

Glyphosate-resistant volunteer corn control in glyphosate-resistant soybeans at Lamberton, MN in 2004. Getting, Jodie K., and Bruce D. Potter. The objective of this study was to evaluate tank-mix partners with glyphosate for the control of glyphosate-resistant volunteer corn in glyphosate-resistant soybeans. This study was conducted on a Normania loam soil containing 4.2% organic matter, pH 6.5 and soil test P and K levels of 60 and 316 lb/A, respectively. A randomized complete block design with four replications and a plot size of 10 by 30 ft was used. The site was planted to oats in 2003 and was fall chiseled. On May 10, 2004, Asgrow 'AG 2107' glyphosate-resistant soybeans were planted in 30-inch rows at a seeding rate of 160,000 seeds/A. Glyphosate-resistant corn was broadcast seeded over the entire plot area. All treatments were applied with a tractor-mounted sprayer delivering 20 gpa at a pressure of 40 psi. The sprayer was equipped with 8002 flat-fan nozzles spaced 15 inches apart on the boom. Application dates, environmental conditions, plant sizes and rainfall data are listed below:

Date	June 28
Treatment	POST II
Temperature (F)	
air	73
soil (4 inch)	68
Relative humidity	33
(%)	
Wind (mph)	W 2-5
Sky	clear
Soil moisture	dry
Soybean	
leaf no.	V3
height (inch)	11
Volunteer corn	
leaf no.	V7
height (inch)	18
no./ft ²	4
Rainfall after application (inch)	
1 week	0.75
2 week	1.55
3 week	0.02

(Southwest Research and Outreach Center, University of Minnesota, Lamberton).

Table. Glyphosate-resistant volunteer corn control in glyphosate-resistant soybeans at Lamberton, MN in 2004 (Gettling and Potter).

Treatment ^a	Rate (oz/A, lb/A or %)	Volunteer corn		
		7/19	7/26	9/20
<u>POST I (4-inch weeds)/POST II (18-inch volunteer corn)</u>				
Roundup Weathermax/ Select + Roundup Weathermax + AMS	22 oz/ 4 oz + 22 oz + 3.4 lb	89	84	80
Roundup Weathermax/ V-10137 + Roundup Weathermax + AMS	22 oz/ 8 oz + 22 oz + 3.4 lb	97	96	97
Roundup Weathermax/ Select + Roundup Weathermax + AMS	22 oz/ 3 oz + 22 oz + 3.4 lb	85	78	78
Roundup Weathermax/ V-10137 + Roundup Weathermax + AMS	22 oz/ 6 oz + 22 oz + 3.4 lb	97	97	97
Roundup Weathermax/ Fusilade DX + Touchdown Total + AMS	22 oz/ 4 oz + 24 oz + 3.4 lb	92	90	90
Roundup Weathermax/ Fusilade DX + Touchdown Total + COC + AMS	22 oz/ 4 oz + 24 oz + 0.5% + 3.4 lb	98	97	97
Roundup Weathermax/ Fusilade DX + Touchdown Total + AMS	22 oz/ 6 oz + 24 oz + 3.4 lb	96	94	96
Roundup Weathermax/ Fusilade DX + Touchdown Total + COC + AMS	22 oz/ 6 oz + 24 oz + 0.5% + 3.4 lb	96	95	96
Roundup Weathermax/ Assure II + Roundup Weathermax + AMS	22 oz/ 5 oz + 22 oz + 3.4 lb	100	99	98
<u>Check</u>				
Weedy check		0	0	0
	LSD (0.10)	3.4	4.6	5.4

^a COC = crop oil concentrate; AMS = spray grade ammonium sulfate.