

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 than normal temperature during the winter months (Nov.-Jan.), winterkill was not observed. Disease symptoms (stripe rust and TCK) in soft white entries were non-existent. On average, yields this year (130 bu/A) were outstanding compared to the previous years average of 67 bu/A. Yields ranged from 106 bu/A for NuSky to 143 bu/A for Hubbard. All soft white entries yielded more than the hard red check variety, 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) experienced some 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 experiment was also an ideal season for evaluation of disease resistance. All entries showed excellent resistance to stripe rust and TCK.

#### 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
		weight		moisture	date	height	%	%	rust	0-1
		Bu/A	Lb/Bu	%	Julian	in			%	
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 (HR)	116.3	61.1	11.2	155.3	42.8	12.0	25.0	1.7	0.0
11	NuSKY (HW)	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 did not emerge.