

Evaluation of V-10086 in Soybean.

01-19B-S90

OBJECTIVE: Evaluate Cobra and V-10086 for crop tolerance and weed control in soybean when tankmixed with Synchrony.

SUMMARY: Soybean injury 7 days after treatment (DAT) ranged from 27 to 39% from Cobra and 20 to 28% from V-10086. Injury from Cobra and V-10086 was similar at 14 DAT, ranging from 6 to 11%. No soybean injury was observed from any treatment at 28 DAT. Common cocklebur and common ragweed control 28 DAT was at least 88% from all treatments except Ultra Blazer at 1 pt/A which provided significantly less control compared to other treatments. Common lambsquarters control was poor from Cobra, V-10086 or Flexstar alone. Adding Synchrony to Cobra or V-10086 increased common lambsquarters control. Velvetleaf control was similar with Cobra, V-10086, Ultra Blazer and Flexstar. All treatments provided similar control of ivyleaf morningglory and giant ragweed except Ultra Blazer at 1 pt, which generally provided less control.

HERBICIDES

COBRA 2 EC
FLEXSTAR 1.88 EC
SYNCHRONY STS 42 WG
ULTRA BLAZER 2 SL
V-10086 2 EC

WEEDS

cocklebur, common
lambsquarters, common
morningglory, ivyleaf
nutsedge, yellow
ragweed, common
ragweed, giant
velvetleaf

CROP

soybean

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

Evaluation of V-10086 in Soybean.

Project Code: 01-19B-S90 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: 5-1-01

Objective:

Evaluate Cobra and V-10086 for crop tolerance and weed control in soybean when tankmixed with Synchrony.

Weed Code	Common Name	Scientific Name
1. XANST	cocklebur, common	Xanthium strumarium L.
2. AMBEL	ragweed, common	Ambrosia artemisiifolia L.
3. CHEAL	lambquarters, common	Chenopodium album L.
4. CYPES	nutsedge, yellow	Cyperus esculentus L.
5. ABUTH	velvetleaf	Abutilon theophrasti Medicus
6. IPOHE	morningglory, ivyleaf	Ipomoea hederacea (L.) Jacq.
7. AMBTR	ragweed, giant	Ambrosia trifida L.

Crop 1:	GLXMA soybean	Variety:	AG 4301 RR/STS
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:	25 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 50 LB/A, K20 150 LB/A				

Soil Name:	Ebbert	% OM:	1.4	pH:	5.7	CEC:	14
Texture:	Silt loam	Fert. Level:	P1: 54 LB/A, K: 280 LB/A				

APPLICATION DESCRIPTION

APPLICATION DESCRIPTION		A
Application Date:	6-19-01	
Time of Day:	12:00	
Application Method:	Spray	
Application Timing:	4-6"W	
Applic. Placement:	BROFOL	
Air Temp., Unit:	90 F	
% Relative Humidity:	48	
Wind Velocity, Unit:	10 MPH	
Soil Moisture:	BELNOR	
% Cloud Cover:	75	

CROP STAGE AT EACH APPLICATION

CROP STAGE AT EACH APPLICATION		A
Crop 1 Code, Stage:	GLXMA V5	
Height, Unit:	6-7 IN	

WEED STAGE AT EACH APPLICATION

WEED STAGE AT EACH APPLICATION		A
Weed 1 Code:	XANST	
Stage(leaves):	4-8	
Height(inches):	4-8	
Density:	High	
Weed 2 Code:	AMBEL	
Stage(leaves):	6-10+	
Height(inches):	3-5	
Density:	High	
Weed 3 Code:	CHEAL	
Stage(leaves):	6-10+	
Height(inches):	3-6	
Density:	Medium	

Weed 4 Code: CYPES
Stage(leaves): 3-5
Height(inches): 2-4
Density: Low

Weed 5 Code: ABUTH
Stage(leaves): 4-6
Height(inches): 2-4
Density: High

Weed 6 Code: IPOHE
Stage(leaves): 4-6
Height(inches): 2-4
Density: Medium

Weed 7 Code: AMBTR
Stage(leaves): 6-10+
Height(inches): 4-10
Density: High

APPLICATION EQUIPMENT

A

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

NOTES: NOT HARVESTED.

Evaluation of V-10086 in Soybean.

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	GLXMA	GLXMA	GLXMA	GLXMA	CYPES	CYPES	CYPES	XANST	XANST	XANST	AMBEL	AMBEL	AMBEL				
						Injury Percent	Injury Percent	Injury Percent	Injury Percent	Control Percent	Control Percent	Control Percent	Control Percent	Control Percent	Control Percent	Control Percent	Control Percent	Control Percent				
						6-22-01	6-26-01	7-3-01	7-17-01	6-26-01	7-3-01	7-17-01	6-26-01	7-3-01	7-17-01	6-26-01	7-3-01	7-17-01				
						3 DA-A	7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A				
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				
2	COBRA	2	EC	0.094	LB A/A	6	OZ/A	4-6"	W A	17	27	7	0	37	30	20	97	95	90	99	96	91
2	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"	W A													
2	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A													
3	COBRA	2	EC	0.125	LB A/A	8	OZ/A	4-6"	W A	25	34	11	0	33	32	22	98	95	91	99	97	92
3	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"	W A													
3	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A													
4	COBRA	2	EC	0.15	LB A/A	9.6	OZ/A	4-6"	W A	30	38	7	0	33	37	23	99	97	91	99	96	91
4	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"	W A													
4	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A													
5	COBRA	2	EC	0.195	LB A/A	12.5	OZ/A	4-6"	W A	32	39	6	0	50	50	37	99	97	95	99	97	93
5	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"	W A													
5	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A													
6	V-10086	2	EC	0.094	LB A/A	6	OZ/A	4-6"	W A	10	20	7	0	25	40	23	95	95	89	99	92	88
6	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A													
7	V-10086	2	EC	0.125	LB A/A	8	OZ/A	4-6"	W A	12	22	6	0	37	37	25	96	96	91	98	96	90
7	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A													
8	V-10086	2	EC	0.15	LB A/A	9.6	OZ/A	4-6"	W A	15	25	6	0	43	40	32	97	96	90	99	97	91
8	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A													
9	V-10086	2	EC	0.195	LB A/A	12.5	OZ/A	4-6"	W A	18	28	10	0	43	40	27	99	96	92	99	96	92
9	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A													
10	COBRA	2	EC	0.15	LB A/A	9.6	OZ/A	4-6"	W A	10	22	8	0	37	37	27	99	97	93	96	96	94
10	SYNCHRONY STS	42	WG	0.0131	LB A/A	0.5	OZ/A	4-6"	W A													
10	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"	W A													
10	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A													
11	V-10086	2	EC	0.15	LB A/A	9.6	OZ/A	4-6"	W A	8	17	6	0	43	50	43	96	98	93	96	93	87
11	SYNCHRONY STS	42	WG	0.0131	LB A/A	0.5	OZ/A	4-6"	W A													
11	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A													
12	V-10086	2	EC	0.125	LB A/A	8	OZ/A	4-6"	W A	5	16	7	0	76	57	47	96	96	92	98	96	91
12	SYNCHRONY STS	42	WG	0.0131	LB A/A	0.5	OZ/A	4-6"	W A													
12	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A													
13	V-10086	2	EC	0.15	LB A/A	9.6	OZ/A	4-6"	W A	10	15	6	0	58	63	53	99	96	94	97	96	92
13	SYNCHRONY STS	42	WG	0.0131	LB A/A	0.5	OZ/A	4-6"	W A													
13	ACTIVATOR 90	100	LIQ	0.125	% V/V	0.125	%V/V	4-6"	W A													
14	V-10086	2	EC	0.125	LB A/A	8	OZ/A	4-6"	W A	5	13	6	0	50	48	40	97	96	93	98	95	92
14	SYNCHRONY STS	42	WG	0.0131	LB A/A	0.5	OZ/A	4-6"	W A													
14	ACTIVATOR 90	100	LIQ	0.125	% V/V	0.125	%V/V	4-6"	W A													

Weed Code									CYPES	CYPES	CYPES	XANST	XANST	XANST	AMBEL	AMBEL	AMBEL					
Crop Code									Control	Control	Control	Control	Control	Control	Control	Control	Control					
Rating Data Type									Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent					
Rating Unit									6-22-01	6-26-01	7-3-01	7-17-01	6-26-01	7-3-01	7-17-01	6-26-01	7-3-01					
Rating Date									3 DA-A	7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A					
Trt-Eval Interval																						
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code													
15	ULTRA BLAZER	2	SL	0.25	LB A/A	1	PT/A	4-6"W	A	18	18	4	0	50	37	30	95	71	66	96	78	71
15	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"W	A													
15	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"W	A													
16	ULTRA BLAZER	2	SL	0.375	LB A/A	1.5	PT/A	4-6"W	A	20	30	5	0	48	47	40	98	96	91	99	96	90
16	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"W	A													
16	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"W	A													
17	FLEXSTAR	1.88	EC	0.235	LB A/A	1	PT/A	4-6"W	A	8	5	1	0	40	58	43	98	95	91	99	97	93
17	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"W	A													
17	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"W	A													
18	FLEXSTAR	1.88	EC	0.353	LB A/A	1.5	PT/A	4-6"W	A	10	10	3	0	58	55	45	99	95	92	99	95	92
18	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"W	A													
18	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"W	A													
LSD (P=.05)										8.0	5.9	3.1	0.0	19.1	23.7	21.1	3.1	18.2	18.2	3.2	13.5	14.6
Replicate F										0.622	7.394	1.178	0.000	2.938	2.708	5.547	0.208	0.873	0.673	0.098	1.301	0.793
Replicate Prob(F)										0.5431	0.0023	0.3208	1.0000	0.0674	0.0819	0.0085	0.8135	0.4276	0.5173	0.9067	0.2862	0.4613
Treatment F										9.660	28.058	6.398	0.000	5.690	2.999	3.091	457.846	13.322	12.398	449.282	23.566	18.564
Treatment Prob(F)										0.0001	0.0001	0.0001	1.0000	0.0001	0.0036	0.0029	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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Weed Code		CHEAL	CHEAL	CHEAL	ABUTH	ABUTH	ABUTH	IPOHE	IPOHE	IPOHE	AMBTR	AMBTR	AMBTR								
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		6-26-01	7-3-01	7-17-01	6-26-01	7-3-01	7-17-01	6-26-01	7-3-01	7-17-01	6-26-01	7-3-01	7-17-01								
Trt-Eval Interval		7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A								
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	COBRA	2	EC	0.094	LB A/A	6	OZ/A	4-6"	W A	43	37	33	91	87	80	92	84	77	96	94	92
2	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"	W A												
2	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A												
3	COBRA	2	EC	0.125	LB A/A	8	OZ/A	4-6"	W A	60	58	53	90	87	77	95	83	72	98	98	94
3	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"	W A												
3	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A												
4	COBRA	2	EC	0.15	LB A/A	9.6	OZ/A	4-6"	W A	50	48	42	93	90	85	92	90	80	98	95	93
4	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"	W A												
4	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A												
5	COBRA	2	EC	0.195	LB A/A	12.5	OZ/A	4-6"	W A	50	47	43	95	91	87	95	91	85	99	98	97
5	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"	W A												
5	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A												
6	V-10086	2	EC	0.094	LB A/A	6	OZ/A	4-6"	W A	45	40	40	85	80	70	85	83	70	94	93	91
6	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A												
7	V-10086	2	EC	0.125	LB A/A	8	OZ/A	4-6"	W A	47	43	40	87	85	80	88	85	75	95	95	91
7	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A												
8	V-10086	2	EC	0.15	LB A/A	9.6	OZ/A	4-6"	W A	43	37	33	92	88	82	90	87	77	98	96	92
8	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A												
9	V-10086	2	EC	0.195	LB A/A	12.5	OZ/A	4-6"	W A	76	44	43	98	94	92	90	85	80	98	98	95
9	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A												
10	COBRA	2	EC	0.15	LB A/A	9.6	OZ/A	4-6"	W A	92	90	87	95	92	88	92	85	80	96	94	92
10	SYNCHRONY STS	42	WG	0.0131	LB A/A	0.5	OZ/A	4-6"	W A												
10	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"	W A												
10	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A												
11	V-10086	2	EC	0.15	LB A/A	9.6	OZ/A	4-6"	W A	77	80	78	95	92	87	92	90	80	98	95	91
11	SYNCHRONY STS	42	WG	0.0131	LB A/A	0.5	OZ/A	4-6"	W A												
11	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A												
12	V-10086	2	EC	0.125	LB A/A	8	OZ/A	4-6"	W A	90	90	85	90	93	90	88	88	80	96	96	94
12	SYNCHRONY STS	42	WG	0.0131	LB A/A	0.5	OZ/A	4-6"	W A												
12	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A												
13	V-10086	2	EC	0.15	LB A/A	9.6	OZ/A	4-6"	W A	96	97	91	96	96	93	93	94	86	96	98	96
13	SYNCHRONY STS	42	WG	0.0131	LB A/A	0.5	OZ/A	4-6"	W A												
13	ACTIVATOR 90	100	LIQ	0.125	% V/V	0.125	%V/V	4-6"	W A												
14	V-10086	2	EC	0.125	LB A/A	8	OZ/A	4-6"	W A	88	85	83	93	92	87	88	87	80	93	91	88
14	SYNCHRONY STS	42	WG	0.0131	LB A/A	0.5	OZ/A	4-6"	W A												
14	ACTIVATOR 90	100	LIQ	0.125	% V/V	0.125	%V/V	4-6"	W A												
15	ULTRA BLAZER	2	SL	0.25	LB A/A	1	PT/A	4-6"	W A	96	72	67	96	75	69	87	70	62	92	76	71
15	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"	W A												
15	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	W A												

Weed Code	CHEAL	CHEAL	CHEAL	ABUTH	ABUTH	ABUTH	IPOHE	IPOHE	IPOHE	AMBTR	AMBTR	AMBTR
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	6-26-01	7-3-01	7-17-01	6-26-01	7-3-01	7-17-01	6-26-01	7-3-01	7-17-01	6-26-01	7-3-01	7-17-01
Trt-Eval Interval	7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	CHEAL	CHEAL	CHEAL	ABUTH	ABUTH	ABUTH	IPOHE	IPOHE	IPOHE	AMBTR	AMBTR	AMBTR	
16	ULTRA BLAZER	2	SL	0.375	LB A/A	1.5	PT/A	4-6"	A	99	98	94	98	92	90	96	92	84	95	97	94	
16	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"	A													
16	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	A													
17	FLEXSTAR	1.88	EC	0.235	LB A/A	1	PT/A	4-6"	A	80	60	50	93	94	85	92	87	80	98	96	94	
17	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"	A													
17	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	A													
18	FLEXSTAR	1.88	EC	0.353	LB A/A	1.5	PT/A	4-6"	A	68	70	60	96	93	86	96	88	80	96	99	97	
18	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"	A													
18	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	4-6"	A													
LSD (P=.05)										19.5	30.3	27.4	5.7	17.6	19.2	6.4	15.4	16.4	3.6	16.3	18.1	
Replicate F										0.725	0.371	0.909	0.680	0.505	0.395	0.272	0.319	0.348	4.858	2.547	3.132	
Replicate Prob(F)										0.4923	0.6927	0.4133	0.5137	0.6080	0.6769	0.7638	0.7293	0.7085	0.0144	0.0941	0.0572	
Treatment F										15.173	6.323	7.217	124.738	12.674	9.894	95.508	15.435	11.487	338.811	16.318	12.772	
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	0.0001	

Evaluation of V-10086 in Soybean.

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Trial Comments

1. Protocol: Valent.
2. Blanket application of Select + COC at 6.0 oz/A + 1.0 % at 1-3 inch grass to all plots on 6-7-01.
3. DA-A = days after 4-6"W.