

PROJECT TITLE: Western Regional Soft White Winter Wheat Evaluations

PROJECT LEADERS: Bob Stougaard and Todd Keener, NWARC, Kalispell, MT.
Phil Bruckner, Plant and Soil Science, Bozeman, MT.

OBJECTIVE: To evaluate soft white winter wheat varieties for adaptability, yield, quality and disease resistance.

RESULTS:

Yields were above average for soft white winter wheats. All but three entries (the long time standards of Kharkof, Elgin, and Moro) yielded above 110 bu/acre. Yields from entries grown in both 1991 and 1992 were 5-10 bushel/A higher this year. Test weights were noticeably lower. Only one entry had a weight in excess of 60 lb/bu (PB185WW1). The mean test weight was 57.1 lbs/bu. Height notes were equal to long time averages. Lodging was minimal throughout the study. The heading date average was one week earlier than last year even though the planting date was only different by two days. Vigor notes were taken on November 12, 1991 in an attempt to monitor over-wintering and plant competitiveness abilities.

SUMMARY:

Adequate moisture in the fall and spring combined with mild winter temperatures contributed to higher than normal yields for soft white winter wheat. Although yields were 5 to 10 bushel per acre the test weight for most varieties was below 60 lb/bu. Higher yields and low levels of lodging were observed in the soft white wheats whereas test weights better in the hard red winter wheat varieties.

FUTURE PLANS: Continued evaluation of new and introduced lines is planned in the future through cooperative state-wide testing.

Table 1. Agronomic data from the Western Regional Soft White Winter Wheat Nursery grown on the Northwestern Agricultural Research Center in Kalispell, MT. Planted: September 20, 1991 Harvested: August 10, 1992

CI NO.	Variety	YIELD BU/A	Test WT LB/BU	HT (IN)	HEAD DATE	LODG.1/ INDEX	VIGOR 2/
CI 1442,	Kharkof	82.4	58.6	47.7	152	60.5	6.8
CI 11755,	Elgin	83.6	55.7	41.8	155	51.7	7.8
CI 13740,	Moro	88.1	52.9	39.4	154	42.6	7.8
CI 13968,	Nugaines	116.4	58.2	30.0	154	0	6.5
CI 17596,	Stephens	116.0	58.2	32.0	152	0	5.8
CI 17917,	Tres	127.4	57.1	36.6	155	9.2	7.8
ORF75336,	YMH/MCD/2/T.spelta/3/SU92/RDL/	140.3	58.0	33.3	152	0	6.3
WA 7529,	Kmor	125.9	57.1	31.7	155	0	6.8
OR 855,	Paha//Sel.72-330/Daws	126.9	58.7	34.2	153	4.2	8.0
WA 7621,	VPM/MS421//WA6241//Tres	125.0	53.7	33.7	155	0	7.5
ORF83115,	SPN2*/Thul III	127.7	57.7	31.7	152	0	5.8
WA 7662,	Luke/Daws//Hill 81, VH086206	126.1	57.4	30.5	156	0	6.8
WA 7663,	Marksmen/Daws, VH085208	126.7	54.7	32.7	157	4.2	6.5
OR833725,	TJB842-12919/SPN	141.9	57.4	39.4	153	0	7.3
OR833765,	6720-11/MDA38/WRM	114.5	56.3	33.5	149	0	6.8
OR840815,	SMB/HN4//SPN/3/WIS//YMH/HYS	116.7	58.2	35.4	152	0	6.8
ID081277,	SPN/Nacozari 76	129.3	56.9	33.5	151	0	7.0
WA 7686,	VH082254/ORCW8313,VH089270	125.6	56.7	34.9	155	0	7.0
WA 7687,	WA 6580/Hill 81, VH086032	124.6	56.3	33.2	153	0	7.5
WA 7622,	Tyee/Reason/Tres, 9022	126.6	56.4	34.5	157	0	7.0
WA 7690,	VPM/MS951/YMH/HYS/Hill 81//WA6	122.6	57.8	35.6	155	0	7.0
WA 7691,	VPM/MS951//YMH/HYS///ID3518, 9	114.3	57.7	32.0	154	0	6.8
OR850933,	YMH/HYS/4/MRS/3/YMH//RBS/NCO	119.0	56.6	30.5	148	0	6.8
OR850594,	STEPHENS/CROW	118.5	57.1	30.5	148	0	7.0
OR851048,	STEPHENS/QUILAMAPU 8-74	117.9	55.9	34.5	155	0	6.8
OR860303,	AFG2/BUC, F1/KVF	111.1	57.1	29.2	150	0	7.0
OR087636,	Pendleton Sel, 87636	123.9	59.0	33.0	154	0	7.0
ID085153,	Sprague/Stephens	132.4	58.2	35.6	152	0	6.5
WA 7729,	WA6814/Tres, VA087002	120.1	53.4	31.5	155	0	8.0
WA 7730,	VH090077	118.5	56.2	32.0	156	0	8.3
WA 7717,	WA7690 Sib	123.1	57.2	36.9	155	1.3	8.8
WA 7695,	Daws//SU92/3*Omar-279	128.9	56.4	31.2	154	0	8.5
WA 7697,	SPN//SU92/3*Omar-279	117.6	56.6	31.0	155	0	7.3
XWH 1004,	X WH1004 Hybritech	132.2	58.6	34.0	152	0	6.3
WA 7431,	ELTAN	127.2	58.1	36.4	157	22.8	7.0
XWH 1005,	X WH1005 Hybritech	135.2	58.1	36.7	154	0	7.0
PB185WW1,	Daws/CIMMYT/PNW Bulk	122.1	60.1	35.1	153	0	7.3
OR851139,	YMH/HYS/3/EG/178383//2*YMH,F1/	129.1	59.3	38.9	155	0	7.8
OR857847,	AFG2/MAYA/MON	119.1	57.4	32.0	152	0	7.0
OR860302,	AFG2/BUC,FZ//KVZ	114.7	58.0	28.1	149	0	7.0
OR856537,	HYS/YAHA//WA4095/3/CERCO/4/69-	117.0	56.8	38.9	155	13.3	7.5
OR855350,	Pendleton Sel. OR85 HR5350	122.0	54.4	34.0	153	10.4	7.3
CI017909,	Lewjain	110.1	57.9	29.5	161	0	7.0
Mean		20.7	57.1	34.1	153.5	5.1	7.1
LSD .05		2.69	1.16	2.04	1.241	16.2	.767

1/ Lodging index is lodging SEVERITY X PREVALENCE / 9
2/ Vigor notes (0 = dead plants, 9 = healthy plants) on 11/12/91