

Annual weed control with Outlook, Clarity, and Status in glyphosate resistant corn at Lamberton, MN in 2007. Getting, Jodie K. 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 6.5 and soil test P and K levels of 26 and 332 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 2006 and was fall chiseled. The area was fertilized with 150 lbs/A nitrogen applied as urea. On April 30, 2007, Pioneer '35F40' glufosinate resistant/glyphosate resistant field corn was planted in 30-inch rows at a seeding rate of 33,000 seeds/A. Tefluthrin (Force) was applied at 5.0 oz/1000 row feet in a T-band for the control of northern corn rootworm larvae. 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 1	May 25	June 5
Treatment	PRE	POST I	POST II
Temperature (F)			
air	64	43	52
soil (4 inch)	66	56	60
Relative humidity (%)	34	76	77
Wind (mph)	NW 7	S 6	W 11
Sky	clear	clear	clear
Soil moisture	dry	dry	dry
Corn			
leaf no.	-	V4	V6
height (inch)	-	7	12
Green foxtail			
leaf no.	-	3 to 4	4 to 6
height (inch)	-	2 to 4	5 to 7
no./ft ²	-	27	24
Common lambsquarters			
leaf no.	-	3 to 5	6 to 8
height (inch)	-	1 to 3	4 to 6
no./ft ²	-	5	6
Tall waterhemp			
leaf no.	-	3 to 4	4 to 6
height (inch)	-	1 to 3	4 to 6
no./ft ²	-	5	4
Rainfall after application (inch)			
1 week	1.83	0.14	0.24
2 week	0.15	1.90	1.43
3 week	0.06	0.19	0.17

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

Table. Annual weed control with Outlook, Clarity, and Status in glyphosate resistant corn at Lamberton, MN in 2007 (Getting).

Treatment ^a	Rate (oz/A, pt/A, qt/A, lb/A or %)	Green foxtail				Common lambsquarters				Tall waterhemp				Yield ^b (bu/A)
		5/25	6/4	6/19	8/22	5/25	6/4	6/19	8/22	5/25	6/4	6/19	8/22	
		-----(% control)-----												
<u>Preemergence / POST I (2 to 4-inch weeds)</u>														
Outlook / Status + NIS + AMS	21 oz / 5 oz + 0.25% + 2 qt	97	100	95	96	95	100	100	97	97	100	100	98	175
Dual II Magnum / Callisto + Aatrex + COC + AMS	2 pt / 3 oz + 0.56 lb + 1% + 2 qt	93	100	93	92	91	100	100	98	97	100	100	98	168
Outlook / Roundup Weathermax + AMS	12 oz / 22 oz + 2 qt	93	100	95	93	91	100	94	92	97	100	96	95	176
Outlook / Roundup Weathermax + Status + AMS	12 oz / 22 oz + 2.5 oz + 2 qt	93	100	96	93	91	100	98	95	95	100	96	95	175
<u>POST I (2 to 4-inch weeds)</u>														
Roundup Weathermax + AMS	22 oz + 2 qt	0	100	88	86	0	100	93	91	0	100	85	83	183
Roundup Weathermax + Status + AMS	22 oz + 2.5 oz + 2 qt	0	100	87	86	0	100	94	94	0	100	90	90	180
Roundup Weathermax + Callisto + Atrazine + AMS	22 oz + 1.5 oz + 0.56 lb + 2 qt	0	100	88	85	0	100	98	97	0	100	95	95	182
BAS 756 + NIS + AMS	3 pt + 0.25% + 2 qt	0	100	90	89	0	93	94	94	0	95	89	88	183
Roundup Weathermax + Outlook + Clarity + AMS	22 oz + 12 oz + 8 oz + 2 qt	0	100	97	93	0	100	99	97	0	100	98	97	186
<u>POST II (4 to 7-inch weeds)</u>														
Roundup Weathermax + AMS	22 oz + 2 qt	0	0	97	94	0	0	99	95	0	0	91	86	136
<u>Checks</u>														
Weed free check	-	100	100	100	100	100	100	100	100	100	100	100	100	187
Weedy check	-	0	0	0	0	0	0	0	0	0	0	0	0	54
	LSD (0.10)	1.7	ns	2.7	3.5	2.5	0.8	3.0	3.2	1.5	1.3	3.8	4.9	20.4

^a COC = crop oil concentrate; NIS = nonionic surfactant; AMS = liquid spray grade ammonium sulfate.

^b Yield adjusted to 15.5% moisture.