

PROJECT TITLE: Evaluation of winter wheat, spelt and triticales off-station at Molt and Ryegate.

PROJECT LEADER: G.F. Stallknecht, K.M. Gilbertson

PROJECT PERSONNEL: Phil Bruckner, MSU Winter Wheat Breeder, Pat Graham, Stillwater Co. Agent, John Pfister, Musselshell-Golden Valley Co. Agent, Dave Kelsey, Molt cooperators, Tony and Charlotte Zinne, Ryegate cooperators.

PROJECT LOCATION: Dave Kelsey Farm, Molt, Coulee Hill Ranch, Ryegate

OBJECTIVES: To evaluate winter wheat, winter triticales, and winter spelt cultivars under various environments in south-central Montana

RESULTS: Table 1 gives the data for the winter wheat trial at Molt. Arapahoe (45.1 bu/ac) was the highest yielding. Weston (62.4 lb/bu) had the highest test weight. Agassiz (37 in.) was the tallest, and Hawk (25 in.) was the shortest.

Table 2 gives the data for the winter grain comparison trial. B0010 Triticale (3464.4 lb/ac) was the highest yielding alternate cereal. It was even significantly higher than Arapahoe (2707 lb/ac, 45 bu/ac) winter wheat. Presto triticales (55.5 lb/bu) had the highest test weight. Trical 102 a forage triticales was tallest, while B0010 triticales was the shortest.

Ryegate trial was hailed out, so no data shown.

SUMMARY: It appears (based on this one year trial) that triticales certain triticales cultivars can out yield winter wheat. Spelt lines can yield with or slightly less than winter wheat as well. It appears there is a potential for these alternate cereals in this area.

TABLE 1. 1995 OFF STATION DRYLAND WINTER WHEAT NURSERY MOLT, MT

***** VARIETY MEANS *****

VARIETY	YIELD BU/AC	TESTWT LB/BU	PLANTHT INCHES
PI518591 ARAPAHOE	45.12	59.20	31.00
CI 17727 WESTON	44.51	62.40	36.00
RH78W296 BIGHORN	41.94	60.20	27.00
CI 17846 MANNING	41.45	60.70	33.00
CI 17940 ARCHER	41.44	59.30	30.00
S86-15 KESTREL	39.67	59.60	35.00
PI564761 MT 8719	39.65	61.30	33.00
PI517194 TIBER	38.86	59.80	33.00
CI 17902 WINRIDGE	37.60	59.00	32.00
CI 17952 HAWK	37.16	60.60	25.00
MT 8039 JUDITH	35.69	60.40	29.00
CI 17860 NEELEY	34.89	60.10	31.00
CI 17879 ROCKY	34.64	61.20	31.00
PI512302 BLIZZARD	34.62	60.10	29.00
QT 542 HYBRITECH 542	34.50	60.30	33.00
RDW(SEL) AC READYMADE	34.44	60.20	33.00
MT 7811 MT 7811	33.76	59.80	28.00
MTS92042 LEW/TBR//RDW	33.05	59.00	34.00
CI 17844 REDWIN	30.56	59.80	35.00
MT 88046 PMN5MMT77003//HP344	30.24	60.70	30.00
MTSF2238 VANGUARD	29.54	58.90	30.00
PI478771 AGASSIZ	28.97	60.00	37.00
CI 15075 CENTURK	26.91	60.70	30.00
CI 17735 NORSTAR	22.45	60.90	35.00
EXPERIMENTAL MEANS	35.49		
LSD (0.05)	8.52		

TABLE 2. 1995 MOLT OFF-STATION WINTER GRAIN COMPARISON TRIAL

***** VARIETY MEANS *****

VARIETY	YIELD LB/AC	TESTWT LB/BU	PLANTHT INCHES
BOO10 - TRIT	3464.38	49.90	36.00
PRESTO - TRIT	3395.79	55.50	41.00
GR 900 - SPELT	2249.43	30.50	45.00
TRICAL 102 - TRIT	2079.77	49.40	51.00
PI348528-69Z6.706 SP	2019.92	30.90	42.00
PI168682-ALSTROUM-US	1861.58	33.10	41.00
ALTGOLD - SPELT	1853.41	33.00	48.00
VITA II - SPELT	1453.66	33.10	44.00
SINDELAR MIX - SPELT	1435.94	36.70	41.00
ROQUIN (WILLIE) - SP	1386.78	31.00	43.00
MEAN	2120.1		
LSD 0.05	398.8		