

Project Title: Agronomic Performance Evaluation of Soft White Winter Wheat Cultivars.

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Objectives: To evaluate the agronomic performance of soft white winter wheat cultivars in environments and cropping systems representative of northwestern Montana.

#### Results:

Despite lower temperature than normal during the winter months (Nov.-Jan.), winterkill was minimal and was not recorded. Disease symptoms (stripe rust and TCK) in soft white entries were minimal though hard red entries had moderate infestations in diseases. Yield ranged from 106 Bu/A (NuSky) to 143 Bu/A (Hubbard), with an average of 130 Bu/A. Except NuSky, all soft white entries yielded more than check hard red entry (Neeley). Grain test weight was close to normal and averaged 60 Lb/Bu. Warmer early spring (Mar.-Apr.) resulted in early heading. The mean heading date was Julian 156 and varied within one week. Plant height was taller than normal with an average of 39 inches. As a result, 3 entries (Eltan, Neeley and NuSky) were lodging. Grain protein was normal and averaged 11.6%.

#### Summary:

High yield and good test weight were obtained in soft white winter wheat cultivars in 2003-04 season. The 2003-04 was also an ideal season for evaluation of disease resistance. All entries showed excellent resistance to stripe rust.

#### Future Plans:

Continue to evaluate soft white winter wheat cultivars for adaptation in District 1.

Table 1. Agronomic data from the Soft White Winter Wheat Nursery Grown at the Northwestern Agricultural Research Center Kalispell, MT.

Planted: September 18, 2003

Harvested: August 11, 2004

Entry	Cultivar	Yield	Test	Grain	Heading	Plant	Protein	Lodging	Stripe	TCK
		Bu/A	weight Lb/Bu	moisture %	date Julian	height in	%	%	rust %	0-1
13	Hubbard	142.6	60.4	11.0	156.3	44.2	11.5	3.3	0.0	0.0
12	Finch	139.9	61.7	10.6	159.3	39.6	10.8	0.0	0.0	0.0
3	ROD	139.6	56.7	10.2	158.7	37.0	11.5	0.0	0.0	0.3
6	MACVICAR	138.4	59.8	10.2	154.0	36.4	10.6	0.0	0.0	0.3
14	Simon	137.1	59.5	10.2	153.3	38.6	11.7	0.0	0.0	0.0
2	ELTAN	134.9	57.8	10.2	159.3	39.1	12.0	13.3	0.0	0.0
10	LAMBERT	133.7	60.1	10.0	152.7	38.8	11.4	0.0	0.0	0.0
4	MAC-1	130.7	61.2	10.8	153.0	39.2	11.5	1.7	0.0	0.0
8	LEWJAIN	130.1	58.2	9.4	156.3	34.6	11.6	1.7	0.0	0.0
5	KMOR	127.2	56.1	10.4	156.3	36.4	11.4	1.7	0.0	0.0
9	HILL 81	126.6	60.8	11.4	157.7	40.3	12.1	0.0	0.0	0.0
15	Kolding Exp. line	122.9	62.2	11.0	153.7	37.5	11.2	0.0	0.0	0.0
1	NEELEY	116.3	61.1	11.2	155.3	42.8	12.0	25.0	1.7	0.0
11	NuSky	106.0	59.8	11.2	155.0	43.3	12.5	13.3	3.3	0.7
7	STEPHENS*									
<b>Mean</b>		<b>130.4</b>	<b>59.7</b>	<b>10.6</b>	<b>155.8</b>	<b>39.1</b>	<b>11.6</b>	<b>4.3</b>	<b>0.4</b>	<b>0.1</b>
<b>C.V. (%)</b>		<b>7.37</b>			<b>0.70</b>	<b>2.86</b>		<b>204</b>	<b>300</b>	<b>277</b>
<b>LSD (0.05)</b>		<b>16.14</b>			<b>1.84</b>	<b>1.88</b>		<b>14.65</b>	<b>1.80</b>	<b>0.44</b>

\*: The cultivar Stephens was not emerged after panting.