Weed control with RPA 201772 in no-till corn at Lamberton, MN in 1997. Getting, Jodie K. The objective of this study was to evaluate RPA 201772 in combination with acetochlor on the control of annual weeds in no-till corn. This study was conducted on a Ves loam soil containing 5.4% organic matter, pH 5.8, and soil test P and K levels of 76 and 368 lb/A, respectively. A randomized complete block design with four replications and a plot size of 10 by 30 ft was used. The test site was planted to conventionally tilled soybeans in 1996. The area was fertilized with 150 lb/A nitrogen applied as anhydrous ammonia in the fall of 1996. No tillage was performed on the site and the corn was planted no-till. The burndown treatments were applied on May 19, 1997. Pioneer '3893' field corn was planted on May 24, 1997 in 30-inch rows at a seeding rate of 30,000 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. This trial was not cultivated. The weed populations in this trial were 23 yellow foxtail and 1 common lambsquarters per ft^2 at 4 weeks after planting. Application dates, environmental conditions, and rainfall data are listed below:

Date	May 19	May 24
Treatment	Burndown	PRE
Crop residue (%)	80	85
Temperature (F)		
air	60	64
soil (4-inch)	52	60
Relative humidity (%)	45	45
Wind (mph)	NW 5	S 8
Sky	clear	cloudy
Soil moisture	dry	dry
Yellow foxtail		
leaf no.	1	-
height (inch)	0.5	-
no./ft^2	11	-
Common lambsquarters		
leaf no.	cotyledon	-
height (inch)	0.25	-
no./ft^2	< 1	-
Rainfall after application (inch)		
1 week	0.27	0.29
2 week	0.29	0.0
3 week	0.0	0.0

Weed populations were low in this trial. RPA 201772 + acetochlor resulted in 93 to 97% control of yellow foxtail regardless of rate of either RPA 201772 or acetochlor. ICIA 5676 gave 85 to 87% control of yellow foxtail. All treatments provided excellent common lambsquarters control.

Table. Weed control with RPA 201772 in no-till corn at Lamberton, MN in 1997 (Getting).

Treatment[a]	Rate	Yellow foxtail				Common lambsquarters				Yield
		5/27	6/18	7/2	9/4	5/27	6/18	7/2	9/4	(bu/A)[b]
	(lb/A)	(% control)								
Burndown (Glyphosate 1.0 +AMS 2.5)/Preemergence										
RPA 201772+Acet	0.07+0.79	97	97	95	95	91	99	99	100	136
RPA 201772+Acet	0.07+1.0	97	96	94	93	92	99	99	100	128
RPA 201772+Acet	0.07+1.25	95	96	96	93	94	100	100	100	131
RPA 201772+Acet	0.07+1.5	93	97	94	93	94	99	99	100	133
RPA 201772+Acet	0.094+0.79	93	97	97	97	94	100	100	100	122
RPA 201772+Acet	0.094+1.0	94	95	96	95	98	100	100	100	135
RPA 201772+Acet	0.094+1.25	93	96	94	94	97	98	100	100	127
Burndown/Preemergence										
ICIA-0224+NIS+AMS/ ICIA-5676	0.47+0.25%+2.5/ 2.0	93	93	91	86	94	98	98	100	130
ICIA-0224+NIS+AMS/ ICIA-5676	0.78+0.25%+2.5/ 2.0	97	95	95	87	96	100	99	100	124
ICIA-0224+NIS+AMS/ ICIA-5676	1.04+0.25%+2.5/ 2.0	93	93	92	85	97	99	99	100	125
ICIA-0224+NIS+AMS/ ICIA-5676	1.25+0.25%+2.5/ 2.0	93	92	90	85	96	100	99	100	125
Check										
Hand-weeded		100	100	97	94	100	100	100	100	134
Weedy check		0	0	0	0	0	0	0	0	111
	LSD (0.10)	3	3	3	5	3	2	1	ns	7

[a] Acet = Harness 7EC; glyphosate = Roundup Ultra; ICIA-0224 = Touchdown 5L; ICIA-5676 = Topnotch 3.2 EC; RPA 201772 = Balance 75WG; AMS = spray grade ammonium sulfate; NIS = nonionic surfactant, Class Preference.

[b] Yield adjusted to 15.5% moisture.