

Control of volunteer glyphosate resistant corn with Targa, Select, Select Max and Fusilade in glyphosate resistant soybeans at Lamberton, MN in 2008.

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The objective of this study was to evaluate Targa, Select, Select Max, and Fusilade tank mixed with glyphosate for 8 to 12-inch volunteer corn control in soybeans. This study was conducted on a Normania loam soil containing 3.8% organic matter, pH 6.1 and soil test P and K levels of 64 and 296 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 2007 and was fall chiseled. Glyphosate resistant corn was broadcast seeded over the entire plot area. On May 20, 2008, Asgrow 'AG 2002' glyphosate resistant soybeans were planted in 30-inch rows at a seeding rate of 160,000 seeds/A. Glyphosate was applied on June 16 to the entire plot area for annual weed control. On July 29, all plots were treated with Warrior for soybean aphid control. 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 23
Treatment	POST
Temperature (F)	
air	77
soil (4 inch)	80
Relative humidity (%)	34
Wind (mph)	calm
Sky	cloudy
Soil moisture	dry
Soybean	
leaf no.	V3
height (inch)	6
Volunteer corn	
leaf no.	5-collar
height (inch)	8 to 12
no./ft ²	4
Rainfall after application (inch)	
1 week	0.61
2 week	0.00
3 week	0.02

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

Table. Control of volunteer glyphosate resistant corn with Targa, Select, Select Max and Fusilade in glyphosate resistant soybeans at Lamberton, MN in 2008 (Getting).

Treatment ^a	Rate	Volunteer corn			Yield ^b
		Jul 2	Jul 16	Aug 11	
POST (8 to 12-inch volunteer corn)	(oz/A or %)	-(% control)-			(bu/A)
Targa + Touchdown Total + NIS + AMS	5 oz + 24 oz + 0.125% + 2.5 lb	97 a	96 a	95 b	49.7 a
Select + Touchdown Total + NIS + AMS	4 oz + 24 oz + 0.125% + 2.5 lb	94 b	91 b	95 b	51.4 a
Select Max + Touchdown Total + NIS + AMS	6 oz + 24 oz + 0.125% + 2.5 lb	96 ab	96 a	98 a	51.7 a
Fusilade + Touchdown Total + COC + AMS	4 oz + 24 oz + 0.5% + 2.5 lb	97 a	94 a	97 a	50.4 a
Volunteer glyphosate corn check					
Touchdown Total + AMS	24 oz + 2.5 lb	0 c	0 c	0 c	-
	LSD (0.10)	1.5	2.5	2.0	ns

^a COC = Agrilience Prime Oil COC, crop oil concentrate; NIS = Cornbelt Premier 90 NIS, nonionic surfactant; AMS = Cornbelt Premier AMS, spray grade ammonium sulfate.

^b Yield adjusted to 13% moisture.