

POST foxtail control in spring wheat, Carrington, 2010. (Kirk Howatt and Greg Endres). The experiment was conducted at the NDSU Carrington Research Extension Center on a conventionally-tilled Heimdal-Emrick loam soil. The experimental design was a randomized complete block with three replicates. 'Glenn' HRS wheat was seeded April 23. Herbicide treatments were applied with a CO₂-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. Treatments were applied on May 28 with 84 F, 48% RH, 75% clear sky, and 7 mph wind to 3-leaf wheat and 1- to 3-leaf green and yellow foxtail. Average plant density in untreated plots on May 28: wheat = 25 plants/ft² and foxtail = 26 plants/ft². The trial was harvested by a plot combine on August 6.

Plant chlorosis/necrosis and reduction in biomass was prominent with Difenzoquat, with minimal or no crop response among other herbicide treatments (Table). Highest seed yield (47.7-54.9 bu/A) was associated with herbicide treatment numbers 1-2 and 5-11. Herbicide treatments numbered 9-11 provided good (80-85%) control of foxtail when evaluated about 2 and 4 wk after treatment (WAT). Herbicide treatments numbered 5-6 and 9-11 provided good to excellent (80-95%) control of green and yellow foxtail when evaluated about 8 WAT.

Table.											
Herbicide								Weed control			
								Foxtail		Green foxtail	Yellow foxtail
Treatment		Rate	Wheat response				11-Jun		25-Jun	20-Jul	
No.		oz ai/A	3-Jun chlorosis (%)	11-Jun biomass reduction (%)	20-Jul	Seed yield bu/A	Test weight lb/bu	%			
1	Mess+Brox&MCPA5+MSO	0.036+8+24	1	0	0	47.7	62.7	59	33	13	7
2	Fic+z+Brox&MCPA5+Basic Blend	0.32+8+1%	6	0	0	48.2	62.9	78	73	96	78
3	Prcz+Brox&MCPA5+Basic Blend	0.42+8+1%	2	0	0	43.3	62.6	64	30	7	7
4	Prcz&Mess+Brox&MCPA5+Basic Blend	0.2+8+1%	5	0	0	45.5	62.4	70	48	33	33
5	Pxlm+Brox&MCPA5+Basic Blend	0.26+8+1%	1	0	0	49.2	63.3	78	72	92	80
6	Pxlm&Florasulam&Flox+Basic Blend	1.68+1%	0	0	0	54.9	63.2	79	78	91	93
7	Tral+Brox&MCPA5+Supercharge+AMS	2.9+8+0.5% +9.5	1	0	0	54.4	63.2	73	70	53	63
8	Fenoxaprop+Brox&MCPA5	0.8+8	0	0	0	51.5	62.4	73	70	92	73
9	Fenoxaprop+Brox&MCPA5	1.32+8	2	0	0	53.5	63.0	84	80	95	92
10	Clodinafop-ng+Brox&MCPA5	0.8+8	0	0	0	51.3	63.6	81	82	83	87
11	Pinoxaden+Brox&MCPA5	0.86+8	1	0	0	50.2	63.4	85	84	84	92
12	Difenzoquat+Brox&MCPA5	16+8	45	60	17	36.0	62.7	37	27	13	17
13	Untreated	0	0	0	0	37.9	62.7	0	0	0	0
C.V. (%)			88.2	30.0	61.9	9.6	0.8	10.3	24.2	12.4	15.0
LSD (0.05)			8	2	1	8.2	NS	12	25	13	15