

AE F130360 01 combinations for weed control in corn. Urbana, Illinois, 2002. Bunting, Jeffrey A., Douglas J. Maxwell, and Christy L. Sprague. The objective of this research was to evaluate AE F130360 01 and AE F130360 02 programs for weed control in corn. The study was established at the Crop Sciences Research and Education Center, Urbana. The soil was an Elburn silt loam with a pH of 6.6 and 4.7% organic matter. Pioneer 33Y09 corn was planted 2 inches deep on May 3 in 30 inch rows. Treatments were arranged in randomized complete blocks with three replications of plots 10 by 30 feet. Herbicides were applied with a CO<sub>2</sub> backpack sprayer delivering 20 gpa and equipped with 8003 flat fan nozzles. Application information is listed below:

Date	May 3	June 3	June 11
Application	pre	epost	post
Temperature (F)			
Air	63	88	75
Soil	61	76	72
Soil Moisture	Moist	Moist	Dry
Wind (mph)	4SE	7W	8SW
Sky Cover (%)	0	0	100
Precip. after application			
Week 1 (inch)	1.87	0.62	0.44
Week 2 (inch)	2.71	1.68	0.00
Relative humidity (%)	30	68	80
Corn			
Leaf no.	-	5	7
Height (inch)	-	7	12
Giant Foxtail			
Leaf no.	-	2	3
Height (inch)	-	3	5
Common Lambsquarters			
Leaf no.	-	7	9
Height (inch)	-	2	3
Ivyleaf Morningglory			
Leaf no.	-	1	4
Height (inch)	-	1	2
Common Waterhemp			
Leaf no.	-	5	8
Height (inch)	-	1.5	3
Velvetleaf			
Leaf no.	-	2	3
Height (inch)	-	2	3

There was some initial corn injury with many postemergence treatments, but no injury was observed by 28 days after the early postemergence treatments. Preemergence treatments that were followed by postemergence herbicide applications provided good control of giant foxtail and velvetleaf. Isoxaflutole at 0.07 lb/A followed by either AE F130360 01 or AE F130360 02 provided greater than 90% control of giant foxtail, common lambsquarters, common waterhemp, and velvetleaf. Control of ivyleaf morningglory with isoxaflutole followed by AE F130360 01 or AE F130360 02 was 80% and 85%, respectively. Applications of AE F130 360 02 increased common lambsquarters control when compared with AE F130360 01 when following S-metolachlor. In general AE F130360 02 had greater broadleaf activity when compared with AE F130360 01. Giant foxtail control was greater than 90% with nicosulfuron, AE F130360 01, and AE F130360 02. AE F130360 02 when applied by itself provided greater than 90% control of common lambsquarters, ivyleaf morningglory, and velvetleaf. The addition of atrazine plus crop oil concentrate (COC) increased the control of common lambsquarters, ivyleaf morningglory, and velvetleaf to greater than 90%. Common waterhemp control was increased when a dicamba-containing product was used. Giant foxtail control decreased significantly when AE F130360 01 or AE F130360 02 was used with COC rather than methylated seed oil (MSO). The addition of mesotrione with AE F130360 01 or AE F130360 02 increased common waterhemp control. Significant yield differences were observed due to the indigenous pressure of common lambsquarters and common waterhemp. Herbicide treatments that provided less than 65% control of common lambsquarters and common waterhemp had significant yield differences when compared with the handweeded treatment. There were no significant yield differences with any of the sequential herbicide treatments when compared with the handweeded treatment. (Dept. of Crop Sciences, University of Illinois, Urbana).

Table 1. AE F130360 01 combinations for weed control in corn. Urbana, Illinois, 2002. (Bunting, Maxwell, and Sprague).

Treatment	Appl Rate (lb/A)	Time	Zeamd 6-18 % inj	Setfa 6-18	Cheal 6-18	Ipohe 6-18	Amata 6-18	Abuth 6-18
Nicosulfuron	0.031	epost	2	89	20	73	23	65
+Herbimax+28%N	1.0%+2.5%							
AE F130360 01	0.033	epost	7	89	78	48	40	78
+MSO+28%N	1.0%+2.5%							
AE F130360 02	0.067	epost	2	95	96	88	20	99
+MSO+28%N	1.0%+2.5%							
Nicosulfuron&rimsulfuron	0.023+0.12	epost	10	95	42	53	37	99
+Herbimax+28%N	1.0%+2.5%							
Rims&nico&atrazine	0.012+0.012+0.766	epost	4	92	95	91	40	99
+Herbimax+28%N	1.0%+2.5%							
Check	-	-	0	0	0	0	0	0
AE F130360 01+atrazine	0.033+1.0	epost	2	88	99	77	73	99
+MSO+28%N	1.0%+2.5%							
AE F130360 01+atrazine	0.033+1.0	epost	3	62	99	78	52	99
+COC+28%N	1.0%+2.5%							
AE F130360 01+dicamba	0.033+0.188	epost	10	89	88	75	73	99
+MSO+28%N	1.0%+2.5%							
AE F130360 01	0.033	epost	7	90	93	78	96	99
+dicamba&San 1269H	0.125+0.05							
+MSO+28%N	1.0%+2.5%							
AE F130360 01	0.033	epost	14	94	80	67	70	96
+carfentrazone	0.008							
+MSO+28%N	1.0%+2.5%							
Dimethenamid-p&atrazine	0.44+0.5	pre	2	94	98	77	93	86
+rims&nico&atrazine	0.012+0.012+0.766	post						
+Herbimax+28%N	1.0%+2.5%							
Atrazine	2.0	pre	7	95	99	73	87	99
+AE F130360 01	0.033	post						
+MSO+28%N	1.0%+2.5%							
Isoxaflutole	0.07	pre	15	91	99	73	99	99
+AE F130360 01	0.033	post						
+MSO+28%N	1.0%+2.5%							
S-metolachlor	1.59	pre	8	98	60	53	99	83
+AE F130360 01	0.033	post						
+MSO+28%N	1.0%+2.5%							
AE F130360 02+dicamba	0.067+0.188	epost	8	93	89	83	50	96
+MSO+28%N	1.0%+2.5%							
AE F130360 02	0.067	epost	4	62	93	80	92	99
+dicamba&San 1269H	0.125+0.05							
+MSO+28%N	1.0%+2.5%							
AE F130360 02+carf	0.067+0.008	epost	9	88	86	81	53	94
+MSO+28%N	1.0%+2.5%							
AE F130360 02+atrazine	0.067+1.0	epost	6	86	99	83	57	99
+MSO+28%N	1.0%+2.5%							
AE F130360 02+atrazine	0.067+1.0	epost	2	57	99	89	33	99
+COC+28%N	1.0%+2.5%							
AE F130360 01+mesotrione	0.033+0.094	epost	7	91	93	74	99	99
+MSO+28%N	1.0%+2.5%							
AE F130360 02+mesotrione	0.067+0.094	epost	7	84	98	74	96	99
+MSO+28%N	1.0%+2.5%							
Atrazine	2.0	pre	7	89	99	78	85	99
+AE F130360 02	0.067	post						
+MSO+28%N	1.0%+2.5%							
Isoxaflutole	0.07	pre	12	90	99	72	99	99
+AE F130360 02	0.067	post						
+MSO+28%N	1.0%+2.5%							
S-metolachlor	1.59	pre	10	96	89	61	95	99
+AE F130360 02	0.067	post						
+MSO+28%N	1.0%+2.5%							
Hand Weeded	-	-	0	99	99	99	99	99
LSD (0.05)			8	18	11	29	21	16

Table 2. AE F130360 01 combinations for weed control in corn. Urbana, Illinois, 2002. (Bunting, Maxwell, and Sprague).

Treatment	Appl Rate	Time	Zeamd 7-1	Setfa 7-1	Cheal 7-1	Ipohe 7-1	Amata 7-1	Abuth 7-1	Yield 10-7
	(lb/A)		% inj			% control			Bu/A
Nicosulfuron	0.031	epost	0	94	20	53	13	57	36.1
+Herbimax+28%N	1.0%+2.5%								
AE F130360 01	0.033	epost	0	91	67	63	28	75	75.0
+MSO+28%N	1.0%+2.5%								
AE F130360 02	0.067	epost	0	95	95	91	10	98	67.4
+MSO+28%N	1.0%+2.5%								
Nicosulfuron&rimsulfuron	0.023+0.12	epost	0	94	33	93	38	98	65.4
+Herbimax+28%N	1.0%+2.5%								
Rims&nico&atrazine	0.012+0.012+0.766	epost	0	82	76	85	45	96	112.5
+Herbimax+28%N	1.0%+2.5%								
Check	-	-	0	0	0	0	0	0	34.1
AE F130360 01+atrazine	0.033+1.0	epost	0	83	95	83	63	88	137.9
+MSO+28%N	1.0%+2.5%								
AE F130360 01+atrazine	0.033+1.0	epost	0	55	98	91	38	95	117.5
+COC+28%N	1.0%+2.5%								
AE F130360 01+dicamba	0.033+0.188	epost	0	82	90	75	65	87	121.6
+MSO+28%N	1.0%+2.5%								
AE F130360 01	0.033	epost	0	91	96	79	85	90	126.3
+dicamba&San 1269H	0.125+0.05								
+MSO+28%N	1.0%+2.5%								
AE F130360 01	0.033	epost	0	92	52	63	50	72	121.2
+carfentrazone	0.008								
+MSO+28%N	1.0%+2.5%								
Dimethenamid-p&atrazine	0.44+0.5	pre	0	95	85	70	85	81	145.6
+rims&nico&atrazine	0.012+0.012+0.766	post							
+Herbimax+28%N	1.0%+2.5%								
Atrazine	2.0	pre	0	88	99	78	89	85	147.7
+AE F130360 01	0.033	post							
+MSO+28%N	1.0%+2.5%								
Isoxaflutole	0.07	pre	0	90	98	80	91	98	147.9
+AE F130360 01	0.033	post							
+MSO+28%N	1.0%+2.5%								
S-metolachlor	1.59	pre	0	98	73	73	96	98	137.0
+AE F130360 01	0.033	post							
+MSO+28%N	1.0%+2.5%								
AE F130360 02+dicamba	0.067+0.188	epost	0	92	99	95	65	99	115.5
+MSO+28%N	1.0%+2.5%								
AE F130360 02	0.067	epost	0	87	95	81	77	92	133.1
+dicamba&San 1269H	0.125+0.05								
+MSO+28%N	1.0%+2.5%								
AE F130360 02+carf	0.067+0.008	epost	0	87	55	83	38	98	100.1
+MSO+28%N	1.0%+2.5%								
AE F130360 02+atrazine	0.067+1.0	epost	0	78	96	86	40	81	126.1
+MSO+28%N	1.0%+2.5%								
AE F130360 02+atrazine	0.067+1.0	epost	0	63	98	96	43	98	98.5
+COC+28%N	1.0%+2.5%								
AE F130360 01+mesotrione	0.033+0.094	epost	0	85	95	71	87	98	136.1
+MSO+28%N	1.0%+2.5%								
AE F130360 02+mesotrione	0.067+0.094	epost	0	88	96	73	80	94	130.3
+MSO+28%N	1.0%+2.5%								
Atrazine	2.0	pre	0	90	99	84	70	99	146.0
+AE F130360 02	0.067	post							
+MSO+28%N	1.0%+2.5%								
Isoxaflutole	0.07	pre	0	90	99	85	99	99	147.9
+AE F130360 02	0.067	post							
+MSO+28%N	1.0%+2.5%								
S-metolachlor	1.59	pre	0	98	90	77	94	89	141.3
+AE F130360 02	0.067	post							
+MSO+28%N	1.0%+2.5%								
Hand Weeded	-	-	0	99	99	99	99	99	148.3
LSD (0.05)			0	8	19	29	23	21	16