

## Weed Management in Conventional Soybean - Study 1.

02-5A

**OBJECTIVE:** Evaluate various programs for weed control in conventional (non-Roundup Ready) soybean.

**SUMMARY:** Control of giant foxtail was 93% or greater with Gauntlet plus Pendimax, Pendimax, Boundary, Pursuit, and Dual II Magnum at the June 25 evaluation timing. All preemergence (PRE) applications, with the exception of Pursuit provided at least 88% control of common waterhemp at the postemergence (POST) application timing. Furthermore, sequential applications incorporating both a PRE herbicide with common waterhemp activity (Pendimax, Boundary, Valor, and Dual II Magnum) and a POST herbicide with common waterhemp activity (Flexstar, Phoenix) provided greater control of common waterhemp at the end of season rating than the total POST treatments. All POST and PRE followed by POST treatments provided at least 87% control of common cocklebur and 92% or greater control of common ragweed on July 17, with the exception of Authority followed by Classic plus Assure II, which provided only 70% control of common ragweed. All treatments, except for Valor followed by Phoenix plus Select, provided 80% or greater control of ivyleaf morningglory and 90% or greater control of yellow nutsedge at the August 22 evaluation timing. Less than 80% control of velvetleaf was observed with treatments of Authority followed by Classic plus Assure II and Dual II Magnum followed by Flexstar plus Fusion. All other treatments provided at least 86% control of velvetleaf at the end of season evaluation timing.

### HERBICIDES

ASSURE II 0.88 EC  
 AUTHORITY 75 WG  
 BOUNDARY 6.5 EC  
 CLASSIC 25 WG  
 DUAL II MAGNUM 7.64 EC  
 FIRSTRATE 84 WG  
 FLEXSTAR 1.88 EC  
 FUSION 2.56 EC  
 GAUNTLET (CO-PACK) 0  
 PENDIMAX 3.3 EC  
 PHOENIX 2 EC  
 POAST 1.53 EC  
 PURSUIT 70 WG  
 SELECT 2 EC  
 ULTRA BLAZER 2 SL  
 VALOR 51 WG

### WEEDS

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

### CROP

soybean

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

## Weed Management in Conventional Soybean - Study 1.

Project Code: 02-5A 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:**

Evaluate various programs for weed control in conventional (non-Roundup Ready) soybean.

Weed Code	Common Name	Scientific Name
1. SETFA	foxtail, giant	Setaria faberi Herrm.
2. XANST	cocklebur, common	Xanthium strumarium L.
3. AMBEL	ragweed, common	Ambrosia artemisiifolia L.
4. AMATA	waterhemp, common	Amaranthus rudis Sauer
5. IPOHE	morningglory, ivyleaf	Ipomoea hederacea (L.) Jacq.
6. ABUTH	velvetleaf	Abutilon theophrasti Medicus
7. CYPES	nutsedge, yellow	Cyperus esculentus L.

Crop 1: GLXMA soybean Variety: Asgrow 4602 RR  
 Planting Method: Seeded Planting Date: 6-3-02  
 Rate: 75 lb/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: 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: Stoy % OM: 1.6 pH: 6.1 CEC: 8  
 Texture: Silt loam Fert. Level: P1: 77 LB/A, K: 286 LB/A

## APPLICATION DESCRIPTION

	A	B	C
Application Date:	6-4-02	6-26-02	6-26-02
Time of Day:	12:15	13:30	13:30
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	4-6"W-1	4-6"W-2
Applic. Placement:	BROSIO	BROFOL	BROFOL
Air Temp., Unit:	90 F	86 F	86 F
% Relative Humidity:	48	50	50
Wind Velocity, Unit:	5-10 MPH	0-5 MPH	0-5 MPH
Soil Moisture:	NORMAL	BELNOR	BELNOR
% Cloud Cover:	30	50	50

## CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	GLXMA NA	GLXMA V2	GLXMA V2
Height, Unit:	NA NA	4-8 IN	4-8 IN

## WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code:		SETFA	SETFA
Stage(leaves):		3-5	3-7
Height(inches):		2-4	4-8
Density:		Low	High
Weed 2 Code:		XANST	XANST
Stage(leaves):		2-6	2-6
Height(inches):		2-7	2-7
Density:		Medium	Medium
Weed 3 Code:		AMBEL	AMBEL
Stage(leaves):		2-6	2-6
Height(inches):		1-5	1-5
Density:		Medium	Medium

<b>Weed 4 Code:</b>	AMATA	AMATA
Stage(leaves):	0-5	0-10
Height(inches):	1-3	1-6
Density:	Medium	High
<b>Weed 5 Code:</b>	IPOHE	IPOHE
Stage(leaves):	0-6	6-4-02
Height(inches):	1-4	1-4
Density:	Medium	Low
<b>Weed 6 Code:</b>	ABUTH	ABUTH
Stage(leaves):	0-3	0-3
Height(inches):	1-3	1-5
Density:	Low	Medium
<b>Weed 7 Code:</b>	CYPES	CYPES
Stage(leaves):	3-8	3-10
Height(inches):	3-7	3-8
Density:	Medium	Medium

## APPLICATION EQUIPMENT

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

## NOTES:

This study was not harvested.

Weed Management in Conventional Soybean - Study 1.

Project Code: 02-5A Location: Belleville Research Center

Weed Code		GLXMA						SETFA														
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	SETFA	SETFA	SETFA	SETFA	SETFA										
Rating Data Type		Injury	Injury	Injury	Injury	Injury	Injury	Control	Control	Control	Control	Control										
Rating Unit		Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent										
Rating Date		6-25-02	6-29-02	7-3-02	7-10-02	7-17-02	8-22-02	6-25-02	7-3-02	7-10-02	7-17-02	8-22-02										
Trt-Eval Interval		0 DAT	3 DAT	7 DAT	14 DAT	21 DAT	EOS	0 DAT	7 DAT	14 DAT	21 DAT	EOS										
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Prod Rate	Prod Unit	Grow Stg	Appl Code														
1	NONTREATED								0	0	0	0	0	0	0	0						
2	GAUNTLET (CO-PACK)				5.9	OZ/A	PRE	A	0		0	0	0	0	93	93	91	88	80			
2	->FIRSTRATE	84	WG	0.03	LB	A/A		PRE	A													
2	->AUTHORITY	75	WG	0.25	LB	A/A		PRE	A													
2	PENDIMAX	3.3	EC	1.24	LB	A/A	3	PT/A	PRE	A												
3	PENDIMAX	3.3	EC	1.24	LB	A/A	3	PT/A	PRE	A	0	15	7	7	5	0	89	99	98	98	96	
3	FIRSTRATE	84	WG	0.0157	LB	A/A	0.3	OZ/A	4-6"W-2	C												
3	PHOENIX	2	EC	0.125	LB	A/A	8	OZ/A	4-6"W-2	C												
3	IF NEEDED ADD SELECT																					
3	SELECT	2	EC	0.094	LB	A/A	6	OZ/A	4-6"W-2	C												
3	ACTIVATOR 90	100	LIQ	0.25	%	V/V	0.25	%V/V	4-6"W-2	C												
3	28% UAN	100	LIQ	2.5	%	V/V	2.5	%V/V	4-6"W-2	C												
4	FIRSTRATE	84	WG	0.0157	LB	A/A	0.3	OZ/A	4-6"W-1	B			5	7	13	8	0		99	98	98	76
4	PHOENIX	2	EC	0.125	LB	A/A	8	OZ/A	4-6"W-1	B												
4	SELECT	2	EC	0.094	LB	A/A	6	OZ/A	4-6"W-1	B												
4	ACTIVATOR 90	100	LIQ	0.25	%	V/V	0.25	%V/V	4-6"W-1	B												
4	28% UAN	100	LIQ	2.5	%	V/V	2.5	%V/V	4-6"W-1	B												
5	BOUNDARY	6.5	EC	1.22	LB	A/A	1.5	PT/A	PRE	A	3	7	4	4	1	0	94	99	93	93	92	
5	FLEXSTAR	1.88	EC	0.235	LB	A/A	16	OZ/A	4-6"W-2	C												
5	FUSION	2.56	EC	0.16	LB	A/A	8	OZ/A	4-6"W-2	C												
5	ACTIVATOR 90	100	LIQ	0.25	%	V/V	0.25	%V/V	4-6"W-2	C												
5	28% UAN	100	LIQ	2.5	%	V/V	2.5	%V/V	4-6"W-2	C												
6	VALOR	51	WG	0.064	LB	A/A	2	OZ/A	PRE	A	4	13	4	5	3	0	72	99	99	98	94	
6	PHOENIX	2	EC	0.125	LB	A/A	8	OZ/A	4-6"W-2	C												
6	SELECT	2	EC	0.125	LB	A/A	8	OZ/A	4-6"W-2	C												
6	ACTIVATOR 90	100	LIQ	0.25	%	V/V	0.25	%V/V	4-6"W-2	C												
7	AUTHORITY	75	WG	0.187	LB	A/A	4	OZ/A	PRE	A	0	1	3	4	3	0	35	99	98	99	95	
7	CLASSIC	25	WG	0.0078	LB	A/A	0.5	OZ/A	4-6"W-2	C												
7	ASSURE II	0.88	EC	0.0344	LB	A/A	5	OZ/A	4-6"W-2	C												
7	ACTIVATOR 90	100	LIQ	0.25	%	V/V	0.25	%V/V	4-6"W-2	C												
8	PURSUIT	70	WG	0.175	LB	A/A	4	OZ/A	PRE	A	0	8	3	3	3	0	98	99	99	99	99	
8	ULTRA BLAZER	2	SL	0.25	LB	A/A	1	PT/A	4-6"W-2	C												
8	POAST	1.53	EC	0.191	LB	A/A	16	OZ/A	4-6"W-2	C												
8	PRIME OIL COC	100	LIQ	1.0	PT/A		1	PT/A	4-6"W-2	C												

Weed Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	SETFA	SETFA	SETFA	SETFA	SETFA
Crop Code	Injury	Injury	Injury	Injury	Injury	Injury	Control	Control	Control	Control	Control
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit	6-25-02	6-29-02	7-3-02	7-10-02	7-17-02	8-22-02	6-25-02	7-3-02	7-10-02	7-17-02	8-22-02
Rating Date	0 DAT	3 DAT	7 DAT	14 DAT	21 DAT	EOS	0 DAT	7 DAT	14 DAT	21 DAT	EOS
Trt-Eval Interval											

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code											
9	DUAL II MAGNUM	7.64	EC	0.955	LB A/A	1	PT/A	PRE	A	0	4	3	4	2	0	97	99	94	94	90
9	FLEXSTAR	1.88	EC	0.235	LB A/A	16	OZ/A	4-6"W-2	C											
9	FUSION	2.56	EC	0.16	LB A/A	8	OZ/A	4-6"W-2	C											
9	PRIME OIL COC	100	LIQ	0.5	% V/V	0.5	%V/V	4-6"W-2	C											
10	PHOENIX	2	EC	0.2	LB A/A	12.8	OZ/A	4-6"W-1	B		4	8	12	5	0		98	95	98	75
10	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	4-6"W-1	B											
10	SELECT	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-1	B											
10	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-1	B											
11	PHOENIX	2	EC	0.2	LB A/A	12.8	OZ/A	4-6"W-1	B		8	5	7	7	0		99	97	98	82
11	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	4-6"W-1	B											
11	SELECT	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-1	B											
11	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-1	B											
11	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"W-1	B											
12	FLEXSTAR	1.88	EC	0.19	LB A/A	13	OZ/A	4-6"W-1	B		2	1	3	4	0		99	97	99	80
12	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	4-6"W-1	B											
12	SELECT	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-1	B											
12	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"W-1	B											
12	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"W-1	B											
LSD (P=.05)										1.6	2.8	2.7	4.6	2.2	0.0	6.0	1.5	3.0	3.0	7.8
Replicate F										1.883	8.152	0.643	0.907	2.915	0.000	2.309	0.794	1.129	0.791	0.194
Replicate Prob(F)										0.1887	0.0026	0.5351	0.4184	0.0753	1.0000	0.1359	0.4646	0.3413	0.4657	0.8247
Treatment F										9.814	25.003	8.004	6.639	11.432	0.000	336.110	3302.309	765.483	738.829	100.064
Treatment Prob(F)										0.0002	0.0001	0.0001	0.0001	0.0001	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001

Weed Code	XANST	XANST	XANST	XANST	XANST	AMBEL	AMBEL	AMBEL	AMBEL	AMBEL
Crop Code										
Rating Data Type	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	6-25-02	7-3-02	7-10-02	7-17-02	8-22-02	6-25-02	7-3-02	7-10-02	7-17-02	8-22-02
Trt-Eval Interval	0 DAT	7 DAT	14 DAT	21 DAT	EOS	0 DAT	7 DAT	14 DAT	21 DAT	EOS

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	GAUNTLET (CO-PACK)					5.9	OZ/A	PRE	A	70	63	63	60	48	89	82	79	73	64
2	->FIRSTRATE	84	WG	0.03	LB A/A			PRE	A										
2	->AUTHORITY	75	WG	0.25	LB A/A			PRE	A										
2	PENDIMAX	3.3	EC	1.24	LB A/A	3	PT/A	PRE	A										
3	PENDIMAX	3.3	EC	1.24	LB A/A	3	PT/A	PRE	A	0	99	98	98	95	0	99	98	98	99
3	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	4-6"W-2	C										
3	PHOENIX	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-2	C										
3	IF NEEDED ADD SELECT																		
3	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"W-2	C										
3	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-2	C										
3	28% UAN	100	LIQ	2.5	% V/V	2.5	%V/V	4-6"W-2	C										
4	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	4-6"W-1	B		99	99	99	99		99	99	99	99
4	PHOENIX	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-1	B										
4	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"W-1	B										
4	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-1	B										
4	28% UAN	100	LIQ	2.5	% V/V	2.5	%V/V	4-6"W-1	B										
5	BOUNDARY	6.5	EC	1.22	LB A/A	1.5	PT/A	PRE	A	7	99	94	93	91	50	99	98	98	99
5	FLEXSTAR	1.88	EC	0.235	LB A/A	16	OZ/A	4-6"W-2	C										
5	FUSION	2.56	EC	0.16	LB A/A	8	OZ/A	4-6"W-2	C										
5	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-2	C										
5	28% UAN	100	LIQ	2.5	% V/V	2.5	%V/V	4-6"W-2	C										
6	VALOR	51	WG	0.064	LB A/A	2	OZ/A	PRE	A	23	95	88	87	89	35	99	99	98	93
6	PHOENIX	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-2	C										
6	SELECT	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-2	C										
6	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-2	C										
7	AUTHORITY	75	WG	0.187	LB A/A	4	OZ/A	PRE	A	42	93	94	96	98	20	87	79	70	37
7	CLASSIC	25	WG	0.0078	LB A/A	0.5	OZ/A	4-6"W-2	C										
7	ASSURE II	0.88	EC	0.0344	LB A/A	5	OZ/A	4-6"W-2	C										
7	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-2	C										
8	PURSUIT	70	WG	0.175	LB A/A	4	OZ/A	PRE	A	77	97	90	88	87	78	99	93	92	75
8	ULTRA BLAZER	2	SL	0.25	LB A/A	1	PT/A	4-6"W-2	C										
8	POAST	1.53	EC	0.191	LB A/A	16	OZ/A	4-6"W-2	C										
8	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"W-2	C										
9	DUAL II MAGNUM	7.64	EC	0.955	LB A/A	1	PT/A	PRE	A	5	98	98	98	93	15	98	95	95	91
9	FLEXSTAR	1.88	EC	0.235	LB A/A	16	OZ/A	4-6"W-2	C										
9	FUSION	2.56	EC	0.16	LB A/A	8	OZ/A	4-6"W-2	C										
9	PRIME OIL COC	100	LIQ	0.5	% V/V	0.5	%V/V	4-6"W-2	C										

Weed Code	XANST	XANST	XANST	XANST	XANST	AMBEL	AMBEL	AMBEL	AMBEL	AMBEL
Crop Code										
Rating Data Type	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	6-25-02	7-3-02	7-10-02	7-17-02	8-22-02	6-25-02	7-3-02	7-10-02	7-17-02	8-22-02
Trt-Eval Interval	0 DAT	7 DAT	14 DAT	21 DAT	EOS	0 DAT	7 DAT	14 DAT	21 DAT	EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code										
10	PHOENIX	2	EC	0.2	LB A/A	12.8	OZ/A	4-6"W-1	B		98	99	99	99		99	99	99	
10	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	4-6"W-1	B										
10	SELECT	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-1	B										
10	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-1	B										
11	PHOENIX	2	EC	0.2	LB A/A	12.8	OZ/A	4-6"W-1	B		99	99	99	99		99	99	99	
11	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	4-6"W-1	B										
11	SELECT	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-1	B										
11	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-1	B										
11	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"W-1	B										
12	FLEXSTAR	1.88	EC	0.19	LB A/A	13	OZ/A	4-6"W-1	B		99	99	99	99		99	99	99	
12	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	4-6"W-1	B										
12	SELECT	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-1	B										
12	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"W-1	B										
12	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"W-1	B										
LSD (P=.05)										14.3	8.3	9.2	8.3	10.0	5.9	8.0	7.0	6.9	10.3
Replicate F										6.339	0.152	0.217	0.418	0.248	4.064	0.347	0.499	0.486	0.060
Replicate Prob(F)										0.0110	0.8595	0.8069	0.6634	0.7824	0.0406	0.7103	0.6136	0.6215	0.9424
Treatment F										44.611	104.788	83.670	103.726	76.613	308.940	109.010	139.955	148.002	81.415
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Weed Code									AMATA	AMATA	AMATA	AMATA	AMATA	AMATA	IPOHE	IPOHE	IPOHE	IPOHE	IPOHE
Crop Code									Control	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control
Rating Data Type									Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit									6-25-02	7-3-02	7-10-02	7-17-02	8-22-02	6-25-02	7-3-02	7-10-02	7-17-02	8-22-02	
Rating Date									0 DAT	7 DAT	14 DAT	21 DAT	EOS	0 DAT	7 DAT	14 DAT	21 DAT	EOS	
Trt-Eval Interval																			
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	GAUNTLET (CO-PACK)					5.9	OZ/A	PRE	A	98	96	96	96	96	91	82	86	86	86
2	->FIRSTRATE	84	WG	0.03	LB A/A			PRE	A										
2	->AUTHORITY	75	WG	0.25	LB A/A			PRE	A										
2	PENDIMAX	3.3	EC	1.24	LB A/A	3	PT/A	PRE	A										
3	PENDIMAX	3.3	EC	1.24	LB A/A	3	PT/A	PRE	A	88	99	98	98	91	3	95	93	92	92
3	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	4-6"W-2	C										
3	PHOENIX	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-2	C										
3	IF NEEDED ADD SELECT																		
3	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"W-2	C										
3	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-2	C										
3	28% UAN	100	LIQ	2.5	% V/V	2.5	%V/V	4-6"W-2	C										
4	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	4-6"W-1	B		98	83	67	64		97	90	88	88
4	PHOENIX	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-1	B										
4	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"W-1	B										
4	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-1	B										
4	28% UAN	100	LIQ	2.5	% V/V	2.5	%V/V	4-6"W-1	B										
5	BOUNDARY	6.5	EC	1.22	LB A/A	1.5	PT/A	PRE	A	99	99	99	99	99	13	92	83	80	80
5	FLEXSTAR	1.88	EC	0.235	LB A/A	16	OZ/A	4-6"W-2	C										
5	FUSION	2.56	EC	0.16	LB A/A	8	OZ/A	4-6"W-2	C										
5	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-2	C										
5	28% UAN	100	LIQ	2.5	% V/V	2.5	%V/V	4-6"W-2	C										
6	VALOR	51	WG	0.064	LB A/A	2	OZ/A	PRE	A	92	99	99	99	99	42	50	57	55	50
6	PHOENIX	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-2	C										
6	SELECT	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-2	C										
6	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-2	C										
7	AUTHORITY	75	WG	0.187	LB A/A	4	OZ/A	PRE	A	95	91	93	92	82	60	97	96	96	94
7	CLASSIC	25	WG	0.0078	LB A/A	0.5	OZ/A	4-6"W-2	C										
7	ASSURE II	0.88	EC	0.0344	LB A/A	5	OZ/A	4-6"W-2	C										
7	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-2	C										
8	PURSUIT	70	WG	0.175	LB A/A	4	OZ/A	PRE	A	0	93	57	53	57	42	97	91	92	90
8	ULTRA BLAZER	2	SL	0.25	LB A/A	1	PT/A	4-6"W-2	C										
8	POAST	1.53	EC	0.191	LB A/A	16	OZ/A	4-6"W-2	C										
8	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"W-2	C										
9	DUAL II MAGNUM	7.64	EC	0.955	LB A/A	1	PT/A	PRE	A	88	99	97	98	97	7	96	92	92	88
9	FLEXSTAR	1.88	EC	0.235	LB A/A	16	OZ/A	4-6"W-2	C										
9	FUSION	2.56	EC	0.16	LB A/A	8	OZ/A	4-6"W-2	C										
9	PRIME OIL COC	100	LIQ	0.5	% V/V	0.5	%V/V	4-6"W-2	C										





Weed Code	ABUTH	ABUTH	ABUTH	ABUTH	ABUTH	CYPES	CYPES	CYPES	CYPES	CYPES									
Crop Code	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control									
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent									
Rating Unit	6-25-02	7-3-02	7-10-02	7-17-02	8-22-02	6-25-02	7-3-02	7-10-02	7-17-02	8-22-02									
Rating Date	0 DAT	7 DAT	14 DAT	21 DAT	EOS	0 DAT	7 DAT	14 DAT	21 DAT	EOS									
Trt-Eval Interval																			
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	GAUNTLET (CO-PACK)					5.9	OZ/A	PRE	A	98	95	93	93	93	89	87	87	87	90
2	->FIRSTRATE	84	WG	0.03	LB A/A			PRE	A										
2	->AUTHORITY	75	WG	0.25	LB A/A			PRE	A										
2	PENDIMAX	3.3	EC	1.24	LB A/A	3	PT/A	PRE	A										
3	PENDIMAX	3.3	EC	1.24	LB A/A	3	PT/A	PRE	A	30	99	98	98	96	70	93	93	97	96
3	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	4-6"W-2	C										
3	PHOENIX	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-2	C										
3	IF NEEDED ADD SELECT																		
3	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"W-2	C										
3	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-2	C										
3	28% UAN	100	LIQ	2.5	% V/V	2.5	%V/V	4-6"W-2	C										
4	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	4-6"W-1	B		99	99	98	99		94	95	95	95
4	PHOENIX	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-1	B										
4	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"W-1	B										
4	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-1	B										
4	28% UAN	100	LIQ	2.5	% V/V	2.5	%V/V	4-6"W-1	B										
5	BOUNDARY	6.5	EC	1.22	LB A/A	1.5	PT/A	PRE	A	50	99	98	97	95	94	96	96	96	96
5	FLEXSTAR	1.88	EC	0.235	LB A/A	16	OZ/A	4-6"W-2	C										
5	FUSION	2.56	EC	0.16	LB A/A	8	OZ/A	4-6"W-2	C										
5	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-2	C										
5	28% UAN	100	LIQ	2.5	% V/V	2.5	%V/V	4-6"W-2	C										
6	VALOR	51	WG	0.064	LB A/A	2	OZ/A	PRE	A	75	99	99	98	86	58	73	78	76	78
6	PHOENIX	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-2	C										
6	SELECT	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-2	C										
6	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-2	C										
7	AUTHORITY	75	WG	0.187	LB A/A	4	OZ/A	PRE	A	18	77	75	69	66	93	99	99	99	99
7	CLASSIC	25	WG	0.0078	LB A/A	0.5	OZ/A	4-6"W-2	C										
7	ASSURE II	0.88	EC	0.0344	LB A/A	5	OZ/A	4-6"W-2	C										
7	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-2	C										
8	PURSUIT	70	WG	0.175	LB A/A	4	OZ/A	PRE	A	93	99	97	96	96	98	98	97	96	95
8	ULTRA BLAZER	2	SL	0.25	LB A/A	1	PT/A	4-6"W-2	C										
8	POAST	1.53	EC	0.191	LB A/A	16	OZ/A	4-6"W-2	C										
8	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"W-2	C										
9	DUAL II MAGNUM	7.64	EC	0.955	LB A/A	1	PT/A	PRE	A	0	94	88	84	76	97	98	96	97	95
9	FLEXSTAR	1.88	EC	0.235	LB A/A	16	OZ/A	4-6"W-2	C										
9	FUSION	2.56	EC	0.16	LB A/A	8	OZ/A	4-6"W-2	C										
9	PRIME OIL COC	100	LIQ	0.5	% V/V	0.5	%V/V	4-6"W-2	C										

Weed Code	ABUTH	ABUTH	ABUTH	ABUTH	ABUTH	CYPES	CYPES	CYPES	CYPES	CYPES
Crop Code										
Rating Data Type	Control	Control	Control	Control	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	6-25-02	7-3-02	7-10-02	7-17-02	8-22-02	6-25-02	7-3-02	7-10-02	7-17-02	8-22-02
Trt-Eval Interval	0 DAT	7 DAT	14 DAT	21 DAT	EOS	0 DAT	7 DAT	14 DAT	21 DAT	EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code												
10	PHOENIX	2	EC	0.2	LB A/A	12.8	OZ/A	4-6"W-1	B			98	98	98	99		93	90	88	90	
10	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	4-6"W-1	B												
10	SELECT	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-1	B												
10	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-1	B												
11	PHOENIX	2	EC	0.2	LB A/A	12.8	OZ/A	4-6"W-1	B			99	99	99	99		88	89	91	90	
11	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	4-6"W-1	B												
11	SELECT	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-1	B												
11	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"W-1	B												
11	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"W-1	B												
12	FLEXSTAR	1.88	EC	0.19	LB A/A	13	OZ/A	4-6"W-1	B			99	99	99	99		96	93	93	92	
12	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	4-6"W-1	B												
12	SELECT	2	EC	0.125	LB A/A	8	OZ/A	4-6"W-1	B												
12	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"W-1	B												
12	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"W-1	B												
LSD (P=.05)										3.7	11.9	11.2	8.5	10.1	5.6	5.5	5.7	4.5	2.2		
Replicate F										2.271	0.827	0.849	0.642	0.081	3.147	4.338	1.860	3.874	1.677		
Replicate Prob(F)										0.1399	0.4504	0.4416	0.5356	0.9228	0.0744	0.0258	0.1793	0.0362	0.2100		
Treatment F										1068.402	49.101	54.858	95.252	68.174	323.509	213.984	193.354	314.275	1336.517		
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	

Weed Management in Conventional Soybean - Study 1.

Project Code: 02-5A

Location: Belleville Research Center

Trial Comments

1. Protocol: Dow (2-4); Syngenta (5); Valent (6-12).
2. Application timings 4-6"W-1 and 4-6"W-2 are 4 to 6 inch weeds for POST only, and PRE/POST treatments, respectively.
3. For treatment 3, "if needed add Select", Select was added.
4. DAT = days after 4-6"W-1 or 4-6"W-2 application. 0 DAT = at postemergence timing. EOS = end of season.