

Shattercane control with foramsulfuron and foramsulfuron&iodosulfuron in corn. Sellers, Brent A., Jim D. Wait, Jianmei Li and Reid J. Smeda. The objective of this study was to determine the proper application rate and timing for control of shattercane with foramsulfuron and foramsulfuron&iodosulfuron. This study was conducted at the Agronomy Research Center near Columbia, MO. The soil was a Mexico silt loam with a pH of 5.7 and 2.7% organic matter. 'Pioneer 34M95' corn was planted 2.0-inches deep on May 22 in 30-inch rows. Treatments were arranged in a randomized complete block design with four replications of 5 by 35 foot plots. Herbicide applications were made with a CO₂ backpack sprayer equipped with XR8002 flat fan nozzles. A preemergence (PRE) application of atrazine (2.0 lb/A) + clopyralid&flumetsulam (0.07&0.02 lb/A) was applied to the entire experimental area immediately after planting. Application data are listed below:

Date	June 20	June 24
Application	V4 Corn	V6 Corn
Temperature (F)		
air	75	89
soil	72	78
Soil moisture	dry	dry
Wind (mph)	5	6
Cloud cover	0	0
Relative humidity (%)	60	70
Precipitation after application		
week 1 (inch)	3.65	3.65
week 2 (inch)	0	0
Corn		
stage	V4	V6
height (inch)	3	8
Shattercane		
leaf no.	4	4
height (inch)	3	8
infestation (sq. ft.)	8	18

Crop injury was at least 10% when herbicide treatments were applied at the V4 corn growth stage seven days after application. Injury was minimal seven days after application of herbicide treatments to the V6 corn growth stage, but increased in these treatments 19 days after application. No crop injury was evident 27 days after the V6 application in any treatment. Shattercane control was $\geq 93\%$ in all herbicide treatments 19 days after applications at the V6 growth stage. By 27 days after the V6 application, shattercane control was more consistent in herbicide treatments applied at the V6 growth stage. From these data, it is evident that as little as 0.011 lb/A foramsulfuron applied to V6 corn provides good control of shattercane. (Department of Agronomy, University of Missouri-Columbia)

Table.

Treatment ^a	Rate (lb/A)	Time	Injury				SORVU	
			DA V4 Corn	DA V6 Corn			DA V6Corn	
			7	7	19	27	19	27
			-----%					
Untreated			0	0	0	0	0	0
Foramsulfuron+MSO+28%N	0.011	V4Corn	11	3	3	0	96	90
Foramsulfuron+MSO+28%N	0.022	V4Corn	12	4	7	0	93	86
Foramsulfuron+MSO+28%N	0.033	V4Corn	10	1	3	0	95	88
Foramsulfuron&iodosulfuron +MSO+28%N	0.010& 0.0006	V4Corn	10	1	3	0	94	86
Foramsulfuron&iodosulfuron +MSO+28%N	0.020& 0.0013	V4Corn	11	1	3	0	95	84
Foramsulfuron&iodosulfuron +MSO+28%N	0.030& 0.0019	V4Corn	11	3	3	0	99	86
Foramsulfuron+MSO+28%N	0.011	V6Corn	-	5	15	0	96	92
Foramsulfuron+MSO+28%N	0.022	V6Corn	-	1	10	4	99	92
Foramsulfuron+MSO+28%N	0.033	V6Corn	-	4	11	5	99	94
Nicosulfuron+COC+28%N	0.023	V6Corn	-	3	8	0	99	93
LSD (0.05)			2	5	6	1	5	6

^aAll MSO at 1.25% v/v. MSO = SoyPlus, methylated seed oil from MFA Crop Advantage.
 28%N at 2.5% v/v for treatments containing foramsulfuron, 3.33% v/v for nicosulfuron treatment. 28% N =
 liquid fertilizer 28-0-0 from MFA Crop Advantage.
 COC at 1.7 % v/v. COC = Relay, crop oil concentrate from MFA Crop Advantage.