

## Annual weed control with pre-mixed soil applied herbicides in corn at Lamberton, MN in 2008.

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The objective of this study was to evaluate pre-mix corn soil applied herbicides for annual grass and annual broadleaf weed control in corn. This study was conducted on a Ves loam soil containing 4.3% organic matter, pH 6.7 and soil test P and K levels of 24 and 326 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 soybeans in 2007 and was fall chiseled. The area was fertilized with 160-60-60 lbs of N, P, and K, respectively. On May 14, 2008, Pioneer '37N16' glufosinate resistant/glyphosate resistant field corn was planted in 30-inch rows at a seeding rate of 33,000 seeds/A. 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 densities 4 weeks after planting and rainfall data are listed below:

Date	May 15
Treatment	PRE
Temperature (F)	
air	64
soil (4 inch)	64
Relative humidity (%)	34
Wind (mph)	SW 6
Sky	clear
Soil moisture	dry
Green foxtail no./ft <sup>2</sup>	24
Common lambsquarters no./ft <sup>2</sup>	4
Tall waterhemp no./ft <sup>2</sup>	5
Rainfall after application (inch)	
1 week	0.10
2 week	0.50
3 week	0.58

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

**Table. Annual weed control with pre-mixed soil applied herbicides in corn at Lamberton, MN in 2008 (Getting).**

Treatment	Rate (pt/A)	Pre-mix products	Green foxtail			Common lambsquarters			Tall waterhemp		
			Jun 4	Jun 16	Jul 10	Jun 4	Jun 16	Jul 10	Jun 4	Jun 16	Jul 10
-----(% control)-----											
Surestart	1.75 pt	Surpass 0.82lb + Stinger 0.063lb + Python 0.027lb	81 b	88 a	81 a	83 b	88 c	83 b	95 a	98 a	97 a
Harness Xtra	2.6 pt	Harness 1.0lb + atrazine 0.82lb	88 a	93 a	85 a	93 a	96 a	95 a	98 a	97 ab	97 a
Bicep II Magnum	2.1 pt	Dual II Magnum 0.63lb + atrazine 0.81lb	70 c	57 c	54 c	72 c	70 d	67 c	90 b	92 c	94 b
Guardman Max	1.9 pt	Outlook 0.4lb + atrazine 0.79lb	81 ab	80 b	70 b	89 ab	90 bc	90 ab	97 a	97 ab	97 a
Lumax	2.5 pt	Dual II Magnum 0.84lb + Callisto 0.084lb + atrazine 0.31lb	73 c	74 b	65 b	90 a	91 a-c	89 ab	97 a	96 b	97 a
Surestart	3 pt	Surpass 1.4lb + Stinger 0.11lb + Python 0.045lb	88 a	91 a	83 a	93 a	95 ab	89 ab	97 a	98 a	97 a
<b>Check</b>											
Weedy check		-	0 d	0 d	0 d	0 d	0 e	0 d	0 c	0 d	0 c
		LSD (0.10)	6.9	7.2	9.8	6.6	5.9	7.1	4.0	1.5	2.0