

Weed Management Systems for use in Conventional Soybean.

01-2A-W130

OBJECTIVE: Evaluate herbicide programs for use in conventional (non-transgenic) soybean.

SUMMARY: Valor alone provided good control of giant foxtail and common waterhemp at 56 days after preemergence applications (DAPRE). Tank mixing FirstRate or Python with Valor improved common ragweed control to at least 90%. Common ragweed control was excellent with Gauntlet and treatments that included FirstRate postemergence (POST). Prowl followed by Raptor provided poor control of common ragweed and common waterhemp. However, tank mixing Ultra Blazer with Raptor tended to increase common ragweed and common waterhemp control. The tank mixture of Axiom plus Gauntlet provided good control of giant foxtail, common ragweed, and common waterhemp at all evaluation timings.

HERBICIDES / ADJUVANTS

AUTHORITY 75 WG
 AXIOM 68 WG
 CANOPY XL 56.3 WG
 COBRA 2 EC
 DOMAIN 60 WG
 FIRSTRATE 84 WG
 GAUNTLET (CO-PACK)
 OUTLOOK 6 EC
 PENDIMAX 3.3 EC
 PROWL 3.3 EC
 PYTHON 80 WG
 RAPTOR 1 AS
 SELECT 2 EC
 SENCOR 75 WG
 SQUADRON 2.33 EC
 ULTRA BLAZER 2 SL
 VALOR 50 WG
 60:40 BLEND 100 LIQ
 ACTIVATOR 90 100 LIQ
 AMS 100 DRY
 DESTINY MSO 100 LIQ
 PRIME OIL COC 100 LIQ

WEEDS

foxtail, giant
 panicum, fall
 ragweed, common
 waterhemp, common

CROP

soybean

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

Weed Management Systems for use in Conventional Soybean.

Project Code: 01-2A-W130 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: 4-27-01

Objective:

Evaluate herbicide programs for use in conventional (non-transgenic) soybean.

Weed Code	Common Name	Scientific Name
1. SETFA	foxtail, giant	Setaria faberi Herrm.
2. AMBEL	ragweed, common	Ambrosia artemisiifolia L.
3. AMATA	waterhemp, common	Amaranthus rudis Sauer
4. XANST	cocklebur, common	Xanthium strumarium L.
5. PANDI	panicum, fall	Panicum dichotomiflorum Michx.

Crop 1:	GLXMA soybean	Variety:	B-T 371CR
Planting Method:	Seeded	Planting Date:	5-11-01
Rate:	75 lb/A	Depth:	1.0 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	28 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:	Weir	% OM:	1.5	pH:	6.4	CEC:	10
Texture:	Silt loam	Fert. Level:	P1: 81 LB/A, K: 274 LB/A				

APPLICATION DESCRIPTION

	A	B	C	D
Application Date:	5-11-01	6-9-01	6-14-01	6-19-01
Time of Day:	16:00	14:00	8:30	9:00
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	PRE	2-4"W	V2-3	4-6"GR
Applic. Placement:	BROSOI	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	82 F	82 F	80 F	80 F
% Relative Humidity:	44	44	80	64
Wind Velocity, Unit:	7 MPH	5-7 MPH	5-7 MPH	5-7 MPH
Soil Moisture:	BELNOR	NORMAL	NORMAL	BELNOR

CROP STAGE AT EACH APPLICATION

	A	B	C	D
Crop 1 Code, Stage:	GLXMA NA	GLXMA V1-V2	GLXMA V3	GLXMA V4
Height, Unit:	NA NA	4-6 IN	5-6 IN	7-8 IN

WEED STAGE AT EACH APPLICATION

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

Weed 4 Code:	XANST	XANST	XANST	XANST
Stage(leaves):			5-7	5-7
Height(inches):			4-6	4-6
Density:			Low	Low
Weed 5 Code:	PANDI	PANDI	PANDI	PANDI

APPLICATION EQUIPMENT

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

NOTES: NOT HARVESTED.

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Weed Code								SETFA	SETFA	SETFA	SETFA	SETFA	SETFA
Crop Code								GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Rating Data Type								Injury	Injury	Injury	Injury	Injury	Injury
Rating Unit								Percent	Percent	Percent	Percent	Percent	Percent
Rating Date								5-25-01	6-8-01	7-6-01	5-25-01	6-8-01	7-6-01
Trt-Eval Interval								14 DA-A	28 DA-A	56 DA-A	14 DA-PO	28 DA-PO	56 DA-PO
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Prod Rate	Prod Unit	Grow Stg	Appl Code					
1	NONTREATED								0	0	0	0	0
2	VALOR	50	WG	0.063 LB A/A	2	OZ/A	PRE	A	17	10	0	98	99
2	SELECT	2	EC	0.094 LB A/A	6	OZ/A	4-6"	GR D					
2	PRIME OIL COC	100	LIQ	1.0 % V/V	1	%V/V	4-6"	GR D					
3	SENCOR	75	WG	0.375 LB A/A	8	OZ/A	PRE	A	0	0	0	40	78
3	SELECT	2	EC	0.094 LB A/A	6	OZ/A	4-6"	GR D					
3	PRIME OIL COC	100	LIQ	1.0 % V/V	1	%V/V	4-6"	GR D					
4	VALOR	50	WG	0.063 LB A/A	2	OZ/A	PRE	A	13	3	0	99	99
4	SENCOR	75	WG	0.375 LB A/A	8	OZ/A	PRE	A					
4	SELECT	2	EC	0.094 LB A/A	6	OZ/A	4-6"	GR D					
4	PRIME OIL COC	100	LIQ	1.0 % V/V	1	%V/V	4-6"	GR D					
5	FIRSTRATE	84	WG	0.031 LB A/A	0.6	OZ/A	PRE	A	5	2	0	10	70
5	SELECT	2	EC	0.094 LB A/A	6	OZ/A	4-6"	GR D					
5	PRIME OIL COC	100	LIQ	1.0 % V/V	1	%V/V	4-6"	GR D					
6	VALOR	50	WG	0.063 LB A/A	2	OZ/A	PRE	A	15	8	0	93	99
6	FIRSTRATE	84	WG	0.031 LB A/A	0.6	OZ/A	PRE	A					
6	SELECT	2	EC	0.094 LB A/A	6	OZ/A	4-6"	GR D					
6	PRIME OIL COC	100	LIQ	1.0 % V/V	1	%V/V	4-6"	GR D					
7	SQUADRON	2.33	EC	0.87 LB A/A	3	PT/A	PRE	A	0	0	0	90	99
7	SELECT	2	EC	0.094 LB A/A	6	OZ/A	4-6"	GR D					
7	PRIME OIL COC	100	LIQ	1.0 % V/V	1	%V/V	4-6"	GR D					
8	VALOR	50	WG	0.063 LB A/A	2	OZ/A	PRE	A	15	7	0	93	99
8	SQUADRON	2.33	EC	0.87 LB A/A	3	PT/A	PRE	A					
8	SELECT	2	EC	0.094 LB A/A	6	OZ/A	4-6"	GR D					
8	PRIME OIL COC	100	LIQ	1.0 % V/V	1	%V/V	4-6"	GR D					
9	PYTHON	80	WG	0.057 LB A/A	1.14	OZ/A	PRE	A	0	2	0	57	47
9	SELECT	2	EC	0.094 LB A/A	6	OZ/A	4-6"	GR D					
9	PRIME OIL COC	100	LIQ	1.0 % V/V	1	%V/V	4-6"	GR D					
10	VALOR	50	WG	0.063 LB A/A	2	OZ/A	PRE	A	22	7	0	99	99
10	PYTHON	80	WG	0.057 LB A/A	1.14	OZ/A	PRE	A					
10	SELECT	2	EC	0.094 LB A/A	6	OZ/A	4-6"	GR D					
10	PRIME OIL COC	100	LIQ	1.0 % V/V	1	%V/V	4-6"	GR D					
11	CANOPY XL	56.3	WG		4.2	OZ/A	PRE	A	0	0	0	80	95
11	->CLASSIC	25	WG	0.0247 LB A/A			PRE	A					
11	->AUTHORITY	75	WG	0.123 LB A/A			PRE	A					
11	SELECT	2	EC	0.094 LB A/A	6	OZ/A	4-6"	GR D					
11	PRIME OIL COC	100	LIQ	1.0 % V/V	1	%V/V	4-6"	GR D					
12	VALOR	50	WG	0.0781 LB A/A	2.5	OZ/A	PRE	A	17	13	0	99	99
12	FIRSTRATE	84	WG	0.021 LB A/A	0.4	OZ/A	PRE	A					
12	SELECT	2	EC	0.094 LB A/A	6	OZ/A	4-6"	GR D					
12	PRIME OIL COC	100	LIQ	1.0 % V/V	1	%V/V	4-6"	GR D					

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										SETFA	SETFA	SETFA	SETFA	SETFA	SETFA	
Weed Code										GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	
Crop Code										Injury	Injury	Injury	Injury	Injury	Injury	
Rating Data Type										Percent	Percent	Percent	Percent	Percent	Percent	Control
Rating Unit										5-25-01	6-8-01	7-6-01	14 DA-PO	28 DA-PO	56 DA-PO	5-25-01
Rating Date										14 DA-A	28 DA-A	56 DA-A	14 DA-PO	28 DA-PO	56 DA-PO	6-8-01
Trt-Eval Interval										14 DA-A	28 DA-A	56 DA-A	14 DA-PO	28 DA-PO	56 DA-PO	7-6-01
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
2	VALOR	50	WG	0.063	LB A/A	2	OZ/A	PRE	A	17	10	0		98	99	99
2	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
2	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
3	SENCOR	75	WG	0.375	LB A/A	8	OZ/A	PRE	A	0	0	0		40	78	99
3	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
3	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
4	VALOR	50	WG	0.063	LB A/A	2	OZ/A	PRE	A	13	3	0		99	99	99
4	SENCOR	75	WG	0.375	LB A/A	8	OZ/A	PRE	A							
4	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
4	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
5	FIRSTRATE	84	WG	0.031	LB A/A	0.6	OZ/A	PRE	A	5	2	0		10	70	99
5	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
5	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
6	VALOR	50	WG	0.063	LB A/A	2	OZ/A	PRE	A	15	8	0		93	99	99
6	FIRSTRATE	84	WG	0.031	LB A/A	0.6	OZ/A	PRE	A							
6	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
6	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
7	SQUADRON	2.33	EC	0.87	LB A/A	3	PT/A	PRE	A	0	0	0		90	99	99
7	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
7	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
8	VALOR	50	WG	0.063	LB A/A	2	OZ/A	PRE	A	15	7	0		93	99	99
8	SQUADRON	2.33	EC	0.87	LB A/A	3	PT/A	PRE	A							
8	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
8	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
9	PYTHON	80	WG	0.057	LB A/A	1.14	OZ/A	PRE	A	0	2	0		57	47	96
9	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
9	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
10	VALOR	50	WG	0.063	LB A/A	2	OZ/A	PRE	A	22	7	0		99	99	99
10	PYTHON	80	WG	0.057	LB A/A	1.14	OZ/A	PRE	A							
10	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
10	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
11	CANOPY XL	56.3	WG			4.2	OZ/A	PRE	A	0	0	0		80	95	99
11	->CLASSIC	25	WG	0.0247	LB A/A			PRE	A							
11	->AUTHORITY	75	WG	0.123	LB A/A			PRE	A							
11	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
11	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
12	VALOR	50	WG	0.0781	LB A/A	2.5	OZ/A	PRE	A	17	13	0		99	99	99
12	FIRSTRATE	84	WG	0.021	LB A/A	0.4	OZ/A	PRE	A							
12	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
12	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							

Weed Code								SETFA	SETFA	SETFA	SETFA	SETFA	SETFA										
Crop Code								GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA										
Rating Data Type								Injury	Injury	Injury	Injury	Injury	Injury										
Rating Unit								Percent	Percent	Percent	Percent	Percent	Percent										
Rating Date								5-25-01	6-8-01	7-6-01	5-25-01	6-8-01	7-6-01										
Trt-Eval Interval								14 DA-A	28 DA-A	56 DA-A	14 DA-PO	28 DA-PO	56 DA-PO										
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code														
23	OUTLOOK	6	EC	0.469	LB A/A	10	OZ/A	V2-3	C					10	98	78							
23	RAPTOR	1	AS	0.0313	LB A/A	4	OZ/A	V2-3	C														
23	ULTRA BLAZER	2	SL	0.125	LB A/A	8	OZ/A	V2-3	C														
23	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	V2-3	C														
23	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C														
24	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	V2-3	C					17	98	82							
24	ULTRA BLAZER	2	SL	0.1875	LB A/A	12	OZ/A	V2-3	C														
24	60:40 BLEND	100	LIQ	1.0	% V/V	1	%V/V	V2-3	C														
24	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C														
25	DOMAIN	60	WG	0.375	LB A/A	10	OZ/A	PRE	A	0	0	0	0	96	99	99							
25	RAPTOR	1	AS	0.0313	LB A/A	4	OZ/A	V2-3	C														
25	DESTINY MSO	100	LIQ	1.0	% V/V	1	%V/V	V2-3	C														
25	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C														
26	AXIOM	68	WG	0.6375	LB A/A	15	OZ/A	PRE	A	0	0	0		93	99	98							
26	GAUNTLET (CO-PACK)						5.9 OZ/A	PRE	A														
26	->FIRSTRATE	84	WG	0.0315	LB A/A	0.6	OZ/A	PRE	A														
26	->AUTHORITY	75	WG	0.248	LB A/A	5.3	OZ/A	PRE	A														
LSD (P=.05)											5.9	4.8	0.0	0.0	0.0	0.0	16.0	11.9	2.4	9.5	5.1	15.9	
Replicate F											4.516	4.194	0.000	0.000	0.000	0.000	0.000	3.332	0.514	0.302	5.014	6.505	3.828
Replicate Prob(F)											0.0170	0.0222	1.0000	1.0000	1.0000	1.0000	1.0000	0.0459	0.6019	0.7413	0.0161	0.0060	0.0375
Treatment F											13.419	5.673	0.000	0.000	0.000	0.000	0.000	32.192	38.277	679.220	148.958	3.350	2.584
Treatment Prob(F)											0.0001	0.0001	1.0000	1.0000	1.0000	1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0076	0.0279

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Weed Code				AMBEL	AMBEL	AMBEL	AMBEL	AMBEL	AMBEL	AMBEL	AMATA	AMATA	AMATA	AMATA	AMATA	
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				5-25-01	6-8-01	7-6-01					6-8-01	7-6-01				
Trt-Eval Interval				14 DA-A	28 DA-A	56 DA-A	14 DA-PO	28 DA-PO	56 DA-PO	28 DA-A	56 DA-A	14 DA-PO	28 DA-PO	56 DA-PO		
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	
2	VALOR	50	WG	0.063	LB A/A	2	OZ/A	PRE	A	99	96	0		99	95	
2	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
2	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
3	SENCOR	75	WG	0.375	LB A/A	8	OZ/A	PRE	A	20	93	0		98	90	
3	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
3	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
4	VALOR	50	WG	0.063	LB A/A	2	OZ/A	PRE	A	99	99	82		99	98	
4	SENCOR	75	WG	0.375	LB A/A	8	OZ/A	PRE	A							
4	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
4	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
5	FIRSTRATE	84	WG	0.031	LB A/A	0.6	OZ/A	PRE	A	96	98	99		0	0	
5	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
5	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
6	VALOR	50	WG	0.063	LB A/A	2	OZ/A	PRE	A	99	99	98		99	94	
6	FIRSTRATE	84	WG	0.031	LB A/A	0.6	OZ/A	PRE	A							
6	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
6	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
7	SQUADRON	2.33	EC	0.87	LB A/A	3	PT/A	PRE	A	53	93	0		83	0	
7	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
7	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
8	VALOR	50	WG	0.063	LB A/A	2	OZ/A	PRE	A	96	99	82		99	96	
8	SQUADRON	2.33	EC	0.87	LB A/A	3	PT/A	PRE	A							
8	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
8	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
9	PYTHON	80	WG	0.057	LB A/A	1.14	OZ/A	PRE	A	91	92	53		86	0	
9	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
9	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
10	VALOR	50	WG	0.063	LB A/A	2	OZ/A	PRE	A	99	99	90		99	97	
10	PYTHON	80	WG	0.057	LB A/A	1.14	OZ/A	PRE	A							
10	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
10	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
11	CANOPY XL	56.3	WG			4.2	OZ/A	PRE	A	87	99	96		99	80	
11	->CLASSIC	25	WG	0.0247	LB A/A			PRE	A							
11	->AUTHORITY	75	WG	0.123	LB A/A			PRE	A							
11	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
11	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							
12	VALOR	50	WG	0.0781	LB A/A	2.5	OZ/A	PRE	A	99	99	99		99	93	
12	FIRSTRATE	84	WG	0.021	LB A/A	0.4	OZ/A	PRE	A							
12	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	GR D							
12	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	GR D							

Weed Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	AMBEL Control Percent	AMBEL Control Percent	AMBEL Control Percent	AMBEL Control Percent	AMBEL Control Percent	AMBEL Control Percent	AMATA Control Percent	AMATA Control Percent	AMATA Control Percent	AMATA Control Percent	AMATA Control Percent					
					5-25-01	6-8-01	7-6-01	14 DA-PO	28 DA-PO	56 DA-PO	28 DA-A	56 DA-A	14 DA-PO	28 DA-PO	56 DA-PO					
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Prod Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code											
13	GAUNTLET (CO-PACK)				5.9 OZ/A			PRE	A	92	99	96		99	99					
13	->FIRSTRATE	84	WG	0.0315	LB A/A	0.6	OZ/A	PRE	A											
13	->AUTHORITY	75	WG	0.248	LB A/A	5.3	OZ/A	PRE	A											
13	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"GR	D											
13	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"GR	D											
14	PENDIMAX	3.3	EC	1.238	LB A/A	3	PT/A	PRE	A	7	0	99	99	99	99	96	97	97	98	98
14	FIRSTRATE	84	WG	0.016	LB A/A	0.3	OZ/A	2-4"W	B											
14	SELECT	2	EC	0.094	LB A/A	6	OZ/A	2-4"W	B											
14	COBRA	2	EC	0.094	LB A/A	6	OZ/A	2-4"W	B											
14	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	2-4"W	B											
14	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	2-4"W	B											
15	PYTHON	80	WG	0.05	LB A/A	1	OZ/A	PRE	A	0	0	99	99	99	99	0	98	98	98	98
15	FIRSTRATE	84	WG	0.016	LB A/A	0.3	OZ/A	2-4"W	B											
15	SELECT	2	EC	0.094	LB A/A	6	OZ/A	2-4"W	B											
15	COBRA	2	EC	0.094	LB A/A	6	OZ/A	2-4"W	B											
15	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	2-4"W	B											
15	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	2-4"W	B											
16	PROWL	3.3	EC	1.24	LB A/A	3	PT/A	PRE	A	0	0	50	50	50	0	99	0	0	28	30
16	RAPTOR	1	AS	0.0313	LB A/A	4	OZ/A	V2-3	C											
16	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	V2-3	C											
16	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C											
17	PROWL	3.3	EC	1.24	LB A/A	3	PT/A	PRE	A	0	0	57	57	72	33	99	0	0	10	0
17	RAPTOR	1	AS	0.0313	LB A/A	4	OZ/A	V2-3	C											
17	DESTINY MSO	100	LIQ	1.0	% V/V	1	%V/V	V2-3	C											
17	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C											
18	PROWL	3.3	EC	1.24	LB A/A	3	PT/A	PRE	A	0	0	50	50	20	0	99	98	98	98	96
18	RAPTOR	1	AS	0.0313	LB A/A	4	OZ/A	V2-3	C											
18	ULTRA BLAZER	2	SL	0.1875	LB A/A	12	OZ/A	V2-3	C											
18	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	V2-3	C											
18	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C											
19	PROWL	3.3	EC	1.24	LB A/A	3	PT/A	PRE	A	72	0	88	88	80	53	99	99	99	96	93
19	RAPTOR	1	AS	0.0313	LB A/A	4	OZ/A	V2-3	C											
19	ULTRA BLAZER	2	SL	0.1875	LB A/A	12	OZ/A	V2-3	C											
19	DESTINY MSO	100	LIQ	1.0	% V/V	1	%V/V	V2-3	C											
19	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C											
20	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	V2-3	C				85	85	78			98	95	92
20	ULTRA BLAZER	2	SL	0.1875	LB A/A	12	OZ/A	V2-3	C											
20	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	V2-3	C											
20	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C											
21	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	V2-3	C				93	93	95			99	90	93
21	ULTRA BLAZER	2	SL	0.1875	LB A/A	12	OZ/A	V2-3	C											
21	DESTINY MSO	100	LIQ	1.0	% V/V	1	%V/V	V2-3	C											
21	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C											
22	OUTLOOK	6	EC	0.375	LB A/A	8	OZ/A	V2-3	C				63	70	55			88	75	68
22	RAPTOR	1	AS	0.0313	LB A/A	4	OZ/A	V2-3	C											
22	ULTRA BLAZER	2	SL	0.125	LB A/A	8	OZ/A	V2-3	C											
22	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	V2-3	C											
22	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C											

Weed Code	AMBEL	AMBEL	AMBEL	AMBEL	AMBEL	AMBEL	AMATA	AMATA	AMATA	AMATA	AMATA									
Rating Data Type	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control									
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent									
Rating Date	5-25-01	6-8-01	7-6-01				6-8-01	7-6-01												
Trt-Eval Interval	14 DA-A	28 DA-A	56 DA-A	14 DA-PO	28 DA-PO	56 DA-PO	28 DA-A	56 DA-A	14 DA-PO	28 DA-PO	56 DA-PO									
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code											
23	OUTLOOK	6	EC	0.469	LB A/A	10	OZ/A	V2-3	C											
23	RAPTOR	1	AS	0.0313	LB A/A	4	OZ/A	V2-3	C	77	68	63			96	73	71			
23	ULTRA BLAZER	2	SL	0.125	LB A/A	8	OZ/A	V2-3	C											
23	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	V2-3	C											
23	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C											
24	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	V2-3	C	88	90	78			98	91	83			
24	ULTRA BLAZER	2	SL	0.1875	LB A/A	12	OZ/A	V2-3	C											
24	60:40 BLEND	100	LIQ	1.0	% V/V	1	%V/V	V2-3	C											
24	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C											
25	DOMAIN	60	WG	0.375	LB A/A	10	OZ/A	PRE	A	98	17	75	75	77	53	99	0	0	27	0
25	RAPTOR	1	AS	0.0313	LB A/A	4	OZ/A	V2-3	C											
25	DESTINY MSO	100	LIQ	1.0	% V/V	1	%V/V	V2-3	C											
25	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C											
26	AXIOM	68	WG	0.6375	LB A/A	15	OZ/A	PRE	A	98	99	98			99	99				
26	GAUNTLET (CO-PACK)					5.9	OZ/A	PRE	A											
26	->FIRSTRATE	84	WG	0.0315	LB A/A	0.6	OZ/A	PRE	A											
26	->AUTHORITY	75	WG	0.248	LB A/A	5.3	OZ/A	PRE	A											
LSD (P=.05)										10.9	11.3	20.7	21.2	18.5	32.5	11.1	8.2	5.6	40.0	32.1
Replicate F										0.157	0.124	2.343	3.144	1.912	1.179	0.997	1.666	0.956	1.099	2.866
Replicate Prob(F)										0.8551	0.8840	0.1091	0.0629	0.1715	0.3262	0.3779	0.2019	0.3998	0.3507	0.0783
Treatment F										131.223	143.578	26.653	6.292	12.794	9.622	81.448	257.783	523.759	5.672	11.642
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0003	0.0001

Weed Management Systems for use in Conventional Soybean.

Project Code: 01-2A-W130 Location: Belleville Research Center

Weed Code		PANDI	PANDI
Rating Data Type		Control	Control
Rating Unit		Percent	Percent
Rating Date			
Trt-Eval Interval		28 DA-PO	56 DA-PO

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code
1	NONTREATED								
2	VALOR	50	WG	0.063	LB A/A	2	OZ/A	PRE	A
2	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"GR	D
2	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"GR	D
3	SENCOR	75	WG	0.375	LB A/A	8	OZ/A	PRE	A
3	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"GR	D
3	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"GR	D
4	VALOR	50	WG	0.063	LB A/A	2	OZ/A	PRE	A
4	SENCOR	75	WG	0.375	LB A/A	8	OZ/A	PRE	A
4	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"GR	D
4	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"GR	D
5	FIRSTRATE	84	WG	0.031	LB A/A	0.6	OZ/A	PRE	A
5	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"GR	D
5	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"GR	D
6	VALOR	50	WG	0.063	LB A/A	2	OZ/A	PRE	A
6	FIRSTRATE	84	WG	0.031	LB A/A	0.6	OZ/A	PRE	A
6	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"GR	D
6	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"GR	D
7	SQUADRON	2.33	EC	0.87	LB A/A	3	PT/A	PRE	A
7	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"GR	D
7	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"GR	D
8	VALOR	50	WG	0.063	LB A/A	2	OZ/A	PRE	A
8	SQUADRON	2.33	EC	0.87	LB A/A	3	PT/A	PRE	A
8	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"GR	D
8	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"GR	D
9	PYTHON	80	WG	0.057	LB A/A	1.14	OZ/A	PRE	A
9	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"GR	D
9	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"GR	D
10	VALOR	50	WG	0.063	LB A/A	2	OZ/A	PRE	A
10	PYTHON	80	WG	0.057	LB A/A	1.14	OZ/A	PRE	A
10	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"GR	D
10	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"GR	D
11	CANOPY XL	56.3	WG			4.2	OZ/A	PRE	A
11	->CLASSIC	25	WG	0.0247	LB A/A			PRE	A
11	->AUTHORITY	75	WG	0.123	LB A/A			PRE	A
11	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"GR	D
11	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"GR	D
12	VALOR	50	WG	0.0781	LB A/A	2.5	OZ/A	PRE	A
12	FIRSTRATE	84	WG	0.021	LB A/A	0.4	OZ/A	PRE	A
12	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"GR	D
12	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"GR	D

Weed Code
 Rating Data Type
 Rating Unit
 Rating Date
 Trt-Eval Interval

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 Control Control
 Percent Percent
 28 DA-PO 56 DA-PO

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code		
13	GAUNTLET (CO-PACK)					5.9	OZ/A	PRE	A		
13	->FIRSTRATE	84	WG	0.0315	LB A/A	0.6	OZ/A	PRE	A		
13	->AUTHORITY	75	WG	0.248	LB A/A	5.3	OZ/A	PRE	A		
13	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"GR	D		
13	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"GR	D		
14	PENDIMAX	3.3	EC	1.238	LB A/A	3	PT/A	PRE	A	95	95
14	FIRSTRATE	84	WG	0.016	LB A/A	0.3	OZ/A	2-4"W	B		
14	SELECT	2	EC	0.094	LB A/A	6	OZ/A	2-4"W	B		
14	COBRA	2	EC	0.094	LB A/A	6	OZ/A	2-4"W	B		
14	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	2-4"W	B		
14	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	2-4"W	B		
15	PYTHON	80	WG	0.05	LB A/A	1	OZ/A	PRE	A	93	93
15	FIRSTRATE	84	WG	0.016	LB A/A	0.3	OZ/A	2-4"W	B		
15	SELECT	2	EC	0.094	LB A/A	6	OZ/A	2-4"W	B		
15	COBRA	2	EC	0.094	LB A/A	6	OZ/A	2-4"W	B		
15	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	2-4"W	B		
15	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	2-4"W	B		
16	PROWL	3.3	EC	1.24	LB A/A	3	PT/A	PRE	A	99	92
16	RAPTOR	1	AS	0.0313	LB A/A	4	OZ/A	V2-3	C		
16	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	V2-3	C		
16	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C		
17	PROWL	3.3	EC	1.24	LB A/A	3	PT/A	PRE	A	95	92
17	RAPTOR	1	AS	0.0313	LB A/A	4	OZ/A	V2-3	C		
17	DESTINY MSO	100	LIQ	1.0	% V/V	1	%V/V	V2-3	C		
17	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C		
18	PROWL	3.3	EC	1.24	LB A/A	3	PT/A	PRE	A	77	75
18	RAPTOR	1	AS	0.0313	LB A/A	4	OZ/A	V2-3	C		
18	ULTRA BLAZER	2	SL	0.1875	LB A/A	12	OZ/A	V2-3	C		
18	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	V2-3	C		
18	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C		
19	PROWL	3.3	EC	1.24	LB A/A	3	PT/A	PRE	A	80	78
19	RAPTOR	1	AS	0.0313	LB A/A	4	OZ/A	V2-3	C		
19	ULTRA BLAZER	2	SL	0.1875	LB A/A	12	OZ/A	V2-3	C		
19	DESTINY MSO	100	LIQ	1.0	% V/V	1	%V/V	V2-3	C		
19	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C		
20	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	V2-3	C	40	30
20	ULTRA BLAZER	2	SL	0.1875	LB A/A	12	OZ/A	V2-3	C		
20	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	V2-3	C		
20	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C		
21	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	V2-3	C	60	50
21	ULTRA BLAZER	2	SL	0.1875	LB A/A	12	OZ/A	V2-3	C		
21	DESTINY MSO	100	LIQ	1.0	% V/V	1	%V/V	V2-3	C		
21	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C		
22	OUTLOOK	6	EC	0.375	LB A/A	8	OZ/A	V2-3	C	53	47
22	RAPTOR	1	AS	0.0313	LB A/A	4	OZ/A	V2-3	C		
22	ULTRA BLAZER	2	SL	0.125	LB A/A	8	OZ/A	V2-3	C		
22	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	V2-3	C		
22	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C		

Weed Code
 Rating Data Type
 Rating Unit
 Rating Date
 Trt-Eval Interval

PANDI PANDI
 Control Control
 Percent Percent
 28 DA-PO 56 DA-PO

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code		
23	OUTLOOK	6	EC	0.469	LB A/A	10	OZ/A	V2-3	C	40	37
23	RAPTOR	1	AS	0.0313	LB A/A	4	OZ/A	V2-3	C		
23	ULTRA BLAZER	2	SL	0.125	LB A/A	8	OZ/A	V2-3	C		
23	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	V2-3	C		
23	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C		
24	RAPTOR	1	AS	0.039	LB A/A	5	OZ/A	V2-3	C	47	43
24	ULTRA BLAZER	2	SL	0.1875	LB A/A	12	OZ/A	V2-3	C		
24	60:40 BLEND	100	LIQ	1.0	% V/V	1	%V/V	V2-3	C		
24	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C		
25	DOMAIN	60	WG	0.375	LB A/A	10	OZ/A	PRE	A	98	92
25	RAPTOR	1	AS	0.0313	LB A/A	4	OZ/A	V2-3	C		
25	DESTINY MSO	100	LIQ	1.0	% V/V	1	%V/V	V2-3	C		
25	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	V2-3	C		
26	AXIOM	68	WG	0.6375	LB A/A	15	OZ/A	PRE	A		
26	GAUNTLET (CO-PACK)					5.9	OZ/A	PRE	A		
26	->FIRSTRATE	84	WG	0.0315	LB A/A	0.6	OZ/A	PRE	A		
26	->AUTHORITY	75	WG	0.248	LB A/A	5.3	OZ/A	PRE	A		
LSD (P=.05)										10.9	13.4
Replicate F										6.417	2.395
Replicate Prob(F)										0.0064	0.1146
Treatment F										39.999	30.609
Treatment Prob(F)										0.0001	0.0001

Weed Management Systems for use in Conventional Soybean.

Project Code: 01-2A-W130 Location: Belleville Research Center

Trial Comments

1. Protocol: Valent (MD02.05 trts 1-11; Dow (trts 12-15); BASF (trts 16-24); Bayer (trts 25 and 26).
2. DA-A = days after PRE application.
14 and 28 days after PRE were prior to any postemergence application.
Ratings at 56 days after PRE were 27, 22 and 17 days after 2-4"W, V2-3 and 4-6"GR applications, respectively.
3. DA-PO = days after postemergence application.
14 days after 2-4"W and V2-3 applications was on 6-25-01 and 6-28-01, respectively.
28 days after 2-4"W and V2-3 applications was on 7-9-01 and 7-12-01, respectively.