY: Dual plus Authority plus FirstRate applied preemergence, controlled weeds 92 to 100%. Dual plus Canopy XL (Authority plus Classic) controlled weeds 96 to 100%. Authority applied preemergence, followed by Roundup Ultra applied postemergence, controlled weeds (with the exception of giant ragweed) 87 to 100%. Authority applied preemergence, followed by Roundup Ultra applied postemergence, controlled giant ragweed 75 to 88%. Single applications of Roundup Ultra at 2 to 4 inch weeds and 4 to 6 inch weeds, controlled weeds 70 to 100%. Sequential applications of Roundup Ultra controlled weeds 99 to 100%. Authority alone caused 5% soybean height reduction 14 days after treatment (DAT), which was probably related to soybean variety and above normal soil moisture after planting. Authority plus Classic caused 15% height reduction 56 DAT. No stand reduction was observed. Yield ranged from 15 to 43 bu/A. Yield was reduced where giant ragweed was poor .

HERBICIDES

AUTHORITY 75 WG
 CLASSIC 25 WG
 DUAL II 7.8 EC
 FIRSTRATE 84 WG
 ROUNDUP ULTRA 3 SL

WEEDS

COCKLEBUR, COMMON
 FOXTAIL, GIANT
 MORNINGGLORY, IVYLEAF
 NUTSEDEGE, YELLOW
 RAGWEED, COMMON
 RAGWEED, GIANT
 SMARTWEED, PENNSYLVANIA
 WATERHEMP, COMMON

CROP

SOYBEAN

Ronald Krausz

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

Weed Control in Roundup Ready Soybean with Authority.

Project Code: 00-50E-S120 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. AMATA	WATERHEMP, COMMON	AMARANTHUS RUDIS SAUER
4. AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIIFOLIA L.
5. POLPY	SMARTWEED, PENNSYLVANIA	POLYGONUM PENNSYLVANICUM L.
6. IPOHE	MORNINGGLORY, IVYLEAF	IPOMOEA HEDERACEA (L.) JACQ.
7. AMBTR	RAGWEED, GIANT	AMBROSIA TRIFIDA L.
8. XANST	COCKLEBUR, COMMON	XANTHIUM STRUMARIUM L. SSP. STRUMARIUM

Crop 1:	GLXMA SOYBEAN	Variety:	P94B01 RR
Planting Method:	SEEDS	Planting Date:	May-11-00
Rate:	75 S/A	Depth:	1.0 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	27 FT	Reps:	3
Tillage Type:	REDUCED-TILL	Study Design:	RCB		
Previous Crop, Year:	ZEAMX, 1999	Fertilizer applied:	N 0 LB/A,	P ₂ O ₅ 0 LB/A,	K ₂ O 0 LB/A

Soil Name:	WEIR	% OM:	1.9	pH:	6.9	CEC:	12
Texture:	SILT LOAM	P ₁ :	87 LB/A,	K:	400 LB/A		

APPLICATION DESCRIPTION

	A	B	C	D	E	F	G
Application Date:	May-12-00	Jun-9-00	Jun-9-00	Jun-14-00	Jun-21-00	Jun-30-00	Jul-5-00
Time of Day:	7:00	9:00	9:00	7:45	8:30	9:30	7:30
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	2-4"W-1	2-4"W-2	4-6"W	2-4"W-3	3WA2-4"W	3WA4-6"W
Applic. Placement:	BROSOI	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	80 F	70 F	70 F	84 F	78 F	63 F	74 F
% Relative Humidity:	96	45	45	86	94	50	74
Wind Velocity, Unit:	0 MPH	2-4 MPH	2-4 MPH	3-5 MPH	2-4 MPH	0-1 MPH	1-2 MPH
Soil Moisture:	DRY	DRY	DRY	NORMAL	WET	NORMAL	NORMAL
% Cloud Cover:	0	0	0	95	100	100	

CROP STAGE AT EACH APPLICATION

	A	B	C	D	E	F	G
Crop 1 Code, Stage:	NA	GLXMA V2	GLXMA V2	GLXMA V3	GLXMA V4	GLXMA V7	GLXMA R1
Height, Unit:	NA	5-7 IN	5-7 IN	6-8 IN	9-11 IN	12-14 IN	18-20 IN

WEED STAGE AT EACH APPLICATION

	A	B	C	D	E	F	G
Weed 1 Code:			SETFA	SETFA	SETFA	SETFA	SETFA
Stage(leaves):			4-6	4-6	4-6	3-4	3-4
Height(inches):			2-5	4-7	2-7	0-2	3-5
Density:			MEDIUM	MEDIUM	MEDIUM	LOW	LOW
Weed 2 Code:						CYPES	CYPES
Stage(leaves):						3-10	3-6
Height(inches):						2-5	3-5
Density:						LOW	LOW
Weed 3 Code:			AMATA	AMATA	AMATA	AMATA	AMATA
Stage(leaves):			4-5	4-10	4-5	2-8	4-10
Height(inches):			1-3	2-6	1-4	0-6	4-9
Density:			HIGH	HIGH	LOW	LOW	MEDIUM
Weed 4 Code:		AMBEL	AMBEL	AMBEL		AMBEL	AMBEL
Stage(leaves):		4-6	4-6	4-8		2-4	4-8
Height(inches):		2-4	2-4	4-6		0-2	4-8
Density:		MEDIUM	LOW	LOW		LOW	LOW
Weed 5 Code:			POLPY	POLPY			
Stage(leaves):			3-4	4-9			
Height(inches):			1-3	3-5			
Density:			LOW				
Weed 6 Code:			IPOHE	IPOHE		IPOHE	IPOHE
Stage(leaves):			3-4	3-5		3-4	4-8
Height(inches):			2-4	3-5		0-4	4-7
Density:			LOW	LOW		LOW	LOW

(continued)

Weed Control in Roundup Ready Soybean with Authority.

Project Code: 00-50E-S120 Location: Belleville Research Center

(continued)

Weed 7 Code:	AMBTR	AMBTR	AMBTR	AMBTR	AMBTR	AMBTR
Stage(leaves):	6-8	6-8	6-10	6-10	COTL-8	2-8
Height(inches):	4-6	5-6	5-9	1-8	2-10	4-18
Density:	LOW	LOW	LOW	MEDIUM	LOW	MEDIUM

Weed 8 Code:	XANST	XANST	XANST		XANST	XANST
Stage(leaves):	4-5	3-4	4-6		2-4	2-4
Height(inches):	2-5	2-5	4-6		0-4	2-6
Density:	LOW	LOW	LOW		LOW	LOW

APPLICATION EQUIPMENT

	A	B	C	D	E	F	G
Appl. Equipment:	CO ₂ SPRAY	CO ₂ SPRAY	CO ₂ SPRAYER	CO ₂ SPRAYER	CO ₂ SPRAYER	CO ₂ SPRAY	CO ₂ SPRAY
Operating Pressure:	40 PSI	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	FLAT FAN
Nozzle Size:	8004	8004	8004	8004	8004	8004	8004
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT	7.5 FT	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	26.89 GPA	26.89 GPA	26.89 GPA	26.89 GPA	26.89 GPA	26.89 GPA	26.89 GPA

NOTES:

Harvested Oct-20-00, (2) 30 inch rows by 24 ft.

TABLE. WEED CONTROL IN ROUNDUP READY SOYBEAN WITH AUTHORITY. PROJECT CODE:00-50E-S120

TREATMENT	FORM.	RATE	UNIT	PROD	RATE	APPL TIME	APPL CODE	YIELD	GLXMA, DAYS AFTER TREATMENT						CONTROL, DAYS AFTER TREATMENT										
									INJURY			STAND REDUCTION			SETFA			CYPES			AMATA				
									14	28	56	14	28	56	14	28	56	14	28	56	14	28	56		
BU/A	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%									
1 NONTREATED								15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 DUAL II	7.8 EC	1.0	LB A/A	1.03	PT/A	PRE	A	15	3	0	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100
2 AUTHORITY	75 WG	0.25	LB A/A	5.33	OZ/A	PRE	A																		
3 DUAL II	7.8 EC	1.0	LB A/A	1.03	PT/A	PRE	A	10	5	5	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100
3 AUTHORITY	75 WG	0.313	LB A/A	6.68	OZ/A	PRE	A																		
4 AUTHORITY	75 WG	0.25	LB A/A	5.33	OZ/A	PRE	A	14	5	2	0	0	0	0	97	100	100	100	100	100	100	100	100	100	100
5 AUTHORITY	75 WG	0.25	LB A/A	5.33	OZ/A	PRE	A	34	0	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100
5 ROUNDUP ULTRA	3 SL	0.375	LB AE/A	1.0	PT/A	2-4"W-2	C																		
6 AUTHORITY	75 WG	0.25	LB A/A	5.33	OZ/A	PRE	A	29	0	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100
6 ROUNDUP ULTRA	3 SL	0.56	LB AE/A	1.5	PT/A	2-4"W-2	C																		
7 AUTHORITY	75 WG	0.25	LB A/A	5.33	OZ/A	PRE	A	34	0	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100
7 ROUNDUP ULTRA	3 SL	0.75	LB AE/A	2.0	PT/A	2-4"W-2	C																		
8 AUTHORITY	75 WG	0.313	LB A/A	6.68	OZ/A	PRE	A	17	5	5	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100
9 AUTHORITY	75 WG	0.313	LB A/A	6.68	OZ/A	PRE	A	27	0	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100
9 ROUNDUP ULTRA	3 SL	0.375	LB AE/A	1.0	PT/A	2-4"W-2	C																		
10 AUTHORITY	75 WG	0.313	LB A/A	6.68	OZ/A	PRE	A	28	0	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100
10 ROUNDUP ULTRA	3 SL	0.56	LB AE/A	1.5	PT/A	2-4"W-2	C																		
11 AUTHORITY	75 WG	0.313	LB A/A	6.68	OZ/A	PRE	A	24	0	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100
11 ROUNDUP ULTRA	3 SL	0.75	LB AE/A	2.0	PT/A	2-4"W-2	C																		
12 DUAL II	7.8 EC	1.0	LB A/A	1.03	PT/A	PRE	A	40	5	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100
12 AUTHORITY	75 WG	0.25	LB A/A	5.33	OZ/A	PRE	A																		
12 FIRSTRATE	84 WG	0.031	LB A/A	0.59	OZ/A	PRE	A																		
13 AUTHORITY	75 WG	0.25	LB A/A	5.33	OZ/A	PRE	A	43	0	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100
13 FIRSTRATE	84 WG	0.031	LB A/A	0.59	OZ/A	PRE	A																		
13 ROUNDUP ULTRA	3 SL	0.375	LB AE/A	1.0	PT/A	2-4"W-3	E																		
14 AUTHORITY	75 WG	0.25	LB A/A	5.33	OZ/A	PRE	A	38	0	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100
14 FIRSTRATE	84 WG	0.031	LB A/A	0.59	OZ/A	PRE	A																		
14 ROUNDUP ULTRA	3 SL	0.56	LB AE/A	1.5	PT/A	2-4"W-3	E																		

(CONTINUED)

TABLE. WEED CONTROL IN ROUNDUP READY SOYBEAN WITH AUTHORITY. PROJECT CODE:00-50E-S120 (CONTINUED)

TREATMENT	FORM.	RATE	UNIT	PROD RATE	APPL TIME	APPL CODE	YIELD	GLXMA, DAYS AFTER TREATMENT						CONTROL, DAYS AFTER TREATMENT										
								INJURY			STAND REDUCTION			SETFA			CYPES			AMATA				
								14	28	56	14	28	56	14	28	56	14	28	56	14	28	56		
						BU/A	%	%	%	%	%	%	%	%	%	%	%	%	%					
15 AUTHORITY	75 WG	0.25	LB A/A	5.33	OZ/A	PRE	A	38	0	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100
15 FIRSTRATE	84 WG	0.031	LB A/A	0.59	OZ/A	PRE	A																	
15 ROUNDUP ULTRA	3 SL	0.75	LB AE/A	2.0	PT/A	2-4"W-3	E																	
16 DUAL II	7.8 EC	1.0	LB A/A	1.03	PT/A	PRE	A	33	5	10	15	0	0	0	98	100	96	100	100	100	100	100	100	100
16 AUTHORITY	75 WG	0.2	LB A/A	4.27	OZ/A	PRE	A																	
16 CLASSIC	25 WG	0.04	LB A/A	2.56	OZ/A	PRE	A																	
17 AUTHORITY	75 WG	0.2	LB A/A	4.27	OZ/A	PRE	A	40	25	10	3	0	0	0	100	100	100	100	100	100	98	98	98	
17 CLASSIC	25 WG	0.04	LB A/A	2.56	OZ/A	PRE	A																	
17 ROUNDUP ULTRA	3 SL	0.375	LB AE/A	1.0	PT/A	2-4"W-3	E																	
18 AUTHORITY	75 WG	0.2	LB A/A	4.27	OZ/A	PRE	A	38	25	10	7	0	0	0	100	100	100	100	100	100	100	100	100	100
18 CLASSIC	25 WG	0.04	LB A/A	2.56	OZ/A	PRE	A																	
18 ROUNDUP ULTRA	3 SL	0.56	LB AE/A	1.5	PT/A	2-4"W-3	E																	
19 AUTHORITY	75 WG	0.2	LB A/A	4.27	OZ/A	PRE	A	35	25	10	10	0	0	0	100	100	100	100	100	100	100	100	100	100
19 CLASSIC	25 WG	0.04	LB A/A	2.56	OZ/A	PRE	A																	
19 ROUNDUP ULTRA	3 SL	0.75	LB AE/A	2.0	PT/A	2-4"W-3	E																	
20 ROUNDUP ULTRA	3 SL	0.56	LB AE/A	1.5	PT/A	2-4"W-1	B	32	0	0	0	0	0	0	100	100	100	97	99	99	90	88	88	
21 ROUNDUP ULTRA	3 SL	0.56	LB AE/A	1.5	PT/A	2-4"W-1	B	35	0	0	0	0	0	0	100	100	100	90	95	100	90	95	100	
21 ROUNDUP ULTRA	3 SL	0.56	LB AE/A	1.5	PT/A	3WA2-4"W	F																	
22 ROUNDUP ULTRA	3 SL	0.75	LB AE/A	2.0	PT/A	4-6"W	D	27	0	0	0	0	0	0	100	100	100	90	93	93	90	90	90	
23 ROUNDUP ULTRA	3 SL	0.75	LB AE/A	2.0	PT/A	4-6"W	D	43	0	0	0	0	0	0	100	100	100	90	100	100	90	100	100	
23 ROUNDUP ULTRA	3 SL	0.56	LB AE/A	1.5	PT/A	3WA4-6"W	G																	
24 NO HERBICIDE								33	0	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100
24 WEEDFREE																								
LSD								11	1	1	4	0	0	0	2	0	2	4	3	1	1	2	1	
P								0.01	0.01	0.01	0.01	1.0	1.0	1.0	0.01	1.0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

(CONTINUED)

TABLE. WEED CONTROL IN ROUNDUP READY SOYBEAN WITH AUTHORITY. PROJECT CODE:00-50E-S120 (CONTINUED)

TREATMENT	FORM.	RATE	UNIT	PROD	RATE	APPL TIME	APPL CODE	CONTROL, DAYS AFTER TREATMENT															
								AMBTR			AMBEL			IPOHE			POLPY			XANST			
								14	28	56	14	28	56	14	28	56	14	28	56	14	28	56	
1 NONTREATED								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 DUAL II	7.8 EC	1.0 LB A/A	1.03 PT/A	PRE	A			80	70	42	97	97	97	100	100	100	100	100	100	95	93	93	
2 AUTHORITY	75 WG	0.25 LB A/A	5.33 OZ/A	PRE	A																		
3 DUAL II	7.8 EC	1.0 LB A/A	1.03 PT/A	PRE	A			87	82	42	100	100	100	100	100	100	100	100	100	97	95	95	
3 AUTHORITY	75 WG	0.313 LB A/A	6.68 OZ/A	PRE	A																		
4 AUTHORITY	75 WG	0.25 LB A/A	5.33 OZ/A	PRE	A			87	75	43	97	97	97	100	100	100	100	100	100	95	93	93	
5 AUTHORITY	75 WG	0.25 LB A/A	5.33 OZ/A	PRE	A			82	82	82	100	100	100	100	100	100	100	100	100	100	87	87	87
5 ROUNDUP ULTRA	3 SL	0.375 LB AE/A	1.0 PT/A	2-4"W-2	C																		
6 AUTHORITY	75 WG	0.25 LB A/A	5.33 OZ/A	PRE	A			83	83	80	100	100	100	100	100	100	100	100	100	100	93	93	93
6 ROUNDUP ULTRA	3 SL	0.56 LB AE/A	1.5 PT/A	2-4"W-2	C																		
7 AUTHORITY	75 WG	0.25 LB A/A	5.33 OZ/A	PRE	A			90	88	88	100	100	100	100	100	100	100	100	100	100	93	92	92
7 ROUNDUP ULTRA	3 SL	0.75 LB AE/A	2.0 PT/A	2-4"W-2	C																		
8 AUTHORITY	75 WG	0.313 LB A/A	6.68 OZ/A	PRE	A			83	60	42	95	87	85	100	100	100	100	100	100	100	95	93	93
9 AUTHORITY	75 WG	0.313 LB A/A	6.68 OZ/A	PRE	A			82	75	75	100	100	100	100	100	100	100	100	100	100	88	88	88
9 ROUNDUP ULTRA	3 SL	0.375 LB AE/A	1.0 PT/A	2-4"W-2	C																		
10 AUTHORITY	75 WG	0.313 LB A/A	6.68 OZ/A	PRE	A			87	87	85	100	100	100	100	100	100	100	100	100	100	92	92	92
10 ROUNDUP ULTRA	3 SL	0.56 LB AE/A	1.5 PT/A	2-4"W-2	C																		
11 AUTHORITY	75 WG	0.313 LB A/A	6.68 OZ/A	PRE	A			85	83	83	100	100	100	100	100	100	100	100	100	100	93	92	92
11 ROUNDUP ULTRA	3 SL	0.75 LB AE/A	2.0 PT/A	2-4"W-2	C																		
12 DUAL II	7.8 EC	1.0 LB A/A	1.03 PT/A	PRE	A			96	100	92	100	100	100	100	100	100	100	100	100	100	100	100	97
12 AUTHORITY	75 WG	0.25 LB A/A	5.33 OZ/A	PRE	A																		
12 FIRSTRATE	84 WG	0.031 LB A/A	0.59 OZ/A	PRE	A																		
13 AUTHORITY	75 WG	0.25 LB A/A	5.33 OZ/A	PRE	A			98	99	99	100	100	100	100	100	100	100	100	100	100	96	96	96
13 FIRSTRATE	84 WG	0.031 LB A/A	0.59 OZ/A	PRE	A																		
13 ROUNDUP ULTRA	3 SL	0.375 LB AE/A	1.0 PT/A	2-4"W-3	E																		
14 AUTHORITY	75 WG	0.25 LB A/A	5.33 OZ/A	PRE	A			98	97	97	100	100	100	100	100	100	100	100	100	100	97	98	98
14 FIRSTRATE	84 WG	0.031 LB A/A	0.59 OZ/A	PRE	A																		
14 ROUNDUP ULTRA	3 SL	0.56 LB AE/A	1.5 PT/A	2-4"W-3	E																		

(CONTINUED)

TABLE. WEED CONTROL IN ROUNDUP READY SOYBEAN WITH AUTHORITY. PROJECT CODE:00-50E-S120 (CONTINUED)

TREATMENT	FORM.	RATE	UNIT	PROD	RATE	APPL TIME	APPL CODE	CONTROL, DAYS AFTER TREATMENT															
								AMBTR			AMBEL			IPOHE			POLPY			XANST			
								14	28	56	14	28	56	14	28	56	14	28	56	14	28	56	
15 AUTHORITY	75 WG	0.25 LB A/A	5.33 OZ/A	PRE	A			96	99	99	100	100	100	100	100	100	100	100	100	98	98	99	
15 FIRSTRATE	84 WG	0.031 LB A/A	0.59 OZ/A	PRE	A																		
15 ROUNDUP ULTRA	3 SL	0.75 LB AE/A	2.0 PT/A	2-4"W-3	E																		
16 DUAL II	7.8 EC	1.0 LB A/A	1.03 PT/A	PRE	A			98	100	96	100	100	100	100	100	100	100	100	100	100	100	100	100
16 AUTHORITY	75 WG	0.2 LB A/A	4.27 OZ/A	PRE	A																		
16 CLASSIC	25 WG	0.04 LB A/A	2.56 OZ/A	PRE	A																		
17 AUTHORITY	75 WG	0.2 LB A/A	4.27 OZ/A	PRE	A			97	97	95	100	100	100	100	100	100	100	100	100	99	99	99	
17 CLASSIC	25 WG	0.04 LB A/A	2.56 OZ/A	PRE	A																		
17 ROUNDUP ULTRA	3 SL	0.375 LB AE/A	1.0 PT/A	2-4"W-3	E																		
18 AUTHORITY	75 WG	0.2 LB A/A	4.27 OZ/A	PRE	A			100	100	97	100	100	100	100	100	100	100	100	100	99	100	100	
18 CLASSIC	25 WG	0.04 LB A/A	2.56 OZ/A	PRE	A																		
18 ROUNDUP ULTRA	3 SL	0.56 LB AE/A	1.5 PT/A	2-4"W-3	E																		
19 AUTHORITY	75 WG	0.2 LB A/A	4.27 OZ/A	PRE	A			100	100	100	100	100	100	100	100	100	100	100	100	97	98	98	
19 CLASSIC	25 WG	0.04 LB A/A	2.56 OZ/A	PRE	A																		
19 ROUNDUP ULTRA	3 SL	0.75 LB AE/A	2.0 PT/A	2-4"W-3	E																		
20 ROUNDUP ULTRA	3 SL	0.56 LB AE/A	1.5 PT/A	2-4"W-1	B			83	70	70	100	100	100	90	97	97	97	100	100	90	93	93	
21 ROUNDUP ULTRA	3 SL	0.56 LB AE/A	1.5 PT/A	2-4"W-1	B			85	92	100	100	100	100	90	99	100	97	100	100	90	100	100	
21 ROUNDUP ULTRA	3 SL	0.56 LB AE/A	1.5 PT/A	3WA2-4"W	F																		
22 ROUNDUP ULTRA	3 SL	0.75 LB AE/A	2.0 PT/A	4-6"W	D			90	78	78	90	100	100	90	90	90	90	99	99	90	100	100	
23 ROUNDUP ULTRA	3 SL	0.75 LB AE/A	2.0 PT/A	4-6"W	D			90	99	99	90	100	100	90	100	100	90	100	100	90	100	100	
23 ROUNDUP ULTRA	3 SL	0.56 LB AE/A	1.5 PT/A	3WA4-6"W	G																		
24 NO HERBICIDE								100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
24 WEEDFREE																							
LSD								7	16	29	4	3	4	0	0.7	0.6	3	0.4	0.4	7	8	8	
P								0.01	0.01	0.01	0.01	0.01	0.01	1.0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	

1. PROTOCOL: SIU/RFK (SAME AS 99-51E-S120).

2. RATING DATES:

14 DAYS AFTER PRE, 2-4"W-1, 2-4"W-2, 4-6"W, AND 2-4"W-3 APPLICATIONS WAS ON MAY-26-00, JUN-23-00, JUN-23-00, JUN-28-00, AND JUL-5-00, RESPECTIVELY.

28 DAYS AFTER PRE, 2-4"W-1, 2-4"W-2, 4-6"W, AND 2-4"W-3 APPLICATIONS WAS ON JUN-9-00, JUL-7-00, JUL-7-00, JUL-12-00, AND JUL-19-00, RESPECTIVELY.

56 DAYS AFTER PRE, 2-4"W-1, 2-4"W-2, 4-6"W, AND 2-4"W-3 APPLICATIONS WAS ON JUL-7-00, AUG-4-00, AUG-4-00, AUG-9-00, AND AUG-16-00, RESPECTIVELY.