

Effect of Soil Residual on Weed Spectrum at Postemergence Timing.

01-21S-MW50

OBJECTIVE: Determine any difference in weed spectrum from several soil residual herbicides at a postemergence application of glyphosate. Furthermore, determine if the performance of glyphosate is different as a response to the soil applied herbicides.

SUMMARY: Soybean injury was less than 3% from soil applied herbicides. Giant foxtail control prior to postemergence (POST) herbicide application was at least 90% from Boundary, Dual II Magnum, and Axiom. By 28 days after POST giant foxtail control was at least 96% from all treatments. Dual, Boundary, and Canopy XL controlled 99% of yellow nutsedge prior to POST. Domain, Authority and Valor controlled 77 to 85% of yellow nutsedge. Python, Canopy XL and FirstRate were the only preemergence herbicides that provided good control of common cocklebur. However, all treatments controlled at least 95% of common cocklebur by 28 days after POST.

Soybean yield ranged from 6 bu/A in nontreated plots to 56 bu/A. Plots treated with a single application of Roundup Ultra Max yielded 43 bu/A. All herbicide treated plots that included a preemergence herbicide yielded greater than Roundup Ultra Max alone except Prowl, Dual II Magnum, and Axiom followed by Roundup Ultra Max. The highest soybean yield was observed in plots treated with Authority or Canopy XL followed by Roundup Ultra Max.

HERBICIDES

AUTHORITY 75 WG
 AXIOM 68 WG
 BOUNDARY 7.8 EC
 CANOPY XL 56.3 WG
 DOMAIN 60 WG
 DUAL II MAGNUM 7.64 EC
 FIRSTRATE 84 WG
 PROWL 3.3 EC
 PYTHON 80 WG
 ROUNDUP ULTRA MAX 3.7 SL
 SENCOR 75 WG
 VALOR 50 WG

WEEDS

cocklebur, common
 foxtail, giant
 lambsquarters, common
 morningglory, ivyleaf
 nutsedge, yellow
 ragweed, common
 ragweed, giant
 sida, prickly
 velvetleaf
 waterhemp, common

CROP

soybean

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

Effect of Soil Residual on Weed Spectrum at Postemergence Timing.

Project Code: 01-21S-MW50 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
Trial Status: Final Initiation Date: 5-11-01**Objective:**

Determine any difference in weed spectrum from several soil residual herbicides at a postemergence application of glyphosate. Furthermore, determine if the performance of glyphosate is different as a response to the soil applied herbicides.

Weed Code	Common Name	Scientific Name
1. SETFA	foxtail, giant	Setaria faberi Herrm.
2. XANST	cocklebur, common	Xanthium strumarium L.
3. AMBTR	ragweed, giant	Ambrosia trifida L.
4. AMBEL	ragweed, common	Ambrosia artemisiifolia L.
5. IPOHE	morningglory, annual	Ipomoea hederacea (L.) Jacq.
6. CHEAL	lambquarters, common	Chenopodium album L.
7. ABUTH	velvetleaf	Abutilon theophrasti Medicus
8. SIDSP	sida, prickly	Sida spinosa L.
9. CYPES	nutsedge, yellow	Cyperus esculentus L.
10. AMATA	waterhemp, common	Amaranthus rudis Sauer

Crop 1: GLXMA soybean Variety: B-T 398CR
 Planting Method: Seeded Planting Date: 5-14-01
 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: Randomized complete block
 Previous Crop, Year: ZEAMX, 2000
 Field Prep./Maintenance: N 0 LB/A, P205 0 LB/A, K20 150 LB/A

Soil Name: Ebbert % OM: 1.4 pH: 5.7 CEC: 14
 Texture: Silt loam Fert. Level: P1: 97 LB/A, K: 291 LB/A

APPLICATION DESCRIPTION

	A	B	C	D	E
Application Date:	5-16-01	6-22-01		6-27-01	7-6-01
Time of Day:	7:30	9:00		15:00	9:00
Application Method:	Spray	Spray	Spray	Spray	Spray
Application Timing:	PRE	4-8"W	10-12"W1	10-12"W2	2-4"REGR
Applic. Placement:	BROSOI	BROFOL	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	74 F	70 F	F	83 F	64 F
% Relative Humidity:	70	72		50	68
Wind Velocity, Unit:	3-5 MPH	0-2 MPH	MPH	0-3 MPH	0-2 MPH
Soil Moisture:	BELNOR	ABONOR		BELNOR	ABONOR
% Cloud Cover:	10	0		60	50

CROP STAGE AT EACH APPLICATION

	A	B	C	D	E
Crop 1 Code, Stage:	GLXMA NA	GLXMA V3	GLXMA	GLXMA V4	GLXMA V5-6
Height, Unit:	NA NA	4-6 IN	IN	7 IN	8-10 IN

WEED STAGE AT EACH APPLICATION

	A	B	C	D	E
Weed 1 Code:	SETFA	SETFA	SETFA	SETFA	SETFA
Stage(leaves):		4-10		4-6	
Height(inches):		1-6		6-10	
Density:		High		High	
Weed 2 Code:	XANST	XANST	XANST	XANST	XANST
Stage(leaves):		4-8		7-10	2-4
Height(inches):		4-7		10-12	1-2
Density:		Medium		High	Low

Weed 3 Code:	AMBTR	AMBTR	AMBTR	AMBTR	AMBTR
Stage(leaves):		2-8			
Height(inches):		1-6			
Density:		Low			
Weed 4 Code:	AMBEL	AMBEL	AMBEL	AMBEL	AMBEL
Stage(leaves):		4-6		6-10	
Height(inches):		4-6		6-8	
Density:		Low		Low	
Weed 5 Code:	IPOHE	IPOHE	IPOHE	IPOHE	IPOHE
Stage(leaves):		4-8		5-7	2-6
Height(inches):		2-6		6-8	1-2
Density:		Medium		High	Medium
Weed 6 Code:	CHEAL	CHEAL	CHEAL	CHEAL	CHEAL
Stage(leaves):		2-6			
Height(inches):		1-2			
Density:		Low			
Weed 7 Code:	ABUTH	ABUTH	ABUTH	ABUTH	ABUTH
Stage(leaves):		2-6		5-7	
Height(inches):		2-5		5-7	
Density:		Low		Low	
Weed 8 Code:	SIDSP	SIDSP	SIDSP	SIDSP	SIDSP
Stage(leaves):		2-5			2-4
Height(inches):		2-4			1-2
Density:		Low			Low
Weed 9 Code:	CYPES	CYPES	CYPES	CYPES	CYPES
Stage(leaves):		3-6		6-8	
Height(inches):		2-4		6-10	
Density:		Low		Medium	
Weed10 Code:	AMATA	AMATA	AMATA	AMATA	AMATA
Stage(leaves):				8-10+	
Height(inches):				6-8	
Density:				Low	

APPLICATION EQUIPMENT

	A	B	C	D	E
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	40 PSI	40 PSI	40 PSI	40 PSI	40 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan	Flat fan	Flat fan
Nozzle Size:	8003	8002	8002	8002	8002
Boom Length, Unit:	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

NOTES: HARVESTED 10-20-01, 2 ROWS X 27 FT.

For treatment 10, application D (10-12"W2) was delayed until 7-3-01.

Effect of Soil Residual on Weed Spectrum at Postemergence Timing.

Project Code: 01-21S-MW50 Location: Belleville Research Center
 Special postemergence timings, weed counts and biomass, see comments.

Weed Code													SETFA	SETFA	SETFA	CYPES	CYPES	CYPES								
Crop Code													GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA								
Rating Data Type													Yield	Injury	Injury	Injury	Injury	Height								
Rating Unit													bu/A	Percent	Percent	Percent	Percent	cm	Percent							
Rating Date													10-20-01	6-4-01	6-27-01	7-11-01	7-25-01	7-27-01	6-27-01	7-11-01	7-25-01					
Trt-Eval Interval													21 DAP	0 DAT	14 DAT	28 DAT	74 DAP	0 DAT	14 DAT	28 DAT	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	NONTREATED													6	0	0	0	0	0	71	0	0	0	0	0	
2	PROWL	3.3	EC	0.743	LB A/A	1.8	PT/A	PRE	A					47	2	0	0	0	0	62	38	91	97	10	62	85
2	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D																	
2	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D																	
3	DUAL II MAGNUM	7.64	EC	1.27	LB A/A	1.33	PT/A	PRE	A					44	2	0	0	0	0	58	99	99	98	99	99	99
3	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D																	
3	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D																	
4	AXIOM	68	WG	0.2975	LB A/A	7	OZ/A	PRE	A					44	0	0	0	0	0	62	99	99	98	86	67	92
4	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D																	
4	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D																	
5	BOUNDARY	7.8	EC	1.22	LB A/A	1.25	PT/A	PRE	A					50	0	0	0	0	0	59	98	99	97	99	93	97
5	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D																	
5	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D																	
6	DOMAIN	60	WG	0.3375	LB A/A	9	OZ/A	PRE	A					49	0	0	0	0	0	62	85	99	98	78	67	92
6	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D																	
6	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D																	
7	SENCOR	75	WG	0.5	LB A/A	0.67	LB/A	PRE	A					52	0	0	0	0	0	65	27	98	99	0	60	95
7	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D																	
7	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D																	
8	PYTHON	80	WG	0.057	LB A/A	1.14	OZ/A	PRE	A					54	2	0	0	0	0	67	5	98	99	0	70	99
8	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D																	
8	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D																	
9	AUTHORITY	75	WG	0.1406	LB A/A	3	OZ/A	PRE	A					56	0	0	0	0	0	73	62	97	99	85	77	98
9	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D																	
9	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D																	
10	CANOPY XL	56.3	WG			4.5	OZ/A	PRE	A					56	1	0	0	0	0	76	60	92	95	99	70	99
10	->CLASSIC	25	WG	0.0264	LB A/A			PRE	A																	
10	->AUTHORITY	75	WG	0.132	LB A/A			PRE	A																	
10	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D																	
10	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D																	
11	VALOR	50	WG	0.0781	LB A/A	2.5	OZ/A	PRE	A					54	2	0	0	0	0	67	43	99	98	77	67	97
11	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D																	
11	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D																	
12	FIRSTRATE	84	WG	0.0315	LB A/A	0.6	OZ/A	PRE	A					55	1	0	0	0	0	75	0	99	99		87	99
12	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D																	
12	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D																	
13	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W1	C					43									99		92	
13	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W1	C																	

Weed Code										SETFA	SETFA	SETFA	CYPES	CYPES	CYPES
Crop Code										GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Rating Data Type										Yield	Injury	Injury	Injury	Injury	Height
Rating Unit										bu/A	Percent	Percent	Percent	Percent	cm
Rating Date										10-20-01	6-4-01	6-27-01	7-11-01	7-25-01	7-27-01
Trt-Eval Interval										21 DAP	0 DAT	14 DAT	28 DAT	74 DAP	0 DAT
										Control	Control	Control	Control	Control	Control
										Percent	Percent	Percent	Percent	Percent	Percent
										7-11-01	7-25-01	6-27-01	7-11-01	7-25-01	7-25-01
										14 DAT	28 DAT	0 DAT	14 DAT	28 DAT	28 DAT

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code												
14	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	4-8"W	B	47		10	0	60		99	97		70	98	
14	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	4-8"W	B												
14	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	2-4"REGR	E												
14	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	2-4"REGR	E												
15	HANDWEED									55	0	0	0	0	66	99	99	99	99	99	
LSD (P=.05)										6.3	2.5	0.0	0.0	0.0	5.4	14.9	0.6	2.6	15.6	8.1	5.0
Replicate F										1.752	1.179	0.000	0.000	0.000	0.630	2.506	1.182	1.477	2.114	4.191	0.413
Replicate Prob(F)										0.1919	0.3248	1.0000	1.0000	1.0000	0.5401	0.1027	0.3227	0.2456	0.1446	0.0264	0.6655
Treatment F										33.003	1.018	0.000	0.000	0.000	10.171	58.380	14620.429	820.665	68.475	75.330	214.552
Treatment Prob(F)										0.0001	0.4639	1.0000	1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Effect of Soil Residual on Weed Spectrum at Postemergence Timing.

Project Code: 01-21S-MW50 Location: Belleville Research Center
 Special postemergence timings, weed counts and biomass, see comments.

Weed Code									XANST	XANST	XANST	IPOHE	IPOHE	IPOHE	AMBEL	AMBEL	
Crop Code									Control	Control	Control	Control	Control	Control	Control	Control	
Rating Data Type									Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
Rating Unit									6-27-01	7-11-01	7-25-01	6-27-01	7-11-01	7-25-01	7-11-01	7-25-01	
Rating Date									0 DAT	14 DAT	28 DAT	0 DAT	14 DAT	28 DAT	14 DAT	28 DAT	
Trt-Eval Interval																	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code								
1	NONTREATED									0	0	0	0	0	0	0	0
2	PROWL	3.3	EC	0.743	LB A/A	1.8	PT/A	PRE	A	0	91	98	0	60	58	82	88
2	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D								
2	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D								
3	DUAL II MAGNUM	7.64	EC	1.27	LB A/A	1.33	PT/A	PRE	A	0	92	95	43	60	70	73	92
3	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D								
3	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D								
4	AXIOM	68	WG	0.2975	LB A/A	7	OZ/A	PRE	A	0	95	92	23	60	72	94	95
4	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D								
4	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D								
5	BOUNDARY	7.8	EC	1.22	LB A/A	1.25	PT/A	PRE	A	0	98	96	33	63	67	98	99
5	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D								
5	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D								
6	DOMAIN	60	WG	0.3375	LB A/A	9	OZ/A	PRE	A	0	93	98	0	60	62	98	97
6	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D								
6	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D								
7	SENCOR	75	WG	0.5	LB A/A	0.67	LB/A	PRE	A	27	96	96	0	60	65	99	99
7	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D								
7	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D								
8	PYTHON	80	WG	0.057	LB A/A	1.14	OZ/A	PRE	A	92	98	99	40	60	77	99	99
8	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D								
8	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D								
9	AUTHORITY	75	WG	0.1406	LB A/A	3	OZ/A	PRE	A	33	97	97	98	94	96	97	96
9	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D								
9	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D								
10	CANOPY XL	56.3	WG			4.5	OZ/A	PRE	A	93	99	99	98	96	96	99	99
10	->CLASSIC	25	WG	0.0264	LB A/A			PRE	A								
10	->AUTHORITY	75	WG	0.132	LB A/A			PRE	A								
10	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D								
10	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D								
11	VALOR	50	WG	0.0781	LB A/A	2.5	OZ/A	PRE	A	20	98	98	60	78	86	99	98
11	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D								
11	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D								
12	FIRSTRATE	84	WG	0.0315	LB A/A	0.6	OZ/A	PRE	A	99	99	99	95	72	93	99	99
12	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D								
12	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D								
13	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W1	C				98		75		91
13	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W1	C								

Weed Code		XANST	XANST	XANST	IPOHE	IPOHE	IPOHE	AMBEL	AMBEL
Crop Code									
Rating Data Type		Control	Control	Control	Control	Control	Control	Control	Control
Rating Unit		Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date		6-27-01	7-11-01	7-25-01	6-27-01	7-11-01	7-25-01	7-11-01	7-25-01
Trt-Eval Interval		0 DAT	14 DAT	28 DAT	0 DAT	14 DAT	28 DAT	14 DAT	28 DAT

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	XANST	XANST	XANST	IPOHE	IPOHE	IPOHE	AMBEL	AMBEL
14	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	4-8"W	B		99	99		68	93	99	99
14	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	4-8"W	B								
14	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	2-4"REGR	E								
14	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	2-4"REGR	E								
15	HANDWEED									99	99	99	99	99	99	99	99
LSD (P=.05)										22.6	2.8	3.5	28.6	5.9	10.1	7.3	6.0
Replicate F										1.196	2.544	1.763	0.859	1.175	3.148	1.611	1.595
Replicate Prob(F)										0.3197	0.0979	0.1900	0.4364	0.3248	0.0585	0.2189	0.2209
Treatment F										31.204	740.945	432.349	17.251	142.444	50.358	110.262	146.144
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Effect of Soil Residual on Weed Spectrum at Postemergence Timing.

Project Code: 01-21S-MW50 Location: Belleville Research Center

Weed Code								SETFA	XANST	AMBTR	AMBEL	IPOHE	CHEAL	ABUTH	SIDSP	CYPES	AMATA	TTTTT		
Rating Data Type								Plants	Plants	Plants	Plants	Plants	Plants	Plants	Plants	Plants	Plants	Plants	DRYWEI	
Rating Unit								1.0 m2	1.0 m2	1.0 m2	1.0 m2	1.0 m2	1.0 m2	1.0 m2	1.0 m2	1.0 m2	1.0 m2	1.0 m2	g/1.0 m2	
Trt-Eval Interval								0 DAT	0 DAT	0 DAT	0 DAT	0 DAT	0 DAT	0 DAT	0 DAT	0 DAT	0 DAT	0 DAT	0 DAT	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code											
1	NONTREATED																			
2	PROWL	3.3	EC	0.743	LB A/A	1.8	PT/A	PRE	A	177.3	17.3	2.7	2.7	46.7	0.7	8.0	22.7	23.3	4.0	88.0
2	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D											
2	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D											
3	DUAL II MAGNUM	7.64	EC	1.27	LB A/A	1.33	PT/A	PRE	A	19.3	41.3	0.0	1.3	71.3	1.3	7.3	22.0	0.0	0.7	90.7
3	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D											
3	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D											
4	AXIOM	68	WG	0.2975	LB A/A	7	OZ/A	PRE	A	64.7	31.3	0.7	0.0	44.7	0.7	3.3	8.7	5.3	0.7	89.3
4	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D											
4	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D											
5	BOUNDARY	7.8	EC	1.22	LB A/A	1.25	PT/A	PRE	A	26.0	49.3	2.0	4.0	51.3	0.0	0.0	2.7	0.7	2.0	97.3
5	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D											
5	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D											
6	DOMAIN	60	WG	0.3375	LB A/A	9	OZ/A	PRE	A	128.0	22.7	0.7	0.7	84.7	0.0	2.0	2.0	6.0	0.0	90.7
6	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D											
6	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D											
7	SENCOR	75	WG	0.5	LB A/A	0.67	LB/A	PRE	A	344.7	16.7	1.3	0.0	62.7	0.0	0.0	0.0	0.7	0.0	116.0
7	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D											
7	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D											
8	PYTHON	80	WG	0.057	LB A/A	1.14	OZ/A	PRE	A	710.0	4.7	0.7	0.0	62.0	0.0	0.0	0.0	3.3	0.7	125.3
8	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D											
8	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D											
9	AUTHORITY	75	WG	0.1406	LB A/A	3	OZ/A	PRE	A	244.7	18.0	0.7	4.7	1.3	0.0	0.7	6.0	2.7	0.0	82.7
9	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D											
9	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D											
10	CANOPY XL	56.3	WG			4.5	OZ/A	PRE	A	438.7	9.3	0.0	0.0	2.7	0.0	0.7	4.0	0.0	0.0	80.0
10	->CLASSIC	25	WG	0.0264	LB A/A			PRE	A											
10	->AUTHORITY	75	WG	0.132	LB A/A			PRE	A											
10	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D											
10	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D											
11	VALOR	50	WG	0.0781	LB A/A	2.5	OZ/A	PRE	A	222.7	18.7	0.0	2.0	10.0	0.0	2.0	0.7	14.0	0.0	104.0
11	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D											
11	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D											
12	FIRSTRATE	84	WG	0.0315	LB A/A	0.6	OZ/A	PRE	A	887.3	1.3	0.0	0.0	6.0	0.0	0.0	1.3	4.0	8.7	117.3
12	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W2	D											
12	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W2	D											
13	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	10-12"W1	C	1203.3	43.3	0.0	8.0	48.7	0.0	10.0	8.0	3.3	0.7	178.7
13	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	10-12"W1	C											
14	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	4-8"W	B	835.3	29.3	1.3	6.0	44.7	8.0	4.7	9.3	12.7	0.0	101.3
14	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	4-8"W	B											
14	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	2-4"REGR	E											
14	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	2-4"REGR	E											

Weed Code	SETFA	XANST	AMBTR	AMBEL	IPOHE	CHEAL	ABUTH	SIDSP	CYPES	AMATA	TTTTT
Rating Data Type	Plants	Plants	Plants	Plants	Plants	Plants	Plants	Plants	Plants	Plants	DRYWEI
Rating Unit	1.0 m2	1.0 m2	1.0 m2	1.0 m2	1.0 m2	1.0 m2	1.0 m2	1.0 m2	1.0 m2	1.0 m2	g/1.0 m2
Trt-Eval Interval	0 DAT	0 DAT	0 DAT	0 DAT	0 DAT	0 DAT	0 DAT	0 DAT	0 DAT	0 DAT	0 DAT

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code
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15 HANDWEED

LSD (P=.05)	137.91	16.97	2.34	7.54	27.46	2.58	4.91	10.98	13.02	6.67	39.43
Replicate F	1.506	2.864	1.115	2.467	1.364	1.615	1.968	7.410	0.315	0.674	0.068
Replicate Prob(F)	0.2420	0.0767	0.3443	0.1061	0.2748	0.2199	0.1617	0.0031	0.7330	0.5191	0.9343
Treatment F	65.279	6.554	1.133	1.062	8.650	6.160	4.254	4.138	2.377	1.177	3.769
Treatment Prob(F)	0.0001	0.0001	0.3808	0.4309	0.0001	0.0001	0.0012	0.0015	0.0343	0.3522	0.0028

Effect of Soil Residual on Weed Spectrum at Postemergence Timing.

Project Code: 01-21S-MW50 Location: Belleville Research Center
Special postemergence timings, weed counts and biomass, see comments.

Trial Comments

1. Protocol: SIU - BGY.
2. DAP = days after planting. DAT = days after 10-12"W-2 application. 0 DAT = at postemergence application. 1.0 m² = 1.0 square meter.
For treatment 10, the 10-12"W-2 application was delayed until 7-3-01 in order to let the weeds reach 10-12 inches.
For treatment 13, the 10-12"W-1 application was delayed due to error.
For treatment 14, 7-11-01 and 7-25-01 were 19 and 33 days after 4-8"W application, respectively.
TTTTT = weeds generally. DRYWEI = dry weight of all weeds.