Weed control with AE F130360 in corn at Lamberton, MN in 2001. Getting, Jodie K. and Bruce D. Potter. The objective of this study was to evaluate AE F 130360 applied postemergence for annual grass control in corn. This study was conducted on a Normania loam soil containing 4.4% organic matter, pH 6.2 and soil test P and K levels of 60 and 422 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 2000 and was fall chiseled. The area was fertilized with 180 lb/A of nitrogen as urea. On May 17, 2001, Northrup King 'N42-B7' imidazolinone tolerant/glufosinate 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 18	June 19
Treatment	PRE	POST
Temperature (F)		
air	51	52
soil (4 inch)	60	62
Relative humidity (%)	80	88
Wind (mph)	calm	W 0-5
Sky	p. cloudy	Clear
Soil moisture	dry	Dry
Corn		
leaf no.	-	4-collar
height (inch)	-	6
Yellow foxtail		
leaf no.	-	2 to 4
height (inch)	-	2 to 4
no./ft^2	-	21
Common lambsquarters		
leaf no.	-	2 to 4
height (inch)	-	2 to 4
no./ft^2	-	4
Redroot pigweed		
leaf no.	-	2 to 4
height (inch)	-	2 to 4
no./ft^2	-	7
Rainfall after application (inch)		
1 week	0.89	0.01
2 week	0.40	0.50
3 week	0.75	0.00

None of the herbicide treatments caused visible crop injury. On June 12, prior to the POST treatments, FOE 5043 controlled 94 to 95% yellow foxtail, 73 to 83% common lambsquarters, and 38 to 60% redroot pigweed. [Dimethenamid & atrazine] applied PRE controlled 86% yellow foxtail, 56% common lamsquarters, and 60% redroot pigweed. RPA 210772 applied either with or without atrazine had 80 to 95% yellow foxtail control and 94% or greater common lambsquarters and redroot pigweed control. In September, RPA 201772 and RPA 201772 + atrazine applied PRE resulted in 85 and 74% yellow foxtail control, respectively. Those same herbicide treatments followed by either formulation of AE F130360 resulted in 92% or greater yellow foxtail control. The treatments applied POST with either formulation of AE F130360, [rimsulfuron & nicosulfuron & atrazine], or ZA 1296 + atrazine resulted in 98% or greater common lambsquarters and redroot pigweed control. (Southwest Research and Outreach Center, University of Minnesota, Lamberton).

Table. Weed control with AE F130360 in corn at Lamberton, MN in 2001 (Getting and Potter).

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Treatment[a]	Rate	6/12	6/28	7/9	9/11	6/12	6/28	7/9	9/11	6/12	6/28	7/9	9/11	Yield
	(lb/A or %)	----------(% control)----------												(bu/A)[b]
Weedy Check	-	0	0	0	0	0	0	0	0	0	0	0	0	24
Preemergence														
RPA 201772	0.063	93	87	86	85	97	95	92	93	94	90	85	89	131
RPA 201772+Atra	0.063+1.0	89	83	80	74	97	93	89	89	97	90	85	87	136
Preemergence/POST (4-collar corn)99														
RPA 201772/ AE F130360[1]+MSO+28%N	0.063/ 0.066+0.94%+2.5%	80	93	95	95	95	99	100	99	97	99	99	99	138
RPA 201772+Atra/ AE F130360[1]+MSO+28%N	0.063+1.0/ 0.066+0.94%+2.5%	95	97	97	98	97	100	100	100	98	100	100	100	138
RPA 201772+Atra/ AE F130360[1]+COC	0.063+1.0/ 0.066+1.0%	90	93	95	92	98	99	98	99	98	99	100	100	155
RPA 201772+Atra/ AE F130360[2]+MSO+28%N	0.063+1.0/ 0.067+0.94%+2.5%	92	97	97	96	97	98	100	100	96	99	100	100	151
FOE 5043/ AE F130360[1]+MSO+28%N	0.45/ 0.066+0.94%+2.5%	95	96	96	93	73	94	95	98	60	99	98	99	154
FOE 5043/ AE F130360[2]+MSO+28%N	0.45/ 0.067+0.94%+2.5%	94	96	96	93	83	93	94	98	38	97	97	98	144
[dimethenamid&Atra]/ +[Rims&Nico&Atra] +COC+28%N	[0.44&0.50]/ [0.012&0.012&0.76] +1.25%+2.5%	86	91	93	90	56	99	98	98	60	99	99	98	144
CGA 77102/ZA 1296 +Atra+COC+28%N	1.27/0.094 +0.25+1.25%+2.5%	92	92	93	90	80	99	100	100	80	99	100	100	136
Weed-free		100	100	100	100	100	100	100	100	100	100	100	100	142
	LSD (0.10)	5.6	4.2	3.9	5.9	8.5	2.8	3.2	2.5	16.3	4.1	5.6	3.6	19.3

[a] AE F130360[1] = 70WG; AE F130360[2] = 61WG; Atra = Aatrex 4L; CGA 77102 = Dual II Magnum 7.64EC; [dimethenamid&Atra] = Leadoff 5L; Foe 5043 = Define 60DF; [Rims&Nico&Atra] = Basis Gold 89.4DF; RPA 201772 = Balance Pro 4L; ZA 1296 = Callisto 4L; COC = crop oil concentrate, Class Additive 17%; NIS = nonionic surfactant, Class Preference; MSO = methylated seed oil, Sun It II; 28%N = an aqueous solution of urea and ammonium nitrate; AMS = spray grade ammonium sulfate.

[b] Yield adjusted to 15.5% moisture.