

Balance Herbicide on Corn

Steve Ruhl, Agriculture and Natural Resources Extension Agent
Ed Lentz, Extension Agronomy Specialist

Objective

To evaluate the effectiveness of combinations of existing herbicides with a new preemergence herbicide called Balance.

Background

Cooperator:	Tom Weiler	Fertilizer:	180 lb/A NH ₃
County:	Morrow	Herbicides:	Various, applied May 12
Nearest Town:	Chesterville	Variety:	Golden Harvest 2515
Soil Type:	Millgrove	Planting Date:	May 6, 1998
Tillage:	Fall chisel, field cultivate	Planting Rate:	27,600 seeds/A
Drainage:	Systematic	Harvest Date:	October 15, 1998
Previous Crop:	Soybeans	Harvest Pop.:	25,200 plants/A (avg.)
Soil Test:	pH 7.0, P 23 ppm, K 154 ppm		

Methods

Eight different treatments were replicated four times in a random block design. Individual plot size was 10' wide x 40' long. An untreated control was left to determine the weed pressure at the site. The treatments were rated on their effectiveness in controlling annual grasses, lambsquarters, giant ragweed, and velvetleaf 86 days after application (August 6). The weed pressure was light to moderate at this site.

Results

Pre-Emerge Treatment	Rate/A	Weed Control Rating (%)				Herbicide Cost (\$/A)	Total Cost (\$/A)*
		Annual Grass	Lambs-quarter	Giant Ragweed	Velvet-leaf		
Balance	2 oz	90.0 c	100 a	97.8 b	99	16	20
Balance	2 oz	90.3c	100 a	97.8 b	100	16	29.38
Dual II	1 pt					9.38	
Balance	2 oz	91.0 c	100 a	100 a	100	16	31.4
Bicep II	1.2 qt					11.4	
Balance	2 oz	99.3 a	100 a	100 a	100	16	31.88
Harness Xtra	1.25 qt					11.88	
Balance	2 oz	90.3 c	100 a	100 a	100	16	24.97
Atrazine	1.5 lb					4.97	
Bicep II	2.7 qt	88.3 c	92.0 b	100 a	100	25.65	29.65

Balance	2 oz					16	
Bicep II	1.2 qt	91.0 c	100 a	100 a	100	11.4	34.24
Simazine	0.75 lb					2.84	
Balance	2 oz					16	
Dual II	1 pt	94.8 b	100 a	100 a	100	9.38	34.35
Atrazine	1.5 lb					4.97	
LSD (0.05%)		3.7	1.1	1.1	NS		
CV		2.80%	1.10%	0.80%	0.70%		

* Application cost \$4.00/A included in each treatment. Prices used were in-season retail prices. Weed control ratings equal percent of weeds controlled relative to untreated check. Average of four replications.

Treatment means followed by the same letter are not significantly different from each other.

Summary and Notes

In the spring Balance was an experimental preemergence corn herbicide with activity on annual grasses and broadleaf weeds. During September 1998 Balance received a full label for use by the EPA. Balance looks to be a good herbicide choice for producers. According to this trial, grass control was significantly enhanced when a half rate of Harness Xtra was added to Balance. Giant ragweed control was also improved by adding other preemergence herbicides with the exception of Dual II. Because of the light to moderate weed pressure, the weed control results were all acceptable. When Balance is used in addition to reduced rates of traditional corn herbicides, it should provide excellent control over a wide variety of weed pressures, except for giant ragweed, morningglory, or common cocklebur.

For additional information, contact:

Steve Ruhl
The Ohio State University Extension
ruhl.1@osu.edu