

PROJECT TITLE: Off-station hard red winter wheat variety
trial:Dwarf smut area, Lodgegrass, 1990.

PROJECT LEADERS: G.F. Stallknecht and K.M. Gilbertson

PROJECT PERSONNEL: John Bowman, Lodgegrass MT - Cooperator
Kirk Barnette - Bighorn Co. Agent

PROJECT LOCATION: MSU - Southern Agricultural Research Center,
Huntley, MT 59037

OBJECTIVES: To evaluate hard red winter wheat varieties and
breeder selections for resistance to Dwarf bunt, Tilletia
controversa.

SUMMARY AND RESULTS: There was no disease pressure in 1990 so
yields were quite good. Hybritech QT 542 was highest yielding but
had lowest protein. Weston had the highest test weight, Cheyenne
was tallest, and Blizzard had the highest protein. Only three
varieties lodged, with line MT 7811 worst at 70% down.

FUTURE PLANS: This is an ongoing trial to evaluate lines in a
dwarf bunt problem area.

TABLE 1 . 1990 DRYLAND OFF STATION HARD RED WINTER WHEAT TRIAL,
 LODGEGRASS, MONTANA.

VARIETY		YIELD BU/AC	TESTWT LB/BU	PLANTHT INCHES	PROTEIN %	% DOWN
QT 542	HYBRITECH	73.31	60.30	42.67	12.00	.00
RH78W296	BIGHORN	66.57	60.43	35.67	14.50	.00
MT 8039	JUDITH	61.94	57.90	40.33	14.20	.00
CI 8885	CHEYENNE	59.16	60.00	51.00	14.70	.00
CI 17902	WINRIDGE	58.76	57.83	42.33	13.30	.00
CI 15075	CENTURK	56.26	59.37	47.00	14.40	.00
CI 17879	ROCKY	55.79	59.40	45.67	13.20	.00
2	WESTON	55.07	60.63	42.67	14.00	.00
CI 13670	WINALTA	54.90	60.53	47.67	14.10	.00
PI491532	CREE	54.46	59.67	47.67	14.40	.00
3	MANNING	52.11	56.77	41.33	13.10	.00
PI517194	TIBER	51.71	59.23	48.33	14.30	.00
CI 17844	REDWIN	49.77	59.63	44.00	14.70	.00
CI 17735	NORSTAR	49.58	59.83	49.00	13.90	.00
PI491533	NORWIN	48.97	59.03	29.33	13.40	.00
CI 17860	NEELEY	46.94	58.40	40.67	14.30	.00
4	SUNBRED BLR	46.91	59.63	43.33	14.10	20.00
1	BLIZZARD	44.42	59.30	44.33	15.10	50.00
MT 7811	FRD/WNK//MT6928/TDR	40.32	57.67	40.00	14.30	70.00

***** STATISTICAL TABLE *****

EXPERIMENTAL MEANS	54.05	59.24	43.32
TOTAL OBSERVATIONS	57.00	57.00	57.00
NO. OF REPLICATIONS	3.00	3.00	3.00
NO. OF VARIETIES	19.00	19.00	19.00
C.V. 1: (S/MEAN)*100	14.13	1.93	5.97
C.V. 2: (S OF MEAN/MEAN)*100	8.16	1.12	3.45
LSD (0.05)	12.65	1.90	4.28

FB381390.WWD
 3813WW.STT