

Dow and Bayer Programs in Conventional Corn.

Project Code: 04-10C-ME60 Location: Belleville Research Center
 Investigator: Bryan Young

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 9-1-04

Objective:

Evaluate various herbicide programs from Bayer and Dow for weed control in conventional corn.

Weed Code	Common Name	Scientific Name
1. SETFA	foxtail, giant	Setaria faberi Herrm.
2. CYPES	nutsedge, yellow	Cyperus esculentus L.
3. XANST	cocklebur, common	Xanthium strumarium L.
4. AMBEL	ragweed, common	Ambrosia artemisiifolia L.
5. IPOSS	morningglory, species	Ipomoea sp.

Crop 1: ZEAMX corn, field Variety: DKC 60-17 RR
 Planting Method: Seeded Planting Date: 5-11-04
 Rate: 28000 S/A Depth: 1.5 IN
 Row Spacing: 30 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 24 FT Reps: 3
 Tillage Type: Reduced-Till Study Design: Randomized complete block
 Previous Crop, Year: GLXMA, 2003

Field Prep./Maintenance: N 150 LB/A, P205 50 LB/A, K20 100 LB/A + 3 ton/A lime

Soil Name: Weir % OM: 2.1 pH: 5.6 CEC: 12
 Texture: Silt loam Fert. Level: P1: 80 LB/A, K: 435 LB/A

APPLICATION DESCRIPTION

	A	B	C
Application Date:	5-13-04	5-21-04	6-8-04
Time of Day:	11:00	7:00	9:30
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	V1	1-3"W
Applic. Placement:	BROSOI	BROFOL	BROFOL
Air Temp., Unit:	74 F	78 F	81 F
% Relative Humidity:	94	84	84
Wind Velocity, Unit:	5 MPH	3 MPH	7 MPH
Soil Moisture:	NORMAL	ABONOR	NORMAL

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	ZEAMX NA	ZEAMX V1	ZEAMX V4-V5
Height, Unit:	NA NA	1-3 IN	6-10 IN

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code:		SETFA	
Stage(leaves):		1-2	
Height(inches):		0-0.5	
Density:		Medium	
Weed 2 Code:		CYPES	CYPES
Stage(leaves):		3-4	5-7
Height(inches):		1-3	2-6
Density:		High	High
Weed 3 Code:		XANST	XANST
Stage(leaves):		3-4	2-4
Height(inches):		1-2	1-2
Density:		Medium	Medium
Weed 4 Code:		AMBEL	
Stage(leaves):		1-2	
Height(inches):		1-2	
Density:		Low	

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Weed 5 Code:	IPOSS	IPOSS
Stage (leaves):	1-2	1-2
Height (inches):	1-2	0-1
Density:	Low	Low

APPLICATION EQUIPMENT

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

NOTES:

Southern Illinois University

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	ZEAMX Injury Percent	ZEAMX Injury Percent	SETFA Control Percent	SETFA Control Percent	SETFA Control Percent	CYPES Control Percent	CYPES Control Percent	CYPES Control Percent	XANST Control Percent	XANST Control Percent	XANST Control Percent	AMBEL Control Percent	AMBEL Control Percent	AMBEL Control Percent	IPOSS Control Percent			
						6-8-04	6-22-04	6-8-04	6-22-04	7-6-04	6-8-04	6-22-04	7-6-04	6-8-04	6-22-04	7-6-04	6-8-04	6-22-04	7-6-04	7-6-04			
						0 DA-C	14 DA-C	0 DA-C	14 DA-C	28 DA-C	0 DA-C	14 DA-C	28 DA-C	0 DA-C	14 DA-C	28 DA-C	0 DA-C	14 DA-C	28 DA-C	28 DA-C			
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	0	0		
2	BICEP II MAGNUM	5.5 L		2.9 LB A/A		2.1 QT/A		PRE	A	0	0	99	99	99	95	94	88	93	99	98	99	99	
2	BUCTRIL+ATRAZINE	3 L		0.75 LB A/A		2.0 PT/A		1-3"W	C														
2	CALLISTO	4 SC		0.0234 LB A/A		0.75 FL OZ/A		1-3"W	C														
3	DEFINE	4 SC		0.56 LB A/A		18 FL OZ/A		PRE	A	0	0	99	99	99	83	88	79	97	99	98	99	99	
3	AATREX	90 WG		1.6 LB A/A		1.78 LB/A		PRE	A														
3	BUCTRIL+ATRAZINE	3 L		0.75 LB A/A		2.0 PT/A		1-3"W	C														
3	CALLISTO	4 SC		0.0234 LB A/A		0.75 FL OZ/A		1-3"W	C														
4	AXIOM	68 WG		0.68 LB A/A		16 OZ/A		PRE	A	0	0	99	99	99	88	86	87	96	99	99	99	99	
4	AATREX	90 WG		1.6 LB A/A		1.78 LB/A		PRE	A														
4	BUCTRIL+ATRAZINE	3 L		0.75 LB A/A		2.0 PT/A		1-3"W	C														
4	CALLISTO	4 SC		0.0234 LB A/A		0.75 FL OZ/A		1-3"W	C														
5	DEFINE	4 SC		0.312 LB A/A		10 FL OZ/A		PRE	A	0	0	99	99	99	80	87	78	95	99	98	99	99	
5	AATREX	90 WG		0.5 LB A/A		0.56 LB/A		PRE	A														
5	DEFINE	4 SC		0.47 LB A/A		15 FL OZ/A		1-3"W	C														
5	AATREX	90 WG		1.0 LB A/A		1.11 LB/A		1-3"W	C														
5	PRIME OIL COC	100 LIQ		1.0 QT/A		1 QT/A		1-3"W	C														
6	DEFINE	4 SC		0.56 LB A/A		18 FL OZ/A	V1		B								0		99	99			
6	AATREX	90 WG		1.5 LB A/A		1.67 LB/A	V1		B								75	67		77	81		
6	PRIME OIL COC	100 LIQ		1.0 QT/A		1 QT/A	V1		B														
7	USA 2005	4 SC		0.5 LB A/A		16 FL OZ/A		PRE	A	0	0	99	99	99	85	78	67	98	98	97	99	99	
7	AATREX	90 WG		1.0 LB A/A		1.11 LB/A		PRE	A														
7	BUCTRIL+ATRAZINE	3 L		0.75 LB A/A		2.0 PT/A		1-3"W	C														
8	FULTIME	4 SC		3.0 LB A/A		3 QT/A	V1		B								0		99	99			
8	HORNET	68.5 WG		0.128 LB A/A		3 OZ/A	V1		B								76	70		96	95		
8	PRIME OIL COC	100 LIQ		1.0 % V/V		1 % V/V	V1		B														
9	KEYSTONE	5.25 L		3.5 LB A/A		2.7 QT/A		PRE	A	0	0	99	99	99	85	73	60	93	90	92	99	99	
9	HORNET	68.5 WG		0.128 LB A/A		3 OZ/A		PRE	A														
10	KEYSTONE	5.25 L		3.5 LB A/A		2.7 QT/A		PRE	A	0	0	99	99	99	91	92	86	97	99	99	99	99	
10	HORNET	68.5 WG		0.128 LB A/A		3 OZ/A		1-3"W	C														
10	AATREX	90 WG		0.25 LB A/A		0.28 LB/A		1-3"W	C														
10	CALLISTO	4 SC		0.0234 LB A/A		0.75 FL OZ/A		1-3"W	C														
10	PRIME OIL COC	100 LIQ		1.0 % V/V		1 % V/V		1-3"W	C														
10	AMS	100 DRY		2.5 LB A/A		2.5 LB/A		1-3"W	C														
LSD (P=.05)						0.0	0.0	0.0	0.0	0.0	0.0	7.9	6.3	8.0	3.5	4.8	3.2	0.0	1.3	1.3	4.8		
Replicate F						0.000	0.000	0.000	0.000	0.000	2.459	1.663	0.555	7.021	2.140	1.588	0.000	1.000	0.745	2.732			
Replicate Prob(F)						1.0000	1.0000	1.0000	1.0000	1.0000	0.1216	0.2174	0.5838	0.0077	0.1466	0.2316	1.0000	0.3874	0.4887	0.0920			
Treatment F						0.000	0.000	0.000	0.000	0.000	141.478	166.067	91.056	863.140	358.102	783.043	0.000	5497.563	5038.573	327.659			
Treatment Prob(F)						1.0000	1.0000	1.0000	1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	1.0000	0.0001	0.0001	0.0001		

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Trial Comments

1. Protocol: Bayer, Dow.
2. Ratings: CI and WC prior to POST and 14 and 28 DA "C".
3. DA-C = Days after 1-3"W application. 0 DA-C was prior to 1-3"W application.
0 DA-C was also 26 and 18 days after the PRE and V1 applications.
14 DA-C was also 40 and 32 days after the PRE and V1 applications.
28 DA-C was also 54 and 46 days after the PRE and V1 applications.