

No-till weed control in corn. Spotanski, Jess J., and Alex R. Martin. A field study was conducted to evaluate weed control programs in no-till corn. A randomized complete block design with three replications per treatment was utilized. The study was conducted on a Sharpsburg silty clay loam with 2.4% organic matter and a pH of 6.9. Individual plots consisted of six 30-inch rows, each 30 feet long. 'Dekalb 6017RR' corn was planted May 14 at a population of 20,300 seeds per acre. Treatments were applied with a tractor-mounted sprayer traveling 3.0 mph. Application, crop, weed, and environmental data are presented below:

Date	April 17	June 12
Treatment	EPP	POST
Sprayer		
gpa	15	15
psi	30	30
Temperature (°F)		
Air	70	74
Soil (4 inch)	63	77
Soil Moisture	Moist	Dry
Wind (mph)	5	3
Sky (% cloudy)	0	100
Relative Humidity (%)	33	85
Precip. after appl.		
Week 1 (inch)	0.75	0.0
Week 2 (inch)	1.45	0.0
Henbit		
Stage	flowering	--
Height (cm)	8-10	--
Infestation (m ²)	1000	--
Tansy Mustard		
Stage	flowering	--
Height (cm)	22-28	--
Infestation (m ²)	0-10	--
Common sunflower		
Height (cm)	--	35-40
Infestation (m ²)	--	1
Velvetleaf		
Height (cm)	--	20-35
Infestation (m ²)	--	3
Annual grasses		
Height (cm)	--	10-30
Infestation (m ²)	--	50

Summary comments: Precipitation was good until early June, then conditions were very dry. Winter annual weed control was good with the exception of a couple of treatments. A post application was needed to achieve satisfactory control of the summer annual weeds, although grass control did not benefit from these POST treatments. Of the preemergent treatments, isoxaflutole in combination with either flufenacet or metolachlor, achieved the best season-long rating of grass control. Results of the study are summarized in the following table. (Dept. of Agronomy and Horticulture, University of Nebraska-Lincoln)

Table. No-till weed control in corn (Spotanski and Martin).

Treatment	Application		LAMAM 5/14	DESPI 5/14	----HELAN----			----ABUTH----			----GGGAN ¹ ----		
	Rate (lb/A)	Timing			5/29	6/10	7/2	5/29	6/10	7/2	5/29	6/10	7/2
-----% weed control-----													
Glyphosate& atrazine& acetochlor+	0.37 1.0 1.31	EPP	97	95	92	88	70	82	40	57	43	30	20
AMS ²	1.3												
Metribuzin& flufenacet+ atrazine+	0.54 0.136 1.4	EPP	99	98	93	88	72	77	58	23	95	93	80
COC ³	1 qt												
Metribuzin& flufenacet+ atrazine+	0.54 0.136 1.4	EPP	100	100	93	93	82	95	92	73	95	92	83
flumetsulam& cloprralid+	0.035 0.113												
COC	1 qt												
Isoxaflutole& flufenacet+	0.069 0.33	EPP	65	83	93	83	67	95	87	80	95	90	85
COC	1 qt												
Isoxaflutole& flufenacet+ atrazine+	0.069 0.33 1.0	EPP	100	100	93	83	58	95	92	75	95	95	85
COC	1 qt												
s-metolachlor&CGA-154281& atrazine+	1.5 1.94	EPP	100	100	85	68	52	95	78	63	95	88	85
isoxaflutole+	0.047												
COC	1 qt												
Atrazine+	2	EPP	100	100	90	80	60	95	83	62	90	80	57
isoxaflutole+	0.047												
COC	1 qt												
Glyphosate+	1.0	EPP	83	98	47	40	30	85	37	40	63	17	0
AMS	2.55												
s-metolachlor&CGA-154281& atrazine+	1.5 1.94	EPP	100	95	95	82	67	88	73	45	75	72	33
COC	1 qt												
s-metolachlor&CGA-154281+ glyphosate+	1.6 1.0	EPP/	97	93	95	53	98	63	40	98	78	37	30
AMS/	1.3												
mesotrione+	0.094	POST											
atrazine+	0.5												
COC	1 qt												
Acetochlor+	1.9	EPP/	95	95	78	72	93	65	55	97	95	85	77
glyphosate+	1.0												
AMS/	1.3												
mesotrione+	0.094	POST											
atrazine+	1.0												
COC	1 qt												
Rimsulfuron& thifensulfuron+	0.167 0.083	EPP/	30	90	50	50	92	48	20	97	0	0	40
dicamba/	0.063												
nicosulfuron&	0.012	POST											
rimsulfuron+	0.023												
mesotrione+	0.047												
atrazine+	0.75												
COC	1 qt												
LSD (P=.05)			16	6	39	32	40	36	34	32	31	32	40

¹GGGAN = Green and giant foxtail and some large crabgrass

²AMS = 'N Pa-K' by Agrilliance

³COC = 'Prime Oil' by Agrilliance