

Control of Little Barley in Winter Wheat.

02-2C-MW70

OBJECTIVE: Determine the effectiveness of various herbicides for control/suppression of little barley in winter wheat.

SUMMARY: In this study fall and spring applications of Olympus, Everest, Maverick, Raptor, and Harmony Extra were evaluated for their ability to control little barley. No wheat injury was observed from any herbicide treatment except Raptor applied in either the fall or the spring. Since the wheat variety used in this trial was not imidazolinone tolerant, wheat injury from Raptor was expected. Preemergence treatments of Roundup UltraMax and Gramoxone Max provided excellent control of little barley at 14 and 28 days after treatment (DAT) in the fall and on April 15. Fall applications of Olympus plus Axiom or Maverick controlled only 50% of little barley at 14 and 28 DAT, however, little barley control was 95 to 97% from these treatments when evaluated on April 15. The fall application of Olympus alone controlled less than 20% of little barley in the fall but control had increased to 72% by April 15. Spring applications of Olympus and Maverick controlled 98 to 100% of little barley by 28 DAT. Raptor controlled less than 70% of little barley at all evaluation timings, regardless of whether the application was made in the fall or spring. Both fall and spring applications of Everest and Harmony Extra provided no control of little barley. Wheat yield was 35 bu/A in the nontreated plots. Only plots treated with Roundup UltraMax or Gramoxone Max preemergence yielded significantly greater than the nontreated plots.

HERBICIDES

AXIOM 68 WG
 EVEREST 70 WG
 GRAMOXONE MAX 3 SL
 HARMONY EXTRA 75 WG
 MAVERICK 75 WG
 OLYMPUS 70 WG
 RAPTOR 1 AS
 ROUNDUP ULTRA MAX 3.7 SL

WEEDS

barley, little

CROP

wheat, winter

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

Control of Little Barley in Winter Wheat.

Project Code: 02-2C-MW70 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 11-6-02

Objective:

Determine the effectiveness of various herbicides for control/suppression of little barley in winter wheat.

Weed Code Common Name Scientific Name
 1. HORPU barley, little Hordeum pusillum Nutt.

Crop 1: TRZAW wheat, winter Variety: Pioneer 25R78
 Planting Method: Seeded Planting Date: 10-22-01
 Rate: 1.2 millionS/A Depth: 1.0 IN
 Row Spacing: 7.5 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 28 FT Reps: 3
 Tillage Type: No-Till Study Design: Randomized complete block
 Previous Crop, Year: GLXMA, 2001

Field Prep./Maintenance: N 110 LB/A, P2O5 0 LB/A, K2O 0 LB/A
 Split application: 30 and 80 lb N/A on Oct-22-01 and Feb-5-02, respectively.

Soil Name: Weir % OM: 1.5 pH: 6.5 CEC: 8
 Texture: Silt loam Fert. Level: P1: 88 LB/A, K: 265 LB/A

APPLICATION DESCRIPTION

	A	B	C
Application Date:	10-27-01	11-21-01	4-1-02
Time of Day:	10:00	10:00	8:00
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	FALL	SPRING
Applic. Placement:	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	40 F	55 F	46 F
% Relative Humidity:	50	50	96
Wind Velocity, Unit:	5 MPH	5 MPH	3 MPH

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	TRZAW NA	TRZAW F1	TRZAW F5
Height, Unit:	NA NA	3-4 IN	4-6 IN

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code:	HORPU	HORPU	HORPU
Stage(leaves):	3-4	3-4	5-6
Height(inches):	1-3	1-4	4-6
Density:	Low	Low	Medium

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:	8002	8002	8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	20 GPA	20 GPA	20 GPA

NOTES:

Harvested Jun-19-02, (7) 7.5 inch rows by 25 ft.

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Trial Comments

1. Protocol: BASF; DuPont; Monsanto; Bayer; Syngenta.
2. DAT = Days after treatment;
14 and 28 DA PRE application on 11-10-01 and 11-24-01, respectively;
14 and 28 DAT FALL application on 12-5-01 and 12-19-02, respectively;
14 and 28 DAT SPRING application on 4-15-02 and 4-29-02, respectively.