

PROJECT TITLE: Advanced Yield Spring Wheat Evaluation

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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 67.6 bu/A, compared to 90 bu/A last year. Two Montana entries (MT 9265 and MT 9266) were the high yielding varieties with 99.7 and 94.7 bu/A respectively. The test weight average for the nursery was 52.47 lb/bu with the high test weight of 56.5 lb/bu from the variety MT 9221. As noted, heading dates were 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 Advanced Yield Spring Wheat Nursery.

Table 1. Agronomic data from the Advanced Yield Spring Wheat Nursery grown on the Northwestern Agricultural Research Center, Kalispell, MT. Planted: May 3, 1993 Harvested: September 28, 1993

CI Number	VARIETY	YIELD BU/A	TEST WT LB/BU	HEADING DATE	HEIGHT INCHES
MT 9265	MT8452/MN73167	99.70	54.13	185.00	38.06
MT 9266	MT8452/MN73167	94.69	55.27	182.67	34.12
WA 6920	PENAWAWA	89.88	53.77	183.33	34.78
ND 606	AMIDON	87.71	50.40	184.33	40.68
ND 582	STOA	81.49	52.73	184.33	42.65
MT 8849	RS6880/MT7819	80.14	52.87	186.33	38.06
MT 9234	MN70181/OLAF//MAYA/MT7634	79.43	54.23	184.33	34.12
MT 9257	MT7810/MT8402	79.26	55.53	181.67	34.78
MT 9260	MT7810/MT8180/3/NK715//BW	78.48	55.57	185.33	34.12
CI 17429	LEW	76.38	55.93	188.67	43.31
MT 9254	MT7819/MT8354	75.02	51.60	185.67	38.71
MT 9222	SHASHI/PONDERA/NEWANA//MA	74.13	54.10	180.00	37.40
CI 15930	OLAF	73.48	54.43	185.33	35.43
MT 9242	CI15838/MT7418//PONDERA/M	72.85	55.03	184.33	36.09
WBEXPRES	WESTBRED EXPRESS	72.47	53.27	185.67	29.53
CI 13596	FORTUNA	72.22	54.37	184.33	42.65
MT 9154	BW574//NEWANA/FORTUNA	71.90	54.50	185.00	42.65
MT 9203	CROW'S'/61502	71.40	54.10	180.33	42.65
CI 17904	OWENS	70.33	48.17	182.33	33.46
BZ684-23	BZ684-23	70.17	49.07	186.00	34.78
WB 926	WESTBRED 926	69.73	53.00	178.33	32.81
C982-324	RAMBO	68.74	53.23	185.67	34.78
MT 9262	MT8177/3/MT808//LEW/81TAU	68.39	54.93	183.67	32.81
MT 9153	BW574//NEWANA/FORTUNA	68.33	51.27	182.33	34.78
MT 9158	MEXSEL2315/LEADER	66.70	49.53	183.33	32.81
FA982220	FA 982-220	65.41	51.07	186.67	32.81
MT 9232	MT8421/MT8450	64.93	52.50	180.00	34.78
MT 9217	RS7055/MT7736//CI15838/MT	64.91	54.23	184.33	34.12
CI 17430	NEWANA	64.36	52.30	187.67	33.46
CI 17828	PONDERA	63.95	53.83	183.00	35.43
MT 9233	MT8421/MT8438	63.29	49.77	185.33	38.06
MT 9221	MT8411//SU73/LEW	62.41	56.50	185.67	40.03
MT 9253	RS6508/LEW/4/BUTTE//MT781	61.57	53.83	178.33	31.50
PI483235	GLENMAN	60.63	51.73	186.67	37.40
MT 9157	BW574//NEWANA/FORTUNA	59.62	51.67	187.33	45.28
CI 17790	LEN	59.40	51.30	184.67	35.43
MT 9248	LEW/OLAF//MT8336	59.09	52.37	188.67	38.06
PI486139	KLASIC	57.63	50.73	177.00	25.59
MT 9212	MT8402/ALEX	57.54	53.03	177.33	36.09
MT 9229	MT8416/MT8456	57.48	51.63	180.67	32.15
MT 9206	MT7926//LEW/81TAU1328	57.32	49.13	186.00	40.68
MT 9215	MT8406/MT8302	57.29	47.90	181.33	40.68
ND CUT	CUTLESS	56.67	52.53	182.00	36.09
CI 10003	THATCHER	55.91	53.03	187.67	47.90
MT 8402	HI-LINE	55.87	51.40	182.00	34.12
TR983239	TR 983-239	55.22	51.67	180.67	31.50
MT 9209	MEXSEL2315/MT7736//MT747//	54.41	50.77	183.67	39.37
BZ984326	WPB BZ 984-326	49.46	50.20	180.33	32.81
PH986-61	WESTBRED 936	35.14	47.00	177.33	29.53
EXPERIMENTAL MEANS		67.60	52.47	183.52	36.30
LSD (0.05)		9.65	1.58	2.18	2.33