

## Residual Herbicides in No-Till Soybean Burndown Programs.

02-11A-W65

**OBJECTIVE:** Demonstrate advantages of soil residual herbicides and 2,4-D alternatives in no-till soybean burndown programs.

**SUMMARY:** The purpose of this study was to determine if burndown treatments that included a soil residual herbicide or a product other than 2,4-D provide any weed control advantages compared to a standard glyphosate plus 2,4-D burndown. All burndown treatments were followed by a postemergence application of glyphosate (Roundup UltraMax or Touchdown) when weeds reached 4 to 6 inches in height. Soybean injury was observed 7 days after soybean emergence (DAE) only in plots that were treated with Valor (5% injury) or Boundary (10% injury). No soybean injury was observed by 56 DAE. All of the burndown treatments that included Roundup UltraMax or Touchdown provided excellent control of Carolina foxtail on May 22, 8 days prior to planting. Slightly less Carolina foxtail control (82 to 85%) was observed with Domain plus Salvo and Canopy XL plus Express and Salvo. All of the burndown treatments provided good control of giant foxtail, giant ragweed, and common ragweed on May 22. Horseweed control on May 22 was at least 94% from all treatments except Domain plus Salvo (85%). By 7 DAE control of all weeds except horseweed was highly variable. Burndown treatments applied 7 days early preplant (EPP) tended to provide greater weed control than treatments applied 21 EPP. This trend was still observed on August 13 (56 to 63 days after the postemergence applications of glyphosate) as treatments that included a burndown 7 EPP provided greater overall weed control than treatments applied 21 EPP.

### HERBICIDES

AUTHORITY 75 WG  
 BOUNDARY 7.8 EC  
 CANOPY XL 56.3 WG  
 CLASSIC 25 WG  
 DOMAIN 60 WG  
 EXPRESS 75 WG  
 ROUNDUP ULTRA MAX 3.7 SL  
 SALVO 5 EC  
 SYNCHRONY STS 42 WG  
 TOUCHDOWN 3 SL  
 VALOR 51 WG

### WEEDS

cocklebur, common  
 foxtail, Carolina  
 foxtail, giant  
 horseweed  
 ragweed, common  
 ragweed, giant  
 waterhemp, common

### CROP

soybean

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

## Residual Herbicides in No-Till Soybean Burndown Programs.

Project Code: 02-11A-W65      Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country:            Belleville            IL 62221 USA  
 Trial Status: Final                    Updated:            10-31-02

**Objective:**

Demonstrate advantages of soil residual herbicides and 2,4-D alternatives in no-till soybean burndown programs.

Weed Code	Common Name	Scientific Name
1.	ALOCA foxtail, Carolina	Alopecurus carolinianus Walt.
2.	SETFA foxtail, giant	Setaria faberi Herrm.
3.	ERICA horseweed	Conyza canadensis (L.) Crong.
4.	AMBTR ragweed, giant	Ambrosia trifida L.
5.	XANST cocklebur, common	Xanthium strumarium L.
6.	AMBEL ragweed, common	Ambrosia artemisiifolia L.
7.	AMATA waterhemp, common	Amaranthus rudis Sauer

Crop 1:                    GLXMA soybean                    Variety:                    Pioneer 94B01  
 Planting Method: Seeded                    Planting Date: 5-30-02  
 Rate:                    75 lb/A                    Depth:                    1.0 IN  
 Row Spacing:            30 IN

Plot Width, Unit: 10 FT                    Plot Length, Unit: 26 FT                    Reps: 3  
 Tillage Type:            No-Till                    Study Design: Randomized complete block  
 Previous Crop, Year: ZEAMX, 2001

Field Prep./Maintenance: N 0 LB/A, P205 50 LB/A, K20 150 LB/A

Soil Name: Weir                    % OM: 1.5                    pH: 6.0                    CEC: 12  
 Texture: Silt loam                    Fert. Level: P1: 81 LB/A, K: 247 LB/A

**APPLICATION DESCRIPTION**

	A	B	C	D
Application Date:	4-24-02	5-15-02	6-11-02	6-18-02
Time of Day:	7:00	16:00	8:00	14:15
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	21EPP	7EPP	4-6"W-1	4-6"W-2
Applic. Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	58 F	76 F	74 F	84 F
% Relative Humidity:	96	40	90	40
Wind Velocity, Unit:	3 MPH	10 MPH	8 MPH	0-5 MPH
Soil Moisture:	ABONOR	ABONOR	NORMAL	NORMAL
% Cloud Cover:				40

**CROP STAGE AT EACH APPLICATION**

	A	B	C	D
Crop 1 Code, Stage:	GLXMA NA	GLXMA NA	GLXMA VC	GLXMA VC-V1
Height, Unit:	NA NA	NA NA	1-2 IN	3-5 IN

**WEED STAGE AT EACH APPLICATION**

	A	B	C	D
Weed 1 Code:	ALOCA	ALOCA		
Stage(leaves):	5-6	5-6		
Height(inches):	4-6	4-8		
Density:	Medium	High		
Weed 2 Code:	SETFA	SETFA	SETFA	SETFA
Stage(leaves):	0-1	1-2	3-5	3-5
Height(inches):	0-1	0-2	3-5	3-6
Density:	Low	Medium	Low	Low
Weed 3 Code:	ERICA	ERICA		
Stage(leaves):	10+	10+		
Height(inches):	3-4	4-6		
Density:	Low	Low		

<b>Weed 4 Code:</b>	AMBTR	AMBTR	AMBTR	AMBTR
<b>Stage(leaves):</b>	3-4	5-6	4-8	4-8
<b>Height(inches):</b>	3-4	4-5	3-5	3-6
<b>Density:</b>	Low	Low	Low	Low
<b>Weed 5 Code:</b>			XANST	XANST
<b>Stage(leaves):</b>			4-6	0-4
<b>Height(inches):</b>			3-5	0-5
<b>Density:</b>			Medium	Low
<b>Weed 6 Code:</b>	AMBEL	AMBEL	AMBEL	AMBEL
<b>Stage(leaves):</b>	1-2	4-5	4-6	4-6
<b>Height(inches):</b>	0-2	1-3	2-4	4-6
<b>Density:</b>	Low	Low	Low	Low
<b>Weed 7 Code:</b>			AMATA	AMATA
<b>Stage(leaves):</b>			3-5	5-7
<b>Height(inches):</b>			2-4	2-4
<b>Density:</b>			Low	Low

## APPLICATION EQUIPMENT

	A	B	C	D
<b>Appl. Equipment:</b>	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
<b>Operating Pressure:</b>	40 PSI	40 PSI	40 PSI	40 PSI
<b>Nozzle Type:</b>	Flat fan	Flat fan	Flat fan	Flat fan
<b>Nozzle Size:</b>	8003	8003	8002	8002
<b>Boom Length, Unit:</b>	7.5 FT	7.5 FT	7.5 FT	7.5 FT
<b>Spray Volume, Unit:</b>	15 GPA	15 GPA	15 GPA	15 GPA

## NOTES:

4-6"W-1 and 4-6"W-2 are 4 to 6 inch weeds following 21EPP and 7EPP, respectively. This study was not harvested.

Residual Herbicides in No-Till Soybean Burndown Programs.

Project Code: 02-11A-W65      Location: Belleville Research Center

Weed Code										ALOCA	SETFA	SETFA	SETFA	SETFA	ERICA	ERICA	ERICA	ERICA			
Crop Code										GLXMA	GLXMA	GLXMA									
Rating Data Type										Injury	Injury	Injury	Control	Control	Control	Control	Control	Control	Control		
Rating Unit										Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent		
Rating Date										6-11-02	7-30-02	8-13-02	5-22-02	5-22-02	6-11-02	7-30-02	8-13-02	8-13-02			
Trt-Eval Interval										7 DAE	56 DAE	56 DA-D	28 DA-A	28 DA-A	7 DAE	56 DAE	56 DA-D	28 DA-A	7 DAE	56 DAE	56 DA-D
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code												
1	NONTREATED									0	0	0	0	0	0	0	0	0	0		
2	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	21EPP	A	0	0	0	99	99	57	63	68	99	99	99	96
2	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A												
2	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C												
2	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C												
3	VALOR	51	WG	0.0319	LB A/A	1	OZ/A	21EPP	A	0	0	0	98	99	45	57	65	99	99	99	99
3	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	21EPP	A												
3	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A												
3	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C												
3	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C												
4	VALOR	51	WG	0.0478	LB A/A	1.5	OZ/A	21EPP	A	0	0	0	99	99	85	62	70	99	99	99	99
4	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	21EPP	A												
4	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A												
4	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C												
4	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C												
5	VALOR	51	WG	0.0638	LB A/A	2	OZ/A	21EPP	A	5	0	0	98	99	93	73	70	99	99	99	99
5	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	21EPP	A												
5	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A												
5	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C												
5	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C												
6	VALOR	51	WG	0.0797	LB A/A	2.5	OZ/A	21EPP	A	0	0	0	99	99	96	82	77	99	99	99	99
6	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	21EPP	A												
6	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A												
6	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C												
6	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C												
7	DOMAIN	60	WG	0.45	LB A/A	12	OZ/A	7EPP	B	0	0	0	96	99	59	96	98	96	99	99	99
7	ROUNDUP ULTRA MAX	3.7	SL	0.58	LB AE/A	20	OZ/A	7EPP	B												
7	AMS	100	DRY	2.0	% W/W	2	%W/W	7EPP	B												
7	ROUNDUP ULTRA MAX	3.7	SL	0.58	LB AE/A	20	OZ/A	4-6"W-2	D												
7	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-2	D												
8	DOMAIN	60	WG	0.525	LB A/A	14	OZ/A	7EPP	B	0	0	0	85	96	52	98	98	85	90	99	99
8	SALVO	5	EC	0.5	LB AE/A	12.8	OZ/A	7EPP	B												
8	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	7EPP	B												
8	ROUNDUP ULTRA MAX	3.7	SL	0.58	LB AE/A	20	OZ/A	4-6"W-2	D												
8	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-2	D												

Weed Code										ALOCA	SETFA	SETFA	SETFA	SETFA	ERICA	ERICA	ERICA	ERICA			
Crop Code										GLXMA	GLXMA	GLXMA									
Rating Data Type										Injury	Injury	Injury	Control	Control	Control	Control	Control	Control			
Rating Unit										Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent			
Rating Date										6-11-02	7-30-02	8-13-02	5-22-02	6-11-02	8-13-02	5-22-02	6-11-02	7-30-02			
Trt-Eval Interval										7 DAE	56 DAE	56 DA-D	28 DA-A	28 DA-A	7 DAE	56 DAE	56 DA-D	28 DA-A			
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code												
9	CANOPY XL	56.3	WG			4.5	OZ/A	21EPP	A	0	0	0	82	99	85	92	93	96	93	99	99
9	->CLASSIC	25	WG	0.0264	LB A/A			21EPP	A												
9	->AUTHORITY	75	WG	0.1319	LB A/A			21EPP	A												
9	EXPRESS	75	WG	0.007	LB A/A	0.15	OZ/A	21EPP	A												
9	SALVO	5	EC	0.5	LB AE/A	12.8	OZ/A	21EPP	A												
9	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	21EPP	A												
9	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C												
9	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C												
10	ROUNDUP ULTRA MAX	3.7	SL	0.56	LB AE/A	19.4	OZ/A	7EPP	B	0	0	0	99	99	83	93	92	99	99	99	99
10	SALVO	5	EC	0.5	LB AE/A	12.8	OZ/A	7EPP	B												
10	AMS	100	DRY	2.0	% W/W	2	%W/W	7EPP	B												
10	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-2	D												
10	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-2	D												
11	SYNCHRONY STS	42	WG	0.01313	LB A/A	0.5	OZ/A	7EPP	B	0	0	0	99	99	95	95	97	98	99	99	99
11	ROUNDUP ULTRA MAX	3.7	SL	0.56	LB AE/A	19.4	OZ/A	7EPP	B												
11	AMS	100	DRY	2.0	% W/W	2	%W/W	7EPP	B												
11	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	7EPP	B												
11	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-2	D												
11	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-2	D												
12	BOUNDARY	7.8	EC	1.219	LB A/A	1.25	PT/A	21EPP	A	10	0	0	99	99	52	83	85	98	94	99	99
12	TOUCHDOWN	3	SL	0.56	LB AE/A	24	OZ/A	21EPP	A												
12	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A												
12	TOUCHDOWN	3	SL	0.75	LB AE/A	32	OZ/A	4-6"W-1	C												
12	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C												
LSD (P=.05)										0.0	0.0	0.0	8.0	1.1	47.1	15.7	15.9	10.8	6.8	0.0	2.5
Replicate F										0.000	0.000	0.000	0.375	1.000	0.228	1.795	3.498	0.744	0.501	0.000	1.000
Replicate Prob(F)										1.0000	1.0000	1.0000	0.6918	0.3840	0.7976	0.1895	0.0480	0.4869	0.6128	1.0000	0.3840
Treatment F										0.000	0.000	0.000	106.143	5490.063	3.105	26.414	25.015	58.414	148.051	0.000	1084.000
Treatment Prob(F)										1.0000	1.0000	1.0000	0.0001	0.0001	0.0114	0.0001	0.0001	0.0001	0.0001	1.0000	0.0001

Weed Code						AMBTR	AMBTR	AMBTR	AMBTR	XANST	XANST	XANST	XANST	AMBEL	AMBEL	AMBEL	AMBEL				
Crop Code																					
Rating Data Type						Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control				
Rating Unit						Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent				
Rating Date						5-22-02	6-11-02	7-30-02	8-13-02	5-22-02	6-11-02	7-30-02	8-13-02	5-22-02	6-11-02	7-30-02	8-13-02				
Trt-Eval Interval						28 DA-A	7 DAE	56 DAE	56 DA-D	28 DA-A	7 DAE	56 DAE	56 DA-D	28 DA-A	7 DAE	56 DAE	56 DA-D				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code												
1	NONTREATED									0	0	0	0	0	0	0	0				
2	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	21EPP	A	95	67	70	72	96	73	20	35	99	86	83	85
2	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A												
2	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C												
2	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C												
3	VALOR	51	WG	0.0319	LB A/A	1	OZ/A	21EPP	A	95	53	73	80	87	33	10	17	98	77	81	83
3	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	21EPP	A												
3	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A												
3	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C												
3	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C												
4	VALOR	51	WG	0.0478	LB A/A	1.5	OZ/A	21EPP	A	96	60	80	83	91	66	27	27	99	72	87	86
4	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	21EPP	A												
4	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A												
4	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C												
4	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C												
5	VALOR	51	WG	0.0638	LB A/A	2	OZ/A	21EPP	A	98	82	77	72	92	57	10	25	99	91	89	89
5	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	21EPP	A												
5	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A												
5	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C												
5	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C												
6	VALOR	51	WG	0.0797	LB A/A	2.5	OZ/A	21EPP	A	93	80	79	75	78	45	17	17	99	88	96	96
6	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	21EPP	A												
6	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A												
6	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C												
6	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C												
7	DOMAIN	60	WG	0.45	LB A/A	12	OZ/A	7EPP	B	98	84	90	91	96	80	78	82	99	92	99	99
7	ROUNDUP ULTRA MAX	3.7	SL	0.58	LB AE/A	20	OZ/A	7EPP	B												
7	AMS	100	DRY	2.0	% W/W	2	%W/W	7EPP	B												
7	ROUNDUP ULTRA MAX	3.7	SL	0.58	LB AE/A	20	OZ/A	4-6"W-2	D												
7	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-2	D												
8	DOMAIN	60	WG	0.525	LB A/A	14	OZ/A	7EPP	B	98	89	96	95	97	63	83	87	99	99	99	99
8	SALVO	5	EC	0.5	LB AE/A	12.8	OZ/A	7EPP	B												
8	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	7EPP	B												
8	ROUNDUP ULTRA MAX	3.7	SL	0.58	LB AE/A	20	OZ/A	4-6"W-2	D												
8	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-2	D												

Weed Code		AMBTR	AMBTR	AMBTR	AMBTR	XANST	XANST	XANST	XANST	AMBEL	AMBEL	AMBEL	AMBEL								
Crop Code																					
Rating Data Type		Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control								
Rating Unit		Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent								
Rating Date		5-22-02	6-11-02	7-30-02	8-13-02	5-22-02	6-11-02	7-30-02	8-13-02	5-22-02	6-11-02	7-30-02	8-13-02								
Trt-Eval Interval		28 DA-A	7 DAE	56 DAE	56 DA-D	28 DA-A	7 DAE	56 DAE	56 DA-D	28 DA-A	7 DAE	56 DAE	56 DA-D								
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code												
9	CANOPY XL	56.3	WG			4.5	OZ/A	21EPP	A	98	95	90	88	98	88	33	47	99	98	93	96
9	->CLASSIC	25	WG	0.0264	LB A/A			21EPP	A												
9	->AUTHORITY	75	WG	0.1319	LB A/A			21EPP	A												
9	EXPRESS	75	WG	0.007	LB A/A	0.15	OZ/A	21EPP	A												
9	SALVO	5	EC	0.5	LB AE/A	12.8	OZ/A	21EPP	A												
9	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	21EPP	A												
9	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C												
9	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C												
10	ROUNDUP ULTRA MAX	3.7	SL	0.56	LB AE/A	19.4	OZ/A	7EPP	B	98	70	83	80	98	76	95	93	99	99	99	99
10	SALVO	5	EC	0.5	LB AE/A	12.8	OZ/A	7EPP	B												
10	AMS	100	DRY	2.0	% W/W	2	%W/W	7EPP	B												
10	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-2	D												
10	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-2	D												
11	SYNCHRONY STS	42	WG	0.01313	LB A/A	0.5	OZ/A	7EPP	B	99	96	96	96	96	73	89	94	99	98	99	99
11	ROUNDUP ULTRA MAX	3.7	SL	0.56	LB AE/A	19.4	OZ/A	7EPP	B												
11	AMS	100	DRY	2.0	% W/W	2	%W/W	7EPP	B												
11	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	7EPP	B												
11	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-2	D												
11	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-2	D												
12	BOUNDARY	7.8	EC	1.219	LB A/A	1.25	PT/A	21EPP	A	91	76	83	83	90	37	20	27	99	88	90	90
12	TOUCHDOWN	3	SL	0.56	LB AE/A	24	OZ/A	21EPP	A												
12	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A												
12	TOUCHDOWN	3	SL	0.75	LB AE/A	32	OZ/A	4-6"W-1	C												
12	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C												
LSD (P=.05)										6.6	27.3	21.0	21.2	12.8	43.7	25.8	18.0	1.2	14.3	15.2	15.0
Replicate F										0.980	3.900	5.775	3.736	2.667	3.499	0.971	5.461	0.749	0.957	2.394	1.660
Replicate Prob(F)										0.3910	0.0355	0.0096	0.0401	0.0918	0.0479	0.3943	0.0119	0.4847	0.3995	0.1147	0.2131
Treatment F										151.293	7.797	12.667	12.341	39.245	2.817	16.141	30.425	5065.487	31.558	28.019	28.724
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0186	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Weed Code	AMATA	AMATA	AMATA
Crop Code			
Rating Data Type	Control	Control	Control
Rating Unit	Percent	Percent	Percent
Rating Date	6-11-02	7-30-02	8-13-02
Trt-Eval Interval	7 DAE	56 DAE	56 DA-D

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code			
1	NONTREATED									0	0	0
2	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	21EPP	A	53	13	20
2	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A			
2	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C			
2	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C			
3	VALOR	51	WG	0.0319	LB A/A	1	OZ/A	21EPP	A	87	17	33
3	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	21EPP	A			
3	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A			
3	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C			
3	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C			
4	VALOR	51	WG	0.0478	LB A/A	1.5	OZ/A	21EPP	A	94	10	17
4	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	21EPP	A			
4	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A			
4	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C			
4	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C			
5	VALOR	51	WG	0.0638	LB A/A	2	OZ/A	21EPP	A	99	50	65
5	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	21EPP	A			
5	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A			
5	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C			
5	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C			
6	VALOR	51	WG	0.0797	LB A/A	2.5	OZ/A	21EPP	A	93	76	72
6	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	21EPP	A			
6	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A			
6	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C			
6	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C			
7	DOMAIN	60	WG	0.45	LB A/A	12	OZ/A	7EPP	B	62	85	88
7	ROUNDUP ULTRA MAX	3.7	SL	0.58	LB AE/A	20	OZ/A	7EPP	B			
7	AMS	100	DRY	2.0	% W/W	2	%W/W	7EPP	B			
7	ROUNDUP ULTRA MAX	3.7	SL	0.58	LB AE/A	20	OZ/A	4-6"W-2	D			
7	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-2	D			
8	DOMAIN	60	WG	0.525	LB A/A	14	OZ/A	7EPP	B	88	92	92
8	SALVO	5	EC	0.5	LB AE/A	12.8	OZ/A	7EPP	B			
8	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	7EPP	B			
8	ROUNDUP ULTRA MAX	3.7	SL	0.58	LB AE/A	20	OZ/A	4-6"W-2	D			
8	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-2	D			



Weed Code	AMATA	AMATA	AMATA
Crop Code			
Rating Data Type	Control	Control	Control
Rating Unit	Percent	Percent	Percent
Rating Date	6-11-02	7-30-02	8-13-02
Trt-Eval Interval	7 DAE	56 DAE	56 DA-D

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code			
9	CANOPY XL	56.3	WG			4.5	OZ/A	21EPP	A	90	53	67
9	->CLASSIC	25	WG	0.0264	LB A/A			21EPP	A			
9	->AUTHORITY	75	WG	0.1319	LB A/A			21EPP	A			
9	EXPRESS	75	WG	0.007	LB A/A	0.15	OZ/A	21EPP	A			
9	SALVO	5	EC	0.5	LB AE/A	12.8	OZ/A	21EPP	A			
9	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	21EPP	A			
9	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-1	C			
9	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C			
10	ROUNDUP ULTRA MAX	3.7	SL	0.56	LB AE/A	19.4	OZ/A	7EPP	B	90	98	93
10	SALVO	5	EC	0.5	LB AE/A	12.8	OZ/A	7EPP	B			
10	AMS	100	DRY	2.0	% W/W	2	%W/W	7EPP	B			
10	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-2	D			
10	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-2	D			
11	SYNCHRONY STS	42	WG	0.01313	LB A/A	0.5	OZ/A	7EPP	B	50	94	96
11	ROUNDUP ULTRA MAX	3.7	SL	0.56	LB AE/A	19.4	OZ/A	7EPP	B			
11	AMS	100	DRY	2.0	% W/W	2	%W/W	7EPP	B			
11	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	7EPP	B			
11	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	26	OZ/A	4-6"W-2	D			
11	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-2	D			
12	BOUNDARY	7.8	EC	1.219	LB A/A	1.25	PT/A	21EPP	A	90	63	73
12	TOUCHDOWN	3	SL	0.56	LB AE/A	24	OZ/A	21EPP	A			
12	AMS	100	DRY	2.0	% W/W	2	%W/W	21EPP	A			
12	TOUCHDOWN	3	SL	0.75	LB AE/A	32	OZ/A	4-6"W-1	C			
12	AMS	100	DRY	2.0	% W/W	2	%W/W	4-6"W-1	C			
LSD (P=.05)										39.7	22.9	22.4
Replicate F										3.023	1.057	0.511
Replicate Prob(F)										0.0692	0.3644	0.6070
Treatment F										4.532	21.568	19.370
Treatment Prob(F)										0.0013	0.0001	0.0001

Residual Herbicides in No-Till Soybean Burndown Programs.

Project Code: 02-11A-W65      Location: Belleville Research Center

Trial Comments

1. Protocol: Bayer 7-8; Valent 2-6; DuPont 9-11.
2. DA-A = days after 21EPP application. DAE = days after emergence. DA-D = days after 4-6"W-2 application.
3. Ratings on 6-11-02 were prior to POST. Ratings on 8-13-02 were 9 and 8 weeks after 4-6"W-1 and 4-6"W-2, respectively.