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 to environmental conditions and 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.

SUMMARY: Heavy disease pressure from Septoria and other leaf spot pathogens limited yields this year in the Intrastate Winter Wheat Nursery.

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