

**Wild oat herbicide x fungicide interaction in hard red spring wheat at Crookston, MN - 2004.** Durgan, Beverly R., Jochum Wiersma, Jim Cameron, and Douglas Miller. Two experiments were conducted to evaluate any interaction resulting from the addition of two fungicides, Quilt (propiconazol & azoxystrobin) and Stratego (propiconazol & trifloxystrobin) to three wild oat herbicides, Discover (clodinaop and safener), Puma (fenoxaprop & safener), and Silverado (AE F130060 and safener) with and without Bronate Advanced (bromoxynil & MCPA). Experiment II was conducted on an area with broadleaf weeds but no wild oat. Fungicide only and fungicide + Bronate Advanced treatments were added to the second experiment. Both experiments were conducted at Crookston, MN on a Donaldson and Wheaton loam soil. Following weedy fallow, the experimental areas received 100 lb/A of N and were plowed in the fall. In the spring of the following year, the experimental areas were disked and harrowed. 'Alsen' hard red spring wheat was seeded on April 27 at 1.5 Bu/A. The experimental design was a randomized complete block with three replications. Plot size was 10 by 16 ft. All herbicide treatments were applied with a backpack type sprayer delivering 10 gpa at 30 psi using 80015 flat fan nozzles. Application data and environmental conditions are listed below. Crop injury and wild oat control were rated visually. Yields were measured. All data are presented in the tables below.

Treatment Date	June 4	June 14
Wioa stage	3 leaf	--
Wheat stage	3 leaf	5.5 leaf
Air temperature (°F)	73	59
Relative humidity (%)	31	49
Soil conditions	moist	moist
Soil temperature (°F)	50	52
Rainfall before Application		
Week 1 (inch)	2.93	0.57
Rainfall after Application		
Week 1 (inch)	0.63	0.25
Week 2 (inch)	0.52	0.24

**Table 1. Experiment I. Wild oat herbicide x fungicide interaction in hard red spring wheat at Crookston, MN - 2004 (Durgan, Wiersma, Cameron, and Miller).**

Treatment	Rate (lb ai/A)	Wheat Injury					AVEFA Control			Wheat Yield (bu/A)
		6/10	6/17	6/24	7/8	7/14	6/24	7/8	7/14	
Fenoxaprop & safener <sup>1</sup>	0.075	0	0	0	0	0	88	97	99	67
Fenoxaprop & safener + bromoxynil & MCPA <sup>2</sup>	0.075 + 0.25 & 0.25	7	0	0	0	0	90	97	94	61
Fenoxaprop & safener + propiconazol & azoxystrobin <sup>3</sup>	0.075 + 0.057 & 0.034	0	0	0	0	0	90	98	97	63
Fenoxaprop & safener + propiconazol & trifloxystrobin <sup>4</sup>	0.075 + 0.04 & 0.04	3	0	0	0	0	83	83	96	65
Fenoxaprop & safener + bromoxynil & MCPA + propiconazol & azoxystrobin	0.075 + 0.25 & 0.25 + 0.057 & 0.034	18	0	0	0	0	87	93	97	70
Fenoxaprop & safener + bromoxynil & MCPA + propiconazol & trifloxystrobin	0.075 + 0.25 & 0.25 + 0.04 & 0.04	18	0	0	0	0	88	96	93	69
Clodinafop & safener <sup>5</sup>	0.5	0	0	0	0	0	88	98	99	72
Clodinafop & safener + bromoxynil & MCPA	0.5 + 0.25 & 0.25	15	0	0	0	0	90	96	93	65
Clodinafop & safener + propiconazol & azoxystrobin	0.5 + 0.057 & 0.034	7	0	0	0	0	85	98	98	72
Clodinafop & safener + propiconazol & trifloxystrobin	0.5 + 0.04 & 0.04	8	0	0	0	0	90	98	99	77
Clodinafop & safener + bromoxynil & MCPA + propiconazol & azoxystrobin	0.5 + 0.25 & 0.25 + 0.057 & 0.034	25	0	0	0	0	90	97	96	73
Clodinafop & safener + bromoxynil & MCPA + propiconazol & trifloxystrobin	0.5 + 0.25 & 0.25 + 0.04 & 0.04	22	0	0	0	0	90	96	94	68
AE F130060 & safener <sup>6</sup>	0.075	7	0	0	0	0	72	75	82	63
AE F130060 & safener + bromoxynil & MCPA	0.075 + 0.25 & 0.25	23	0	0	0	0	78	70	82	58
AE F130060 & safener + propiconazol & azoxystrobin	0.075 + 0.057 & 0.034	13	0	0	0	0	83	78	85	65
AE F130060 & safener + propiconazol & trifloxystrobin	0.075 + 0.04 & 0.04	7	0	0	0	0	75	63	82	60
AE F130060 & safener + bromoxynil & MCPA + propiconazol & azoxystrobin	0.075 + 0.25 & 0.25 + 0.057 & 0.034	30	0	0	0	0	77	70	63	59
AE F130060 & safener + bromoxynil & MCPA + propiconazol & trifloxystrobin	0.075 + 0.25 & 0.25 + 0.04 & 0.04	27	0	2	0	0	77	67	77	62
Untreated Check	--	0	0	0	0	0	--	--	--	29
LSD P=.05		8	ns	ns	ns	ns	9	13	7	9

<sup>1</sup> Puma 1E.

<sup>2</sup> Bronate Advanced 5E.

<sup>3</sup> Quilt 1.66E.

<sup>4</sup> Stratego 2.08E.

<sup>5</sup> Discover NG 0.5E.

<sup>6</sup> Silverado 2WDG.

**Table 2. Experiment II. Wild oat herbicide x fungicide interaction in hard red spring wheat at Crookston, MN - 2004 (Durgan, Wiersma, Cameron, and Miller).**

Treatment	Rate (lb ai/A)	Wheat Injury		Wheat Yield (bu/A)
		6/21	6/24	
		----- % -----		
Fenoxaprop & safener <sup>1</sup>	0.075	8	2	68
Fenoxaprop & safener + bromoxynil & MCPA <sup>2</sup>	0.075 + 0.25 & 0.25	8	3	71
Fenoxaprop & safener + propiconazol & azoxystrobin <sup>3</sup>	0.075 + 0.057 & 0.034	10	2	70
Fenoxaprop & safener + propiconazol & trifloxystrobin <sup>4</sup>	0.075 + 0.04 & 0.04	10	5	70
Fenoxaprop & safener + bromoxynil & MCPA + propiconazol & azoxystrobin	0.075 + 0.25 & 0.25 + 0.057 & 0.034	10	8	73
Fenoxaprop & safener + bromoxynil & MCPA + propiconazol & trifloxystrobin	0.075 + 0.25 & 0.25 + 0.04 & 0.04	12	7	76
Clodinafop & safener <sup>5</sup>	0.5	3	3	74
Clodinafop & safener + bromoxynil & MCPA	0.5 + 0.25 & 0.25	7	2	71
Clodinafop & safener + propiconazol & azoxystrobin	0.5 + 0.057 & 0.034	5	0	66
Clodinafop & safener + propiconazol & trifloxystrobin	0.5 + 0.04 & 0.04	3	0	65
Clodinafop & safener + bromoxynil & MCPA + propiconazol & azoxystrobin	0.5 + 0.25 & 0.25 + 0.057 & 0.034	7	3	69
Clodinafop & safener + bromoxynil & MCPA + propiconazol & trifloxystrobin	0.5 + 0.25 & 0.25 + 0.04 & 0.04	5	0	67
AE F130060 & safener <sup>6</sup>	0.075	7	2	69
AE F130060 & safener + bromoxynil & MCPA	0.075 + 0.25 & 0.25	7	3	69
AE F130060 & safener + propiconazol & azoxystrobin	0.075 + 0.057 & 0.034	3	2	72
AE F130060 & safener + propiconazol & trifloxystrobin	0.075 + 0.04 & 0.04	5	2	69
AE F130060 & safener + bromoxynil & MCPA + propiconazol & azoxystrobin	0.075 + 0.25 & 0.25 + 0.057 & 0.034	12	10	70
AE F130060 & safener + bromoxynil & MCPA + propiconazol & trifloxystrobin	0.075 + 0.25 & 0.25 + 0.04 & 0.04	8	5	66
Propiconazol & azoxystrobin	0.057 & 0.034	5	3	58
Propiconazol & trifloxystrobin	0.04 & 0.04	2	0	63
Bromoxynil & MCPA	0.25 & 0.25	2	0	57
Bromoxynil & MCPA + propiconazol & azoxystrobin	0.25 & 0.25 + 0.057 & 0.034	3	0	57
Bromoxynil & MCPA + propiconazol & trifloxystrobin	0.25 & 0.25 + 0.04 & 0.04	3	0	62
Untreated Check	--	0	0	0
LSD P=.05		6	5	13

<sup>1</sup> Puma 1E.

<sup>2</sup> Bronate Advanced 5E.

<sup>3</sup> Quilt 1,66E.

<sup>4</sup> Stratego 2.08E.

<sup>5</sup> Discover NG 0.5E.

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