

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, Septoria and leaf rust.

RESULTS:
Yields ranged from 60 to 125 bu/a in the Intrastate Winter Wheat nursery with the mean yield being 103.8 bu/a. Yields were reduced by early onset of Septoria leaf spot and leaf rust in some varieties. Twenty-two varieties tested had resistance to Septoria while sixteen varieties showed resistance to leaf rust. A snow storm in June caused temporary lodging in many plots. High rainfall in June contributed to further lodging that caused extensive yield loss and low test weights in a few varieties. There was not a significant incidence of dwarf bunt to monitor cultivar reaction.

SUMMARY:
Disease and lodging pressure caused significant yield loss to many hard red winter wheat varieties in the Intrastate Winter Nursery during 1995.

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 North-western Agricultural Research Center in Kalispell, MT.
Planted: September 20, 1994 Harvested: August 28, 1995

VARIETY	YIELD BU/A	TEST WT LB/BU	HEIGHT INCHES	HEADING DATE	LOGGING INDEX	SEPTOR 1/ 2/	L.RUST 1/ 2/
JULES JULES	125.03	58.03	35.43	157.33	4.43	M	R
MT 8039 JUDITH	125.03	59.10	43.31	156.33	.00	L	MR
CI 17846 MANNING	125.03	57.23	40.68	156.33	1.87	O	HS
RH78W296 BIGHORN	123.42	60.17	36.09	157.67	.00	O	R
CI 17902 WINRIDGE	122.61	58.83	47.90	163.00	2.23	O	MR
QT 547 HYBRITECH HYBRID	121.00	59.97	40.03	154.67	.00	L	S
S86-15 KESTREL	121.00	59.17	45.93	159.33	3.33	H	R
PI560129 PROMINTORY	120.19	59.07	39.37	156.33	.00	H	S
PI557013 MERIDIAN	120.19	58.67	38.06	161.67	.00	M	HS
CI 17441 VONA	119.39	59.83	36.75	152.00	2.23	O	R
CO850061 YUMA	116.97	58.70	35.43	152.33	.00	O	R
WI88-275 WI88-275	115.35	56.80	36.75	152.33	.00	O	MR
MT 7811 MT7811	114.55	60.30	42.65	156.67	.00	L	S
BZ6W90-4 BZ6W90-422	112.13	55.27	41.99	156.67	.00	M-H	R
PI564761 MT8719	111.32	60.03	41.99	158.00	.00	O	R
PI518591 ARAPAHOE	110.51	57.07	38.06	154.00	1.30	M	R
MT 9222 MT7811/MT7869//NWN/MT7	110.51	56.17	40.03	160.00	.00	O	S
MTSF2238 VANGAURD	109.71	57.90	42.65	157.00	29.43	O	S
XNH 1643 HYBRITECH HYBRID	108.90	57.07	40.03	156.00	.00	O	HS
MT 91192 WMP4394/MT7811//MT7431	108.90	59.30	40.68	155.33	.00	O	HS
QT 566 HYBRITECH HYBRID	108.90	58.37	40.68	155.00	.00	L	R
CI 17860 NEELEY	108.09	58.10	42.65	159.33	18.90	O	HS
QT 542 HYBRITECH 542	108.09	57.73	43.31	154.67	24.43	O	S
MTS92055 LEW/TBR//RDW	104.87	59.60	42.65	156.67	19.63	L	HS
SDM00214 SDM00214	104.06	58.33	36.75	154.00	.00	H	S
CO910927 HALT	104.06	56.10	32.81	152.00	.00	O	HS
MTS92042 LEW/TBR//RDW	103.25	59.37	43.31	158.67	19.80	O	HS
CI 17844 REDWIN	102.45	61.87	46.59	159.67	.00	M	S
MT 9432 MT7811/TBR	102.45	61.00	45.28	158.33	2.80	O	S
PI564245 KARL 92	101.64	57.10	30.84	151.33	.00	M	R
PI517194 TIBER	100.83	60.03	46.59	159.00	5.20	M	HS
PI512302 BLIZZARD	100.83	59.37	45.93	160.00	44.40	L	S
MT 91051 ORSFTWT/FRD//MT7811	100.03	58.70	45.93	158.67	1.30	O	HS
ALLIANCE ALLIANCE	99.22	57.00	36.09	152.00	.00	L	HS
RDW(SEL) AC READYMADE	98.41	59.00	43.96	159.33	.00	M	S
MTS92057 LEW TBR//RDW	97.61	58.83	40.68	155.33	9.27	O	S
PI491533 NORWIN	94.38	58.33	29.53	160.00	.00	O	HS
MT 8949 RDW/FRD//RRI(TT/BURT7)	94.38	59.30	42.65	159.00	27.00	O	HS
VISTA VISTA	93.57	57.60	33.46	152.67	.00	L-M	R
MT 88046 PMN5/MT77003//HP344	93.57	57.33	39.37	153.67	2.23	M	R
CO820009 LAMAR	91.96	57.00	41.99	154.00	57.40	M	R
IKE IKE	90.35	56.57	35.43	151.67	.00	O	R
CI 17879 ROCKY	90.35	56.13	42.65	155.67	57.60	L	R
CI 17727 WESTON	87.93	57.50	42.65	156.00	60.73	M	HS
CENTURK CENTURK	83.09	54.87	42.65	156.33	80.77	L	I
CI 17735 NORSTAR	79.05	56.07	57.09	163.33	78.60	O	R
W529 W529	74.21	56.30	54.46	162.33	63.47	L	MR
PI478771 AGASSIZ	68.57	52.57	45.93	160.67	91.13	L	I
CI 17439 ROUGHRIDER	59.69	48.13	47.24	160.00	67.77	M-H	HS
MEAN	103.83	57.90	41.28	156.78	15.86		
LSD (.05)	18.70	2.79	2.23	1.70	18.06		

1/ DISEASE LEVELS: O= NO DISEASE, L=LOW, M=MODERATE, H=HIGH
2/ DISEASE RESISTANCE: R=RESISTANT, M=MODERATE, S=SUSCEPTIBLE, I=INTERMEDIATE, H=HIGH