

Annual weed control with G-Max Lite, Outlook, and Status with Roundup Powermax in corn at Lamberton, MN in 2008.

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The objective of this study was to evaluate corn herbicide combinations 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 15, 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 sizes and rainfall data are listed below:

Date	May 15	June 10	June 16
Treatment	PRE	POST I	POST II
Temperature (F)			
air	64	52	57
soil (4 inch)	64	62	64
Relative humidity (%)	34	82	63
Wind (mph)	SW 5	W 7	W 5
Sky	clear	clear	clear
Soil moisture	dry	dry	dry
Corn			
leaf no.	-	V4	V5
height (inch)	-	6	12
Green foxtail			
leaf no.	-	2 to 4	3 to 5
height (inch)	-	3 to 5	5 to 7
no./ft ²	-	26	24
Common lambsquarters			
leaf no.	-	4 to 6	8 to 10
height (inch)	-	2 to 4	3 to 5
no./ft ²	-	3	3
Tall waterhemp			
leaf no.	-	4 to 6	6 to 8
height (inch)	-	1 to 4	3 to 5
no./ft ²	-	6	5
Rainfall after application (inch)			
1 week	0.10	1.05	0.00
2 week	0.50	0.00	0.61
3 week	0.58	0.61	0.00

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

Table. Annual weed control with G-Max Lite, Outlook, and Status with Roundup Powermax in corn at Lamberton, MN in 2008 (Getting).

Treatment ^a	Rate	Green foxtail				Common lambsquarters				Tall waterhemp				Yield ^b
		Jun 4	Jun 20	Jul 10	Aug 19	Jun 4	Jun 20	Jul 10	Aug 19	Jun 4	Jun 20	Jul 10	Aug 19	
Preemergence/POST II (12-inch corn)	(oz/A, pt/A, or qt/A)	-----(% control)-----												(bu/A)
G-Max Lite / Roundup Powermax + AMS	2 pt / 22 oz + 3 qt	84 b	98 a	96 ab	95 ab	80 b	98 a	98 a	98 a	96 a	98 a	98 a	98 a	177 a
G-Max Lite / Roundup Powermax + Status + AMS	2 pt / 22 oz + 2.5 oz + 3 qt	90 a	98 a	94 b	95 b	91 a	98 a	98 a	98 a	96 a	98 a	98 a	98 a	171 a
POST I (6-inch corn)														
Roundup Powermax + AMS	22 oz + 3 qt	0 c	98 a	91 c	89 c	0 c	98 a	97 b	95 c	0 b	98 a	88 b	86 b	169 a
Roundup Powermax + Status + AMS	22 oz + 2.5 oz + 3 qt	0 c	98 a	90 c	89 c	0 c	98 a	96 b	96 bc	0 b	98 a	90 b	88 b	176 a
Outlook + Roundup Powermax + Status + AMS	22 oz + 22 oz + 5 oz + 3 qt	0 c	98 a	97 a	97 a	0 c	98 a	98 a	98 a	0 b	98 a	98 a	98 a	178 a
POST II (12-inch corn)														
Roundup Powermax + AMS	22 oz + 3 qt	0 c	98 a	97 a	95 ab	0 c	98 a	98 a	97 ab	0 b	98 a	97 a	97 a	180 a
Check														
Weedy check	-	0 c	0 b	0 d	0 d	0 c	0 b	0 c	0 d	0 b	0 b	0 c	0 c	73 b
	LSD (0.10)	3.5	ns	2.1	2.6	6.0	ns	1.0	1.9	0.9	ns	2.6	3.4	19.7

^a AMS = liquid spray grade ammonium sulfate.

^b Yield adjusted to 15.5% moisture.