

PROJECT TITLE: Intrastate Winter Wheat Evaluation

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OBJECTIVE: Evaluation of early generation winter wheat lines for yield, quality, and disease resistance to dwarf bunt and stripe rust.

RESULTS: Yields were drastically reduced in most varieties of the Intrastate Winter Wheat nursery due to a severe infestation of Septoria. Winter kill was not as harsh yet was observed in all plots to some degree. The high yield was 85 bu/A (Ram) while the mean for the nursery was 47 bu/A. Test weights were also less than normal due mainly to environmental conditions throughout the growing season as well as reaction to heavy disease pressures. The mean test weight was 47.2 lb/bu and the high was 53.6 lb/bu (Lamar). TCK smut (dwarf bunt) was observed in the nursery at very low levels.

FUTURE PLANS: Disease resistant varieties will continue to be evaluated at Kalispell through cooperative variety testing.

Table 1. Agronomic data from the Intrastate Winter Wheat Nursery grown on the Northwestern Agricultural Research Center Center, Kalispell, MT
Planted: September 18, 1992 Harvested: August 26, 1993

VARIETY	YIELD BU/A	TESTWT LB/BU	HEADING DATE	HEIGHT INCHES	WINTER KILL% 1/	LODGING INDEX 2/
PI477287 RAM	85.00	50.53	158.33	40.35	3.10	.00
CO850061 YUMA	69.58	51.10	154.00	37.40	4.33	.00
CO820009 LAMAR	69.10	53.60	156.00	45.93	3.33	23.70
MT 88046 PMN5/MT77003//HP344	67.13	52.17	156.33	40.68	4.00	.00
CI 17860 NEELEY	67.12	50.23	161.67	45.28	3.33	1.47
MT 8918 MT7673/MT7115	66.03	48.70	161.00	43.31	1.00	26.30
QT542-F2 HYBRITECH 542 F2	65.50	50.47	156.67	44.62	2.00	2.77
MT 8039 JUDITH	63.87	50.47	158.00	43.96	9.00	.00
IDHW0355 2*MC/NP824/3/LMH66/	63.48	50.47	162.33	47.90	3.33	4.67
ND 8002 SEWARD	61.38	52.63	162.67	50.52	2.33	32.13
PI555458 PROMONTORY	59.75	45.20	158.33	38.71	1.33	.00
PI512302 BLIZZARD	59.73	52.00	163.33	47.90	3.33	6.30
ID 355 MC*2/NP824/3/LMH66/	58.53	48.27	161.33	48.56	1.67	20.37
CI 15075 CENTURK	58.03	48.47	159.00	46.59	4.00	41.13
MT 7811 FRD/WNK//MT6928/TDR	57.77	46.27	160.67	44.62	2.67	2.60
RDW(SEL) AC READYMADE	57.38	50.67	160.67	46.59	5.33	.00
CI 17441 VONA	56.62	49.77	154.67	36.75	1.67	3.33
PI499375 KS73164/PI94424	56.45	48.53	160.67	49.21	2.67	.57
CI 17879 ROCKY	55.03	47.77	159.67	47.24	.67	59.03
CI 17902 WINRIDGE	54.10	48.27	164.00	46.59	2.33	.57
QT 542 HYBRITECH 542	52.97	48.97	157.00	43.96	5.33	8.43
MT 88030 HP340/NRS//MT7216(1R	52.28	50.20	160.00	40.42	11.00	10.90
S86-15 KESTREL	51.10	46.47	162.67	46.59	8.00	1.10
MT 8719 RRI/MT 6928	50.18	49.57	160.00	42.65	3.33	16.13
MTSF2238 LEW/TBR//RDW	49.33	48.97	161.00	44.62	2.00	17.57
MT 8909 MT8001/MT7673	45.83	49.23	160.67	40.03	1.33	.00
CI 17846 MANNING	45.03	43.03	158.00	40.03	5.67	16.47
PI517194 TIBER	43.78	47.13	162.33	47.24	3.33	4.63
S86-736 S86-736	43.68	45.07	160.33	46.59	2.00	5.57
CI 17844 REDWIN	43.00	48.70	162.33	46.59	1.67	.00
PI495594 TAM 107	42.77	47.77	153.00	36.09	3.33	5.93
W235 WINALTA/BEZOSTAYA	42.23	49.77	161.00	52.49	3.33	67.47
CI 17727 WESTON	41.17	45.90	159.33	49.87	4.67	19.43
MT 8713 RRI/MT 6928	40.95	46.57	159.00	36.75	6.67	.00
PI499376 LENORE/KS73164	40.93	43.40	159.67	37.40	2.00	.00
CI 13670 WINALTA	39.40	50.23	160.33	53.81	3.33	80.10
PI499377 MANNING/MT7579	37.97	44.00	160.33	43.31	4.33	10.37
XNH 1609 HYBRITECH 1486	37.60	43.90	154.67	40.68	2.00	.00
PI518591 ARAPAHO	34.23	40.87	158.00	40.03	5.67	.00
PI557013 MERIDIAN	33.68	45.50	165.00	37.40	3.33	.00
PI491532 CREE	30.75	46.53	161.33	51.18	3.00	56.43
PI491533 NORWIN	29.22	46.00	160.33	31.50	6.67	.00
MT 8949 RDW/FRD//RRI/(TT/BU	25.60	37.30	161.67	47.90	5.00	.00
CI 17735 NORSTAR	23.02	43.60	162.00	53.81	3.33	56.77
CI 17439 ROUGHRIDER	20.87	44.20	161.33	50.52	5.33	69.20
PI478771 AGASSIZ	19.08	43.90	161.00	52.23	5.00	65.73
MTSF1142 LEW/TBR//RDW	14.10	39.90	161.33	43.31	2.67	7.60
MT 88005 WSC/YOGO//RSC/3/TD2	10.60	38.00	160.67	48.29	7.00	11.50
MT 8957 RDW/FRD//RRI/(TT/BU	7.57	41.67	162.33	44.62	5.67	.00
EXPERIMENTAL MEANS	46.95	47.18	159.92	44.54	3.83	15.43
LSD (0.05)	16.56	2.49	2.35	3.06	5.15	21.43

1/ Winter Kill = winter injury+snow mold

2/ Lodging Index = Prev X Sever / 9