

Valor plus Boundary Combinations for PPO-resistant Waterhemp.

Project Code: 03-Pierron-S30 Location: Pierron, IL

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Pierron IL 62273 USA
 Trial Status: Final Updated: 9-23-03

Objective:

Evaluate Valor plus Boundary for control of PPO-resistant waterhemp in no-till.

Weed Code	Common Name	Scientific Name
1. SETFA	foxtail, giant	Setaria faberi Herrm.
2. AMATA	waterhemp, common	Amaranthus rudis Sauer

Crop 1:	GLXMA soybean	Variety:	P94B23 RR
Planting Method:	Seeded	Planting Date:	6-22-03
Rate:	75 lb/A	Depth:	1.0 IN
Row Spacing:	15 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	26 FT	Reps:	3
Tillage Type:	No-Till	Study Design:	Randomized complete block		
Previous Crop, Year:	GLXMA, 2002				

Field Prep./Maintenance: N 0 LB/A, P205 0 LB/A, K20 0 LB/A

APPLICATION DESCRIPTION

	A	B
Application Date:	4-23-03	6-10-03
Time of Day:	9:30	15:00
Application Method:	Spray	Spray
Application Timing:	14EPP	PRE
Applic. Placement:	BROFOL	BROFOL
Air Temp., Unit:	55 F	78 F
% Relative Humidity:	60	88
Wind Velocity, Unit:	6 MPH	5 MPH
Dew Presence (Y/N):	N	N
Soil Moisture:	ABONOR	ABONOR

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	GLXMA NA	GLXMA NA
Height, Unit:	NA NA	NA NA

APPLICATION EQUIPMENT

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

NOTES:

Not harvested.

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Weed Code	GLXMA	GLXMA	GLXMA	SETFA	SETFA	AMATA	AMATA	AMATA
Crop Code	Injury	Injury	Injury	Control	Control	Control	Control	Control
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit	6-30-03	7-14-03	8-5-03	6-30-03	7-14-03	6-30-03	7-14-03	8-5-03
Rating Date	8 DAR	22 DAR	44 DAR	8 DAR	22 DAR	8 DAR	22 DAR	44 DAR
Trt-Eval Interval								

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code								
1	NONTREATED									0	0	0	0	0			
2	VALOR	51	WG	0.078	LB A/A	2.45	OZ/A	14EPP	A	0	0	0	77	63			
3	BOUNDARY	6.5	EC	1.22	LB A/A	1.5	PT/A	14EPP	A	0	0	0	90	85			
4	VALOR	51	WG	0.078	LB A/A	2.45	OZ/A	14EPP	A	0	0	0	87	77			
4	BOUNDARY	6.5	EC	1.22	LB A/A	1.5	PT/A	14EPP	A								
5	VALOR	51	WG	0.078	LB A/A	2.45	OZ/A	PRE	B	0	0	0	23	23			
6	BOUNDARY	6.5	EC	1.22	LB A/A	1.5	PT/A	PRE	B	0	0	0	23	23			
7	VALOR	51	WG	0.078	LB A/A	2.45	OZ/A	PRE	B	0	0	0	47	52			
7	BOUNDARY	6.5	EC	1.22	LB A/A	1.5	PT/A	PRE	B								
LSD (P=.05)										0.0	0.0	0.0	53.3	47.2	44.5	35.5	46.0
Replicate F										0.000	0.000	0.000	0.101	0.210	0.982	0.336	0.076
Replicate Prob(F)										1.0000	1.0000	1.0000	0.9047	0.8136	0.4027	0.7214	0.9272
Treatment F										0.000	0.000	0.000	4.234	4.222	5.951	8.597	4.767
Treatment Prob(F)										1.0000	1.0000	1.0000	0.0161	0.0163	0.0044	0.0009	0.0104

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Trial Comments

1. Protocol: Valent.
2. Ratings: CI 14 DAP; CI and WC 28 and 56 DAP.
3. Blanket application of Cornerstone + NIS at 1.0 qt/A + 0.5 %v/v to all plots, including the nontreated at 14EPP on 4-23-03.
4. At 14 days after original planting, not possible to rate crop injury due to poor soybean stand, crop was replanted. DAR = days after the replant.
5. Ratings at 8, 22 and 44 days after replant were also 20, 34 and 56 days after the PRE application, respectively.