

107

PROJECT TITLE: Western Regional Spring Wheat Variety Evaluations

PROJECT LEADERS: Bob Stougaard and Todd Keener, NWARC, Kalispell, MT.
Luther Talbert and Susan Lanning, Plant and Soil Science,
Bozeman, MT

OBJECTIVE: To determine the adaptability of new and introduced spring wheat varieties grown under high moisture conditions in Montana.

RESULTS : Spring wheat maturity was delayed until late summer by cool, wet conditions. Both yields and test weights were reduced and heading dates were much later than normal. The average yield was 62 bu/A compared to 81 bu/A last year. Penawawa and the variety Kauz's were the two high yielding varieties with 92 and 93 bu/A, respectively. The mean test weight for the nursery was 48.9 lb/bu with the high test weight of 57.7 lb/bu from the variety Kauz's. Heading was very late in comparison to previous years with the mean heading date being on July 3. Slight incidences of scab and leaf rust were present at the end of the growing season.

SUMMARY: Poor weather conditions and a delayed harvest period contributed to poor grain yields and quality characteristics. Tan spot, Septoria, Wheat Streak, and Stripe rust were evident throughout the spring wheat varieties.

FUTURE PLANS: There are plans to continue evaluation of new and introduced lines of spring wheat in Montana by growing the Western Regional Spring Wheat Nursery.

Table 1. Agronomic data from the Western Regional Spring Wheat nursery grown on the Northwestern Agricultural Research Center.
Planted: May 3, 1993 Harvested: September 28, 1993

VARIETY	YIELD BU/A	TEST WT LB/BU	HEADING DATE	HEIGHT INCHES
OR386306 KAUZ 'S'	92.59	57.50	183.67	34.78
PI495916 PENAWAWA	92.14	53.10	184.67	35.43
OR487255 TAN.S/PEW.S	89.42	55.67	180.33	35.43
UT 1708 UT77W1054-1777/MCKAY	84.49	49.40	186.67	38.71
OR488189 BJY.S/4/TZPP//IRN46/ ID 452 VANDAL/3/WA6291/PROD	83.84	52.80	184.67	31.50
UT 1723 UT77W1054-1777/MCKAY ID 377S GALLO-YR'S'/AU X KAL	80.48	49.93	190.67	34.78
UT 1117 UT78S116-2746/906R	79.19	49.60	188.33	38.71
WA 7715 K74182/POTAM 70,SEL. SUNDER02 SUNSTAR 2	76.68	49.30	180.33	35.43
OR487374 CORVALLIS SEL.487037 WA 7183 WAKANZ	74.71	51.17	186.33	34.12
WA 7176 K78504/K74129-33//K7 WA 7677 K80184/K7905769	73.26	51.03	183.33	36.75
UT 1711 UT77W1054-1777/MCKAY WA 7712 K82382/K82407	71.71	54.30	180.67	31.50
CI 17903 MCKAY ID 429 ID182/FIELDWIN	70.66	51.27	180.33	25.59
FM 5702 NW CONSORTIUM,FM0057 FM 8631 NW CONSORTIUM,FM0086	69.59	49.77	191.33	34.12
ID 439 ID203/ID166//906R ML 42 SEL. ML 42	69.46	49.10	187.00	34.78
ID 440 ID130/MAYA74-PVN'S'/ OR487410 CORVALLIS SEL.487041	67.93	50.37	185.67	34.12
SDM 405 CENTENIAL 2*/FIELDWI UC 638 SERRA	67.07	50.93	187.67	36.75
NKF 8022 KLASIC ID 441 OWENS/4/FDR/MENG//81	66.78	48.57	183.67	38.71
UT850646 UT77W1054-1777/906R SDM 406 CENTENIAL 2*/FIELDWI	66.61	48.57	186.67	34.78
UT 1597 WYNNE/UT78S166-2746 ID 392 OWENS/ID159	62.37	52.20	178.67	34.12
ID 448 A771084S-B/ID246 OR895224 CORVALLIS SEL.489522	60.56	50.53	177.67	24.28
ID 408 ID232/A75120S-2214-1 CI 4734 FEDERATION	59.97	50.33	177.67	24.93
	59.24	48.53	183.33	32.15
	58.42	49.13	187.67	34.12
	57.26	46.87	181.00	34.12
	51.84	50.03	185.00	32.81
	50.78	46.77	182.67	33.46
	48.53	48.13	181.00	31.50
	48.46	49.63	177.00	25.59
	48.04	45.33	180.33	32.15
	46.92	47.60	184.00	43.31
	46.72	46.10	182.00	32.81
	45.55	47.43	189.33	36.09
	42.52	44.07	188.67	36.09
	40.55	43.50	188.67	34.12
	38.82	45.10	188.00	32.15
	29.19	38.37	185.67	31.50
	23.95	35.90	190.00	45.28
EXPERIMENTAL MEANS	62.06	48.86	184.33	33.96
LSD (0.05)	15.27	1.36	1.48	6.20