Foxtail Control in Spring Wheat, Carrington, 2008

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The experiment was conducted at the NDSU Carrington Research Extension Center on a conventionally-tilled Heimdahl loam soil with 6.8 pH and 2.8% organic matter. The experimental design was a randomized complete block with three replicates. 'Glenn' HRS wheat was seeded April 30. Herbicide treatments were applied with a CO_2-hand-boom plot sprayer delivering 10 gal/A at 35 psi through 8001 flat-fan nozzles to the center 6.7 ft. of 10 by 25 ft. plots. POST treatments were applied on June 14 with 55° F, 86% RH, clear sky, and 12 mph wind to 4- to 5-leaf wheat and 1- to 3-leaf yellow and green foxtail. Average plant density in untreated plots on June 16: wheat, 53 plants/ft^2 and 65 foxtail plants/ft^2. The trial was harvested by a plot combine on August 19.

Minor crop response was noted four days after application with several treatments (Table). Wheat yield was over 60 bu/A with the low rate of fenoxaprop and pinoxaden. Foxtail control two and four weeks after application was 80% or greater with flucarbazone, GF-1847, and clodinafop (all with tank mixtures of bromoxynil & MCPA).

Table. Foxtail control in spring wheat.

Herbicide			Wheat response				Foxtail control (%)[1]		
Treatment		Rate	6/19	Yield	TW		7/1	7/15	
No.		oz ai/A	injury (%)	bu/A	lb/bu		fxtl	grft	yeft
1	Mess+Brox&MCPA5+MSO	0.036+8+1%	3	56.5	62.8		33	7	7
2	Flucarbazone+Brox&MCPA5+ Basic Blend	0.32+8+1%	3	54.6	62.5		80	91	89
3	Prcz&Mess+Brox&MCPA5+ Basic Blend	0.178+8+1%	6	55.8	63.0		43	0	0
4	Immb+Brox&MCPA5+Basic Blend	5+8+1%	3	54.4	63.1		0	13	13
5	Prcz+Brox&MCPA5+Basic Blend	0.32+8+1%	3	50.4	62.6		47	47	70
6	GF-1847+Brox&MCPA5+NIS	0.21+8+0.25%	0	48.8	61.6		81	85	91
7	GF-1848+NIS	1.68+0.25%	0	54.6	63.1		75	83	85
8	Tral-SC+Brox&MCPA5+ Supercharge+AMS	2.9+8+0.5%+9.5	3	50.6	62.0		74	78	83
9	Fenoxaprop+Brox&MCPA5	0.8+8	1	60.1	63.3		76	82	82
10	Fenoxaprop+Brox&MCPA5	1.32+8	2	52.3	62.0		77	78	87
11	Clodinafop+Brox&MCPA5	0.8+8	3	52.2	62.4		81	86	91
12	Pinoxaden+Brox&MCPA5+Adigor	0.86+8+0.075G	4	64.6	63.0		84	78	87
13	Difenzoquat+Brox&MCPA5	16+8	4	57.2	63.1		0	0	0
14	Untreated	0	0	50.4	62.3		0	0	0
C.V. (%)			37.5	9.4	1.3		12.0	23.4	10.7
LSD (0.05)			2	1.4	NS		11	20	10

[1]foxtail=yellow and green.