

PROJECT TITLE: Evaluation of winter wheat variety performance in under fallow near Winifred.

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OBJECTIVES:

Evaluate agronomic performance of winter wheat varieties in crop-fallow environments in the central Montana.

RESULTS:

2003 Winter wheat trials were established on tilled fallow near Winifred. Soil moisture was fair to good. The soil had dried since the early September moisture. Winter survival was good. Good spring moisture provided for excellent growth. The deep soils stored sufficient water for decent seed density in spite of the hot dry conditions experienced in the mid late growing season. The two previous winter wheat trials at Winifred were not harvested.

Promontory produced the highest nursery yield and test weight at 52.3 bu/a and 62,9 lbs/bu. compared to the nursery means of 43.4 bu/a and 58. lbs/bu., respectively. Vanguard had the high grain protein content at 16.3 followed by Rampart and Big Sky, both with 16.1 % protein.

SUMMARY:

In spite of the mid to late growing season drought and extreme heat the winter wheat on the deep clay soils was able to produce a good yields with good quality. Promontory continues to perform well in the central Montana environment. The recent Montana releases Big Sky, Rampart and Vanguard continue to set the standard for protein content.

FUTURE PLANS:

Winter wheat variety evaluations will continue at Winifred.

Table 1 2003 Winifred winter wheat variety performance on tilled fallow.
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ID	Variety	Plant Ht	Yield	Test WT	Protein	Moisture
		"	bu/a	lbs/bu	%	%
PI555458	PROMONTORY	32.8	52.3	62.9	13.9	7.5
MT00159	Promontory/Judith	32.5	50.5	58.6	14.9	8.5
MTW9441	NUSKY	36.9	49.1	60.7	12.5	8.0
BZ96-919	PRYOR	31.9	48.5	56.2	15.6	7.3
RH78W296	BIGHORN	32.1	46.0	58.9	14.5	7.8
CI 17879	ROCKY	35.6	45.0	59.3	15.0	7.5
ND9257	JERRY	35.9	44.4	58.8	13.9	8.0
MTI01158	Fidel/Tiber	34.3	44.3	58.3	15.4	8.1
MT9982	Promontory/Judith	32.9	43.9	57.9	15.2	8.3
MTR9997	PI262605/MT7863//Redwin	34.5	43.2	60.5	15.2	7.7
MT9989	Blizzard/Arapahoe	34.1	43.2	56.2	15.1	8.2
PI586806	NUWEST	34.7	42.8	59.5	15.4	7.6
PI584526	JUDITH	33.9	42.8	56.0	15.1	8.0
MTS0031	MTS92015//Vanguard/Norstar	34.7	42.5	59.4	13.4	7.6
MT0097	Erhardt//Judith/Kestrel	31.2	42.5	58.7	14.6	8.0
S94-4	CDC FALCON	28.8	42.1	58.1	14.1	7.3
PI593891	VANGUARD	33.2	41.7	57.0	16.3	7.6
CI 17860	NEELEY	33.6	41.5	58.5	14.4	8.0
MT 9432	BIGSKY	35.2	41.1	59.3	16.1	7.5
MT9426	PAUL	30.9	41.1	57.5	12.4	8.1
PI593889	RAMPART	35.5	40.9	59.8	13.4	7.7
PI517194	TIBER	35.3	40.6	57.4	16.1	7.6
PI599336	MORGAN	33.3	38.2	57.3	15.0	7.4
CI 17735	NORSTAR	36.7	34.4	59.6	14.8	7.8
	Mean	33.8	43.4	58.6	14.7	7.8
	CV (S/MEAN) % =		12.4			
	LSD(0.05 by t)=		8.84 ns			
Seed date:	1-Oct-02					
Fertilizer:	10-10-10-5 w/seed	60 lbs N				
Harvest Date:	29-Jul-03					