Yellow foxtail control in HRS wheat with Everest, Carrington, 2007
Greg Endres

The experiment was conducted at the NDSU Carrington Research Extension Center on a Heimdahl loam soil containing 47% sand, 36% silt, and 17% clay with 6.2 pH and 3.2% organic matter. The experimental design was a randomized complete block with three replicates. 'Alsen' HRS wheat was seeded May 10, 2007 on conventionally-tilled ground that produced soybean in 2006. 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. PRE treatments were applied on May 4 with 61 F, 85% RH, 100% cloudy sky, and 13 mph wind. Rainfall totaled 1.09 inches on May 5. EPOST treatments were applied on May 24 with 43 F, 87% RH, clear sky, and 4 mph wind to 2-leaf wheat and 2- to 3-leaf yellow foxtail. Average foxtail density in untreated plots on May 25 was 16 plants/ft^2. POST treatments were applied on June 8 with 58 F, 65% RH, clear sky, and 11 mph wind to 4.5-leaf wheat and 1- to 4-leaf yellow foxtail. Average wheat density in untreated plots on June 8 was 42 plants/ft^2 and average foxtail density was 21 plants/ft^2. The LPOST treatment was applied on June 13 with 65 F, 96% RH, 10% clear sky, and 8 mph wind to 5-leaf wheat and $\leq$4-leaf yellow foxtail. The trial was harvested with a plot combine on August 16.

PRE treatments did not control yellow foxtail and injury did not occur to wheat when visually evaluated on May 25 (Table). Yellow foxtail control generally was poor (15 to 70%) with POST Everest treatments. Puma provided 70 to 91% control of yellow foxtail. Wheat injury, consisting of biomass reduction, with POST Everest ranged from 16 to 40% on June 8. Crop response significantly declined later in the season. Plant height at maturity was less with PRE Everest and Everest plus basic blend compared to the untreated check. Wheat treated with herbicides tended to have higher yield compared to the untreated check.

Table. Yellow foxtail control in HRS wheat with Everest, Carrington.

Treatment[1]	Herbicide Application timing[2]	product/A	Yellow foxtail control 5/25	6/8	6/29	7/30	Wheat injury 5/25	6/8	6/29	7/30	Wheat Plt ht	Yield
			%				%				inch	bu/A
Untreated check			0	0	0	0	0	0	0	0	92	31.1
Everest/Bronate Advanced	PRE/ EPOST	0.41 oz/12.8 fl oz	10	70	42	49	0	0	0	0	86	36.71
Everest/Everest + Bronate Advanced	PRE/ EPOST	0.20 oz/0.20 oz + 12.8 fl oz	10	67	33	50	0	16	3	0	89	34.24
Everest/Everest + Bronate Advanced	PRE/ EPOST	0.31 oz/0.20 oz + 12.8 fl oz	0	70	48	43	0	27	4	0	90	38.4
Everest/Everest + Bronate Advanced	PRE/ EPOST	0.41 oz/0.20 oz + 12.8 fl oz	15	69	38	15	0	33	5	1	88.33	35.81
Everest + Bronate Advanced	EPOST	0.41 oz + 12.8 fl oz	x	58	43	43	x	22	2	0	88.33	37.61
Puma + Bronate Advanced	POST	10.5 + 12.8 fl oz	x	x	73	70	x	x	0	0	90.67	40.17
Everest + Basic Blend/Bronate Advanced	EPOST/ POST	0.6 oz + 1%/12.8 fl oz	x	66	60	62	x	40	9	3	85.33	33.19
Rimfire + Basic Blend/Bronate Advanced	EPOST/ POST	1.75 oz + 1% v/v + 12.8 fl oz	x	47	57	48	x	5	2	0	88.33	37.73
Puma/Bronate Advanced	EPOST/ POST	10.5/12.8 fl oz	x	83	83	84	x	0	0	0	94	40.43
Bronate Advanced/Puma	POST/ LPOST	12.8/10.5 fl oz	x	x	93	91	x	0	1	0	88.33	37.42
C.V. (%)			254	12	20	32	0	36	83	126	3	10
LSD (0.05)			NS	13	17	27	NS	9	3	1	5	NS

[1]Basic Blend=Quad7.

[2]PRE=May 14; EPOST=May 24; POST=June 8; LPOST=June 13.