

# **2010 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 the Uniform Hard Red Spring Wheat Nursery and private seed companies, a wide range of germplasm is evaluated each year.

## **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 2010. The soil was a Garland clay loam (fine, mixed, mesic; Typic Haplargid) and had a cropping history of: 2009, dry beans; 2008, small grains; and 2007, dry beans. The soil was fertilized for a yield goal of 100 bushels of grain per acre. Fertilizer was applied on 18 March, at the rate of 180 pounds N and 75 pounds P<sub>2</sub>O<sub>5</sub> 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 14 April, 48 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 22 April, 10 June, 23 June, 8 July, 16 July, and 28 July. Subplots, 5.3 by 8 feet, were harvested on 19 August, using a Wintersteiger plot combine.

## **ACKNOWLEDGMENTS**

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**Table 1. Agronomic performance of spring wheat genotypes grown at University of Wyoming, Powell Research and Extension Center, Powell, WY during 2010.**

<b>Variety</b>	<b>Plant height</b>	<b>Heading Date</b>	<b>Lodging</b>	<b>Grain yield</b>	<b>Test weight</b>
Hard Red unless indicated	inches	Days from Jan. 1	1-9	bu/acre	lb/bu
Volt	31.4	180	1.0	133.4	63.0
09FSP3	35.0	181	1	127.2	62.8
Hank	30.6	179	1.0	126.6	58.0
SD4112	35.7	177	1.3	124.1	61.3
09FSP 18	34.4	179	1.3	124.0	62.1
Kuntz	31.7	181	1.0	121.7	61.7
BW 928 CWRS	34.9	177	1	121.4	63.0
MT 0832	35.2	179	2	120.0	60.5
Fuzion (BZ901-717)	33.2	177	1.0	118.6	62.1
2375a	35.2	181	1	118.5	60.5
Alzada durum	28.2	177	2.3	117.8	61.5
03S0352-22	33.5	177	1	117.4	62.0
SD4011	34.4	177	1	117.2	62.1
MO3/3-23	36.3	180	2.3	116.5	60.2
MN07098-6	35.7	177	1	116.4	62.4
Brennan	30.4	177	1.7	114.7	62.7
03S0253-7	31.2	177	1	114.6	63.1
BW431 CWRS	39.5	177	1.7	114.6	61.8
NDSW0703 WSW	34.5	181	1	114.2	59.4
McNeal	35.3	181	1.0	114.2	60.1
Jedd CL	29.9	177	1.3	114.1	60.9
MT 0827	35.0	177	1.7	113.7	61.1
SD4076	34.0	177	1	113.4	63.6
NDSW0701 WSW	33.6	179	1	113.2	60.8
03S0119-12	32.6	177	1.3	112.9	63.7
NDSW0702 WSW	34.9	181	1.3	112.9	59.7
Verde	37.8	181	1.3	112.7	60.7
MT 0852	35.9	180	1.3	112.1	61.2
Choteau	35.0	181	1.0	111.2	61.5
WB 936	30.3	177	1.0	110.8	59.2
MN05214-3	29.6	177	1	110.6	63.2
MN06075-4	33.9	179	1	110.5	61.9
Vida	34.1	181	1.7	110.0	59.9
BW427 CWRS	37.5	177	1.7	109.9	60.8
MN06018	32.8	179	1	109.5	61.7
NDSW0612 WSW	35.2	185	1.3	109.4	61.4
SD4023	34.0	180	1.3	109.2	62.1
02S0091-9	29.9	177	1	106.9	61.0
MO5/1-2	39.6	177	2	106.3	61.0
MO6/1-24	35.7	177	1.7	105.9	62.4
02S0170-3	30.2	177	1.3	105.3	62.0
MO5/1-3	37.8	180	1	104.5	57.8
Keene	41.7	177	1	102.0	61.6
MO6/1-23	37.7	177	2	101.4	62.4
MN06028	28.6	179	1	101.2	62.8
SD3997	40.7	177	1	83.7	61.8
Chris	45.7	185	4.7	75.4	60.9
Marquis	46.3	185	4.3	71.3	59.1
<b>Mean</b>	<b>34.7</b>	<b>178.9</b>	<b>1.4</b>	<b>111.5</b>	<b>61.4</b>
<b>LSD<sub>0.05</sub></b>	<b>2.7</b>		<b>0.9</b>	<b>15.3</b>	<b>1.5</b>
<b>CV%</b>	<b>4.8</b>		<b>40.6</b>	<b>8.4</b>	<b>1.5</b>

\*Durum seeded at 150 lbs/a unless indicated      Contacts: Mike Killen, 307-754-2223.