

Foxtail control in hard red spring wheat with tank mixes at Rosemount, MN - 1999.

Durgan, Beverly R. and Douglas Miller. The purpose of this experiment was to evaluate antagonism of foxtail control and crop injury with Puma and Discover in various 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/A K, then was disked once, field cultivated once, and harrowed twice. 'Butte 86' hard red spring wheat was seeded on April 29 at 80 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 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 26
Target weed or 2-4 leaf foxtail
crop stage

Temperature (9F)
air 69
soil (at 2") 64
Soil Moisture moist at 0.5"
Wind (mph) 3-5 W
Relative Humidity (%) 30
Sky clear
Rainfall before
Application
Week 1 (inch) 1.41
Rainfall after
Application
Week 1 (inch) 0.17
Week 2 (inch) 0.86

Wheat		Giant foxtail	
leaf stage	3.75-4.25	density (#/ft ²)	150-400
tillers	1-2	leaf no.	2-4
height (inch)	4-6	height (inch)	1-1.5

Table. Foxtail control in hard red spring wheat with tank mixes at Rosemount, MN -1999 (Durgan and Miller).

Treatment	Rate (lb ai/A)	Foxtail Control			Wheat Injury			Yield Bu/A
		6/12	6/24	7/10	6/12	6/24	7/10	
		%						
Imazamethabenz ¹ + NIS ²	0.31 + 0.25%	0	0	0	0	0	0	23
Fenoxaprop & safener ³	0.041	80	94	90	3	5	2	32
Fenoxaprop & safener	0.023	78	88	83	0	0	0	31
Imazamethabenz + fenoxaprop & safener	0.31 + 0.041	80	92	87	13	8	3	30
Imazamethabenz + fenoxaprop & safener	0.31 + 0.041	77	78	78	7	7	3	32
CGA-184927 & safener ⁴ + surf ⁵	0.06 + 1%	80	92	90	0	0	0	31
Imazamethabenz + CGA-184927 & safener + surf	0.31 + 0.06 + 1%	73	80	82	0	0	0	30
Imazamethabenz + CGA-184927 & safener + surf	0.31 + 0.019 + 1%	63	70	68	0	0	0	33
Imazamethabenz + CGA-184927 & safener + surf	0.31 + 0.01 + 1%	70	73	73	0	0	0	31
Fenoxaprop & safener	0.05	85	95	90	0	0	0	32
Diclofop + COC ⁶	0.75 + 1.25%	73	83	80	0	0	0	29
Fenoxaprop & 2,4-D & MCPA ⁷	0.06 & 0.09 & 0.26	70	78	85	0	0	0	31
Tralkoxydim + TF8035 COC ⁸	0.18 + 0.5%	73	78	77	27	23	10	26
CGA-184927 & safener + bromoxynil & MCPA ⁹ + surf	0.06 + 0.25 & 0.25 + 1%	80	93	88	0	0	0	32
CGA-184927 & safener + bromoxynil + surf	0.06 + 0.25 & 0.25 + 1%	77	87	85	0	0	0	31
CGA-184927 & safener + thifensulfuron & tribenuron ¹⁰ + MCPA + surf	0.06 + 0.09 & 0.05 + 0.375 + 1%	77	83	87	0	0	0	31
Weedy check		--	--	--	0	0	0	25
Weedy check		--	--	--	0	0	0	25
LSD (P=.05)		9	5	7	6	5	3	5

¹ Assert LC 2.5E.

² NIS = Class Preference nonionic surfactant.

³ Puma 1E.

⁴ Discover 2E.

⁵ surf = Score.

⁶ COC = Class Crop Oil Concentrate.

⁷ Premix = Tiller 2.77E.

⁸ surf = TF8035 crop oil concentrate = Supercharge.

⁹ Premix = Bronate 4E.

¹⁰ Premix = Harmony Extra 75DF.