

Weed Management in Herbicide-Resistant Corn.

01-6A-E160

OBJECTIVE: Compare weed management programs for use in conventional and herbicide-resistant corn hybrids.

SUMMARY: Corn injury ranging from 12 to 15% was observed from Accent Gold plus Clarity and Outlook followed by Distinct on June 15. However, by July 4 no injury was observed from any treatment.

Giant foxtail and common waterhemp control on July 27 was at least 93% from all herbicide treatments except Accent Gold plus Clarity which failed to control waterhemp. Pitted morningglory control on July 27 was at least 92% from all treatments except Accent Gold plus Clarity (88%) and Outlook followed by Distinct (63%). Common cocklebur control was at least 85% from all treatments except Bicep II Magnum alone (0 to 17%) and Outlook followed by Distinct (81%).

Yield of Liberty Link P33G28 was similar regardless of herbicide treatment. Clearfield P33P71 yield was similar with all herbicide programs except Lightning plus Marksman which yielded less than the other treatments. Roundup Ready DK626 yield was reduced in plots treated with a single POST application of Roundup Ultra Max plus Aatrex.

HERBICIDES	ADJUVANTS	WEEDS	CROP / HYBRIDS
AATREX 90 WG	28% UAN 100 LIQ	cocklebur, common	corn, field
ACCENT GOLD 83.8 WG	ACTIVATOR 90 100 LIQ	foxtail, giant	CLEARFIELD P33P71 CL
AXIOM 68 WG	AMS 100 DRY	morningglory, pitted	LIBERTY LINK P33G28 LL
BALANCE PRO 4 SC	CLASS ACT NG 100 LIQ	velvetleaf	ROUNDUP READY DK626 RR
BASIS GOLD 90 WG	PRIME OIL COC 100 LIQ	waterhemp, common	
BICEP II MAGNUM 5.5 L			
CLARITY 4 EC			
DEFINE 60 WG			
DISTINCT 70 WG			
FULTIME 4 SC			
GUARDSMAN MAX 5 L			
HARNESS XTRA 5.6 L			
HORNET 68.5 WG			
LEADOFF 5 L			
LIBERTY 1.67 EC			
LIBERTY ATZ 4.32 EC			
LIGHTNING 70 WG			
MARKSMAN 3.2 L			
NORTHSTAR 47.4 WG			
OUTLOOK 6 EC			
ROUNDUP ULTRA MAX 3.7 SL			

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

Weed Management in Herbicide-Resistant Corn.

Project Code: 01-6A-E160 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: 4-23-01

Objective:

Compare weed management programs for use in conventional and herbicide-resistant corn hybrids.

Weed Code	Common Name	Scientific Name
1.	SETFA foxtail, giant	Setaria faberi Herrm.
2.	XANST cocklebur, common	Xanthium strumarium L.
3.	ABUTH velvetleaf	Abutilon theophrasti Medicus
4.	AMATA waterhemp, common	Amaranthus rudis Sauer
5.	IPOLA morningglory, pitted	Ipomoea lacunosa L.

Crop 1:	ZEAMX corn, field	Variety:	See note
Planting Method:	Seeded	Planting Date:	5-9-01
Rate:	28000 S/A	Depth:	1.5 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	25 FT	Reps:	3
Tillage Type:	Reduced-Till	Study Design:	Split-modifided		
Previous Crop, Year:	GLXMA, 2000				
Field Prep./Maintenance:	N 150 LB/A, P205 0 LB/A, K20 150 LB/A				

Soil Name:	Stoy	% OM:	2.1	pH:	5.7	CEC:	7
Texture:	Silt loam	Fert. Level:	P1: 82 LB/A, K: 266 LB/A				

APPLICATION DESCRIPTION

	A	B	C	D	E	F
Application Date:	5-10-01	5-23-01	5-29-01	6-7-01	6-1-01	6-1-01
Time of Day:	10:30	7:00	8:00	8:00	13:00	13:00
Application Method:	Spray	Spray	Spray	Spray	Spray	Spray
Application Timing:	PRE	3-5"CN	1-3"W	3-5"W	6-8"CN	3-4"W
Applic. Placement:	BROSOI	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	75 F	58 F	60 F	72 F	66 F	66 F
% Relative Humidity:	56	70	74	90	50	50
Wind Velocity, Unit:	10 MPH	3 MPH	1 MPH	3-4 MPH	10 MPH	10 MPH
Soil Moisture:	BELNOR	ABONOR	NORMAL	NORMAL	ABONOR	ABONOR

CROP STAGE AT EACH APPLICATION

	A	B	C	D	E	F
Crop 1 Code, Stage:	ZEAMX NA	ZEAMX V2	ZEAMX V4	ZEAMX V4	ZEAMX V4	ZEAMX V4
Height, Unit:	NA NA	3-5 IN	6-8 IN	10-12 IN	7-8 IN	7-8 IN

WEED STAGE AT EACH APPLICATION

	A	B	C	D	E	F
Weed 1 Code:	SETFA	SETFA	SETFA	SETFA	SETFA	SETFA
Stage(leaves):		2-3	2-3	3-4	3-5	2-5
Height(inches):		1-2	1-3	4-6	2-4	1-2
Density:		Medium	High	High	High	High
Weed 2 Code:	XANST	XANST	XANST	XANST	XANST	XANST
Stage(leaves):		3-4	COTL-5	4-6	4-6	2-5
Height(inches):		1-2	3-5	4-6	2-5	1-5
Density:		Medium	Medium	High	High	High
Weed 3 Code:	ABUTH	ABUTH	ABUTH	ABUTH	ABUTH	ABUTH
Stage(leaves):		3-4	COTL-2	3-4	COTL-4	COTL-2
Height(inches):		0-1	1-2	2-4	1-3	1-2
Density:		Low	High	Medium	Medium	Medium

Weed 4 Code:	AMATA	AMATA	AMATA	AMATA	AMATA	AMATA
Stage(leaves):		3-4	2-4	4-6	COTL-4	3-6
Height(inches):		0-1	0-1	3-5	0-1	0-1
Density:		Low	Low	High	Medium	Medium
Weed 5 Code:	IPOLA	IPOLA	IPOLA	IPOLA	IPOLA	IPOLA
Stage(leaves):				2-4	COTL-2	COTL
Height(inches):				2-4	0-1	0-1
Density:				Low	Low	Low

APPLICATION EQUIPMENT

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

NOTES: HARVESTED 10-2-01, 2 ROWS X 22 FT.

Corn hybrids are DK626RR, P33G28LL, and P33P71CL, see treatment list.

Weed Management in Herbicide-Resistant Corn.

Project Code: 01-6A-E160 Location: Belleville Research Center

Weed Code						SETFA	SETFA	SETFA	XANST	XANST	XANST	AMATA	AMATA	AMATA				
Crop Code						ZEAMX	ZEAMX	ZEAMX	ZEAMX									
Rating Data Type						Yield	Injury	Injury	Injury	Control	Control	Control	Control	Control				
Rating Unit						bu/A	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent				
Rating Date						10-2-01	5-23-01	6-15-01	7-4-01	6-15-01	7-4-01	7-27-01	6-15-01	7-4-01				
Trt-Eval Interval						14 DAP	14 DAP	14 DAP	14 DAP	14 DA-F	56 DAP	56 DAP	14 DA-F	56 DAP				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code									
1	ROUNDUP READY DK626 RR									135	0	0	0	0	0	0	0	
1	NONTREATED																	
2	LIBERTY LINK P33G28 LL									196	0	0	0	99	99	99	70	
2	BICEP II MAGNUM	5.5	L	2.89	LB A/A	2.1	QT/A	PRE	A									
3	CLEARFIELD P33P71 CL									192	0	0	0	97	99	99	70	
3	BICEP II MAGNUM	5.5	L	2.89	LB A/A	2.1	QT/A	PRE	A									
4	LIBERTY LINK P33G28 LL									183	0	0	0	99	98	98	95	
4	AATREX	90	WG	1.0	LB A/A	1.1	LB/A	PRE	A									
4	LIBERTY	1.67	EC	0.313	LB A/A	24	OZ/A	3-4"	W F									
4	AATREX	90	WG	0.5	LB A/A	8.9	OZ/A	3-4"	W F									
4	AMS	100	DRY	3.0	LB A/A	3	LB A/A	3-4"	W F									
5	ROUNDUP READY DK626 RR									180	0	0	0	96	99	99	57	
5	BICEP II MAGNUM	5.5	L	2.89	LB A/A	2.1	QT/A	PRE	A									
6	LIBERTY LINK P33G28 LL									185	0	0	0	99	99	99	98	
6	BALANCE PRO	4	SC	0.0703	LB A/A	2.25	OZ/A	PRE	A									
6	LIBERTY	1.67	EC	0.313	LB A/A	24	OZ/A	3-4"	W F									
6	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	3-4"	W F									
6	AMS	100	DRY	3.0	LB A/A	3	LB A/A	3-4"	W F									
7	CLEARFIELD P33P71 CL									208		0	0	99	98	99	92	
7	LIGHTNING	70	WG	0.056	LB A/A	1.28	OZ/A	1-3"	W C									
7	DISTINCT	70	WG	0.175	LB A/A	4	OZ/A	1-3"	W C									
7	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	1-3"	W C									
7	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W C									
8	LIBERTY LINK P33G28 LL									200	0	0	0	99	99	99	99	
8	DEFINE	60	WG	0.375	LB A/A	10	OZ/A	PRE	A									
8	LIBERTY	1.67	EC	0.313	LB A/A	24	OZ/A	3-4"	W F									
8	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	3-4"	W F									
8	AMS	100	DRY	3.0	LB A/A	3	LB A/A	3-4"	W F									
9	ROUNDUP READY DK626 RR									198	0	0	0	98	98	98	90	
9	HARNESS XTRA	5.6	L	1.61	LB A/A	1.15	QT/A	PRE	A									
9	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	3-4"	W F									
9	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	3-4"	W F									
10	LIBERTY LINK P33G28 LL									207		0	0	93	98	98	95	
10	LIBERTY ATZ	4.32	EC	1.35	LB A/A	40	OZ/A	3-5"	W D									
10	AMS	100	DRY	3.0	LB A/A	3	LB A/A	3-5"	W D									
11	CLEARFIELD P33P71 CL									210		3	0	99	98	98	93	
11	LIGHTNING	70	WG	0.056	LB A/A	1.28	OZ/A	6-8"	CN E									
11	DISTINCT	70	WG	0.175	LB A/A	4	OZ/A	6-8"	CN E									
11	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	6-8"	CN E									
11	AMS	100	DRY	2.5	LB A/A	2.5	LB A/A	6-8"	CN E									

Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	ZEAMX	ZEAMX	ZEAMX	ZEAMX	SETFA	SETFA	SETFA	XANST	XANST	XANST	AMATA	AMATA	AMATA
						Yield	Injury	Injury	Injury	Control	Control	Control	Control	Control	Control	Control	Control	Control
						bu/A	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
						10-2-01	5-23-01	6-15-01	7-4-01	6-15-01	7-4-01	7-27-01	6-15-01	7-4-01	7-27-01	6-15-01	7-4-01	7-27-01
							14 DAP	14 DA-F	56 DAP	14 DA-F	56 DAP	56 DA-F	14 DA-F	56 DAP	56 DA-F	14 DA-F	56 DAP	56 DA-F

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code													
12	LIBERTY LINK P33G28 LL									201		15	0	75	99	99	82	99	99	47	0	0
12	ACCENT GOLD	83.8	WG			2.9	OZ/A	3-5"W	D													
12	->79406	75	WG	0.0234	LB A/A			3-5"W	D													
12	->HORNET	68.5	WG	0.128	LB A/A			3-5"W	D													
12	CLARITY	4	EC	0.125	LB A/A	4	OZ/A	3-5"W	D													
12	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	3-5"W	D													
12	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	3-5"W	D													
13	ROUNDUP READY DK626 RR									154		0	0	90	99	99	90	99	99	99	98	98
13	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	3-5"W	D													
13	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	3-5"W	D													
13	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	3-5"W	D													
14	LIBERTY LINK P33G28 LL									196	0	0	0	99	99	99	96	91	89	99	99	99
14	LEADOFF	5	L	0.938	LB A/A	24	OZ/A	PRE	A													
14	BASIS GOLD	90	WG	0.7875	LB A/A	14	OZ/A	3-4"W	F													
14	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	3-4"W	F													
14	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	3-4"W	F													
15	CLEARFIELD P33P71 CL									205	0	0	0	99	99	99	99	96	96	99	99	99
15	GUARDSMAN MAX	5	L	1.56	LB A/A	2.5	PT/A	PRE	A													
15	LIGHTNING	70	WG	0.056	LB A/A	1.28	OZ/A	6-8"CN	E													
15	DISTINCT	70	WG	0.175	LB A/A	4	OZ/A	6-8"CN	E													
15	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	6-8"CN	E													
15	AMS	100	DRY	2.5	LB A/A	2.5	LB A/A	6-8"CN	E													
16	LIBERTY LINK P33G28 LL									201	0	0	0	99	99	99	99	96	96	99	99	99
16	BICEP II MAGNUM	5.5	L	2.89	LB A/A	2.1	QT/A	PRE	A													
16	NORTHSTAR	47.4	WG	0.148	LB A/A	5	OZ/A	3-4"W	F													
16	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	3-4"W	F													
16	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	3-4"W	F													
17	ROUNDUP READY DK626 RR									178	0	0	0	99	99	99	96	87	88	99	99	99
17	HARNESXTRA	5.6	L	2.8	LB A/A	2	QT/A	PRE	A													
17	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	6-8"CN	E													
17	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	6-8"CN	E													
18	LIBERTY LINK P33G28 LL									183		0	0	93	99	99	96	90	90	99	99	99
18	LIBERTY ATZ	4.32	EC	1.35	LB A/A	40	OZ/A	3-5"CN	B													
18	AMS	100	DRY	3.0	LB A/A	3	LB A/A	3-5"CN	B													
19	CLEARFIELD P33P71 CL									176		0	0	99	99	99	99	96	96	99	99	99
19	LIGHTNING	70	WG	0.056	LB A/A	1.28	OZ/A	3-5"CN	B													
19	MARKSMAN	3.2	L	1.0	LB A/A	2.5	PT/A	3-5"CN	B													
19	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	3-5"CN	B													
19	AMS	100	DRY	2.5	LB A/A	2.5	LB A/A	3-5"CN	B													
20	LIBERTY LINK P33G28 LL									200	0	12	0	99	99	99	87	81	81	95	99	99
20	OUTLOOK	6	EC	0.70	LB A/A	15	OZ/A	PRE	A													
20	DISTINCT	70	WG	0.175	LB A/A	4	OZ/A	3-4"W	F													
20	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	3-4"W	F													
20	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	3-4"W	F													

Weed Code									SETFA	SETFA	SETFA	XANST	XANST	XANST	AMATA	AMATA	AMATA
Crop Code									ZEAMX	ZEAMX	ZEAMX	ZEAMX					
Rating Data Type									Yield	Injury	Injury	Injury	Control	Control	Control	Control	Control
Rating Unit									bu/A	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date									10-2-01	5-23-01	6-15-01	7-4-01	6-15-01	7-4-01	7-27-01	6-15-01	7-4-01
Trt-Eval Interval									14 DAP	14 DA-F	56 DAP	14 DA-F	56 DAP	56 DA-F	14 DA-F	56 DAP	56 DA-F

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code													
21	ROUNDUP READY DK626 RR									177	1	0	0	99	99	99	94	96	96	99	99	99
21	AXIOM	68	WG	0.425	LB A/A	10	OZ/A	PRE	A													
21	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	6-8"CN	E													
21	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	6-8"CN	E													
21	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	6-8"CN	E													
22	LIBERTY LINK P33G28 LL									200	0	0	0	99	99	99	99	96	95	99	99	99
22	AXIOM	68	WG	0.7225	LB A/A	17	OZ/A	PRE	A													
22	LIBERTY ATZ	4.32	EC	1.35	LB A/A	40	OZ/A	6-8"CN	E													
22	AMS	100	DRY	3.0	LB A/A	3	LB A/A	6-8"CN	E													
23	CLEARFIELD P33P71 CL									206	0	0	0	99	99	99	96	98	96	99	99	99
23	AXIOM	68	WG	0.7225	LB A/A	17	OZ/A	PRE	A													
23	LIGHTNING	70	WG	0.056	LB A/A	1.28	OZ/A	6-8"CN	E													
23	DISTINCT	70	WG	0.175	LB A/A	4	OZ/A	6-8"CN	E													
23	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	% V/V	6-8"CN	E													
23	AMS	100	DRY	2.5	LB A/A	2.5	LB A/A	6-8"CN	E													
24	LIBERTY LINK P33G28 LL									194	0	0	0	99	99	99	98	97	97	99	99	99
24	FULTIME	4	SC	3.0	LB A/A	3	QT/A	PRE	A													
24	HORNET	68.5	WG	0.128	LB A/A	3	OZ/A	3-4"W	F													
24	PRIME OIL COC	100	LIQ	1.0	% V/V	1	% V/V	3-4"W	F													
24	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	3-4"W	F													
25	LIBERTY LINK P33G28 LL									200		0	0	99	99	99	95	99	99	99	99	99
25	LIBERTY	1.67	EC	0.313	LB A/A	24	OZ/A	3-5"W	D													
25	AATREX	90	WG	1.0	LB A/A	1.1	LB/A	3-5"W	D													
25	CLASS ACT NG	100	LIQ	2.5	% V/V	2.5	% V/V	3-5"W	D													
LSD (P=.05)										28.8	0.7	3.5	0.0	3.7	1.6	1.4	9.3	9.9	11.3	5.3	1.8	2.1
Replicate F										2.442	1.000	1.532	0.000	0.065	6.203	4.179	3.192	1.369	1.147	2.236	1.410	1.904
Replicate Prob(F)										0.0978	0.3791	0.2265	1.0000	0.9369	0.0040	0.0212	0.0500	0.2641	0.3262	0.1179	0.2541	0.1601
Treatment F										3.042	1.000	9.198	0.000	235.565	1292.519	1523.305	42.390	80.979	71.390	137.849	1838.456	1348.853
Treatment Prob(F)										0.0005	0.4807	0.0001	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Weed Management in Herbicide-Resistant Corn.

Project Code: 01-6A-E160 Location: Belleville Research Center

Weed Code	ABUTH	IPOLA	IPOLA	IPOLA
Rating Data Type	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent
Rating Date	6-15-01	6-15-01	7-4-01	7-27-01
Trt-Eval Interval	14 DA-F	14 DA-F	56 DAP	56 DA-F

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	ABUTH Control Percent	IPOLA Control Percent	IPOLA Control Percent	IPOLA Control Percent
1	ROUNDUP READY DK626 RR									0	0	0	0
1	NONTREATED												
2	LIBERTY LINK P33G28 LL									93	93	98	98
2	BICEP II MAGNUM	5.5	L	2.89	LB A/A	2.1	QT/A	PRE	A				
3	CLEARFIELD P33P71 CL									93	95	99	99
3	BICEP II MAGNUM	5.5	L	2.89	LB A/A	2.1	QT/A	PRE	A				
4	LIBERTY LINK P33G28 LL									99	92	95	95
4	AATREX	90	WG	1.0	LB A/A	1.1	LB/A	PRE	A				
4	LIBERTY	1.67	EC	0.313	LB A/A	24	OZ/A	3-4"W	F				
4	AATREX	90	WG	0.5	LB A/A	8.9	OZ/A	3-4"W	F				
4	AMS	100	DRY	3.0	LB A/A	3	LB A/A	3-4"W	F				
5	ROUNDUP READY DK626 RR									92	95	99	99
5	BICEP II MAGNUM	5.5	L	2.89	LB A/A	2.1	QT/A	PRE	A				
6	LIBERTY LINK P33G28 LL									99	99	97	97
6	BALANCE PRO	4	SC	0.0703	LB A/A	2.25	OZ/A	PRE	A				
6	LIBERTY	1.67	EC	0.313	LB A/A	24	OZ/A	3-4"W	F				
6	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	3-4"W	F				
6	AMS	100	DRY	3.0	LB A/A	3	LB A/A	3-4"W	F				
7	CLEARFIELD P33P71 CL									99	90	93	93
7	LIGHTNING	70	WG	0.056	LB A/A	1.28	OZ/A	1-3"W	C				
7	DISTINCT	70	WG	0.175	LB A/A	4	OZ/A	1-3"W	C				
7	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	1-3"W	C				
7	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"W	C				
8	LIBERTY LINK P33G28 LL									99	99	95	96
8	DEFINE	60	WG	0.375	LB A/A	10	OZ/A	PRE	A				
8	LIBERTY	1.67	EC	0.313	LB A/A	24	OZ/A	3-4"W	F				
8	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	3-4"W	F				
8	AMS	100	DRY	3.0	LB A/A	3	LB A/A	3-4"W	F				
9	ROUNDUP READY DK626 RR									98	92	97	94
9	HARNESX XTRA	5.6	L	1.61	LB A/A	1.15	QT/A	PRE	A				
9	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	3-4"W	F				
9	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	3-4"W	F				
10	LIBERTY LINK P33G28 LL									99	99	97	97
10	LIBERTY ATZ	4.32	EC	1.35	LB A/A	40	OZ/A	3-5"W	D				
10	AMS	100	DRY	3.0	LB A/A	3	LB A/A	3-5"W	D				
11	CLEARFIELD P33P71 CL									99	95	92	92
11	LIGHTNING	70	WG	0.056	LB A/A	1.28	OZ/A	6-8"CN	E				
11	DISTINCT	70	WG	0.175	LB A/A	4	OZ/A	6-8"CN	E				
11	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	6-8"CN	E				
11	AMS	100	DRY	2.5	LB A/A	2.5	LB A/A	6-8"CN	E				

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

ABUTH IPOLA IPOLA IPOLA
 Control Control Control Control
 Percent Percent Percent Percent
 6-15-01 6-15-01 7-4-01 7-27-01
 14 DA-F 14 DA-F 56 DAP 56 DA-F

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	87	99	96	88
12	LIBERTY LINK P33G28 LL									87	99	96	88
12	ACCENT GOLD	83.8	WG			2.9	OZ/A	3-5"W	D				
12	->79406	75	WG	0.0234	LB A/A			3-5"W	D				
12	->HORNET	68.5	WG	0.128	LB A/A			3-5"W	D				
12	CLARITY	4	EC	0.125	LB A/A	4	OZ/A	3-5"W	D				
12	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	3-5"W	D				
12	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	3-5"W	D				
13	ROUNDUP READY DK626 RR									99	99	97	97
13	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	3-5"W	D				
13	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	3-5"W	D				
13	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	3-5"W	D				
14	LIBERTY LINK P33G28 LL									99	99	89	94
14	LEADOFF	5	L	0.938	LB A/A	24	OZ/A	PRE	A				
14	BASIS GOLD	90	WG	0.7875	LB A/A	14	OZ/A	3-4"W	F				
14	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	3-4"W	F				
14	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	3-4"W	F				
15	CLEARFIELD P33P71 CL									99	98	96	96
15	GUARDSMAN MAX	5	L	1.56	LB A/A	2.5	PT/A	PRE	A				
15	LIGHTNING	70	WG	0.056	LB A/A	1.28	OZ/A	6-8"CN	E				
15	DISTINCT	70	WG	0.175	LB A/A	4	OZ/A	6-8"CN	E				
15	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	6-8"CN	E				
15	AMS	100	DRY	2.5	LB A/A	2.5	LB A/A	6-8"CN	E				
16	LIBERTY LINK P33G28 LL									99	96	95	95
16	BICEP II MAGNUM	5.5	L	2.89	LB A/A	2.1	QT/A	PRE	A				
16	NORTHSTAR	47.4	WG	0.148	LB A/A	5	OZ/A	3-4"W	F				
16	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	3-4"W	F				
16	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	3-4"W	F				
17	ROUNDUP READY DK626 RR									98	95	93	93
17	HARNESS XTRA	5.6	L	2.8	LB A/A	2	QT/A	PRE	A				
17	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	6-8"CN	E				
17	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	6-8"CN	E				
18	LIBERTY LINK P33G28 LL									99	95	94	93
18	LIBERTY ATZ	4.32	EC	1.35	LB A/A	40	OZ/A	3-5"CN	B				
18	AMS	100	DRY	3.0	LB A/A	3	LB A/A	3-5"CN	B				
19	CLEARFIELD P33P71 CL									99	98	98	98
19	LIGHTNING	70	WG	0.056	LB A/A	1.28	OZ/A	3-5"CN	B				
19	MARKSMAN	3.2	L	1.0	LB A/A	2.5	PT/A	3-5"CN	B				
19	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	3-5"CN	B				
19	AMS	100	DRY	2.5	LB A/A	2.5	LB A/A	3-5"CN	B				
20	LIBERTY LINK P33G28 LL									87	93	67	63
20	OUTLOOK	6	EC	0.70	LB A/A	15	OZ/A	PRE	A				
20	DISTINCT	70	WG	0.175	LB A/A	4	OZ/A	3-4"W	F				
20	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	3-4"W	F				
20	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	3-4"W	F				
21	ROUNDUP READY DK626 RR									99	97	97	97
21	AXIOM	68	WG	0.425	LB A/A	10	OZ/A	PRE	A				
21	ROUNDUP ULTRA MAX	3.7	SL	0.75	LB AE/A	1.6	PT/A	6-8"CN	E				
21	AATREX	90	WG	0.75	LB A/A	13.3	OZ/A	6-8"CN	E				
21	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	6-8"CN	E				

Weed Code								ABUTH	IPOLA	IPOLA	IPOLA
Rating Data Type								Control	Control	Control	Control
Rating Unit								Percent	Percent	Percent	Percent
Rating Date								6-15-01	6-15-01	7-4-01	7-27-01
Trt-Eval Interval								14 DA-F	14 DA-F	56 DAP	56 DA-F

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code				
22	LIBERTY LINK P33G28 LL									99	98	96	96
22	AXIOM	68	WG	0.7225	LB A/A	17	OZ/A	PRE	A				
22	LIBERTY ATZ	4.32	EC	1.35	LB A/A	40	OZ/A	6-8"CN	E				
22	AMS	100	DRY	3.0	LB A/A	3	LB A/A	6-8"CN	E				
23	CLEARFIELD P33P71 CL									99	96	96	96
23	AXIOM	68	WG	0.7225	LB A/A	17	OZ/A	PRE	A				
23	LIGHTNING	70	WG	0.056	LB A/A	1.28	OZ/A	6-8"CN	E				
23	DISTINCT	70	WG	0.175	LB A/A	4	OZ/A	6-8"CN	E				
23	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	6-8"CN	E				
23	AMS	100	DRY	2.5	LB A/A	2.5	LB A/A	6-8"CN	E				
24	LIBERTY LINK P33G28 LL									99	95	95	95
24	FULTIME	4	SC	3.0	LB A/A	3	QT/A	PRE	A				
24	HORNET	68.5	WG	0.128	LB A/A	3	OZ/A	3-4"W	F				
24	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	3-4"W	F				
24	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	3-4"W	F				
25	LIBERTY LINK P33G28 LL									99	99	98	97
25	LIBERTY	1.67	EC	0.313	LB A/A	24	OZ/A	3-5"W	D				
25	AATREX	90	WG	1.0	LB A/A	1.1	LB/A	3-5"W	D				
25	CLASS ACT NG	100	LIQ	2.5	% V/V	2.5	%V/V	3-5"W	D				
LSD (P=.05)										3.4	3.5	6.8	6.3
Replicate F										3.861	1.963	3.803	1.645
Replicate Prob(F)										0.0279	0.1516	0.0293	0.2037
Treatment F										281.054	254.541	69.987	81.542
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001

Weed Management in Herbicide-Resistant Corn.

Project Code: 01-6A-E160 Location: Belleville Research Center

Trial Comments

1. Protocol: Aventis (trts 1-10, 12-14, 16, 20 and 24); BASF (trts 11, 15 and 17-19); Bayer (trts 21-23); and Agrilience (trt 25).
2. DAP = days after planting. DA-F = days after 3-4"W application. 14 days after 3-4"W application on 6-15-01 was also 37 days after planting.