

## Yield, Test Weight, Fusarium Head Blight (FHB) Incidence, Index, Head Severity, Protein and Foliar Disease Levels by Winter Wheat Cultivar and Fungicide Treatment Langdon, 2008.

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Cultivar	Treatment	Yield Bu/A	Test Weight Lb/Bu	FHB			Protein %	Foliar Disease %
				Incidence %	Index	Head Severity %		
Jagalene		110.3	62.1	30.8	1.1	9.2	13.2	1.5
CDC Falcon		109.4	61.6	29.1	0.9	8.5	12.2	6.0
Wesley		102.8	60.7	47.5	3.1	11.6	14.0	5.4
Jerry		100.4	60.3	23.3	0.9	11.5	12.9	2.8
Ransom		99.3	60.1	20.0	0.4	7.6	12.5	4.5
LSD (p>0.05)		10.2	0.4	13.8	1.1	NS	0.5	NS
	Fungicide	108.9	61.2	22.8	0.8	10.0	13.1	4.5
	Untreated	100.0	60.7	37.4	1.7	9.3	12.8	3.5
LSD (p>0.05)		4.5	0.2	8.4	0.8	NS	0.2	NS
Jagalene	<b>Fungicide</b>	<b>116.3</b>	<b>62.5</b>	<b>28.8</b>	<b>1.2</b>	<b>9.9</b>	<b>13.6</b>	<b>1.6</b>
	Untreated	104.2	61.6	32.8	1.0	8.5	12.8	1.5
CDC Falcon	<b>Fungicide</b>	<b>114.5</b>	<b>61.6</b>	<b>26.3</b>	<b>0.7</b>	<b>9.2</b>	<b>12.3</b>	<b>4.5</b>
	Untreated	104.3	61.6	31.9	1.0	7.8	12.1	7.6
Wesley	<b>Fungicide</b>	<b>102.8</b>	<b>61.2</b>	<b>35.0</b>	<b>1.5</b>	<b>10.6</b>	<b>14.2</b>	<b>8.6</b>
	Untreated	102.8	60.3	60.0	4.8	12.6	13.8	2.2
Jerry	<b>Fungicide</b>	<b>106.2</b>	<b>60.3</b>	<b>14.2</b>	<b>0.8</b>	<b>13.1</b>	<b>13.0</b>	<b>2.3</b>
	Untreated	94.6	60.3	32.5	1.0	9.9	12.9	3.4
Ransom	<b>Fungicide</b>	<b>104.8</b>	<b>60.3</b>	<b>2.9</b>	<b>0.1</b>	<b>7.4</b>	<b>12.6</b>	<b>5.7</b>
	Untreated	93.9	59.8	4.1	0.8	7.9	12.4	3.2
% C.V.		6.4	0.5	41.5	88.3	40.6	2.8	120.5

- Planted winter wheat on 13 Sept into flax stubble in 6-in rows. Soil was too dry for complete emergence until after precipitation was received.
- A Fusarium inoculum was distributed in the plot to increase the chance of disease. Fungicide was applied at early flowering growth stage (Feekes 10.51) with a CO<sub>2</sub> pressurized backpack sprayer equipped with XR8001 nozzles oriented forward and backward and angled 30 degrees downward from horizontal. The spray volume was 18.4 GPA applied at 40 psi.
- Prosaro fungicide (Bayer CropScience) and Induce adjuvant (Helena Chemical Co.) were applied at rate of 6.5 fl oz/A and 0.125% v/v.

### Discussion

FHB and foliar disease levels were very small. Fungicide reduced incidence and FHB index by 61 and 47%, respectively. Most importantly, the Prosaro application at early flowering increased yield 8.9 bu/ acre; numerically on four of the five cultivars (range of 10.2 to 12.1 bu/acre), increased test weight by 0.5 lb/bu; numerically on three of five cultivars and increased protein by 0.3 %.