Foxtail control in hard red spring wheat, Carrington, 2003
(Endres and Howatt)

The experiment was conducted on a Heimdahl loam soil with 7.2 pH and 3.4% organic matter at the NDSU Carrington Research Extension Center. The experimental design was a randomized complete block with three replicates. 'ND751' HRS wheat was planted on May 16. Herbicide treatments were applied with a CO_2-hand-boom plot sprayer delivering 8.5 gal/A at 30 psi through 8001 flat fan nozzles to the center 6.7 ft of 10 by 25 ft plots. Treatments were applied on June 7 with 59 F, 81% RH, 5% clear sky, and 8 mph wind to 4-leaf wheat and 1- to 3-leaf yellow and green foxtail. Average wheat density on June 9 in untreated plots was 6 plants/ft^2 and foxtail density was 38 plants/ft^2. The trial was harvested with a plot combine on August 26.

		Weed control		Wheat	
Herbicide		6/23	7/2	Seed	Test
Treatment	Rate	Fota[a]		yield	weight
	oz a.i./A	--------%	-------	bu/A	lb/bu
Imazamethabenz+Thif&Trib+2,4-D+NIS	5+0.22+4+0.25%	25	7	13.5	57.8
Flucarbazone+Thif&Trib+2,4-D+Quad 7	0.42+0.22+4+1%	73	68	22.5	59.1
Propoxycarbazone+Thif&Trib+2,4-D+Quad 7	0.42+0.22+4+1%	86	80	30.5	60.1
Mesosulfuron+Thif&Trib+2,4-D+Quad 7	0.25+0.22+4+1%	66	42	16.1	58.7
Clodinafop+Brox&MCPA+Score	0.8+8+1%	95	90	42.5	60.9
Fenoxaprop+Brox&MCPA	1.32+8	88	78	38.4	60.5
Tralkoxydim+Brox&MCPA+Supercharge+AMS	2.9+8+0.5%+9.52	80	75	28.2	60.0
Flcz+Fenx+Brox&MCPA+Quad 7	0.21+0.6+8+1%	74	66	24.1	59.5
Flcz+Mesotrione+2,4-D+Quad 7	0.21+0.75+4+1%	74	67	22.5	59.0
Difenzoquat+Immb+Thif&Trib+2,4-D+NIS	3.7+8+0.22+4+0.25%	0	17	14.7	58.8
Flcz+Brox&MCPA	0.42+8	63	33	13.6	57.9
Flcz+Dicamba+Quad7	0.42+0.09+0.5%	72	47	19.5	58.3
Flcz+Fluroxypyr+2,4-D+Quad7	0.42+0.75+0.25+0.5%	79	74	27.3	59.5
untreated	0	0	0	12.9	59.3
LSD (0.05)		2	2	8.0	0.9

[a]Fota=yellow and green foxtail.

Clodinafop+Brox&MCPA+Score provided excellent foxtail control (90 to 95%) and high yield and test weight. Propoxycarbazone+Thif&Trib+2,4-D+Quad 7, Fenoxaprop+Brox&MCPA, and Tralkoxydim+Brox&MCPA+Supercharge+AMS provided 80 to 88% foxtail control 2 wk after application and 75 to 80% control 4 wk after application. Low wheat plant density and high foxtail density contributed to decline in foxtail control with time generally among all treatments. Crop injury from herbicides was not detected.