

(01-LCC-3)

Evaluation of Axiom, Epic, FulTime, Degree Xtra, Bicep II Magnum and Balance Pro for woolly cupgrass control in corn, Lewis, Iowa, 2001. Owen, Micheal D.K., James F. Lux, and Damian D. Franzenburg. The purpose of this study was to evaluate chloracetamide herbicides for woolly cupgrass efficacy and crop phytotoxicity on a glufosinate resistant corn hybrid. The soil was a Marshall, Exira, silty clay loam with a pH 6.0 and 5.0% organic matter. The experimental design was a randomized complete block with three replications and plots were 10 by 25 ft. The 2000 crop was soybean. Fertilization included 130 lb/A actual N applied as anhydrous ammonia. Tillage included a spring cultivation. Crop residue on the soil surface was 20 to 25% at planting. "Pioneer hybrid 33P69 LL" corn was planted 2 inches deep on May 9, at 30,200 seeds/A in 30-inch rows. May rainfall included: 0.44, 0.84, 0.23, 0.49, 0.41, 0.33, 0.05, 1.35, 1.78, 0.06, 0.01, 0.01, 0.09, 0.13, 0.02, 1.2 and 0.34 inches on May 1, 2, 3, 4, 9, 10, 12, 13, 20, 23, 24, 25, 27, 28, 29, 30 and 31, respectively. Total rainfall for May was 7.79 inches. June rainfall included: 0.20, 0.15, 0.44, 0.74, 0.46, 0.43, 0.20, 0.03 and 0.01 inches on June 1, 4, 5, 10, 14, 18, 19, 20 and 21, respectively. Total rainfall for June was 2.66 inches. July rainfall included: 0.60 inches and 0.46 inches from July 1 through 15 and 16 through 31, respectively. Rainfall total for August was 1.65 inches. Application information is listed below:

Date	May 9
Treatment	PRE
Sprayer	
gpa	20
psi	30
nozzle	11002
Temperature (C)	
air	24
soil (4 inch)	14
Soil moisture	dry
Wind (mph)	10-15 SW
Sky	clear
Relative	
humidity (%)	38%

No significant differences in corn stand between treatments were observed. All treatments demonstrated excellent crop safety when noted on June 6 and 13. Excellent woolly cupgrass, common waterhemp and common lambsquarters control was achieved with all treatments when observed on June 13. On July 12, Harness Xtra and FulTime plus Balance Pro treatments no longer provided acceptable woolly cupgrass control, while all others did. (Dept. of Agronomy, Iowa State University, Ames)

DATA MEAN

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CREATED: 06/05/2001 **REVISED:** 11/30/2001

COMPLETED: N

PROJECT TYPE: HERBICIDE

LOCATION: LEWIS, IA

RESEARCHED BY: IA State University

DESIGN: RANDOMIZED COMPLETE BLOCK DESIGN

PLOT SIZE: 10.00 FT WIDE X 25.00 FT LONG

REPS: 03

TRT NUM	TREATMENT COMPONENT	DOSAGE			ZEAMD	ZEAMD	ZEAMD	ERBVI	AMATA
		RATE	UNIT	TM	17.5 FT 06/13/01	PHY % 06/06/01	PHY % 06/13/01	CON % 06/13/01	CON % 06/13/01
1A	UNTREATED CHECK	0.00	NA	0	19	0	0	0	0
2A	AXIOM (68DF)	0.98	LAA	1	23	0	0	95	99
	B»HORNET WDG (68.5WG)	0.128	LAA	1					
3A	HARNESS XTRA (6SC)	3.45	LAA	1	21	0	0	92	99
4A	EPIC (58DF)	0.54	LAA	1	23	0	0	90	99
5A	EPIC (58DF)	0.44	LAA	1	24	0	0	96	99
	B ATRAZINE 90DF (WG)	0.90	LAA	1					
6A	USA 2001 (71.5DF)	0.58	LAA	1	20	0	0	95	99
7A	USA 2001 (71.5DF)	0.72	LAA	1	23	0	0	95	99
8A	USA 2001 (71.5DF)	0.58	LAA	1	22	0	0	93	99
	B ATRAZINE 90DF (WG)	0.90	LAA	1					
9A	USA 2001 (71.5DF)	0.72	LAA	1	22	0	0	93	99
	B ATRAZINE 90DF (WG)	0.90	LAA	1					
10A	FULTIME (4SC)	2.00	LAA	1	20	0	0	87	99
	B»BALANCE PRO (4SC)	0.07	LAA	1					
11A	DEGREE XTRA (4.04CS)	3.54	LAA	1	22	0	0	95	99
	B»BALANCE PRO (4SC)	0.063	LAA	1					
12A	BICEP II MAGNUM (5.5L)	2.75	LAA	1	24	0	0	93	99
	B»BALANCE PRO (4SC)	0.07	LAA	1					
LSD (0.05)					4.62	0.00	0.00	7.76	0.00

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TRT NUM	TREATMENT COMPONENT	DOSAGE			CHEAL	ERBVI	AMATA	CHEAL	ERBVI
		RATE	UNIT	TM	CON % 06/13/01	CON % 06/26/01	CON % 06/26/01	CON % 06/26/01	CON % 07/12/01
1A	UNTREATED CHECK	0.00	NA	0	0	0	0	0	0
2A	AXIOM (68DF)	0.98	LAA	1	99	93	99	99	90
	B»HORNET WDG (68.5WG)	0.128	LAA	1					
3A	HARNES XTRA (6SC)	3.45	LAA	1	99	77	99	99	68
4A	EPIC (58DF)	0.54	LAA	1	99	94	98	99	90
5A	EPIC (58DF)	0.44	LAA	1	99	93	99	99	91
	B ATRAZINE 90DF (WG)	0.90	LAA	1					
6A	USA 2001 (71.5DF)	0.58	LAA	1	99	88	96	98	87
7A	USA 2001 (71.5DF)	0.72	LAA	1	99	90	98	99	90
8A	USA 2001 (71.5DF)	0.58	LAA	1	99	95	99	99	92
	B ATRAZINE 90DF (WG)	0.90	LAA	1					
9A	USA 2001 (71.5DF)	0.72	LAA	1	99	96	98	99	93
	B ATRAZINE 90DF (WG)	0.90	LAA	1					
10A	FULTIME (4SC)	2.00	LAA	1	99	80	98	99	73
	B»BALANCE PRO (4SC)	0.07	LAA	1					
11A	DEGREE XTRA (4.04CS)	3.54	LAA	1	99	99	99	99	95
	B»BALANCE PRO (4SC)	0.063	LAA	1					
12A	BICEP II MAGNUM (5.5L)	2.75	LAA	1	99	90	99	99	87
	B»BALANCE PRO (4SC)	0.07	LAA	1					
LSD (0.05)					0.00	10.21	2.84	1.13	13.00

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REPS: 03

TRT NUM	TREATMENT COMPONENT	DOSAGE		TM	AMATA	CHEAL
		RATE	UNIT		CON % 07/12/01	CON % 07/12/01
1A	UNTREATED CHECK	0.00	NA	0	0	0
2A	»AXIOM (68DF)	0.98	LAA	1	98	99
	B»HORNET WDG (68.5WG)	0.128	LAA	1		
3A	HARNESS XTRA (6SC)	3.45	LAA	1	96	99
4A	»EPIC (58DF)	0.54	LAA	1	96	99
5A	»EPIC (58DF)	0.44	LAA	1	99	99
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6A	»USA 2001 (71.5DF)	0.58	LAA	1	95	98
7A	»USA 2001 (71.5DF)	0.72	LAA	1	98	99
8A	»USA 2001 (71.5DF)	0.58	LAA	1	95	99
	B ATRAZINE 90DF (WG)	0.90	LAA	1		
9A	»USA 2001 (71.5DF)	0.72	LAA	1	98	99
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	B»BALANCE PRO (4SC)	0.07	LAA	1		
11A	»DEGREE XTRA (4.04CS)	3.54	LAA	1	99	99
	B»BALANCE PRO (4SC)	0.063	LAA	1		
12A	»BICEP II MAGNUM (5.5L)	2.75	LAA	1	99	99
	B»BALANCE PRO (4SC)	0.07	LAA	1		
LSD (0.05)					4.00	1.13

» = SUPPLEMENTAL CHEMICAL

* TIMING CODES

00 = UNTRCHK / UNTREATED TIMING (FP)

01 = PREPRE / PRE 05/09/2001(1)