

Foxtail control in hard red spring wheat with CGA-184927 at Rosemount, MN -

1998. Durgan, Beverly R. and Douglas Miller. The purpose of this experiment was to evaluate antagonism of foxtail control and crop injury with CGA-184927 and various broadleaf herbicide tank mixes. The experiment was conducted at Rosemount, MN on a Waukegon silt loam soil. Following soybeans, the experimental area was fall chisel plowed. In the spring, the area was fertilized with 50 lbs/A N and 70 lbs/A K, then was disked once, field cultivated once, and harrowed twice. 'Butte 86' hard red spring wheat was seeded on April 23 at 85 lbs/A. The experimental design was a randomized complete block with three replications and plot size was 10 by 25 ft. All herbicide treatments were applied to a 6 ft strip with a backpack type sprayer delivering 10 gpa at 35 psi using 11001 flat-fan nozzles. Bromoxynil (0.375 lb ai/A) was applied postemergence to control broadleaf weeds. Visual foxtail control, visual wheat injury ratings, and yields are presented in the table. Environmental conditions, plant sizes, and densities are listed below.

Treatment Date May 13
 Time 10:15-10:50 am

Target weed or 1-4 leaf foxtail
 crop stage

Temperature (°F)
 air 67
 soil (at 2") 62
 Soil Moisture moist at 1"
 Wind (mph) 0-4 SW
 Sky clear

Rainfall before
 Application
 Week 1 (inch) 1.48
 Rainfall after
 Application
 Week 1 (inch) 2.39
 Week 2 (inch) 0.40

Wheat		Giant foxtail	
leaf stage	2-3	density (#/ft ²)	3.8
tillers	0-2	leaf no.	1-4 (mostly 3)
height (inch)	4-5	height (inch)	0.25-1.5

Dicamba Plus thifensulfuron & tribenuron caused slight antagonism of foxtail control with CGA-184927, however the affect was not significant at the second rating date. Foxtail control was good for all the other treatments. No visible herbicide injury occurred. Poor wheat seed quality caused a reduced wheat stand and consequently, overall wheat yields were low. Although wheat yield was generally lower in the weedy checks, variable foxtail populations coupled with the poor wheat stand resulted in no clear relationship to foxtail control.

Table. Foxtail control in hard red spring wheat with CGA-184927 at Rosemount, MN -1998 (Durgan and Miller).

Treatment	Rate (lb ai/A)	Wheat				Yield Bu/A
		Foxtail Control		Injury		
		5/27	6/13	5/27	6/13	
		----- % -----				
CGA-184927 + surf ¹	0.062 + 1.0%	95	93	0	0	17
CGA-184927 + bromoxynil & MCPA ester ² + surf	0.062 + 0.25 & 0.25 + 1.0%	95	93	0	0	19
CGA-184927 + dicamba ³ + surf	0.062 + 0.094 + 1.0%	92	92	0	0	25
CGA-184927 + thifensulfuron & tribenuron ⁴ + surf	0.062 + 0.009 & 0.005 + 1.0%	95	92	0	0	24
CGA-184927 + dicamba + thifensulfuron & tribenuron + surf	0.062 + 0.062 + 0.009 & 0.005 + 1.0%	87	85	0	0	22
CGA-184927 + surf + carfentrazone-ethyl	0.062 + 1.0% + 0.008	94	92	0	0	18
Fenoxaprop & safener ⁵	0.05	97	94	0	0	18
Fenoxaprop & safener	0.104	96	93	0	0	23
Fenoxaprop & safener + thifensulfuron & tribenuron	0.05 + 0.009 & 0.005	92	91	0	0	20
Fenoxaprop & safener + carfentrazone-ethyl	0.104 + 0.008	98	95	0	0	21
Tralkoxydim + TF8035 COC	0.18 + 0.5%	94	92	0	0	18
Tralkoxydim + bromoxynil & MCPA ester + TF8035 COC	0.18 + 0.25 & 0.25 + 0.5%	88	90	0	0	13
Weedy check		--	--	0	0	14
Weedy check		--	--	0	0	9
Weedy check		--	--	0	0	13
LSD (P=.05)		6	ns	ns	ns	8

¹ surf = Score.

² Premix = Bronate 4E.

³ Banvel SGF 2L.

⁴ Premix = Harmony Extra 75DF.

⁵ HOE 1170