

Effect of clethodim formulation on large yellow foxtail control at Lamberton, MN in 2006. Getting, Jodie

K. The objective of this study was to evaluate clethodim formulations alone and tank-mixed with FirstRate on 9 to 11-inch yellow foxtail control. This study was conducted on a Normania loam soil containing 4.2% organic matter, pH 6.5 and soil test P and K levels of 34 and 370 lb/A, respectively. A randomized complete block design with four replications and a plot size of 10 by 30 ft was used. The site was planted to oats in 2005 and was fall chiseled. The area was fertilized with 39-100-100 on April 14, 2006. On May 17, 2006, Asgrow 'AG2107' glyphosate resistant soybeans were planted in 30-inch rows at a seeding rate of 160,000 seeds/A. All treatments were applied with a tractor-mounted sprayer delivering 20 gpa at a pressure of 40 psi. The sprayer was equipped with 8002 flat-fan nozzles spaced 15 inches apart on the boom. Application dates, environmental conditions, plant sizes and rainfall data are listed below:

Date	June 22
Treatment	POST
Temperature (F)	
air	57
soil (4 inch)	70
Relative humidity (%)	82
Wind (mph)	W 5
Sky	clear
Soil moisture	moist
Soybean	
leaf no.	V5
height (inch)	10
Yellow foxtail	
leaf no.	5 to 7
height (inch)	9 to 11
no./ft ²	14
Rainfall after application (inch)	
1 week	1.11
2 week	0.00
3 week	1.15

None of the herbicide treatments caused visible crop injury. On July 3, V-10180, V-10139, V-10137, and V-10181 provided 96, 93, 91, and 91% yellow foxtail control, respectively. Tank-mixing any of the formulations with FirstRate decreased the control of yellow foxtail. Those same herbicides tank-mixed with FirstRate resulted in 83, 74, 79, and 78% control, respectively. On July 17, the formulations applied alone provided 91 to 93% control and tank-mixing with FirstRate resulted in 76 to 86%. V-10180 provided the greatest control of the four formulations when tank-mixed with FirstRate, however, it was lower than all of the formulations applied alone. (Southwest Research and Outreach Center, University of Minnesota, Lamberton).

Table. Effect of clethodim formulation on large yellow foxtail control at Lamberton, MN in 2006 (Getting).

Treatment ^a	Rate	Yellow foxtail		
		7/3	7/10	7/17
<u>POST (9 to 11-inch)</u>	(oz/A or %)	-(% control)-		
V-10137 + NIS	9 oz + 0.25%	91	94	91
V-10181 + NIS	9 oz + 0.25%	91	93	93
V-10180 + NIS	6 oz + 0.25%	96	94	92
V-10139 + NIS	6 oz + 0.25%	93	94	92
V-10137 + FirstRate + NIS	9 oz + 0.3 oz + 0.25%	79	78	76
V-10181 + FirstRate + NIS	9 oz + 0.3 oz + 0.25%	78	79	81
V-10180 + FirstRate + NIS	6 oz + 0.3 oz + 0.25%	83	88	86
V-10139 + FirstRate + NIS	6 oz + 0.3 oz + 0.25%	74	79	81
<u>Check</u>				
Weedy Check	-	0	0	0
	LSD (0.10)	3.6	3.8	3.8

^a NIS = nonionic surfactant.