

Weed control with ICIA 5676 and ZA 1296 in minimum tillage corn at Lamberton, MN in 2000.  
 Getting, Jodie K. The objective of this study was to evaluate rates of ICIA 5676 & ZA 1296 that provide burndown and residual weed control in minimum tillage corn when tank mixed with either glyphosate or paraquat. This study was conducted on a Normania loam soil containing 7.4% organic matter, pH 7.3 and soil test P and K levels of 52 and 252 lb/A, respectively. A randomized complete block design with four replications and a plot size of 10 by 30 ft was used. The trial was located at a site that was planted to Cargill '4150' glufosinate resistant field corn. This site was planted to soybeans in 1999. The area was fertilized with 150 lb/A of nitrogen as anhydrous ammonia. The treatments were applied to the area on June 2, 2000. The area was replanted to Dekalb '520' field corn. The glufosinate resistant corn not controlled by the herbicide treatments was removed by hand after the second rating date. 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	June 2
Treatment	POST
Temperature (F)	
air	54
soil (4 inch)	54
Relative humidity (%)	80
Wind (mph)	NW 5
Sky	clear
Soil moisture	dry
Volunteer corn	
leaf no.	5-collar
height (inch)	8
Green foxtail	
leaf no.	2 to 3
height (inch)	2 to 3
no./ft <sup>2</sup>	9
Redroot pigweed	
leaf no.	3 to 5
height (inch)	2 to 3
no./ft <sup>2</sup>	4
Common lambsquarters	
leaf no.	1 to 2
height (inch)	2 to 3
no./ft <sup>2</sup>	<1
Eastern black nightshade	
leaf no.	1 to 2
height (inch)	0.5
no./ft <sup>2</sup>	<1
Rainfall after application (inch)	
1 week	0.49
2 week	0.77
3 week	0.47

None of the herbicide treatments caused visible crop injury. In August, [ICIA 5676 & ZA 1296] tank-mixed with glyphosate resulted in 93 to 96% green foxtail control. [ICIA 5676 & ZA 1296] tank-mixed with paraquat resulted in 81 to 88% green foxtail control. [Acetochlor & atrazine & glyphosate] provided 98% control. All treatments gave excellent control of common lambsquarters. (Southwest Research and Outreach Center, University of Minnesota, Lamberton).

Table. Weed control with ICIA 5676 and ZA 1296 in minimum tillage corn at Lamberton, MN in 2000 (Getting).

Treatment <sup>a</sup>	Rate	SETVI			CHEAL			AMARE			SOLPT			ZEAMX	
		6/8	6/22	8/17	6/8	6/22	8/17	6/8	6/22	8/17	6/8	6/22	8/17	6/8	6/22
POST (2 to 4-inch weeds)	(lb/A or %)	-----(% control)-----													
[ICIA 5676&ZA 1296] +glyphosate+AMS	[1.6&0.14] +0.45+2.5	88	92	93	98	100	100	95	100	100	98	100	100	88	98
[ICIA 5676&ZA 1296] +glyphosate+AMS	[1.8&0.16] +0.45+2.5	93	98	96	98	100	100	98	100	100	98	100	100	92	98
[ICIA 5676&ZA 1296] +glyphosate+AMS	[2.0&0.18] +0.45+2.5	92	97	93	98	100	100	98	100	100	98	100	100	87	96
[ICIA 5676&ZA 1296] +paraquat+NIS	[1.6&0.14] +0.625+0.25%	84	86	86	98	100	100	97	100	100	98	100	100	86	88
[ICIA 5676&ZA 1296] +paraquat+NIS	[1.8&0.16] +0.625+0.25%	90	87	88	98	100	100	98	100	100	98	100	100	86	88
[ICIA 5676&ZA 1296] +paraquat+NIS	[2.0&0.18] +0.625+0.25%	78	84	81	98	100	100	98	100	100	98	100	100	83	86
[Acet&Atra&Glyt] +AMS	[2.0&1.5&0.75] +2.5	97	100	98	98	100	100	98	100	100	98	100	100	95	100
Weedy Check	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LSD (0.10)	7	8	7	ns	ns	ns	3	ns	ns	ns	ns	ns	10	6

<sup>a</sup> [Acet&Atra&Glyt] = Fieldmaster 2.75SC; glyphosate = Touchdown IQ 3AE; paraquat = Gramoxone Extra 2.5S; NIS = nonionic surfactant, Class Preference; AMS = spray grade ammonium sulfate.