

Foramsulfuron and foramsulfuron&iodosulfuron tankmixtures. Young, Bryan G., J. M. Young and J. L. Matthews. This study was designed to determine the benefit of various herbicides in combination with foramsulfuron and foramsulfuron&iodosulfuron. The study was conducted on a Weir silt loam with 1.4% organic matter and pH 6.9 at the Belleville Research Center. Fertilizer applied in 2003 was 50 and 200 lb/A P₂O₅ and K₂O, respectively, to an area that had been cropped to soybean in 2002. Pioneer '33P69LL' field corn was planted 1.5 inch deep at 28000 seed/A into a reduced-till seedbed on June 19. Plots consisted of four rows with 30 inch row spacing, 27 ft long arranged in a randomized complete block design with three replications. The herbicides were broadcast applied at 1 to 3 inch weed height (1-3"W) with a CO₂ pressurized sprayer using 8002 flat fan tips at 40 PSI in 20 GPA water. Monthly rainfall in inches was 2.8, 4.8, 8.3, 1.9 and 4.2 in April, May, June, July and August, respectively. Weed population per 0.25 m² in the nontreated plots, mid-season, was <1 giant foxtail, 11 giant ragweed, <1 common cocklebur and 2 common waterhemp.

Application information is listed below.

Date	6-23-03
Treatment	1-3"W
Air temperature (F)	82
Relative humidity (%)	38
Soil moisture	normal

giant foxtail	
leaf no.	1-3
height (inch)	0-3

giant ragweed	
leaf no.	0-4
height (inch)	1-4

common cocklebur	
leaf no.	0-3
height (inch)	1-3

common waterhemp	
leaf no.	0-4
height (inch)	1-3

No corn injury was observed from any herbicide treatment. All herbicide treatments provided excellent control of giant foxtail. Likewise, control of common cocklebur was excellent from all herbicide treatments except foramsulfuron alone and foramsulfuron&iodosulfuron. Foramsulfuron and foramsulfuron&iodosulfuron controlled 70 and 85% of giant ragweed at 28 days after treatment (DAT). Tank mixing halosulfuron&dicamba, atrazine, or primisulfuron&dicamba with foramsulfuron or foramsulfuron&iodosulfuron increased control of giant ragweed compared with foramsulfuron or foramsulfuron&iodosulfuron alone. Control of common waterhemp with foramsulfuron and foramsulfuron&iodosulfuron was less than 20% at 28 DAT. Tank mixing dicamba&diflufenzopyr, mesotrione, or atrazine with foramsulfuron increased control of common waterhemp to at least 91%. However, when the same products were tank mixed with foramsulfuron&iodosulfuron, control of common waterhemp was only 75 to 88%. (Dept. of Plant, Soil and General Agriculture, Southern Illinois University, Carbondale).

Table. Foramsulfuron and foramsulfuron&iodosulfuron tankmixtures. (Young, Young and Matthews)

Treatment ^a	Application rate (lb/A)	Corn injury			Control, days after treatment							
		days after treatment ^b			SETFA		AMBTR		XANST		AMATA	
		7	14	28	14	28	14	28	14	28	14	28
		%	%	%	%	%	%	%	%	%	%	
Nontreated		0	0	0	0	0	0	0	0	0	0	0
Foramsulfuron	0.0328	0	0	0	99	99	63	70	60	76	17	10
Foramsulfuron&iodosulfuron	0.028&0.0019	0	0	0	99	98	88	85	73	79	47	17
Foramsulfuron&dicamba&diflufenopyr	0.0328+0.0625&0.025	0	0	0	99	99	92	72	98	95	96	96
Foramsulfuron&iodosulfuron&dicamba&diflufenopyr	0.028&0.0019+0.0625&0.025	0	0	0	99	99	92	82	96	94	85	75
Foramsulfuron+halosulfuron&dicamba	0.0328+0.0235&0.104	0	0	0	99	99	95	93	98	98	80	48
Foramsulfuron&iodosulfuron+halosulfuron&dicamba	0.028&0.0019+0.0235&0.104	0	0	0	99	99	94	98	99	99	80	55
Foramsulfuron+mesotrione	0.0328+0.047	0	0	0	99	99	87	67	98	96	99	94
Foramsulfuron&iodosulfuron+mesotrione	0.028&0.0019+0.047	0	0	0	99	99	95	87	96	98	98	88
Foramsulfuron+mesotrione+COC	0.0328+0.047+1.5pt	0	0	0	98	96	91	75	99	99	99	95
Foramsulfuron&iodosulfuron+mesotrione+COC	0.028&0.0019+0.047+1.5pt	0	0	0	99	99	92	78	99	98	98	83
Foramsulfuron+primisulfuron&dicamba	0.0328+0.0152&0.074	0	0	0	99	99	90	92	99	99	67	48
Foramsulfuron&iodosulfuron+primisulfuron&dicamba	0.028&0.0019+0.0152&0.074	0	0	0	99	99	95	96	99	99	58	25
Foramsulfuron+atrazine	0.0328+1.0	0	0	0	99	98	98	96	99	98	95	91
Foramsulfuron&iodosulfuron+atrazine	0.028&0.0019+1.0	0	0	0	98	98	99	99	99	99	91	83
Foramsulfuron+flufenacet	0.0328+0.3	0	0	0	99	99	63	80	99	99	13	7
Foramsulfuron&iodosulfuron+flufenacet	0.028&0.0019+0.3	0	0	0	99	99	91	87	99	99	0	10
Nicosulfuron&rimsulfuron+mesotrione+COC	0.0233&0.0117+0.047+2.0pt	0	0	0	99	99	95	87	99	99	98	95
LSD		0	0	0	1	3	9	11	19	17	24	26
P		1.0	1.0	1.0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

^aAll tankmixes included MSO at 1.5 pt/A except where COC was used.

All tankmixes included 28% UAN at 4.0 pt/A.

All treatments were applied at 1-3 inch weed height.

MSO = MSO Concentrate Oil, a methylated crop origin oil from Loveland Industries, Inc.

COC = Prime Oil crop oil concentrate, a petroleum based additive with 17% emulsifier from Agrilience, LLC.

^bRating dates:

7, 14 and 28 days after treatment was on Jun-30-03, Jul-7-03 and Jul-21-03, respectively.