Waterhemp Control with Priority Corn Herbicide.

Project Code: 04-51E-MS40 Location: Belleville Research Center
Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

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

Objective:
Determine the efficacy of Priority on large waterhemp plants in corn.

Weed	Code	Common Name	Scientific Name
1.	AMATA	waterhemp, common	Amaranthus rudis Sauer

Crop 1: ZEAMX corn, field Variety: P33P69 LL
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: 27 FT Reps: 3
Tillage Type: Reduced-Till Study Design: Randomized complete block
Previous Crop, Year: GLXMA, 2003

Field Prep./Maintenance: N 150 LB/A, P2O5 50 LB/A, K2O 100 LB/A

Soil Name: Weir % OM: 2.2 pH: 6.7 CEC: 11
Texture: Silt loam Fert. Level: P1: 90 LB/A, K: 409 LB/A

APPLICATION DESCRIPTION

	A
Application Date:	6-14-04
Time of Day:	9:30
Application Method:	Spray
Application Timing:	4-8"W
Applic. Placement:	BROFOL
Air Temp., Unit:	82 F
% Relative Humidity:	76
Wind Velocity, Unit:	2 MPH
Soil Moisture:	ABONOR

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	ZEAMX V5
Height, Unit:	16-20 IN

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code:	AMATA
Stage(leaves):	6-30
Height(inches):	4-12
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:

Southern Illinois University

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	ZEAMX Injury Percent 6-17-04 3 DA-A	ZEAMX Injury Percent 6-21-04 7 DA-A	ZEAMX Injury Percent 7-5-04 21 DA-A	AMATA Control Percent 6-17-04 3 DA-A	AMATA Control Percent 6-21-04 7 DA-A	AMATA Control Percent 7-5-04 21 DA-A
1	NONTREATED									0	0	0	0	0	0
2	PRIORITY	62.5	WG	0.039	LB A/A	1	OZ/A	4-8"W	A	10	6	1	50	72	65
2	AMS	100	DRY	2.0	LB A/A	2	LB/A	4-8"W	A						
2	NIS	100	LIQ	0.25	% V/V	0.25	% V/V	4-8"W	A						
3	PRIORITY	62.5	WG	0.039	LB A/A	1	OZ/A	4-8"W	A	10	8	3	50	84	82
3	AMS	100	DRY	2.0	LB A/A	2	LB/A	4-8"W	A						
3	COC	100	LIQ	1.0	% V/V	1	% V/V	4-8"W	A						
4	PRIORITY	62.5	WG	0.039	LB A/A	1	OZ/A	4-8"W	A	10	9	4	50	87	82
4	AATREX	90	WG	0.5	LB A/A	0.56	LB/A	4-8"W	A						
4	AMS	100	DRY	2.0	LB A/A	2	LB/A	4-8"W	A						
4	NIS	100	LIQ	0.25	% V/V	0.25	% V/V	4-8"W	A						
5	PRIORITY	62.5	WG	0.039	LB A/A	1	OZ/A	4-8"W	A	10	8	5	75	89	82
5	AATREX	90	WG	0.5	LB A/A	0.56	LB/A	4-8"W	A						
5	AMS	100	DRY	2.0	LB A/A	2	LB/A	4-8"W	A						
5	COC	100	LIQ	1.0	% V/V	1	% V/V	4-8"W	A						
6	PRIORITY	62.5	WG	0.039	LB A/A	1	OZ/A	4-8"W	A	8	7	4	50	88	83
6	BANVEL	4	EC	0.125	LB A/A	4	FL OZ/A	4-8"W	A						
6	AMS	100	DRY	2.0	LB A/A	2	LB/A	4-8"W	A						
6	NIS	100	LIQ	0.25	% V/V	0.25	% V/V	4-8"W	A						
7	PRIORITY	62.5	WG	0.039	LB A/A	1	OZ/A	4-8"W	A	8	7	4	50	84	78
7	BANVEL	4	EC	0.187	LB A/A	6	FL OZ/A	4-8"W	A						
7	AMS	100	DRY	2.0	LB A/A	2	LB/A	4-8"W	A						
7	NIS	100	LIQ	0.25	% V/V	0.25	% V/V	4-8"W	A						
8	PRIORITY	62.5	WG	0.039	LB A/A	1	OZ/A	4-8"W	A	8	10	4	75	97	94
8	BANVEL K + ATRAZINE	3.2	L	0.6	LB A/A	1.5	PT/A	4-8"W	A						
8	AMS	100	DRY	2.0	LB A/A	2	LB/A	4-8"W	A						
8	NIS	100	LIQ	0.25	% V/V	0.25	% V/V	4-8"W	A						
LSD (P=.05)										2.6	2.8	2.4	0.0	6.6	12.5
Replicate F										4.200	4.306	1.861	0.000	1.375	8.988
Replicate Prob(F)										0.0373	0.0349	0.1920	1.0000	0.2849	0.0031
Treatment F										15.400	11.190	5.101	0.000	205.835	51.432
Treatment Prob(F)										0.0001	0.0001	0.0047	1.0000	0.0001	0.0001

Trial Comments

1. Protocol: TenKoz.
2. Ratings: CI and WC 3, 7 and 21 DAT.
3. Blanket application of Hornet at 3 oz/A + COC at 1% was applied on 5-24-04 to select for waterhemp.
4. DA-A = Days after 4-8"W application.
5. Crop injury at 3 DA-A was speckling and bleaching.