

PROJECT TITLE: Spring Wheat Variety Trials

YEAR/PROJECT: 1988/756 Small Grain Production

PROJECT PERSONNEL: Leader - Vern R. Stewart, Todd Keener - Research Specialist  
Northwestern Agricultural Research Center, Kalispell, MT

SUMMARY:

Dispite the hot dry summer during the season the spring wheat nurseries performed better in yield and test weight than last year. Several varieties had yields in excess of 100 bu/A and test weights were as high as 63 lbs/bushel. Yields, test weights and height were reduced this season at both Lake and Ravalli County sites due to severe weather conditions. Severe weed pressure in the Lake County nursery also effected yields.

RESULTS:

Western Regional Spring Wheat -

Owens had a yield of 105.6 bu/A which was 4 bushels higher than last last year. There were 14 entries that yielded more than 100 bushel/A. The mean yield was 95.9 bu/A, ten bushels less than last year's mean. The test weight mean for this nursery was 59.8 lbs/bu with Owens having a weight of 60.73 lbs/bu. Test weights actually were higher this year than 1987. Heading dates were four days later than the 1987 ( 164.87 ). Table 1. No diseases were noted.

Advanced Yield Spring Wheat -

The check variety Newana yielded 113.85 bu/A with only two varieties, Treasure at 139.08 bu/A, and Owens at 129.08 bu/A, having significantly higher yields. The mean yield for the nursery was 104.08 bu/A, eight bushels higher than last year. Twenty eight entries yielded above 100 bushels/A. Test weights were excellent and averaged 62.19 lbs/bu. Five entries had test weights of 63 lbs/bu or above. Heading dates averaged 168, which was five days later than the 1987 nursery. Table 2.

Lake County Nursery -

Of the twenty varieties tested Owens had the highest yield of 55.1 bu/A. The only other entry yielding above 50 bu/A was Newana ( 50.75 bu/A ). The average yield was 43.3 bu/A. The test weight mean was 60.2 lb/bu.

Ravalli County Nursery -

Light shattering through out this nursery caused reduction in yields. Pondera had the highest yield at 44.94 bu/A. Glenman, Owens, Rambo, and Copper were equal in yield with each producing above 40 bu/A. Test weights averaged 59.4 lb/bu.

Triticale Nursery - The data from a cooperative triticale nursery grown this year is found in Table 5.

Table 1. Agronomic data from the Western Regional Spring Wheat Nursery grown on the Northwestern Research Center, Kalispell, MT. Date seeded: April 1, 1988 Date harvested: August 19, 1988

CI or State #	Variety	Yield Bu/A	Test wt lb/Bu	Heading Date	Height (")
OR487570	EKU SIB/1JB84/1	106.5	59.60	171.0	33.46
WA 7183	K78504/K779129-3	97.45	59.50	171.0	32.02
ID 366	BBH/3/II-60-101	92.80b	60.73	169.3	34.65
ID 75021	ID204/ID134	88.05b	61.00	169.0	31.76b
WA 6920	PENAWANA	99.35	60.03	170.3	30.97b
UT 884	WYNNE/CA353	100.6	59.67	168.7	31.50b
UT 1437	UT74525-910/CA3	100.9	60.27	169.7	35.04
WA 7176	K78504/K74129-3	101.1	59.50	170.7	34.65
WA 7075	K73579/BORAH	101.5	59.03	169.7	32.68
WA 7493	KDM0004/NK751	102.4	60.17	167.7b	32.55
UT 526	FREMONT/ID1165	110.8	61.67	170.0	34.78
ID 312	COWBIRD S./2*ST	105.0	60.80	167.0b	32.94
ID 367	A76102S-1-2/ID1	100.7	59.37	170.0	32.15b
ID 379	ID190/ID138B	106.7	60.37	169.3	33.20
WA 7326	K720508/CI1419	97.35	59.20	170.3	33.59
CI 4734	FEDERATION	66.65b	57.53b	171.0	39.49a
CI 17903	MCKAY	96.85	59.57	171.0	32.15b
ID 372	OWENS/FIELDWIN	104.3	60.93	169.3	36.35a
CI 17904	OWENS 1/	105.6	60.73	170.0	34.25
ORS 8509	VEERY.S,CM33027	94.90	60.60	170.0	29.00b
OR 8508	TANAGER'S',CM30	93.10	61.77	166.0b	30.97b
UT 743	WYNNE/CA353	97.95	60.83	171.0	32.55
ID 341	COWBIRD"S"/5/MC	77.10b	58.97	170.7	29.26a
ID 348	2*SLG//COWBIRD"	101.5	60.80	170.0	33.07
WA 7492	K78504/K74129-3	95.15	58.57	170.7	36.09a
ID 372	ID172/FIELDWIN	105.0	60.90	170.0	33.33
OR 487316	SAP SIB/MON SIB	94.55	59.33	169.7	28.74b
OR 487503	CORVALLIS DUAL	93.10	59.47	171.0	31.89b
UT 1309	UT74525-910/CA3	89.35b	59.63	171.0	35.43
ORS 8510	KINIVET.S,CM377	91.20b	60.80	170.7	31.89b
ID 368	A76102S-1-2/ID1	94.50	59.53	169.0	33.86
WA 7328	NHS07664/NDM000	80.10b	57.47	171.0	33.73
UT 817	WYNNE/CA353	96.05	60.50	170.3	31.23b
OR 487006	BUCK/MATUCHE	87.25b	60.47	162.3b	30.71b
ID 365	COWBIRD"S"/STER	90.75b	59.70	167.0b	31.76b
ORS 8511	KVZ/3/TOB/CFN//	87.45b	60.80	168.7	30.05b
ORS 8512	BOW.S,CM33023-F	92.20b	62.57	168.7	28.61b
WA 7496	K7400315/PTM70S	90.50b	55.97b	169.0	29.40b
ORS8422	TITKOUSE.S,CM30	97.70	54.00b	167.0	29.79b

$\bar{X}$	95.90	59.80	169.5	32.85
C.V.	4.715	1.820	.3916	1.892
L.S.D.	12.74	3.066	1.869	1.729

1/ Check Variety

a/ Values significantly greater than the check at the .05 level

b/ Values significantly less than the check at the .05 level