

Total postemergence weed control in no-till corn. Perry, Illinois, 2002. Maxwell, Douglas J., Ryan F. Hasty, and Christy L. Sprague. The objective of this research was to evaluate total postemergence corn herbicides for weed control in no-till corn. The study was established at the Orr Agricultural Research and Demonstration Center, Perry. The soil was a Keomah silt loam with a pH of 6.1 and 1.5% organic matter. Burrus 628 corn was planted 2 inches deep on June 1 in 30 inch rows. Treatments were arranged in randomized complete blocks with three replications of plots 7.5 by 28 feet. Herbicides were applied with a CO₂ backpack sprayer delivering 20 gpa and equipped with 8003 flat fan nozzles. Application information is listed below:

Date	June 18
Application	epost
Temperature (F)	
Air	85
Soil	77
Soil Moisture	Moist
Wind (mph)	6W
Sky Cover (%)	50
Precip. after application	
Week 1 (inch)	0.01
Week 2 (inch)	0.11
Relative humidity (%)	39
Corn	
Leaf no.	4
Height (inch)	8
Giant Foxtail	
Leaf no.	3
Height (inch)	4
Large Crabgrass	
Leaf no.	2
Height (inch)	2
Prickly Sida	
Leaf no.	4
Height (inch)	2
Redroot Pigweed	
Leaf no.	5
Height (inch)	2

Crop tolerance for all treatments was excellent. Giant foxtail control was good to very good early, with some treatments improving over time, such as the 0.023 lb/A nicosulfuron & 0.012 lb/A rimsulfuron & 0.035 lb/A flumetsulam & 0.093 lb/A clopyralid, with 0.25 lb/A atrazine treatment; the 0.13 lb/A dicamba & 0.05 lb/A SAN 1269H with 0.03 lb/A nicosulfuron treatment; and the 0.033 lb/A AE F130360 01 with 0.125 lb/A dicamba & 0.05 lb/A SAN1269H treatment. Other giant foxtail ratings tended to slip at the later rating like the 0.011 lb/A nicosulfuron & 0.005 lb/a rimsulfuron & 0.094 lb/A mesotrione, plus 1.0 lb/a atrazine; and the 0.033 lb/A AE F130360 01, 0.094 lb/A mesotrione, and 1.0 lb/a atrazine with Herbimax. Large crabgrass control was similar to giant foxtail, but more variable. Broadleaf weed control was excellent early except for the nicosulfuron with rimsulfuron only treatment, and the AE F130360 01 only treatment. Mid-season broadleaf weed control was very good to excellent for most treatments except for the nicosulfuron with rimsulfuron only treatment, the AE F130360 01 only treatment, and the AE F130360 01 with atrazine treatment. (Dept. of Crop Sciences, University of Illinois, Urbana).

Table 1. Total postemergence weed control in no-till corn. Perry, Illinois, 2002. (Maxwell, Hasty, and Sprague).

Treatment	Appl Rate (lb/A)	Time	Zeamd 7-2 % inj	Setfa 7-2	Digsa 7-2	Sidsp 7-2	Amare 7-2	Ipohe 7-2
			-----% control -----					
Nicosulfuron+mesotrione +atrazine +Herbimax+28%N	0.016+0.094 1.0 1.0%+2.5%	epost	0	73	99	99	99	99
Nicosulfuron+meso+atra +Herbimax+28%N	0.023+0.094+1.0 1.0%+2.5%	epost	0	78	99	99	99	99
Nicosulfuron+meso+atra +Herbimax+28%N	0.031+0.094+1.0 1.0%+2.5%	epost	0	88	99	99	99	99
Nicosulfuron&rimsulfuron +mesotrione+atrazine +Herbimax+28%N	0.011+0.005 0.094+1.0 1.0%+2.5%	epost	0	71	96	99	99	99
Nicosulfuron&rimsulfuron +mesotrione+atrazine +Herbimax+28%N	0.015+0.008 0.094+1.0 1.0%+2.5%	epost	0	78	99	99	99	99
Nicosulfuron&rimsulfuron +mesotrione+atrazine +Herbimax+28%N	0.023+0.012 0.094+1.0 1.0%+2.5%	epost	0	91	99	99	99	99
Rims&nico&atrazine +mesotrione +Herbimax+28%N	0.012+0.012+0.766 0.094 1.0%+2.5%	epost	0	77	96	99	99	99
AE F130360 01 +mesotrione+atrazine +Herbimax+28%N	0.033 0.094+1.0 1.0%+2.5%	epost	0	78	98	99	99	99
AE F130360 01 +mesotrione+atrazine +MSO+28%N	0.033 0.094+1.0 1.0%+2.5%	epost	0	87	91	99	99	94
Check	-	-	0	0	0	0	0	0
Nicosulfuron&rims+atra +mesotrione +Herbimax+NpakAMS	0.023+0.012+1.0 0.047 1.0%+5.0%	epost	0	76	94	99	99	99
Nicosulfuron&rims+atra +Herbimax+NpakAMS	0.023+0.012+1.0 1.0%+5.0%	epost	0	73	72	89	99	99
Nicosulfuron&rimsulfuron +Herbimax+NpakAMS	0.023+0.012 1.0%+5.0%	epost	0	80	72	72	99	78
Nico&rims&clopyralid &flumetsulam+atra +Herbimax+NpakAMS	0.012+0.012+0.094 0.033+0.5 1.0%+2.5%	epost	0	75	62	99	99	99
Nicosulfuron&rimsulfuron +flumetsulam&clopyralid +Herbimax+NpakAMS	0.023+0.012 0.035+0.093 1.0%+2.5%	epost	0	80	73	99	99	99
Dicamba&SAN 1269H&nico +Activator90+NpakAMS	0.13+0.05+0.03 0.25%+2.5%	epost	0	77	67	99	99	99
AE F130360 01 +dicamba&San-1269H +MSO+NpakAMS	0.033 0.125+0.05 1.0%+2.5%	epost	0	81	73	99	99	99
AE F130360 01 +MSO+NpakAMS	0.033 1.0%+5.0%	epost	0	83	75	73	99	87
AE F130360 01+atrazine +MSO+NpakAMS	0.033+1.0 1.0%+5.0%	epost	0	74	62	99	99	99
LSD (0.05)			0	6	7	6	0	4

Table 2. Total postemergence weed control in no-till corn. Perry, Illinois, 2002. (Maxwell, Hasty, and Sprague).

Treatment	Appl Rate (lb/A)	Time	Zeamd 7-15 % inj	Setfa 7-15	Digsa 7-15	Sidsp 7-15	Amare 7-15	Ipohe 7-15
Nicosulfuron+mesotrione +atrazine +Herbimax+28%N	0.016+0.094 1.0 1.0%+2.5%	epost	0	70	84	99	99	90
Nicosulfuron+meso+atra +Herbimax+28%N	0.023+0.094+1.0 1.0%+2.5%	epost	0	69	91	99	99	90
Nicosulfuron+meso+atra +Herbimax+28%N	0.031+0.094+1.0 1.0%+2.5%	epost	0	76	94	99	99	90
Nicosulfuron&rimsulfuron +mesotrione+atrazine +Herbimax+28%N	0.011+0.005 0.094+1.0 1.0%+2.5%	epost	0	60	84	99	99	90
Nicosulfuron&rimsulfuron +mesotrione+atrazine +Herbimax+28%N	0.015+0.008 0.094+1.0 1.0%+2.5%	epost	0	71	90	99	99	90
Nicosulfuron&rimsulfuron +mesotrione+atrazine +Herbimax+28%N	0.023+0.012 0.094+1.0 1.0%+2.5%	epost	0	81	88	99	99	90
Rims&nico&atrazine +mesotrione +Herbimax+28%N	0.012+0.012+0.766 0.094 1.0%+2.5%	epost	0	74	73	99	99	90
AE F130360 01 +mesotrione+atrazine +Herbimax+28%N	0.033 0.094+1.0 1.0%+2.5%	epost	0	66	73	99	99	90
AE F130360 01 +mesotrione+atrazine +MSO+28%N	0.033 0.094+1.0 1.0%+2.5%	epost	0	80	75	99	99	90
Check	-	-	0	0	0	0	0	0
Nicosulfuron&rims+atra +mesotrione +Herbimax+NpakAMS	0.023+0.012+1.0 0.047 1.0%+5.0%	epost	0	75	77	99	99	90
Nicosulfuron&rims+atra +Herbimax+NpakAMS	0.023+0.012+1.0 1.0%+5.0%	epost	0	76	62	99	99	90
Nicosulfuron&rimsulfuron +Herbimax+NpakAMS	0.023+0.012 1.0%+5.0%	epost	0	91	75	62	99	87
Nico&rims&clopyralid &flumetsulam+atra +Herbimax+NpakAMS	0.012+0.012+0.094 0.033+0.5 1.0%+2.5%	epost	0	78	63	99	99	90
Nicosulfuron&rimsulfuron +flumetsulam&clopyralid +Herbimax+NpakAMS	0.023+0.012 0.035+0.093 1.0%+2.5%	epost	0	93	67	98	99	90
Dicamba&SAN 1269H&nico +Activator90+NpakAMS	0.13+0.05+0.03 0.25%+2.5%	epost	0	95	67	93	99	90
AE F130360 01 +dicamba&San-1269H +MSO+NpakAMS	0.033 0.125+0.05 1.0%+2.5%	epost	0	95	73	93	99	90
AE F130360 01 +MSO+NpakAMS	0.033 1.0%+5.0%	epost	0	82	80	68	72	83
AE F130360 01+atrazine +MSO+NpakAMS	0.033+1.0 1.0%+5.0%	epost	0	80	68	72	99	90
LSD (0.05)			0	7	7	9	0	3