

**Foxtail control in hard red spring wheat with Puma and Achieve tank mixes at Rosemount, MN - 2001.** Durgan, Beverly R., Douglas Miller, and Krishona Martinson. The purpose of this experiment was to evaluate antagonism of foxtail control and crop injury with Puma (fenoxaprop & safener) and Achieve (tralkoxydim) plus various broadleaf herbicides in tank mix combinations. 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 K. The field was field cultivated twice and harrowed twice. '2375' hard red spring wheat was seeded on May 4 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 (0.25 pt/A) was broadcast on June 8 to control broadleaf weeds. Visual weed control ratings, wheat injury ratings, and yields are presented in the tables. Environmental conditions and plant sizes are listed below.

Treatment Date                      June 11  
 Target weed or                      3-4 leaf foxtail  
 crop stage

Temperature (degrees F)  
 air    66  
 soil (at 2")                                  75  
 Soil Moisture                              moist  
 Wind (mph)                                1-4 SE  
 Relative Humidity (%)                    70  
 Dewpoint (%)                              65  
 Sky    10% clouds

Rainfall before  
 Application  
 Week 1 (inch)                              0.77  
 Rainfall after  
 Application  
 Week 1 (inch)                              2.70  
 Week 2 (inch)                              0.28

**Wheat**  
 leaf stage                                  5.5  
 tillers                                        2-3  
 height (inch)                              12-15

**Giant and Yellow foxtail**  
 density (#/ft<sup>2</sup>)                              6  
 leaf no.                                      2-4  
 height (inch)                              0.75-3

**Table. Foxtail control in hard red spring wheat with Puma and Achieve tank mixes at Rosemount, MN - 2001 (Durgan, Miller, and Martinson).**

Treatment	Rate (lb ai/A)	Wheat				Yield Bu/A
		Foxtail Control	Injury			
		6/19	6/19	6/25	7/18	
		%				
Fenoxaprop & safener <sup>1</sup>	0.041	100	0	0	0	49
Fenoxaprop & safener + MCPA ester	0.041 + 0.5	100	0	2	2	50
Fenoxaprop & safener + 2,4-D ester	0.041 + 0.5	100	0	0	0	53
Fenoxaprop & safener + bromoxynil & MCPA <sup>2</sup>	0.041 + 0.25 & 0.25	100	0	2	0	55
Fenoxaprop & safener + bromoxynil	0.041 + 0.25	100	0	0	0	59
Fenoxaprop & safener + thifensulfuron & tribenuron <sup>3</sup> + MCPA ester	0.041+ 0.009 & 0.005 + 0.375	100	0	0	2	61
Fenoxaprop & safener + carfentrazone + MCPA ester	0.041 + 0.008 + 0.375	100	2	0	0	51
Tralkoxydim + surf <sup>4</sup>	0.18 + 1.0%	100	0	0	0	53
Tralkoxydim + MCPA ester + surf	0.18 + 0.5 + 1.0%	100	0	2	0	53
Tralkoxydim + 2,4-D ester + surf	0.18 + 0.5 + 1.0%	100	0	0	0	54
Tralkoxydim + bromoxynil & MCPA + surf	0.18 + 0.25 & 0.25 + 1.0%	100	2	2	2	59
Tralkoxydim + bromoxynil + surf	0.18 + 0.25 + 1.0%	100	0	0	0	51
Tralkoxydim + thifensulfuron & tribenuron + MCPA ester + surf	0.18+ 0.009 & 0.005 + 0.375 + 1.0%	100	2	2	0	51
Tralkoxydim + carfentrazone + MCPA ester + surf	0.18 + 0.008 + 0.375 + 1.0%	100	5	2	2	52
Weedy check		--	0	0	0	58
Weedy check		--	0	0	0	55
Weedy check		--	0	0	0	53
Weedy check		--	0	0	0	52
LSD (P=.05)		ns	ns	ns	ns	ns

<sup>1</sup> Puma.

<sup>2</sup> Premix = Bronate 4E.

<sup>3</sup> Premix = Harmony Extra 75DF.

<sup>4</sup> surf = TF8035 crop oil concentrate = Supercharge.