

PROJECT TITLE: Advanced Yield Spring Wheat Variety Evaluations

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

RESULTS : Yields were similar in both spring wheat nurseries this year. Good yields were harvested from the majority of entries. The average yield was 91.55 bu/A compared to 90 bu/A last year. Test weights were slightly reduced and some entries were more prone to kernel shrivel than others. The mean test weight for the nursery was 59.9 lb/bu with the high test weight of 62.3 lb/bu from the variety MT 9311. Heading dates were later than normal and offer a contrast to the early harvest dates of the spring wheat trials. The mean heading date being on June 26.

SUMMARY: Excellent weather conditions contributed to an early harvest yet some varieties were effected by the warm, dry July and August conditions and had shriveled kernels and lower test weights. Owens, Penawawa, Vanna Newana, and MT 9328 were the top producing varieties with yields above 100 bu/a. Spring wheat maturity was advanced by two weeks due to warm, dry weather conditions in July and August.

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 Advanced Yield Spring Wheat Nursery grown on the Northwestern Agricultural Research Center in Kalispell, MT. Planted: April 14, 1994 Harvested: August 23, 1994

VARIETY	YIELD BU/A	TEST WT LB/BU	HEADING DATE	HEIGHT INCHES	
CI 17904	OWENS	111.57	58.30	177.33	34.12
WA 6920	PENAWAWA	111.12	58.40	175.67	33.46
BZ684-23	VANNA	106.47	59.30	177.00	36.75
CI 17430	NEWANA	101.25	59.70	178.00	33.46
MT 9328	MT7810/MT7926	101.08	59.20	176.33	38.06
MT 9311	MT7819/(OLAF/LEW)	99.80	62.30	179.00	38.06
MT 9265	MT8452/MN73167	98.70	61.40	177.33	34.78
PH986-61	WESTBRED 936	98.23	59.00	173.00	29.53
C982-324	RAMBO	98.13	59.20	176.67	32.15
MT 9332	MT7810/MT7926	97.55	61.10	175.00	38.71
ND 606	AMIDON	97.15	60.50	177.33	41.99
MT 9257	MT7810/MT8402	97.03	60.40	176.67	31.50
MT 9341	NEWANA//PND/MT8195	95.78	58.50	178.67	40.03
MT 9333	MT7810/MT7926	95.03	61.10	178.67	38.06
CI 17429	LEW	94.38	62.20	179.33	45.28
BZ990516	BZ990516	93.37	60.40	175.33	32.15
MT 9373	LEW/PND	93.27	59.70	178.00	32.81
WBEXPRES	WESTBRED EXPRESS	93.23	59.40	174.33	25.59
PI483235	GLENMAN	92.35	60.10	178.00	34.78
MT 9340	NEWANA//PND/MT8195	92.22	59.30	179.33	40.03
BZ984326	BORDER	91.97	60.80	174.00	34.78
MT 9325	MT7810/MT7926	91.68	60.30	179.00	40.58
MT 9339	MT7810/(SU73/LEW)	91.38	60.20	179.33	38.06
CI 13596	FORTUNA	91.32	61.40	177.00	43.31
MT 9360	LEW/PND	91.15	59.80	175.67	38.06
TR983239	FERGUS	90.08	61.10	173.00	32.15
WB 926	WESTBRED 926	89.47	58.20	173.00	30.84
MT 9309	MT7819/(OLAF/LEW)	89.10	59.50	177.33	42.65
MT 9321	MT7810/MT7926	88.95	60.60	179.67	41.34
MT 9324	MT7810/MT7926	88.60	59.20	180.00	41.34
MT 9336	MT7810/(SU73/LEW)	88.10	59.10	176.00	34.12
ND 582	STOA	88.03	60.30	176.00	42.65
MT 9323	MT7810/MT7926	87.50	61.00	177.33	37.40
MT 9209	MEXSEL2315/MT7736//MT747/	87.37	59.40	175.00	40.03
MT 9322	MT7810/MT7926	87.32	60.50	180.67	40.68
MT 9313	MT7810/MT7926	87.28	59.80	181.00	39.37
MT 9307	MT8339/3/FTA//NK715/BW559	86.88	61.40	177.67	43.96
CI 17790	LEN	86.78	60.20	176.33	34.78
CI 17828	PONDERA	85.97	61.20	175.33	33.46
PI574642	MCNEAL	85.85	60.10	176.00	34.12
MT 9303	MT8313/(CI15838/MT7418//P	85.33	59.70	175.67	41.34
PI549275	HI-LINE	84.80	59.10	175.00	31.50
ND CUT	CUTLESS	84.50	61.60	175.67	39.37
CI 10003	THATCHER	84.00	60.40	177.00	47.24
MT 9315	MT7810/MT7926	83.90	58.90	178.67	40.03
ND 677	ND622*2/CUTLESS	83.28	61.20	177.00	39.37
MT 9354	MT7810/(SU73/LEW)	80.62	59.60	177.33	36.09
MT 9327	MT7819/(OLAF/LEW)	79.05	62.80	179.00	39.37
MT 9302	MT8313/(CI15838/MT7418//P	78.00	59.60	175.33	36.09
	MEAN	91.55		176.96	37.25
	LSD (0.05)	13.99		2.21	3.58