PROJECT LEADERS: Bob Stougaard and Todd Keener, NWARC, Kalispell, MT Luther Talbert/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 environmental conditions that persisted through most of July. Both yields and test weights were reduced, and heading dates were much later than normal. The average yield was 62.06 bu/A, compared to 81 bu/A last year. Kauz "s" and Penawawa were the high yielding varieties with 92.6 and 92.1 bu/A respectively. The test weight average for the nursery was 48.86 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. The mean heading date was July 3rd. Slight incidences of scab and leaf rust were present at the end of the growing season.

FUTURE PLANS: There are plans for continued 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

	TM particular				
		YIELD	TEST WT	HEADING	HEIGH
at varioties	VARIETY	BU/A	LB/BU	DATE	INCHES
OR386306	KAUZ 'S'	92.59	57.50	183.67	34.78
	PENAWAWA	92.14	53.10		35.43
	TAN.S/PEW.S	89.42			35.43
	UT77W1054-1777/MCKAY	84.49			
	BJY.S/4/TZPP//IRN46/	83.84			31.50
	VANDAL/3/WA6291/PROD	80.48			34.7
	UT77W1054-1777/MCKAY	79.19			38.7
	GALLO-YR'S'/AU X KAL	76.68			
	UT78S116-2746/906R	74.71			
	K74182/POTAM 70,SEL.		51.03		
	SUNSTAR 2	71.71			
	CORVALLIS SEL. 487037	70.66			
	WAKANZ	69.59			
	K78504/K74129-33//K7		49.10		
	K80184/K7905769	67.93			
	UT77W1054-1777/MCKAY	67.07		187.67	
	K82382/K82407	66.78			
CI 17903			48.57		
	ID182/FIELDWIN	62.37		178.67	
	NW CONSORTIUM, FM0057	60.56			
	NW CONSORTIUM, FM0086	59.97			24.93
	ID203/ID166//906R	59.24	48.53	183.33	32.15
ML 42	SEL. ML 42	58.42	49.13	187.67	34.12
ID 440	ID130/MAYA74-PVN'S'/	57.26	46.87	181.00	34.12
OR487410	CORVALLIS SEL.487041	51.84	50.03	185.00	32.81
SDM 405	CENTENIAL 2*/FIELDWI	50.78	46.77	182.67	33.46
UC 638	SERRA	48.53	48.13	181.00	31.50
NKF 8022	KLASIC	48.46	49.63	177.00	25.55
ID 441	OWENS/4/FDR/MENG//81	48.04	45.33	180.33	32.15
UT850646	UT77W1054-1777/906R	46.92	47.60	184.00	43.31
SDM 406	CENTENIAL 2*/FIELDWI	46.72	46.10	182.00	32.81
UT 1597	WYNNE/UT78S166-2746	45.55	47.43	189.33	36.09
ID 392	OWENS/ID159	42.52	44.07	188.67	36.09
	A7710845-B/ID246	40.55		188.67	34.12
	CORVALLIS SEL. 489522	38.82	45.10	188.00	32.15
	ID232/A75120S-2214-1	29.19			
	FEDERATION	23.95			
	TAL MEANS		48.86		
LSD (0.05)	15.27	1.36	1.48	6.20

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