

Foxtail control in hard red spring wheat with Puma and Discover alone and with broadleaf herbicides at Rosemount, MN - 2004. Durgan, Beverly R., and Douglas Miller. This experiment was designed to evaluate foxtail control with Puma (fenoxaprop & safener) and Discover NG (clodinafop & safener) alone and tank mixed with various broadleaf herbicides. 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 11 at 85 lbs/A. The experimental design was a randomized complete block with three replications. Plot size was 10 by 24 ft. All herbicide treatments were applied with a backpack type sprayer delivering 10 gpa at 35 psi using 11015 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 8</u>
Foxtail	
stage	3-4 leaf (some 5-leaf)
height (inch)	0.75 to 2 (some 3 inch)
density (#/ft ²)	23
Wheat	
stage	4 leaf
tillers	2
height (inch)	6-8
Air temperature (°F)	76
Dewpoint (°F)	64
Relative humidity (%)	68
Sky	cloudy
Wind	SW-NW 5-14
Soil conditions	moist at 0.25 inch
Soil temperature (°F)	75
Rainfall before Application	
Week 1 (inch)	0.48
Rainfall after Application	
Week 1 (inch)	2.23
Week 2 (inch)	0.01

Table. Foxtail control in hard red spring wheat with Puma and Discover alone and with broadleaf herbicides at Rosemount, MN - 2004 (Durgan and Miller).

Treatment	Rate (lb ai/A)	Wheat Injury			Foxtail Control		Wheat Yield (bu/A)
		6/22	7/10	8/12	7/10	8/12	
		----- % -----					
Fenoxaprop & safener	0.041	0	0	0	99	98	53
Fenoxaprop & safener + bromoxynil & MCPA ester ¹	0.041 + 0.25 & 0.25	5	0	0	95	93	51
Fenoxaprop & safener + bromoxynil & MCPA ester + fluroxypyr	0.041 + 0.25 & 0.25 + 0.062	5	0	0	93	98	51
Fenoxaprop & safener + bromoxynil & MCPA ester + thifensulfuron	0.041 + 0.25 & 0.25 + 0.014	7	0	0	94	99	53
Fenoxaprop & safener + thifensulfuron + fluroxypyr	0.041 + 0.014 + 0.062	8	0	0	99	94	52
Fenoxaprop & safener + clopyralid & MCPA ester ² +	0.041 + 0.09 & 0.5	5	0	0	99	99	48
Fenoxaprop & safener + bromoxynil & MCPA ester + fluroxypyr	0.041 + 0.027 & 0.15 + 0.062	7	0	0	99	98	44
Fenoxaprop & safener + MCPA ester + dicamba ³	0.041 + 0.25 + 0.062	27	7	0	88	91	54
Fenoxaprop & safener	0.031	0	0	0	98	81	48
Fenoxaprop & safener + bromoxynil & MCPA ester	0.031 + 0.25 & 0.25	7	0	0	90	79	48
Fenoxaprop & safener + bromoxynil & MCPA ester + fluroxypyr	0.031 + 0.25 & 0.25 + 0.062	8	0	0	91	81	47
Fenoxaprop & safener + bromoxynil & MCPA ester + thifensulfuron	0.031 + 0.25 & 0.25 + 0.014	7	0	0	94	80	51
Clodinafop & safener ⁴	0.05	0	0	0	97	99	53
Clodinafop & safener + bromoxynil & MCPA ester	0.05 + 0.25 & 0.25	7	0	0	91	91	50
Clodinafop & safener + bromoxynil & MCPA ester + fluroxypyr	0.05 + 0.25 & 0.25 + 0.062	8	0	0	92	90	51
Clodinafop & safener + bromoxynil & MCPA ester + thifensulfuron + fluroxypyr	0.05 + 0.25 & 0.25 + 0.014 + 0.062	7	0	0	93	91	51
Clodinafop & safener + thifensulfuron + fluroxypyr	0.05 + 0.014 + 0.062	7	0	0	99	91	54
Clodinafop & safener + clopyralid & MCPA ester	0.05 + 0.09 & 0.5	7	0	0	99	96	49
Clodinafop & safener + bromoxynil & MCPA ester + fluroxypyr	0.05 + 0.027 & 0.15 + 0.062	5	0	0	98	96	52
Clodinafop & safener + MCPA ester + dicamba	0.05 + 0.25 + 0.062	27	7	0	99	91	51
Clodinafop & safener ³	0.039	0	0	0	93	92	48
Clodinafop & safener + bromoxynil & MCPA ester	0.039 + 0.25 & 0.25	5	0	0	88	91	47
Clodinafop & safener + bromoxynil & MCPA ester + fluroxypyr	0.039 + 0.25 & 0.25 + 0.062	7	0	0	87	90	47
Clodinafop & safener + bromoxynil & MCPA ester + thifensulfuron	0.039 + 0.25 & 0.25 + 0.014	5	0	0	88	95	50
Untreated Check	--	0	0	0	--	--	47
LSD P=.05		4	3	ns	5	2	ns

¹ Bronate Advanced 5E.

² Curtail 2.77E.

³ Clarity 4L.

⁴ Methylated seed oil.