Johnsongrass 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 johnsongrass with foramsulfuron and foramsulfuron&iodosulfuron. This study was conducted at the Bradford Research and Extension Center near Columbia, MO. The soil was a Mexico silt loam with a pH of 5.5 and 2.3% organic matter. The experimental area contained rhizome johnsongrass and was overseeded with johnsongrass in late March. 'Pioneer 34M95' corn was planted 2.0-inches deep on May 16 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 CO_2 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 at planting.
Application data are listed below:

Date	June 17	June 28
Application	V4 Corn	V6 Corn
Temperature (F)		
air	86	89
soil	84	78
Soil moisture	dry	dry
Wind (mph)	0	6
Cloud cover	15	0
Relative humidity (%)	48	70
Precipitation after application		
week 1 (inch)	0	0
week 2 (inch)	3.65	0.6
Corn		
stage	V4	V6
height (inch)	11.5	21
Johnsongrass		
leaf no.	3	5
height (inch)	4	10
infestation (sq. ft.)	20	22

Crop injury was <10% following both applications at all evaluation times. johnsongrass control ranged from 40 to 60% 30 days after application of herbicide treatments at the V4 corn growth stage. Delaying applications until the V6 corn growth stage increased control to at least 83% with at least 0.022 lb/A foramsulfuron 29 days after application. Similar trends were observed for johnsongrass control 27 days after applications to V6 corn. From these data, applying at least 0.022 lb/A foramsulfuron at the V6 corn growth stage provides similar johnsongrass control compared to nicosulfuron. (Department of Agronomy, University of Missouri-Columbia)

Table.

			Injury				SORHA	
			DA V4Corn	DA V6 Corn			DA V6Corn	
Treatment[a]	Rate	Time	7	7	19	27	19	27
	(lb/A)		----------%----------					
Untreated			0	0	0	0	0	0
Foramsulfuron+MSO+28%N	0.011	V4Corn	3	1	5	0	68	70
Foramsulfuron+MSO+28%N	0.022	V4Corn	3	0	3	0	65	66
Foramsulfuron+MSO+28%N	0.033	V4Corn	5	0	5	0	48	67
Foramsulfuron&iodosulfuron +MSO+28%N	0.010& 0.0006	V4Corn	3	0	4	0	40	58
Foramsulfuron&iodosulfuron +MSO+28%N	0.020& 0.0013	V4Corn	4	0	5	0	56	67
Foramsulfuron&iodosulfuron +MSO+28%N	0.030& 0.0019	V4Corn	5	1	5	0	62	66
Foramsulfuron+MSO+28%N	0.011	V6Corn	-	1	5	0	63	77
Foramsulfuron+MSO+28%N	0.022	V6Corn	-	1	5	0	83	87
Foramsulfuron+MSO+28%N	0.033	V6Corn	-	1	8	0	84	85
Nicosulfuron+COC+28%N	0.023	V6Corn	-	0	4	0	85	90
LSD (0.05)			1	2	2	0	16	11

[a]All 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.