

PROJECT TITLE: Off-station hard red winter wheat variety trial:Dwarf smut area, Lodgegrass, 1991.

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

PROJECT PERSONNEL: Lynn Folda, 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 1991, but an N-fertility deficiency lowered yields and proteins. Hybritech QT 542 was highest yielding, Rocky had the highest test weight, QT 542 was tallest, Bighorn the shortest, and Blizzard, Manning, and Warrior had the highest protein.

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

TABLE 1 . 1991 OFF STATION WINTER WHEAT VARIETY TRIAL
 LODGEGRASS, MONTANA.

VARIETY	YIELD BU/AC	TEST WT LB/BU	PLANTHT INCHES	PROT %
QT 542 HYBRITECH QT 542	43.84	61.50	38.00	12.00
RH78W298 BIGHORN	39.27	60.97	25.00	11.60
CI 17860 NEELEY	38.82	62.03	33.00	12.90
CI 17879 ROCKY	38.64	62.63	34.00	11.00
PI517194 TIBER	38.47	61.17	29.00	12.40
PI491532 CREE	37.46	62.13	34.00	13.00
MT 88062 CST/VT 1230//ID74510	36.63	60.00	29.00	12.20
MT 88065 CST/VT 1230//ID74510	36.00	60.87	28.00	10.60
ID 297 BLIZZARD	35.66	60.87	28.00	13.60
CI 17902 WINRIDGE	34.51	60.47	32.00	11.20
CI 15075 CENTURK	34.20	62.00	35.00	11.80
CI 17952 HAWK	33.81	61.97	28.00	11.70
CI 17844 REDWIN	33.55	61.73	32.00	13.00
CI 8885 CHEYENNE	33.48	61.50	36.00	11.80
ND 8002 SEWARD	32.72	60.47	33.00	12.60
MT 88064 CST/VT 1230//ID74510	32.40	57.97	25.00	10.50
MT 8039 JUDITH	32.27	60.33	31.00	12.50
CI 17727 WESTON	31.81	62.17	35.00	14.20
CI 17846 MANNING	31.60	60.90	30.00	12.80
CI 13670 WINALTA	31.51	61.53	34.00	13.20
PI478771 AGASSIZ	31.43	61.30	35.00	13.60
CI 17441 VONA	30.58	62.10	27.00	12.00
MT 7811 FRD/WNK//MT 6928/TR	29.19	61.33	32.00	12.90
CI 17735 NORSTAR	28.23	61.27	35.00	13.30
CI 13190 WARRIOR	27.51	60.53	34.00	14.20
CI 17439 ROUGHRIDER	24.91	61.07	34.00	13.90

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

EXPERIMENTAL MEANS	33.79	61.18
TOTAL OBSERVATIONS	78.00	78.00
NO. OF REPLICATIONS	3.00	3.00
NO. OF VARIETIES	26.00	26.00
C.V. 1: (S/MEAN)*100	16.45	.75
C.V. 2: (S OF MEAN/MEAN)*100	9.49	.43
LSD (0.05)	9.11	.75

DATE PLANTED: 10-04-90
 DATE HARVESTED: 7-31-91

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 3816WW.STT