

Foxtail control in hard red spring wheat with reduced rates at Rosemount, MN -

2005. Durgan, Beverly R., and Douglas Miller. This experiment was designed to evaluate foxtail control with Discover (clodinaop and cloquintocet), Everest (flucarbazone), Puma (fenoxaprop & safener), and Silverado (AE F130060) applied at the labeled rate and at two reduced rates and at two application times. 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 K. The field was disked once, field cultivated once, and harrowed twice. 'Alsen' hard red spring wheat was seeded on May 10 at 85 lbs/A. The experimental design was a randomized complete block with treatments in a split plot arrangement with three replications. Application date comprised whole plots and herbicide treatments, subplots. Subplot size was 10 by 24 ft. All herbicide treatments were applied with a backpack type sprayer delivering 10 gpa at 35 psi using 11001 flat fan nozzles. Application data and environmental conditions are listed below. Crop injury and foxtail control were rated visually. Yields were measured. All data are presented in the table below.

<u>Treatment Date</u>	<u>June 2</u>	<u>June 15</u>
Foxtail		
stage	1-3 leaf	2-7 (average 4-6)
height (inch)	0.3 to 1	0.5 to 6
density (#/ft ²)	56	89
Wheat		
stage	3 leaf	7 leaf
tillers	1	1-3
height (inch)	4-6	10-13
Air temperature (°F)	77	68
Dewpoint (°F)	--	55
Relative humidity (%)	45	64
Sky	clear	5% clouds
Wind	SSE 4-7	NNW 5-10
Soil conditions	moist at 0.75 inch	moist
Soil temperature (°F)	79	66
Rainfall before Application		
Week 1 (inch)	0.31	1.00
Rainfall after Application		
Week 1 (inch)	1.25	0.81
Week 2 (inch)	0.99	1.29

Table. Foxtail control in hard red spring wheat with reduced rates at Rosemount, MN - 2005 (Durgan and Miller).

Treatment	Rate (lb ai/A)	Foxtail Control		Wheat					Yield (bu/A)	
		7/9	7/16	Injury						
				6/8	6/22	6/29	7/9	7/16		%
Application Date #1 (June 2)										
Fenoxaprop & safener	0.084	90	90	0	0	2	0	0		49
Fenoxaprop & safener	0.063	91	90	0	0	0	0	0		48
Fenoxaprop & safener	0.041	91	92	2	0	2	0	0		49
Flucarbazono + 2,4-D Ester + NIS ¹	0.027 + 0.25 + 0.25%	83	85	7	3	7	12	8		42
Flucarbazono + 2,4-D Ester + NIS	0.020 + 0.25 + 0.25%	87	88	5	3	7	10	7		42
Flucarbazono + 2,4-D Ester + NIS	0.013 + 0.25 + 0.25%	85	85	5	0	5	10	10		45
Clodinafop & cloquintocet ²	0.05	90	90	0	0	0	0	0		50
Clodinafop & cloquintocet	0.0375	90	90	3	3	2	0	0		47
Clodinafop & cloquintocet	0.0250	91	92	0	0	2	0	0		48
AE F130060 + adjuvant ³	0.0156 + 1.9%	80	78	2	3	3	0	0		43
AE F130060 + adjuvant	0.0117 + 1.9%	77	78	10	3	3	0	0		46
AE F130060 + adjuvant	0.0078 + 1.9%	83	82	2	2	2	0	0		46
Untreated Check	--	-	-	0	0	0	0	0		37
Application Date #2 (June 15)										
Fenoxaprop & safener	0.084	98	96	-	0	2	0	0		49
Fenoxaprop & safener	0.063	99	95	-	0	5	0	0		49
Fenoxaprop & safener	0.041	98	95	-	0	0	0	0		51
Flucarbazono + 2,4-D Ester + NIS	0.027 + 0.25 + 0.25%	87	89	-	12	15	15	12		44
Flucarbazono + 2,4-D Ester + NIS	0.020 + 0.25 + 0.25%	87	87	-	12	12	13	12		43
Flucarbazono + 2,4-D Ester + NIS	0.013 + 0.25 + 0.25%	83	88	-	5	8	10	3		45
Clodinafop & cloquintocet	0.05	99	96	-	2	2	0	0		48
Clodinafop & cloquintocet	0.0375	98	96	-	2	2	0	0		49
Clodinafop & cloquintocet	0.0250	97	95	-	0	2	0	0		48
AE F130060 + adjuvant	0.0156 + 1.9%	86	87	-	2	5	0	0		49
AE F130060 + adjuvant	0.0117 + 1.9%	87	85	-	0	2	0	0		47
AE F130060 + adjuvant	0.0078 + 1.9%	86	83	-	0	3	0	0		47
Untreated Check	--	-	-	-	0	0	0	0		38
LSD P=.05		6	6	5	4	4	1	4		5

¹ NIS = Class Preference nonionic surfactant.

² Discover NG 0.5E.

³ adjuvant = Destiny.