2011 SPRING WHEAT VARIETY PERFORMANCE EVALUATION

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The variety performance evaluations conducted by the Wyoming Agricultural Experiment Station are a continuous and ongoing program. In cooperation with University breeding programs and private seed companies, a wide range of germplasm is evaluated each year. Results are posted on the web at **http://uwadmnweb.uwyo.edu/UWPLANT/key.htm**. Contact Mike Killen (307) 754-2223 or mkillen@uwyo.edu with questions.

MATERIALS AND METHODS

The experimental design of all trials was 3 replications of a randomized complete block. Measurements included heading date, plant height, lodging, grain yield, and test weight. Data were analyzed using SAS procedures for analysis of variance.

UW-REC (POWELL): The experiment was located at the University of Wyoming Research and Extension Center in Powell, Wyoming during 2011. The soil was a Garland clay loam (fine, mixed, mesic; Typic Haplargid) and had a cropping history of: 2010, dry beans; 2009, small grains; and 2008, dry beans. The soil was fertilized for a yield goal of 100 bushels of grain per acre. Fertilizer was applied on 1 April, at the rate of 230 pounds N and 50 pounds P_2O_5 in the form of urea (46-0-0) and diammonium phosphate (11-52-0). The soil in the study area was prepared for planting by fall plowing, roller harrowing, and leveling. On 5 April, 30 wheat varieties were established in plots 7.3 by 20 feet using double disk openers set at a row spacing of 7 inches. The seeding depth was 1.5 inches, and the seeding rate was 100 pounds of seed per acre for all entries except durum types were seeded at a rate of 150 pounds of seed per acre. Weeds were controlled by a post application of a tank mixture of bromoxynil and MCPA (Bronate Advanced 1 pt) broadcast at 0.50, 0.50 pounds active ingredient per acre on 4 June. Furrow irrigations were 27 April, 9 June, 23 June, 8 July, 20 July, and 4 August. Subplots, 5.3 by 8 feet, were harvested on 24 August, using a Wintersteiger plot combine.

ACKNOWLEDGMENTS

Appreciation is extended to the Powell Research and Extension Center staff for their assistance during 2011.

Table 1. Agronomic performance of spring wheat genotypes grown at University of Wyoming, Powell Research and Extension Center, Powell, WY during 2011.

Variety	Grain Yield	Protein	Test Weight	Plant height	Heading Date	Lodging
HR unless indicated	bu/acre	%	lb/bu	inches		1-9
WB Prestea HW	130.9	11.8	62.9	33.7	4-Jul	1
Solano	130.5	11.9	60.8	29.5	5-Jul	1
Volt	129.3	11.9	62.7	31.9	8-Jul	1
Choteau	126.7	12.2	59.3	35.7	8-Jul	1
Breaker	124.4	12.8	60.2	35.7	8-Jul	1
WB Rockland	123.7	12.6	62.7	27.4	4-Jul	1
WB Gunnison	123	12.6	59.7	34.8	8-Jul	1
Alturus SW	122.8	10.3	58.9	35.7	8-Jul	1
2375	122.7	12.5	59.5	36.7	8-Jul	1
WB-Mayville	121.1	12.8	59.3	33.5	8-Jul	1
Hank	119.5	12.8	58.3	33.9	8-Jul	1
Kuntz	117.7	12.4	60	33.1	8-Jul	1.3
WB Fuzion	117.5	12.5	58.8	36.5	4-Jul	1
Samson	117.2	12.3	58.8	34.8	8-Jul	1
Brennan	116.6	12.9	62.8	34	4-Jul	1
Verde	116.4	11.5	61.3	37.5	9-Jul	1
Reeder	115	12.8	59.3	37.8	8-Jul	1
Jedd	112.6	12	57	29.4	4-Jul	1
Alzada Durum	112.6	10.2	59.9	29.9	4-Jul	2
Outlook	110.6	12.5	57.6	38.7	8-Jul	1
O Neal	110.1	12.4	59.4	35.8	8-Jul	1
Vida	109.8	13.1	59	38.6	8-Jul	1.7
Alzada Durum 150*	107.7	11	60.2	29.9	4-Jul	2
Belfield Durum	99.9	11.4	59.2	29.1	4-Jul	1.3
McNeal	99.2	12	59.2	36.5	20-Jul	1
Vantage	94.5	14.2	63.7	34.5	12-Jul	1
Keene	84.5	13.8	62.6	44.5	8-Jul	3.7
X-2210 Triticale	76.6		46	49.5	14-Jul	1.7
Chris	66.2	14.7	59	44.4	8-Jul	6.7
Marquis	63.9	14.2	59.2	46.1	8-Jul	5
Mean	**110.8**	**12.4**	**59.6**	**35.6**	**7-Jul**	**1.5**
LSD	**11**	**0.9**	**2.5**	**3**		**0.7**
CV%	**6.1**	**4.6**	**2.6**	**5.1**		**28.9**

*seeded 150 lbs/acre