Research Bulletin 169

January 2008

2007 Small Grains Report

Southcentral and Southeast Idaho

Cereals Research & Extension Program

Juliet Windes, Chad Jackson, Tod Shelman, Linda Beck, and Katherine O'Brien

http://www.ag.uidaho.edu/scseidaho

University of Idaho
College of Agricultural and Life Sciences

ACKNOWLEDGEMENTS

Idaho wheat and barley producers, through cooperative research and extension grants from the Idaho Wheat and Barley Commissions, provided partial funding for these small grain performance evaluations. Support was also provided by the University of Idaho Cooperative Extension System, the Idaho Agricultural Experiment Station, and by fees paid by plant breeding companies. This report represents the collective efforts of many individuals. Idaho Cooperative Extension System County Educators coordinated many of the off-station nurseries and field days. Grower-Cooperators provided their time, land, and other inputs for management of these trials and appreciation is expressed to them for their support. The Idaho Wheat Quality Laboratory at Aberdeen determined the quality data for harvested wheat samples. Appreciation is also expressed to the numerous support workers who assisted with trial establishment, maintenance, harvest, grain processing, and data analysis. Finally, cereal breeders throughout the Northwest are recognized for their contributions since the nurseries would not be possible without their entries. The authors wish to thank all who have contributed to the success of this project.

Grower Cooperators

Don Ayers- Soda Springs
Dave Cook- Ririe
Don Marotz- Ashton
Timm Adams- Rupert
Ned Moon and Melvin Barfuss of Jentzch-Kearl Farms- Rupert
Marc Thiel- Idaho Falls

District III & IV Cereals Research and Extension Employees

Martha Carrillo
Ester Serna

Other UI Employees

Jim Whitmore
Richard Hayes
Kristi Copeland
Mary Lauver
Bonnie Grover
Denise Wedel
Randy Gamble
Kevin Park
Lyona Anderson
Erica Ziebarth

UI Extension Educators

Dale Baker- Minidoka County
Gale Harding- Madison County
Stan Gortsema- Power County
Steve Harrison- Caribou County
Reed Findlay- Bannock County
Wayne Jones- Bonneville County
Stuart Parkinson- Franklin County
Brian McLean- Jefferson County
Ben Eborn- Teton County

Peer Reviewed by

John Burns- Washington State University
Dr. Pamela Hutchinson- University of Idaho

About the Authors:

Juliet Windes is the Cereals Cropping Systems Agronomist & Pathologist with the District III & IV Cereals Extension Program.
Chad Jackson is a Senior Scientific Aide with the District III & IV Cereals Extension Program.
Tod Shelman is a Scientific Aide with the District III & IV Cereals Extension Program.
Linda Beck is a Technical Aide with the District III & IV Cereals Extension Program.
Katherine O'Brien is the Lab Manager of the UI's Wheat Quality Laboratory at Aberdeen.

Disclaimer Statement:

This report represents research in progress and results may change with additional testing. Recommendations for use or non-use of any variety tested in these trials is not stated or implied. Inclusion of a variety in these trials cannot be construed as recommending that variety over varieties not included in the trials.

ALWAYS read and follow the instructions printed on the pesticide label. The pesticide recommendations in this UI publication do not substitute for instructions on the label. Due to constantly changing pesticide laws and labels, some pesticides may have been cancelled or had certain uses prohibited. Use pesticides with care. Do not use a pesticide unless both the pest and the plant, animal, or other application site are specifically listed on the label. Store pesticides in their original containers and keep them out of the reach of children, pets, and livestock. Trade names are used to simplify information; no endorsement or discrimination is intended

☙ Table of Contents ❧

2007 Agronomic Data

Yield Percentage of Location Averages

Quality and End-use Data

2007 Small Grains Report Table & Chart List

2007 Small Grains Report Table & Chart List

2007 Small Grains Report for Southcentral and Southeastern Idaho

Juliet Windes, Chad Jackson, Tod Shelman, Linda Beck, and Katherine O'Brien

Additions and Changes:

For 2007, nitrogen management practices were enhanced. For methodology please see explanation under Materials & Methods on page 2; for fertility amounts please see location descriptions on pages 5 to 9. The format of this report has been modified to increase simplicity and incorporate commentary on data results. The new commentary section is found on pages 14 to 18.

Introduction

Increases in cereal grain yields result from a combination of genetic improvements in varieties and from improved agronomic practices. Studies have shown that genetic improvements have contributed more than 50 percent of the total improvement in yield over the past 30 or 40 years. The objective of the University of Idaho Small Grain Performance Trials is to provide an unbiased appraisal and evaluation of currently available varieties and advanced experimental lines. This information will assist Idaho growers in comparing and selecting varieties best suited to their particular area and growing conditions.

Varietal development programs strive not only for greater yield potential, but also for improved end-use quality, better disease and insect resistance, yield stabilization through improved winter hardiness, better straw strength, etc. A more detailed description of variety development, cooperative extension testing and evaluation, and seed production programs is given in the University of Idaho publication titled, "Small Grain Variety Development and Adaptation in Idaho", CIS 976. Bringing a new variety to the market place is a cooperative effort by many individuals.

Varieties are best evaluated by comparing performance over a number of locations and preferably over more than one year. Varietal performance can change in response to both environmental and cultural/management conditions. This report summarizes small grain trials conducted throughout South-Central and Southeastern Idaho that were harvested in 2007, as well as milling and baking data from trials harvested in 2006.

Materials & Methods

Locations

Cereal trials were established at four winter and five spring locations throughout SC and SE Idaho during the fall of 2006 and the spring of 2007. For location details, please see the data tables on pages 5 to 9. The Ririe winter and Soda Springs trials were grown under dryland conditions, all other trials were grown under irrigation. The trials at Aberdeen and Kimberly were grown at UI Research and Extension Centers, and the remaining trials were grown in producers' fields.

Agronomic Practices

Untreated seed was planted at the following rates:

- Irrigated Wheat: 1,000,000 seeds per acre or approximately 95 pounds per acre.
- Irrigated Barley: 800,000 seeds per acre or approximately 80 pounds per acre.
- Dryland Wheat: 700,000 seeds per acre or approximately 65 pounds per acre.
- Dryland Barley: 600,000 seeds per acre or approximately 60 pounds per acre.

Row spacing was set at 7 inches using double disk opener row-units for all locations except the Ririe dryland location where a 10 inch row spacing and hoe-type row-units were used. Plots at all locations except for Aberdeen were planted 5 feet wide by 14 feet long then sprayed back to 10 feet long. Aberdeen plots were planted 5 feet wide by 13.3 feet long then sprayed back to 9.3 feet long. All entries were replicated 4 times at each location in a randomized complete block design. Except for planting and harvest operations, nitrogen fertilization, and miscellaneous maintenance, trials established in producers' fields received the same "grower management" or cultural operations as applied to the surrounding commercial wheat or barley field.

Nitrogen fertilizer in irrigated locations was managed according the following methodology: Yield goals were set for each class at each location using historical yield data. These yield goals were used to calculate optimal fertility amounts according to the following methods- Soft white winter, soft white spring, and winter barley: nitrogen lbs/acre needed = 2 times yield goal. Hard winter and hard spring wheat: nitrogen lbs/acre needed = 2.5 times yield goal, plus 40 lbs/acre nitrogen topdress at flowering. Spring 2 row and 6 row barley: nitrogen lbs/acre needed = 1.7 times yield goal. Nurseries deficient for the combined nitrogen amount of a 24 inch deep soil test and grower applied nitrogen, received the remaining balance of nitrogen in urea (46-0-0) topdressed at tillering using hand broadcast spreaders. Fertilizers and pesticides applied are listed on pages 7 to 11. Planting and harvesting operations by university personnel were timed to approximately coincide with corresponding cooperator operations.

Description of Agronomic Data

Each entry at each location was measured for grain yield, test weight, plant height, heading date, and lodging, where present.

- Yield was calculated for wheat at 60 pounds per bushel, and 48 pounds per bushel for barley.
- Test weight is reported in pounds per standard bushel.
- Plant height is reported in inches from the soil surface to the tip of the heads, awns excluded.
- Heading date is reported as the date when 50 percent of heads are fully emerged from the boot.
- Lodging is reported as the percent of the plot area that was not standing straight prior to harvest.

Description of End-use Quality Data

Grain protein for each variety in 2007 was analyzed with a Perten 9100 grain analyzer. Protein data are found in conjunction with the agronomic data noted above in tables 4 to 54. These protein values are best utilized in comparisons between varieties within a nursery.

Due to the time necessary to complete milling and baking evaluations, test results from the Idaho Wheat Quality Laboratory are not available for the 2007 harvest in this report. Data are given for these characteristics from the 2006 harvest and are found in tables 62 to 78.

Milling and baking tests and plump seed evaluations use standardized testing methods and are described below:

- Flour protein: this is the flour protein content, measured on a fixed 14 percent moisture basis. Lower numbers are better for soft wheat; higher numbers are preferred for hard wheat.
- Break flour yield: represents ease of milling or kernel softness; higher numbers are preferred.
- Flour yield: the percent of flour obtained from a sample of

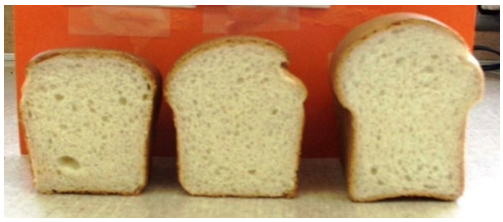
wheat; higher percentages are better.

- Whole grain protein percent: protein content of the whole grain, 12 percent moisture basis. Lower percentages are preferred for soft wheat; higher percentages are preferred for hard wheat.
- Hardness value: a measure of kernel hardness; generally soft white wheats are below 35, hard white wheats are between 40-55 and hard red wheats are above 40.

Additional evaluations include the following:

Hard Wheats

- Bake volume: This is the volume of an experimental loaf of bread measured in cubic centimeters; higher volume is preferred.



Soft Wheats

- Cookie diameter: diameter of a cookie in centimeters; larger numbers are better.

- Cookie top grain score is a measure of the "islanding" or number of surface cracks on a cookie top. Higher is better.

Barley:

- Plump seed percentage is the percent of a sample that stayed on top of a 5.5/64 screen after shaking.
- Thin percentage is that percent of a sample that passed through a 5.5/64 screen after shaking.

Statistical Interpretation

Most tables have a least significant difference (LSD) statistic at the bottom of the table. This statistic is given at the 5 percent error level and is an aid in comparing varieties. If the measured values of any two varieties within a table differ by the LSD value or more, they may be considered different with a confidence level of 95 percent. If the measured values are less than the LSD value, the differences may be due to random error rather than real differences. Coefficient of variation (CV percent) statistic is a general measurement of the precision of each experiment. Lower CV values indicate less experimental variation and greater precision. Most tables that do not have the LSD and CV statistic are averages over locations or years where specific statistical analyses were not run on the combined data or are from data that was obtained from only one replication (e.g. quality data). Most tables from individual locations also contain yield data from two previous years. The average, LSD, and CV for these data represent the original data set, not just the selected varieties presented in these tables. The Pr>F value shows the validity of the LSD value above it; if the Pr>F value is equal to or greater than .05, then the LSD value is void. This does not mean there are not differences between the varieties in a category with a void LSD, it simply means differences cannot be determined at the 95% confidence level we set.

Varieties Tested

A list of released varieties tested in 2006-2007 is given in Table 1. Included in this table are seed size, number of seeds per pound, and the adjusted seeding rate. Information is also given on the year of release and the releasing agency or company. A short description of new varieties is given in Table 2. Additional information is available from the releasing agency or company.

Seasonal average measurements of several plant growth characteristics from the variety trials are shown in Table 3 for the period 1997-2007.

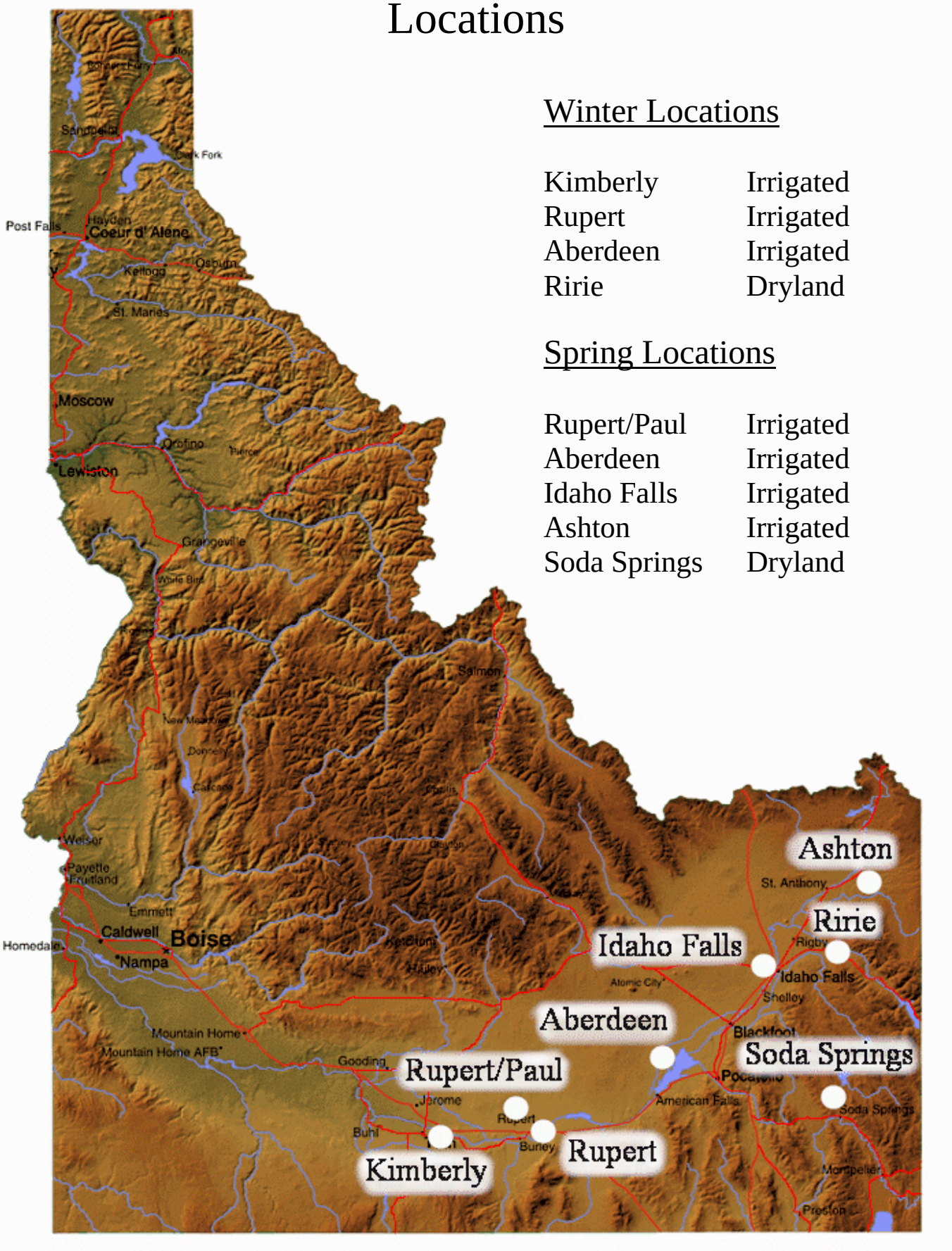
District III and IV Cereal Variety Trial Locations

Winter Locations

Kimberly	Irrigated
Rupert	Irrigated
Aberdeen	Irrigated
Ririe	Dryland

Spring Locations

Rupert/Paul	Irrigated
Aberdeen	Irrigated
Idaho Falls	Irrigated
Ashton	Irrigated
Soda Springs	Dryland



Location Descriptions

Kimberly Winter Irrigated:

3825 N. 3600 E. Kimberly, ID

Coordinates: 42° 33’ 02.16” N. 114° 20’ 11.85” W.
Elevation: 3900 ft.
Soil Type: #87 Portneuf Silt Loam, 2-4% slopes.
Twin Falls County Soil Type Acreage: 52,551
County Soil Type Percentage: 3.4%
Previous Crop: Peas
Planting Date: October 3, 2006
Harvest Dates: July 25, 2007 - Barley
July 31, 2007 - Wheat
Chemicals applied: 2 pt/A Maestro MA + .3 oz/A Harmony Extra XP

Fertility:

	Organic matter	pH	Free Lime %	Hard winter wheat N#/A	Soft white winter wheat & winter barley N #/A	P	K	S
12" soil test results (N & S= 0-24")	1.4	8.0	11.4	144	144	21 ppm	229 ppm	41 ppm
Fertilizer applied (#/A)				240	150	0	0	0
Total	**1.4**	**8.0**	**11.4**	**384**	**294**	**21 ppm**	**229 ppm**	**41 ppm**

Rupert Winter Irrigated:

Located at approximately 200 N. 100 E. Rupert, Idaho

Coordinates: 42° 38’ 56.32” N. 113° 38’ 51.01” W.
Elevation: 4160 ft.
Soil Type: #42 Tindahay sandy loam, 0-1% slopes
Minidoka County Soil Type acreage: 6,920
County Soil Type Percentage: 2.1%
Previous Crop: Dry Beans
Planting Date: October 3, 2006
Harvest Date: August 1, 2007
Chemicals applied: 3 oz/A Sterling + 12 oz/A MCPA ester

Fertility:

	Organic Matter	pH	Free Lime %	Hard winter wheat N#/A	Soft white winter wheat & winter barley N #/A	P	K	S
12" soil test results (N & S= 0-24")	.9	7.0	< 1	79	79	51 ppm	271 ppm	16 ppm
Fertilizer applied (#/A)				245	245	0	0	0
Total	**.9**	**7.0**	**< 1**	**324**	**324**	**51 ppm**	**271 ppm**	**16 ppm**

Location Descriptions

Aberdeen Winter Irrigated:

1693 S. 2700 W. Aberdeen, ID

Coordinates: 42° 57’ 51.61” N. 112° 49’ 23.39” W.
Elevation: 4400 ft.
Soil Type: DeA Declo Loam, 0-2% slopes
Bingham County Soil Type Acreage: 40,748
County Soil Type Percentage: 4.5%
Previous Crop: green manure oats
Planting Date: September 26, 2006
Harvest Dates: August 3, 2007 - Barley
August 9, 2007 - Wheat
Chemicals applied: 2 pts/A Maestro MA
Fertility:

	Organic Matter	pH	Free Lime %	Hard winter wheat N#/A	Soft white winter wheat & winter barley N #/A	P	K	S
12" soil test results (N & S= 0-24")	1.3	8.0	6.3	198	198	27 ppm	353 ppm	42 ppm
Fertilizer applied (#/A)				240	150	20	0	100
Total	**1.3**	**8.0**	**6.3**	**438**	**348**	**27+ppm**	**353 ppm**	**42+ppm**

Ririe Winter Dryland:

Approximately 2 miles south of Ririe Reservoir Dam on Meadow Creek Road

Coordinates: 43° 33’ 35.84”N. 111° 43’ 16.07” W.
Elevation: 5500 ft.
Soil Type: #42 Ririe silt loam, 4-12% slopes
Bonneville County Soil Type Acreage: 74,713
County Soil Type Percentage: 11.4%
Previous Crop: Wheat
Planting Date: September 20, 2006
Harvest Dates: July 24, 2007- Hard winter wheat
July 30, 2007- Soft white winter wheat
Chemicals applied: .44oz/A Amber + 11oz/A MCPA ester + 2oz/A Clarity
Fertility:

	Organic Matter	pH	Free Lime %	Hard winter wheat N#/A	Soft white winter wheat & winter barley N #/A	P	K	S
12" soil test results (N & S= 0-24")	1.2	7.8	1.3	58	58	17 ppm	275 ppm	18 ppm
Fertilizer applied (#/A)				6	6	30	0	0
Total	**1.2**	**7.8**	**1.3**	**64**	**64**	**17+ppm**	**275 ppm**	**18 ppm**

Location Descriptions

Rupert/Paul Spring Irrigated:

40 E. 800 N. Rupert, ID

Coordinates: 42° 44' 5.6" N., 113° 40' 30.4" W.
Elevation: 4200 ft.
Soil Type: #24 Portneuf silt loam 1 to 4 %slopes
#36 Sluka silt loam 1 to 4 percent slopes
Minidoka County Soil Type Acreage: Portneuf: 48,183 Sluka- 35,802
County Soil Type Percentage: 14.9%
Previous Crop: Sugar Beets
Planting Date: March 26, 2007
Harvest Date: August 6 & 7, 2007
Chemicals applied: 2 pts Maestro MA, 2/3pts Starane, 9oz Achieve SC

Fertility:

	Organic Matter	pH	Free Lime %	Hard Spring wheat N#/A	Soft white spring wheat & spring barley N #/A	P	K	S
12" soil test results (N & S= 0-24")	1.3	8.2	2.8	87	87	16 ppm	264 ppm	26 ppm
Fertilizer applied (#/A)				235	115	52	0	0
Total	**1.3**	**8.2**	**2.8**	**322**	**202**	**16+ppm**	**264 ppm**	**26 ppm**

Aberdeen Spring Irrigated:

1693 S. 2700 W. Aberdeen, ID

Coordinates: 42.96312° N. 112.82371° W.
Elevation: 4400 ft.
Soil Type: DeA Declo Loam, 0-2% slopes
Bingham County Soil Type acreage: 40,748
County Soil Type Percentage: 4.5%
Previous Crop: Green manure oats
Planting Date: April 3, 2007
Harvest Date: August 10 & 13, 2007
Chemicals applied: 2 pts Maestro MA

Fertility:

	Organic Matter	pH	Free Lime %	Hard winter wheat N#/A	Soft white winter wheat & winter barley N #/A	P	K	S
12" soil test results (N & S= 0-24")	1.8	8.0	6.3	140	140	33 ppm	428 ppm	23 ppm
Fertilizer applied (#/A)				250	120	0	0	
Total	**1.8**	**8.0**	**6.3**	**390**	**260**	**21 ppm**	**229 ppm**	**23 ppm**

Location Descriptions

Idaho Falls Spring Irrigated:

1/4 mile north and 1/4 mile west of the corner of 35th West and 33rd South roads.

Coordinates: **43° 28' 17.7" N. , 112° 06' 30.1" W.**
Elevation: **4622 ft.**
Soil Type: **#22 Pancheri silt loam, 0-2% slopes**
Bonneville County Soil Type Acreage: **25,605**
County Soil Type Percentage: **3.9%**
Previous Crop: **Alfalfa**
Planting Date: **April 5, 2007**
Harvest Date: **August 16, 2007**
Chemicals applied: **2 pts Maestro MA, 2/3pts Starane**

Fertility:

	Organic Matter	pH	Free Lime %	Hard winter wheat N#/A	Soft white winter wheat & winter barley N #/A	P	K	S
12" soil test results (N & S= 0-24")	1.8	7.8	2.3	144	144	34 ppm	200 ppm	12 ppm
Fertilizer applied (#/A)				198	83	36	0	0
Total	**1.8**	**7.8**	**2.3**	**342**	**227**	**21+ppm**	**200 ppm**	**12 ppm**

Ashton Spring Irrigated:

1/2 mile south of the intersection of Cave Falls Highway (1400 N) and 4200 E on 4200 E. road.

Coordinates: **44° 04' 43" N. , 111° 18' 52" W.**
Elevation: **5645 ft.**
Soil Type: **Rin silt loam, 1-4% slopes**
Fremont County Soil Type Acreage: **6,879 acres**
County Soil Type Percentage: **1.1%**
Previous Crop: **Barley**
Planting Date: **May 9, 2007**
Harvest Date: **August 24, 2007**
Chemical applied: **2 pts Maestro MA, 2/3pts Starane, 9oz Achieve SC**

Fertility:

	Organic Matter	pH	Free Lime %	Hard winter wheat N#/A	Soft white winter wheat & winter barley N #/A	P	K	S
12" soil test results (N & S= 0-24")	1.6	5.7	<1	29	29	35 ppm	214 ppm	16 ppm
Fertilizer applied (#/A)				221	151	0	0	0
Total	**1.6**	**5.7**	**<1**	**250**	**180**	**35 ppm**	**214 ppm**	**16 ppm**

Location Descriptions

Soda Springs Spring Dryland:

Approximately 3 miles North of Hooper Springs on Government Dam Road.

Coordinates: 42° 43' 27" N. , 111° 37' 40" W.
Elevation: 6000 ft.
Soil Type: 485A Lantonia-Chinahat silt loam
Caribou County Soil Type Acreage: Information not available
County Soil Type Percentage: Information not available
Previous Crop: Barley
Planting Date: May 4, 2007
Harvest Date: August 22 & 28, 2007
Chemicals applied: 2 pts Maestro MA, 2/3pts Starane, 9oz Achieve SC

Fertility:

	Organic Matter	pH	Free Lime %	Hard winter wheat N#/A	Soft white winter wheat & winter barley N #/A	P	K	S
12" soil test results (N & S= 0-24")	1.9	5.7	<1	76	76	56 ppm	394 ppm	43 ppm
Fertilizer applied (#/A)				45	45	20	0	20
Total	**1.9**	**5.7**	**<1**	**121**	**121**	**56+ppm**	**394 ppm**	**43+ppm**

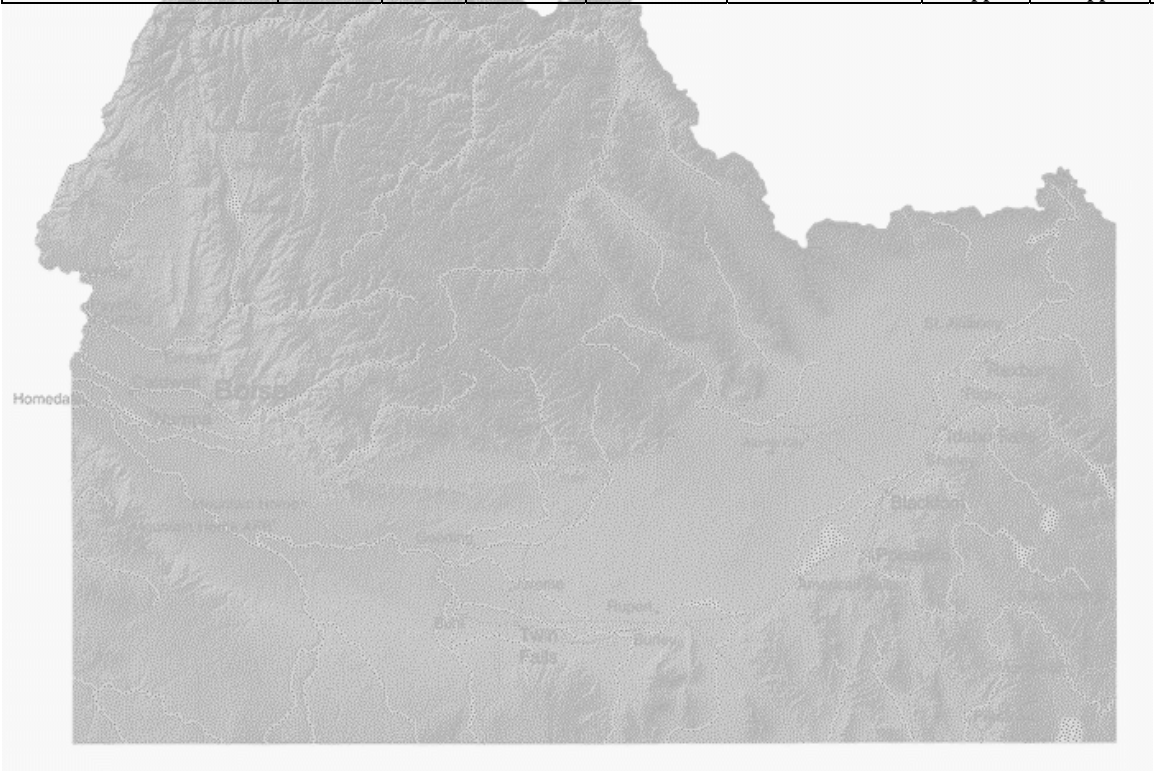


Table 1. Released varieties in 2006-2007 with seed size and adjusted seeding rate.

Variety	Exp. No.	1000 Kernel Weight (g)	Seeds per Pound	Adjusted Seeding Rate[1] (lb/A)	Year Released	Developer(s)/Distributor of variety
Soft White Winter Wheat						
Beamer	BZ6W93-481	49	9,257	108	2000	WestBred, LLC
Bitterroot	92-22407A	40			2007	Idaho AES, USDA
Bruehl (club)		41	11,063	90	2000	Washington AES, USDA
Brundage	ID86-14502B	46	9,861	101	1996	Idaho AES, USDA
Brundage 96	ID-B-96	39	11,631	86	2002	Idaho AES, USDA
Cara		26	17,446	57	2007	Washington and Oregon AES, USDA
Chukar	WA7855	38	11,937	84	2001	Washington and Oregon AES, USDA
Clearfirst		42	10,800	93	2002	BASF / General Mills
Coda		35	12,960	77		
Daws	WA6099	41	11,063	90	1976	Washington AES, USDA
IDO 587	IDO 587	57	7,958	126	2004	Idaho AES, USDA
Lambert	ID85-153	53	8,558	117	1993	Idaho AES, USDA
Madsen	WA7163	40	11,340	88	1988	Washington, Idaho & Oregon AES, USDA
Malcolm	ORCW8113	44	10,309	97	1987	Oregon & Idaho AES, USDA
Mohler	BU6W93-477	42	10,800	93	2001	WestBred, LLC
ORCF-101	OR2010051	43	10,549	95	2003	Oregon AES, USDA
ORCF-102	OR2010007	52	8,723	115	2005	Oregon AES, USDA
Simon	ID91-34302A	49	9,257	108	2002	Idaho AES, USDA
Stephens		46	9,861	101	1977	Oregon AES, USDA
Tubbs 06	OR939526 reselect	41	11,063	90	2002	Oregon AES, USDA
WestBred 470	BZ6W90-470	44	10,309	97	1997	WestBred, LLC
WestBred 528	BZ6W98-528	41	11,063	90	2005	WestBred, LLC
Hard Red and White (W) Winter Wheat						
AgriPro Paladin	W96-355	43	10,549	95	2005	AgriPro
Bauermeister	WA7939	30	15,120	66	2005	Washington AES, USDA
Bonneville	IDO421	41	11,063	90	1993	Idaho AES, USDA
Boundary	IDO467	45	10,080	99	1996	Idaho AES, USDA
Deloris	UT2030-32	39	11,782	85	2002	Utah AES, USDA
Dumas		39	11,782	85		AgriPro
DW	ID0513	35	13,148	76	2001	Idaho AES, USDA
Eddy		40	11,484	87		WestBred, LLC
Garland	UT1706-1	36	12,777	78	1992	Utah AES, USDA
Gary (W)	IDO550	42	10,800	93	2002	Idaho AES, USDA
Golden Spike (W)	UT1944-158	40	11,484	87	1999	Utah AES, USDA
Juniper	IDO 575	39	11,631	86	2005	Idaho AES, USDA
Mannning	UT89099	38	11,937	84	1979	Utah AES, USDA
MDM	WA7936	37	12,259	82	2005	Washington AES, USDA
Moreland	IDO517	37	12,259	82	2003	Idaho AES, USDA
Neeley	RL4200	38	12,096	83	1980	Idaho AES, USDA
NuDakota		37	12,259	82	2005	AgriPro
NuHills (W)		38	12,096	83		General Mills, Great Falls, MT
NuHorizon (W)	GM10002	39	11,631	86	2001	General Mills, Great Falls, MT
Palomino (W)	W96-359W	41	11,063	90	2006	AgriPro
Promontory	UT1567-51	39	11,631	86	1990	Utah AES, USDA
UI Darwin (W)	IDO 604	30	15,120	66	2005	University of Idaho
Utah 100	UT1650-150	39	11,782	85	1997	Utah AES, USDA
Weston		48	9,450	106	1978	Idaho AES, USDA
Yellowstone	MT00159	45	10,193	98	2005	Montana State University

[1]Adjusted to plant 1 million seeds per acre according to the number of seeds per pound for each variety.

Table 1 (cont'd). Released varieties tested in 2006-2007 with seed size and adjusted seeding rate.

Variety	Exp. No.	1000 Kernel Weight (g)	Seeds per Pound	Adjusted Seeding Rate[1] (lb/A)	Released	Developer(s)/Distributor of variety
Soft White Spring Wheat						
Alpowa	WA7677	34	13,540	74	1993	Washington, Oregon, & Idaho AES, USDA
Alturas	ID0526	31	14,872	67	2002	Idaho AES, USDA
Cataldo	IDO642	33			2007	Idaho AES, USDA
Challis	BZ692-108	31	14,632	68	2000	WestBred, LLC
Eden	WA7902	34	13,540	74	2002	Washington AES, USDA
Jubilee	IDO525	32	14,400	69	2000	Idaho AES, USDA
Louise	WA7921	36	12,777	78	2004	Washington AES, USDA
Nick	BZ698-31	36	12,600	79	2000	WestBred, LLC
Penawawa		30	15,376	65	1985	Washington AES, USDA
Skookum	ML042-409-1,5	34	13,341	75	2005	Fossum Cereals
Treasure		27	17,117	58	1986	Idaho AES, USDA
UI Pettit	IDO632	33	13,957	72	2007	Idaho AES, USDA
Waxy Penawawa	WA7996	35	12,960	77	2006	USDA-ARS
Whitebird	IDO392	29	15,916	63	1995	Idaho AES, USDA
Hard Red Spring						
Buckpronto		39	11,631	86	2004	Trigen
Cabernet		37	12,427	80	2007	Pacer Corp
Choteau		31	14,872	67	2005	Montana State University
Hollis	WA7859	41	11,200	89	2004	Washington AES, USDA
Iona	IDO492	39	11,631	86	1999	Idaho AES, USDA
Jefferson	IDO462	33	13,745	73	1998	Idaho AES, USDA
Jerome	IDO 566	37	12,259	82	2004	Idaho AES, USDA
Saxon		37	12,427	80		General Mills, Great Falls, MT
Scarlet	WA7802	36	12,777	78	1998	Washington AES, USDA
Summit		29	15,916	63		General Mills, Great Falls, MT
Tara 2002	WA7824	38	12,096	83	2001	Washington AES, USDA
UI Winchester	IDO578	35	12,960	77		Idaho AES, USDA
WestBred 936	PH986-61	37	12,427	80	1992	WestBred, LLC
Hard White Spring Wheat						
Blanca Grande		36	12,600	79	2002	General Mills, Great Falls, MT
Idaho 377s	IDO377s	27	17,117	58	1996	Idaho AES, USDA
Klasic		43	10,673	94	1982	Northrup-King Co., Minneapolis, MN
Lochsa	IDO 597	35	12,960	77	2005	Idaho AES, USDA
Lolo	IDO533	42	10,930	91	2000	Idaho AES, USDA
Otis	WA7931	33	13,957	72	2002	Washington AES, USDA
Pristine	Bz991-408	49	9,257	108	1999	WestBred, LLC
Snowcrest					2004	WestBred, LLC
Spring Durum Wheat						
Alzada		51	8,894	112		WestBred, LLC
AP 1526		41	11,063	90		General Mills
Kronos		50	9,072	110	1996	Arizona Plant Breeders
Matt		43	10,673	94	2000	Simplot Agrisource, Burley, Idaho
Topper		42	10,930	91		
Utopia		45	10,193	98	1997	World Wide Wheat, L.L.C.
Winter Barley						
Boyer		41	11,200	71	1975	Washington AES, USDA
Charles	94Ab1274	46	9,861	81	2005	USDA-ARS, Aberdeen
Eight-twelve	79Ab812	38	11,937	67	1988	Idaho AES, USDA
Hesk		40	11,484	70		
Hundred		35	13,148	61		
Kamiak		37	12,259	65		
Kold		38	11,937	67		
Maja-Grande	STAB-113	38	12,096	66	2007	Oregon AES, USDA
Mal		39	11,782	68	1980	Oregon AES, USDA
Schuyler		35	12,960	62	1969	Cornell AES, USDA
Sprinter		38	12,096	66	1987	WestBred, LLC
Strider	ORW6	42	10,800	74	1998	Oregon AES, USDA
Sunstar Pride	SDM204-B	35	12,960	62	1995	Sunderman Breeding, Twin Falls, ID

[1]Adjusted to plant 1 million seeds per acre (800,000 for barley) according to the number of seeds per pound for each variety.

Table 1 (cont'd). Released varieties tested in 2006-2007 with seed size and adjusted seeding rate.

Usage:	Variety	Exp. No.	1000 Kernel Weight (g)	Seeds per Pound	Adjusted Seeding Rate[1] (lb/A)	Year Released	Developer(s)/Distributor of variety
feed/malt	**Two-Row Spring Barley**						
m	AC Metcalfe		41	11,063	72	1997	Agriculture Canada
m	B1202		40	11,340	71		Busch Agricultural Resources, Inc., Ft. Collins, CO
f	Baronesse	NS078054	40	11,340	71	1992	Westbred, LLC
f	Boulder		45	10,080	79	2005	WestBred, LLC
f	Burton	98ID251	48	9,549	84		Idaho AES, USDA
f	Calgary		39	11,782	68		Arizona Plant Breeders
f	Camas	ND9147	41	11,200	71	1998	Idaho AES, USDA
f	CDC Bold		43	10,673	75		University of Saskatchewan
f	CDC McGwire		45	10,193	78	1999	University of Saskatchewan
m	CDC Stratus		42	10,800	74	1994	University of Saskatchewan
f	Champion		55	8,247	97	2007	Westbred, LLC
f	Clearwater	01ID435H	42	10,852	74	2007	Idaho AES, USDA
m	Conrad	B5057	39	11,631	69	2004	Busch Agricultural Resources, Inc., Ft. Collins, CO
m	Craft		45	10,193	78	2006	Montana AES
f	Eslick	MT960228	44	10,309	78	2005	Montana AES
m	Geraldine		39	11,631	69	2007	Montana AES
m	Harrington		38	12,096	66	1986	University of Saskatchewan
f	Haxby	MT950186	43	10,673	75	2002	Montana AES
f	Hayes		35	13,148	61	2004	Montana AES
m	Hockett		34	13,540	59	2007	Montana AES
f	Idagold II		37	12,259	65		Coors Brewing Co. Inc., Burley, ID
m	Merit	2B91-4947	37	12,259	65	1997	Busch Agricultural Resources, Inc., Ft. Collins, CO
m	Moravian 37	C37	45	10,193	78	2001	Coors Brewing Co. Inc., Burley, ID
m	Moravian 69	C69	48	9,450	85	2005	Coors Brewing Co. Inc., Burley, ID
m	Pinnacle	2ND21863	49	9,353	86	2007	North Dakota AES, USDA
f	Radiant		40	11,484	70		Washington State University
f	Spaulding	PB1-95-2R-522	39	11,631	69	2006	Plant Breeders 1 Inc., Moscow, Idaho
f	Tetonia	98AB11720	44	10,309	78	2007	Idaho AES, USDA
f	Valier	MTLB30	39	11,782	68	1999	Montana AES, USDA
f	Xena	BZ594-19	40	11,340	71	2000	WestBred, LLC
	Six-Row Spring Barley						
f	Aquila	UT95B1480-1632	36	12,777	63	2005	Utah AES, USDA
f	Colter	79Ab10719-66LC	35	12,960	62	1991	Idaho AES, USDA
f	Creel	93Ab688	36	12,777	63	2002	Idaho AES, USDA
m	Drummond	ND15477	35	12,960	62	2000	North Dakota AES, USDA
m	Foster	ND11055	39	11,631	69	1995	North Dakota AES, USDA
f	Goldeneye	UT95B1216-4087	35	13,148	61	2005	Utah AES, USDA
f	Herald	00ID1550	36	12,777	63	2006	Idaho AES, USDA
m	Lacey	M98	36	12,600	63	2000	Minnesota AES, USDA
m	Legacy	6B93-2978	37	12,427	64	1998	Busch Agricultural Resources, Inc., Ft. Collins, CO
f	Millennium	UT004603	34	13,341	60	2000	Utah AES, USDA
m	Morex		37	12,427	64	1978	Minnesota AES, USDA
f	Steptoe		37	12,259	65	1973	Washington AES, USDA
m	Tradition		36	12,777	63	2003	Busch Agricultural Resources, Inc., Ft. Collins, CO

[1]Adjusted to plant 1,000,000 seeds per acre (800,000 for barley) according to the number of seeds per pound for each variety.

Results and Discussion

Planting Conditions

The winter grain trials were planted in generally good conditions. Kimberly soil conditions were dry, while the Rupert and Aberdeen winter locations had good moisture and conditions. Ririe had excellent soil moisture from the surface to 10 inches deep, but was dry below that point.

Most of the spring grain trials were planted earlier than usual. Aberdeen, Rupert, and Idaho Falls were planted around two weeks earlier than 2006 and around a week earlier than 2005. Soda Springs was planted almost two weeks earlier than 2006 and three weeks earlier than 2005. Ashton was planted around the same time as 2006 and two weeks earlier than 2005.

Weather Conditions

As evident in Chart 1, precipitation during the 2006-2007 growing season had a large effect on the variety trials. Fall conditions favored good germination for winter grain due to precipitation in October. Unfortunately, the months of November to March averaged 42 percent of the monthly 30 year average. This lack of winter precipitation put the dryland locations under water stress later in the season and reduced or eliminated snow cover to insulate winter grain from temperatures that were below average for much of January.

The months of June and July experienced higher temperatures than average which exacerbated the water stress conditions in dryland areas. Idaho and Utah had the fourth warmest year on record. It was difficult to maintain irrigation for optimum production, and some grain suffered a reduction in test weight.

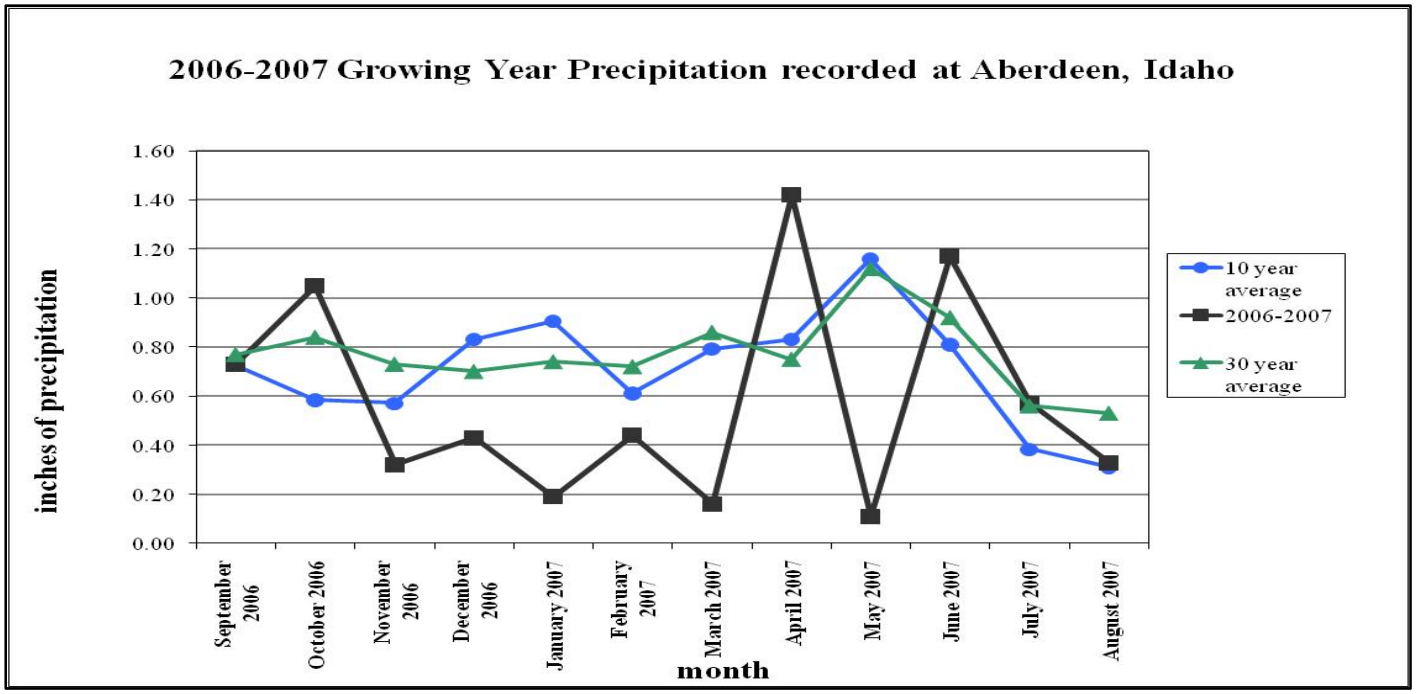


Chart 1. 2005-2006 Growing season precipitation versus 10 and 30 year averages

Disease and Insect Conditions

Stripe rust appeared in 2007 for the third year in a row, though disease pressure was significantly less than in 2005 and 2006. Aberdeen was the only area confirmed where stripe rust appeared within the fungicide application window. As in 2006 many areas throughout Eastern Idaho experienced dryland foot rot in both dryland and irrigated production. Cereal Leaf Beetle reached economic threshold levels in various areas. Barley mealy bug was found in both Soda Springs and Ashton nurseries, though population levels were not as high as in 2006. Most areas in Soda Springs experienced significant drought stress.

Discussion of Location Conditions and Data Results

The fall of 2006 provided good conditions for planting. While dry in some locations, the winter variety trials were all established with great stands heading into the winter. Precipitation in October aided the winter grain establishment.

A dip in temperatures in November was followed by unusually warm temperatures in late December. An open winter with below normal precipitation and another cold snap in January damaged winter grain in many locations, especially winter barley and late-planted winter wheat. So what looked like a great start to the winter grain growing year actually became seriously damaging. Overall, in the Aberdeen area, six months were below the 10 and 30 year averages for precipitation (Nov, Dec, Jan, Feb, March and May). That trend continued in the Soda Springs area into the summer, with no precipitation from planting until, of course, harvest began in August. In addition, the summer of 2007 was the fourth warmest on record for Idaho and Utah, resulting in lower test weights and yields when irrigation lagged behind crop demand.

Kimberly Research and Extension Center, Winter Grain

The winter nurseries were planted into very dry soils, and had to be irrigated after planting to improve emergence. Winter barley stands were reduced up to 50% from winter injury, but the wheat suffered little harm from the low temperatures. Despite significant stand reduction, the winter barley yielded fairly well, ranging from 118 to 170 bu/A and averaging 147 bu/A. The top yielding named varieties included Sprinter, Schuyler, Boyer and Strider. Sunstar Pride usually is in the top yielding group, but suffered a loss of over half its stand. Charles, a two-row winter malt variety, also suffered from significant winter kill, and still yielded an average of 134 bu/A.

The hard winter wheat group yielded from 88 to 123 bu/A. MDM, a hard white wheat from Washington, yielded very well at 123 bu/A, had good test weight and protein. Yellowstone, a hard red wheat from Montana, was the second highest named variety at 118 bu/A, and was the highest yielding variety over all irrigated locations over the past three years. Grain protein average for the location was 13.1%.

In the soft white winter group, yield varied from 94 to 131 bu/A. Tubbs 06, ORCF-102 and Lambert were the highest yielding named varieties. Grain protein average for the location was 11.4%. The top yielding soft white

winter varieties over the last three years over all locations are WestBred 528 (132 bu/A), Malcolm (128 bu/A), Brundage, Mohler and Lambert (all at 127 bu/A). WB528 and Brundage are rated Q+ for quality by the Idaho Wheat Commission. Malcolm, Lambert, and Mohler are rated AQ for Acceptable Quality.

Rupert, Jentschz-Kearl Farms, Winter Grain

Similar winter injury occurred in Rupert to the winter barley, with average yields 16 bushels less than Kimberly, at 131 bu/A. Sunstar Pride had less winter injury and was the highest yielding named variety (156 bu/A), followed by Boyer, Mal and Sprinter.

Damage to winter wheat started to show in Rupert, with stands slightly reduced by about 10% in both in the hard and soft winter groups. The highest yielding varieties in the hard winter wheat trial included NuDakota (132 bu/A), Dumas (127 bu/A), Promontory (127 bu/A) and Yellowstone (124 bu/A). The yield varied from 94 to 142 bu/A, with an average yield of 113 bu/a, about 7 bushels more than 2006 at the same location. Yields were good and proteins were low, indicating adequate nitrogen for yield, and inadequate nitrogen applied for high protein hard winter varieties.

The soft white winter group yielded from 94 to 132 bu/A. The highest yielding varieties were Malcolm (132 bu/A), Brundage (131 bu/A) and WestBred 528 (129 bu/A). Test weights were low at this location and grain protein was similar to those at Kimberly at about 11%, which is good for the soft white winter class.

Aberdeen R&E Center, Winter Grain

The winter barley at Aberdeen was decimated by the winter conditions, with the average spring stand at 26%. Some plots were empty of all but a few plants and yields as low as 4 bu/A. This year and this location was an excellent test for survival, with a few varieties having 50 – 88% stand. Yields were as high as 129 bu/A. Kamiak (103 bu/A), Schuyler (95 bu/A), and Sprinter (86 bu/A) were the highest yielding named varieties. Overall, this location was not a reliable winter barley test for yield.

The winter wheat fared much better. The hard winter wheat yields varied from 106 to 148 bu/A, with the average at 130 bu/A. Protein was excellent at an average of 14%. AgriPro Paladin (146 bu/A), DW (140 bu/A), and MDM (140 bu/A) were the top yielding varieties. DW is tall and was released for dryland conditions, but surprisingly did not lodge under these high fertility and irrigation conditions. MDM, a hard white winter, had about 18% lodging.

The soft white winter wheat yields varied from 122 to 161 bu/A, averaging 139 bu/A. Average proteins were high for this soft group at 12%. Nitrogen fertilizer was high and resulted in 33% lodging. The top-yielders were ORCF-102 (154 bu/A), Tubbs 06 (154 bu/A) and WestBred 528 (149 bu/A).

Ririe, LDS Church Farm, Dave Cook, Winter Grain

This location is our only dryland location for winter grain. We usually plant one rep of winter barley here to test for winter hardiness, but due to residue issues, we only planted the winter wheat. This was fortuitous, as none of the winter barley would have survived. This

location suffered from spring / summer drought, and yields of the soft white group averaged 20 bu/A, compared to the 2006 average of 36 bu/A, and the 2005 average of 58 bu/A. The test weights were low, averaging 57 lbs/bu, and grain protein averaged 12.7%. Over three years (2005-2007), the highest yielding varieties at this location are WestBred 528 (46 bu/A), Brundage (43 bu/A) and Brundage 96 (42 bu/A). Test weights are low and protein is high.

The hard winter group also had significantly reduced yields of 23 bu/A in comparison to 2006 at 36 and 2007 at 49 bu/A. The range went from a low of 20 bu/A to a high of 27 bu/A. In the drought, NuHorizon, NuDakota and Utah 100 all yielded about 26 bu/A. Utah 100 and Promontory consistently have been the top yielding hard winter wheat varieties, and the past three years have yielded 40 and 39 bu/A, respectively. Also yielding well under dryland have been AgriPro Palomino (hard white winter at 39 bu/A), Yellowstone and NuHorizon (both at 38 bu/A).

Rupert, Timm Adams, Spring Grain
The variety trials in Rupert did not experience any major weather-related problems, other than a hot, dry spring and summer. Average yield for hard spring wheat at Rupert was 97 bu/A, compared to 86 bu/A in 2006 and 101 bu/A in 2005. Test weight average was 60.7 lbs/bu, and average protein was 12.3%. The top yielding varieties were Iona hard red spring (109 bu/A), Lochsa hard white (108 bu/A) Saxon, Jerome, Jefferson and Choteau (all hard reds at 104 bu/A). Lochsa and Choteau had protein above 13%. Over three years over all locations, the highest yielding variety under irrigation was Otis (102 bu/A), a hard white spring wheat from Washington. Test weight for Otis was above average, maturity is a little later than average and it is tall. While it was developed for dryland conditions, lodging has been minimal under high input situations. In 2007, under high nitrogen fertilization, it did lodge 35%, which was less than Lolo at 40% lodging. Other high-yielding varieties include Lolo (100 bu/A), Idaho 377s (97 bu/A), Jerome (96 bu/A), and Lochsa (95 bu/A).

The soft white spring wheat yield average was 102 bu/A. In 2006, the average yield at the Rupert locations was 87, and in 2005 it was 112 bu/A. Alpowa yielded 109 bu/A, and Treasure, Challis, Alturas, and Penawawa all yielded 108 bu/A. Protein average was 9.9%. Three year averages over all location put Alturas at the high yield (101 bu/A), followed by Nick (99), UI Pettitt (99) and Skookum (98 bu/A). Last year's conditions were unusually warm and altered the usual yield ranking.

The key to barley yields this year was keeping up with the irrigation. The six-row spring barley trial at Rupert yielded an average of 156 bu/A, with a range from 140 to 177 bu/A. Millennium (177 bu/A) and Steptoe (166 bu/A) were the top yielding feed barleys, and Lacey (171 bu/A) and Morex (153 bu/A) were the top named varieties in the malt. Test weights averaged 50.3 lbs/bu, proteins were low 9.8%, and percent plumps were high.

The two-row barley yields averaged 135 bu/A. The malt variety Moravian 37 yielded 140 bu/A. Tetonia, a new feed barley released this year by the USDA-

ARS at Aberdeen and the Idaho Ag Experiment Station, yielded 148 bu/A and is the highest yielding feed barley (118 bu/A) over the three years and multiple locations, barely edging out Baronesse, Xena and Calgary, all at 117 bu/A. The feed barleys stayed just slightly ahead of the malt lines, with Idagold II (146 bu/A), Spaulding (145 bu/A), Xena (144 bu/A) and Haxby (144 bu/A) being the top yielding feed lines. For malt, Moravian 37, Moravian 69 and Pinnacle yielding 171, 139, and 135 bu/A, respectively. Three year averages for the malt varieties puts Moravian 37, Conrad, and Moravian 69 at the top, with the Moravian lines doing very well in the Magic Valley, and Conrad doing well in the Upper Valley areas.

Aberdeen R&E Center, Spring Grain
Excellent growing conditions at Aberdeen pushed average yields of hard spring wheat to 118 bu/A and 13.7% grain protein. In 2006, yields were lower at 77 bu/A, and in 2005 average yield was106 bu/A. The range in yields were 108-135 bu/A. Blanca Grande (hard white spring), which seems to thrive in hotter summers, was the top yielding variety (135 bu/A), with high test weight and below average grain protein. Pristine, another hard white, yielded 126 bu/A and had good grain protein at 13.9%. Saxon, Jefferson and Cabernet yielded 125, 123, and 123 bu/A, respectively. Out of the spring durums, Kronos also seemed to like the heat, yielding 126 bu/A, and AP1526 yielded 123 bu/A.

The soft white spring wheat yields at Aberdeen averaged 119 bu/A, with a range from 93 to 132 bu/A. Excellent yields were obtained from Alturas (132 bu/A), UI Pettit (128 bu/A), Nick (127 bu/A) and Skookum (126 bu/A). Test weights were below 60 lbs (59.6) and grain proteins were high at 12.4%.

Six-row barley did well in Aberdeen, averaging 148 bu/A, ranging from 115 bu/A (Morex) to 172 bu/A (Millennium and Goldeneye). Not far behind was Aquila at 171 bu/A. For the six-row malt lines, Tradition hit 158 bu/A and Legacy and Lacey were both at 150 bu/A.

Two-row lines averaged 128 bu/A, and ranged from 100 to 170 bu/A. CDC Bold yielded well at 171 bu/A, followed by Calgary and Champion at 155 and 150 bu/A, respectively. In the two-row malt group, Pinnacle, Craft and Conrad lead the group at 143, 133 and 127 bu/A, respectively.

Idaho Falls, Marc Thiel, Spring Grain
Good growing conditions in Idaho Falls resulted in average grain yield of 101 bu/A, and a range of 91 – 110 bu/A. Average grain protein was 14.4%, but test weight was low at 58.2 lbs/bu, probably due to the excess heat. The high yielding lines were all hard white, including durum AP1526 at 110 bu/A, Lochsa (108 bu/A), Lolo, Kronos (durum), and Snowcrest (all 106 bu/A), Alzada (durum at 105 bu/A) and Blanca Grande (104 bu/A). Choteau was the highest yielding hard red at 104 bu/A and 14.5% protein.

UI Pettit topped the yield chart for the soft white spring varieties at Idaho Falls, yielding 118 bu/A, followed by Skookum at 115, Nick at 113, and Alturas at 109 bu/A. Test weights were low at 56.7 lbs/bu, and grain proteins were high at 13.3%.

Six-row feed lines yielded from 110-153 bu/A in Idaho Falls, with Goldeneye taking first (153 bu/A) and Millennium second (144 bu/A). In the six-row malt lines, Legacy, Tradition and Drummond were all close to 118 bu/A, and the advanced line 98Ab12904 yielded 131 bu/A. Overall average was 125 bu/A. Unfortunately, test weights and plumps were low.

The two-row lines at Idaho Falls averaged 132 bu/A. Boulder, the new feed barley from WestBred, LLC., averaged 148 bu/A and had 53.8 lb test weight and 95% plumps. Calgary was right behind with 147 bu/A, 52 lb test weight, and 94% plumps. Other high yielders include CDC Bold (145 bu/A), Spaulding (145 bu/A), Champion (143 bu/A), and Burton (143 bu/A). In the malt group, the high yielders were Moravian 37 (141 bu/A), Craft (137 bu/A), Pinnacle (137 bu/A), and Conrad (136 bu/A).

Ashton, Don Marotz, Spring Grain

The Ashton location also suffered from high heat and drought. The previous problems with barley mealy bug did not re-emerge this year, and despite conditions that resulted in poor head emergence for the spring barley, yields were surprisingly good. The average yield for the hard spring wheat was 72 bu/A, compared to 2006 at 57 bu/A and 2005 at 73 bu/A. Test weights were a little low at 59.4 lbs/A, and protein averaged 14.1%. The high yielding varieties were Lolo (96 bu/A), Scarlet (94 bu/A), Idaho 377s (92 bu/A), and Otis (85 bu/A).

Whitebird yielded 96 bu/A in the soft white spring trials, very close to UI Pettit and Treasure at 96 bu/A. Again a complete shift in ranking varieties by yield, as in the three year averages over location, Whitebird ranked the lowest for yield.

Six-row variety yields ranged from 59 to 83 bu/A. The average was 71 bu/A, with the highest feed lines being Millennium (83 bu/A), Aquila (80 bu/A) and Creel (73 bu/A). Tradition, Legacy and Lacey were the top yielding malt varieties at 79,78, and 73 bu/A, respectively.

In the two-row barleys at Ashton, the yield average was a little higher than the six rows, at 77 bu/A. In the feed barley, Champion out-yielded the others at 109 bu/A, 52 lb test weight and 97% plumps. Tetonia was the next closest variety at 93 bu/A, 52.5 lb test weight and 97% plumps. The malt line Conrad yielded 97 bu/A, 50.9 lb test weight and 97% plumps. Moravian 37 had 77 bu/A, 52.4 lbs test, and 97% plumps. Hocket also had 77 bu/A, 51.1 lb test and 94% plumps.

Soda Springs, Don Ayers, Spring Grain

Soda Springs was a disaster. Crop failure due to drought makes the available data unreliable. The barley mealy bugs were not a serious threat, as populations were low, and the grain couldn't even support itself, let alone a bug population.

Table 2. New Variety Descriptions

SPRING BARLEY

Aquila (UT95B1480-1632) – is a six-row feed barley released by Utah State in 2005. Aquila has average yields and above average test weights. Aquila has excellent lodging resistance, comparable to Millennium.

Burton (98ID251) - is a two-row hulled spring feed barley released by the USDA-ARS in 2004 for resistance to the Russian Wheat Aphid (RWA). Yield and test weight are similar to Baronesse when RWA are absent, but yields significantly higher when the aphids are present. Burton has higher test weight and percent plump than Baronesse.

Boulder - is a large seeded two-row feed barley released by WestBred in 2005 as a replacement for Baronesse and Xena. Boulder is of average height and maturity with yields higher than Baronesse and less than Champion. Boulder has a very high test weight and very large kernels, with better lodging resistance than Baronesse.

Calgary – Released by Arizona Plant Breeders in 2002, is a high-yielding, two-row feed for irrigated conditions. Heads later, is shorter than average, and has good lodging resistance and high percent plumps. Yields are well above average, and Calagry did very well for yield in the 2007 trials.

Camas (ND9147) – two-row spring feed barley released by Idaho AES/USDA. Camas is perhaps better adapted in northern Idaho than in southern Idaho, but it has shown good performance in both irrigated and dryland trials. Over three years, yield of Camas has been comparable to or less than Baronesse in south Idaho trials but has higher test weight. Camas is a little taller than Baronesse, with similar straw strength.

Champion – a new release from WestBred, LLC., Champion is a high yielding, 2-row spring feed barley. In 2007, combined over locations, Champion averaged higher than all other 2-row barleys under irrigation. Champion has average test weight, height, lodging, and plumps, heading 3 days earlier than Baronesse.

Clearwater (01ID435H) – a new release in 2007 by the USDA-ARS, Aberdeen and the Idaho Ag Experiment Station, Clearwater is the first named variety that is a low-phytic acid, hulless, 2-row spring feed barley. The hulless, low-phytate characteristic should be valuable in the feed industry as a feed for monogastric animals, especially fish, where there is concern about high phosphorus concentrations in the waste stream. Clearwater is high-yielding among its specialty variety counterparts, and because of the hulless characteristic, has very high test weight. Maturity, height, and lodging are average, and Clearwater has a high percent protein.

Conrad (B5057) – two-row spring malt barley released by Busch Agricultural Resources in 2005. Conrad has slightly above average yields and test weight. When compared to other malt varieties, Conrad is one of the highest yielding varieties and it yielded very well in the upper valley area, especially around Idaho Falls and Ashton.

Creel (93Ab688) - six-row spring feed barley, released by the University of Idaho and the USDA-ARS in 2002. Creel has been a very high yielding variety, with test weight, height, and heading date similar to Colter. Creel out-yielded Steptoe in the three years of testing under irrigation and dryland trials and with higher test weight.

Eslick – a two-row spring feed barley released by Montana State University in 2005. Eslick is recommended for irrigated production in Montana, but lodges under higher input production. Yield is lower than Baronesse, test weight, maturity, and plumps are average, and protein is higher than average.

Goldeneye (UT95B1216-4087) – is a six-row feed barley released by Utah State University in 2005. Goldeneye has very high yields under irrigated conditions, and above average yields under dryland production, and above average test weight. Yield, test weight, lodging resistance, and protein, are better than Steptoe. When cut at soft dough, Goldeneye has proven to be a high-yielding forage variety. Goldeneye also has high plumps and protein.

Haxby (MT950186) - a two-row spring feed barley released by Montana State University in 2002. With yields similar to Baronesse, Haxby has higher test weights, and does well under dryland conditions.

Herald (00ID1550) – Herald is a low-phytate, hulled 6-row feed barley. Seed characteristics make this an excellent feed barley for monogastric animals (swine), as phosphorus is reduced in the waste stream. Herald has a high yield potential, and may also prove useful in the fish food industry. Herald is agronomically similar to its parent, Colter, but has lower test weight and higher plumps.

Hockett , Craft, Geraldine– 2-row malt barleys being released by Montana State University. Craft is being targeted as malt for specialty beers. Hockett should replace Harrington with higher yields under dryland conditions.

Legacy (6B93-2978) – six-row malt variety released by Busch Agricultural Resources, Inc. Legacy yields higher than Morex under irrigation. It appears not as competitive when yields are below 50 bu/A. Test weight is average for six-row cultivars, and plant height is taller than average. Percent plump is above average for six-row malt varieties.

Millennium (UT004603) – a six-row spring feed barley that does very well under irrigation, and has been in the top-yielding groups even under dryland conditions when moisture was adequate. Millennium also has excellent straw strength, showing minimal lodging even under high-yield conditions. Millennium is slightly shorter than average, is among the lowest for plumps, and has below average test weight.

Moravian 69 (C69) - two-row spring malt barley released by Coors Brewing Co. Moravian 69 has similar yield and lower test weight than Moravian 37 under irrigated conditions. Height is similar but straw strength is less than Moravian 37. Protein is high under dryland production, but it is not intended for dryland. Yields are excellent in the Magic Valley.

Spaulding (PB1-95-2R-522) – a two-row spring feed variety, and a Plant Breeders 1 release, Spaulding has excellent yield potential for the Magic Valley area. Spaulding has above average test weight, average maturity and height and below average plump, protein and lodging.

Pinnacle (2ND21863) – 2-row spring malt barley released by North Dakota State University and the USDA-ARS in 2007. Pinnacle was the top yielding malt variety in 2006 and second in 2007. Pinnacle has high test weight, early maturity, low protein and high plumps.

Tetonia (98AB11720) – 2-row spring feed barley released in 2007 by the USDA-ARS in Aberdeen and the Idaho Ag Experiment Station. Tetonia has high yield potential

over many locations, and is well adapted to Idaho and Montana. Tetonia outyielded Baronesse in the irrigated nurseries over three years and had higher test weight.

Xena (BZ594-19) – two-row spring feed barley released by WestBred, LLC. Xena has had very high yields over the locations tested. Its yield has been comparable to Baronesse (often higher), and is about two inches taller but with similar straw strength. Test weight tends to be higher than Baronesse.

WINTER BARLEY

Charles (94Ab1274) – Charles is a two-row winter malt variety released by the USDA-ARS in 2005. Charles has average yield when compared to other winter feed barley varieties and above average test weight, and is the first winter variety released by the USDA-ARS in Aberdeen with malt quality. Charles is short, early maturing with average lodging. Charles has excellent plumps and yields very well in the Twin Falls area, even when winter kill damages stand.

Sunstar Pride (SDM204-B) – winter barley released by Sunderman Breeding. Sunstar Pride is very high yielding and appears to have good winterhardiness. Test weight is higher than Mal and similar to Eight-Twelve. Sunstar Pride is shorter than most other winter barley varieties with very good straw strength. Heading date is later than most varieties.

SPRING WHEAT

Alturas (IDO526) – soft white spring wheat released by Idaho AES and USDA-ARS in 2002. Alturas is adapted to both irrigated and dryland conditions, and was the top yielder under irrigation. It is similar in height and maturity to Penawawa. End-use quality of Alturas is very good and is rated Q+. Alturas has adult plant resistance to stripe rust.

Blanca Grande – a hard white spring wheat distributed by General Mills that has average yield, high test weight and excellent stripe rust resistance. Blanca Grande has above average grain protein, large loaf volume and good end use quality. In hot years, yields are excellent.

Buck Pronto – hard red spring distributed through Trigen. Buck Pronto has average yields and test weight in southern Idaho. Buck Pronto heads 1-2 days earlier than WB 936 and has higher protein.

Challis (Bz692-108) – soft white spring wheat released by WestBred, LLC. Challis has had high yields in both irrigated and dryland trials. It is average in test weight, height, heading date, and lodging resistance. Protein content is less than Penawawa and it was rated Q+ in milling and baking scores. Challis is very susceptible to stripe rust.

Choteau – is a hard red spring wheat released by Montana State University in 2005. Choteau has the solid-stem characteristic, which contributes to resistance to the stem saw-fly. Choteau is average in maturity, height and test weight. Choteau yielded best in the higher elevation areas from Idaho Falls to Ashton.

Hollis (WA7859) – a hard red spring wheat released by Washington State University in 2004. Hollis does better under dryland conditions and is taller than average. Hollis yields similar to Klasic, is taller, has similar test weight and is later maturing.

Jerome (IDO566) is a hard red spring wheat developed by the Idaho Agricultural Experiment Station and released in 2004. Jerome is well adapted to both irrigated and rain-fed production systems, and is similar to WB 936 in lodging resistance, milling and baking quality, and yields. Jerome is

moderately resistant to stripe rust, and is Hessian Fly resistant.

Lochsa (IDO597) – a hard white spring wheat adapted to irrigated and rainfed production. Lochsa is similar to Jefferson agronomically, with superior quality and higher protein than other hard whites. It is similar in lodging resistance to WB 936 and higher in yield. Lochsa is susceptible to stripe rust, but has some levels of adult plant resistance that may be effective if disease pressure is not high.

Lolo (IDO533) – hard white spring wheat released by the Idaho Agricultural Experiment station. This variety is similar to IDO377s in most agronomic characteristics, and has stronger straw. It has excellent yield and end-use quality characteristics for noodles. Lolo is moderately susceptible to stripe rust.

Otis (WA7931) – hard white spring wheat released by Washington State University with excellent yield potential and good end-use quality. Otis has been the top yielder in both irrigated and dryland trials over a three-year period. Otis is tall and does well under irrigated and dryland conditions. Otis is moderately resistant to stripe rust.

Pristine (Bz991-408) – hard white spring wheat released by WestBred, LLC. Yields have been less than Lolo or Lochsa under both irrigated and dryland conditions. Test weight is very high, height is average, and heading date is early. Pristine is red-chaffed with good straw strength.

Skookum (ML042-409-1,5**) –** is a soft white spring wheat released in 2005 by Fossum Cereals. Yield was above average and test weight is slightly below average. Skookum is a little taller and later than average, and yielded well in the dryland trials, and in the Upper Valley area in 2007.

Summit - a hard red spring wheat released by General Mills. Summit is short and has excellent resistance to stripe rust. In 2005 trials under high disease pressure, Summit yielded very well in Aberdeen and Idaho Falls. At other locations, Summit's yield and test weight were near average. Protein was average, with good loaf volumes.

Tara 2002 (WA7824) – hard red spring wheat released by Washington State University. Yield has been at or below the trial average most conditions. Test weight is average, height is taller and maturity is earlier than average.

Utopia - is a durum wheat with black awns released by World Wide Wheat, LLC. Utopia is shorter than average, but has excellent stripe rust resistance. Utopia yields above average when irrigated, slightly below Kronos, and has average test weight.

UI Pettit (IDO632) – a soft white spring wheat similar in appearance to Alturas. Pettit yields very well under irrigation, but less than Alturas, and yields poorly under dryland conditions. It is a very short early maturing variety with great yield potential for the upper valley areas.

UI Winchester (IDO578) – a hard white spring wheat released by the Idaho Ag Experiment Station for dryland production areas. In 2006, yields were very good, but in 2007 it was average, but data is unreliable as there was severe drought stress.

Waxy Penawawa - Waxy-Pen is a fully-waxy, back-cross-five derivative of the soft white spring wheat variety 'Penawawa' (PI 495916; 'Potam 70' / 'Fielder') and is indistinguishable from Penawawa except for the waxy endosperm trait. Due to its unique amylose-free composition, several end-use quality traits including flour swelling volume and cookie diameter are dramatically altered. Waxy-Pen has

received protection under U.S. Plant Variety Protection.

WINTER WHEAT

Bauermeister (WA7939) – hard red winter wheat released in 2005 from Washington State AES adapted to dryland conditions. Bauermeister yielded well under irrigated and dryland conditions in 2005, but yielded below average in 2007. It has lower than average test weight. Quality tested in the PNW Regional Quality Testing was poor.

Bitterroot (92-22407A) – a new release this year from the Idaho Ag Experiment Station, Bitterroot is a soft white winter with good yield potential under irrigation. Test weight and heading is average, and height is two inches taller than average. Bitterroot has tolerance to Cephalosporium stripe and has excellent end use quality.

Brundage 96 (ID-B-96) – soft white winter wheat released by Idaho AES and USDA-ARS in 2002. Brundage 96 is a purified selection from Brundage with better resistance to stripe rust, but with lower yields and test weight. Brundage 96 is similar to Brundage in being awnless, high yielding and having strong straw. Brundage 96 is about four to five days later in heading than Brundage. Both have excellent quality, with Brundage 96 being even slightly superior.

Deloris (UT2030-32) – hard red winter wheat released by Utah State University in 2002. Deloris has good yield potential under both irrigated and dryland production systems but is taller than desired under irrigation and may lodge. Yield, test weight, maturity, lodging, and protein characteristics are average. Deloris is resistant to dwarf bunt, and very susceptible to stripe rust, but performed well despite heavy stripe rust present in 2005.

DW (IDO513) – hard red winter variety released by Idaho AES and USDA-ARS. DW is best adapted to dryland environments, and yields well but may lodge under irrigated conditions. DW yields less and is shorter than Utah 100 under dryland conditions. DW does have moderate resistance to stripe rust.

Eddy – A new release from WestBred, LLC., Eddy is an irrigated hard red winter wheat with above average yields. In its first year of testing, Eddy has higher yield and higher test weight than Boundary with earlier maturity by about three or four days. Eddy has a little higher protein.

Gary (IDO550) – hard white winter wheat released by Idaho AES and USDA-ARS. Over three years, Gary yielded less than Golden Spike, has slightly higher test weight, and is shorter. Inadequate straw strength will limit acreage under irrigated conditions.

Golden Spike (UT1944-158) – a hard white winter variety released by Utah AES in 1999, for dryland production areas where dwarf bunt is endemic. Golden Spike yields and test weight are similar to Utah 100 under irrigated conditions, but may lodge. Its yields have been less than Utah 100 under dryland production. Golden Spike is a Q+ hard white when it has a minimum 12 percent protein.

MDM (WA7936) – a hard white winter wheat released by Washington State University in 2005. MDM had below average yield and test weight in 2005 irrigated trials and higher than average yield in 2007. MDM has below average test weights and is taller than Promontory and shorter than Utah 100 under irrigation. MDM yielded well under dryland conditions in 2005, but yields poorly under drought stress.

Moreland (IDO517) – hard red winter wheat released by Idaho AES and USDA-ARS in 2003. Moreland yields are average. Height is similar to Bonneville, shorter than Boundary and taller than Garland. Straw strength is very good. Best adapted under irrigated conditions, Moreland is a Q+ wheat when protein is above 12 percent. Moreland is very susceptible to stripe rust.

NuDakota - a hard white winter wheat released by AgriPro in 2005, NuDakota outyielded all other named varieties in the 2007 combined hard wheat irrigated trials. It was average in test weight and very early in heading, and shorter than average, being shorter than Boundary under irrigation. It yielded similarly to Utah 100 under the drought conditions in Ririe this year.

Agripro Paladin (W96-355) – a hard red winter wheat released by AgriPro in 2005. Paladin had above average yields and average test weight in the three-year irrigated averages. Paladin yielded well in the 2007 Aberdeen trials, and has average grain and flour protein. Loaf volume was low. Under dryland conditions, Paladin has high protein.

Agripro Palomino (96-359W) – a hard white sister line to Agripro Paladin, with very similar agronomic characteristics, but yielding less.

Tubbs 06 (OR939526) – soft white winter wheat reselected from Tubbs, released by Oregon State University. Tubbs 06 is higher or equal in yield but lower in test weight than Brundage. It is similar in test weight and height to Stephens but has stronger straw.

UI Darwin (IDO 604) – a hard white winter wheat intended as a replacement for the hard red winter cultivar Bonneville. UI Darwin is similar to Bonneville in appearance, agronomic and quality characteristics, and does best in dryland production areas. UI Darwin has some adult plant resistance to stripe rust, is resistant to dwarf bunt and has moderate resistance to snow mold.

WestBred 528 (BZ6W98-528) – soft white winter wheat released by Westbred, LLC. intended as a replacement for WB 470. Yields are above average, better than WB 470 in both dryland and irrigated trials, but test weight tends to be lower. WB 528 has much better quality than WB 470. WB 528 is also resistant to stripe rust.

Yellowstone (MT00159) – a hard red winter wheat with excellent yield potential in irrigated and dryland conditions of southeast Idaho. Yellowstone averaged the highest yield under irrigation over the last three years. Yellowstone has average test weight, height and heading dates and has excellent lodging resistance under irrigation. Flour yield and loaf volume are above average. Foundation seed is available Fall 07.

Table 3. Ten year averages of selected agronomic characteristics, 1997-2006 compared to 2007.

NOTE: "Average" values are for years 1997 to 2006

Winter Wheat

YIELD			TEST WEIGHT			PLANT HEIGHT			HEADING DATE				LODGING		
	# of			# of			# of			# of		Days		# of	
Year	Loc.	bu/A	Year	Loc.	lb/bu	Year	Loc.	in.	Year	Loc.	date	fr. Jan.1	Year	Loc.	%
2004	3	122	2000	4	61.4	1998	4	38	1999	3	6/18	170	**2007**	**4**	**9**
2000	4	108	2004	3	61.1	2005	4	38	1998	4	6/12	164	2006	4	8
1997	4	107	2001	4	60.9	2004	3	36	2002	4	6/10	162	2003	4	7
1998	4	104	2006	4	60.8	2000	4	34	2001	4	6/8	160	2005	4	4
2005	4	104	1998	4	60.4	**Avg.**	---	**34**	2005	4	6/7	159	1997	4	3
Avg.	---	**101**	**2007**	**4**	**60.3**	2006	4	32	1997	4	6/7	159	1998	4	3
2003	4	101	**Avg.**	---	**60**	2003	4	32	**Avg.**	---	**6/6**	**159**	**Avg.**	---	**3**
2006	4	98	2003	4	59.7	1997	4	32	2004	3	6/3	155	2000	4	2
2007	**4**	**96**	2005	4	59.3	2001	4	32	2000	4	6/2	154	2004	3	2
1999	3	93	1999	3	59.0	1999	3	31	2006	4	6/1	153	1999	3	0
2001	4	89	1997	4	58.2	2002	4	31	2003	3	5/31	152	2001	4	0
2002	4	88	2002	4	57.8	**2007**	**4**	**30**	**2007**	**4**	**5/30**	**151**	2002	4	0

Spring Wheat

YIELD			TEST WEIGHT			PLANT HEIGHT			HEADING DATE				LODGING		
	# of			# of			# of			# of		Days		# of	
Year	Loc.	bu/A	Year	Loc.	lb/bu	Year	Loc.	in.	Year	Loc.	date	fr. Jan.1	Year	Loc.	%
1997	6	99	2006	5	62.1	1997	6	34	1999	7	7/4	186	2003	4	62
2003	4	96	2000	6	61.6	2003	4	34	2005	5	7/3	186	1998	6	23
2005	5	87	2001	7	61.4	1998	5	33	1998	6	7/1	183	**Avg.**	---	**11**
2007	**5**	**81**	2002	7	60.8	2005	5	32	2004	4	7/1	183	1999	7	7
Avg.	---	**80**	1997	6	60.6	2004	4	32	2002	7	6/29	181	2006	5	6
2000	6	80	**Avg.**	---	**60**	**Avg.**	---	**31**	2003	4	6/28	180	**2007**	**5**	**5**
2004	4	79	2005	5	60.2	**2007**	**5**	**30**	**Avg.**	---	**6/27**	**180**	1997	6	5
2001	7	79	2004	4	59.6	1999	7	30	2006	5	6/27	179	2005	5	2
1998	6	73	2003	4	59.4	2000	6	29	2001	6	6/24	176	2001	7	1
2006	5	72	1999	7	59.1	2001	7	29	**2007**	**5**	**6/21**	**173**	2004	4	1
1999	7	70	**2007**	**5**	**58.6**	2002	7	29	1997	5	6/21	173	2000	6	0
2002	7	67	1998	6	57.8	2006	5	29	2000	6	6/19	171	2002	7	0

Spring Barley

YIELD			TEST WEIGHT			PLANT HEIGHT			HEADING DATE				LODGING		
	# of			# of			# of			# of		Days		# of	
Year	Loc.	bu/A	Year	Loc.	lb/bu	Year	Loc.	in.	Year	Loc.	date	fr. Jan.1	Year	Loc.	%
1997	6	112	2005	5	52.0	1997	6	34	2005	5	7/4	186	2003	4	78
2005	5	103	2006	5	51.5	1998	6	34	1999	7	7/4	186	**2007**	**5**	**35**
2003	4	102	2000	6	50.9	2004	4	34	1998	6	6/30	182	1998	6	29
2001	7	101	2004	4	50.7	2002	7	32	2004	4	6/29	181	**Avg.**	---	**27**
2000	6	99	1997	6	50.5	2003	4	32	2006	5	6/28	180	2001	7	25
2004	4	99	**Avg.**	---	**50**	2005	5	32	**Avg.**	---	**6/26**	**178**	1997	6	23
2007	**5**	**99**	1999	7	50.1	**Avg.**	---	**31**	2002	7	6/26	178	1999	7	23
Avg.	---	**97**	2002	7	50.1	2000	6	29	2001	6	6/25	177	2004	4	23
2002	7	96	**2007**	**5**	**49.2**	2001	7	29	**2007**	**5**	**6/23**	**175**	2002	7	22
1999	7	94	2003	4	49.2	1999	7	28	2003	4	6/20	172	2005	5	21
1998	6	84	2001	7	48.4	**2007**	**5**	**27**	1997	5	6/18	170	2006	5	21
2006	5	82	1998	6	47.8	2006	5	26	2000	6	6/18	170	2000	6	2

Table 4. Hard Winter Wheat Irrigated Nurseries, 3-Year Averages (2005 - 2007)

Variety	Yield (bu/A)	Test Wt (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)
Yellowstone	128.6	62.2	94	5/30	37	2	12.3
Promontory	127.1	63.3	94	5/30	37	6	12.2
Utah 100	123.6	60.8	95	6/1	42	0	12.6
Golden Spike	122.0	61.0	95	6/1	39	17	12.1
AgriPro Paladin	119.5	62.6	95	5/28	35	0	12.9
DW	119.1	62.0	95	5/31	35	14	12.8
Manning	118.3	62.0	95	5/30	36	20	12.6
Neeley	117.1	62.0	94	6/1	38	9	13.2
Deloris	116.2	62.2	94	5/30	40	10	12.8
Moreland	115.8	60.9	92	5/27	33	0	13.1
Boundary	115.6	61.6	92	5/30	34	3	12.2
NuHorizon (W)	115.6	63.4	93	5/25	37	7	12.4
IDO 641 (W)	115.1	62.6	93	5/28	35	8	12.6
Gary (W)	113.1	60.3	92	5/31	39	31	12.3
Garland	112.7	60.0	92	5/31	27	0	13.0
AgriPro Palomino (W)	111.0	61.6	95	5/24	32	2	13.2
Dumas	108.7	63.2	95	5/24	35	4	12.8
Bonneville	107.7	62.9	94	6/3	43	15	14.2
Weston	106.1	62.9	93	5/28	43	26	13.6
NuHills	105.5	63.2	94	5/23	32	6	13.9
Average	115.9	62.0	94	5/29	36	9	12.8
LSD (α =.05)	5.1	0.5	3.5	0.9	1.2	7.1	0.4
CV %	9.4	1.7	8.0	1.3	7.1	168.3	3.7
Pr > F	<.0001	<.0001	0.4969	<.0001	<.0001	<.0001	<.0001

Table 5. Soft White Winter Wheat Irrigated Nurseries, 3-Year Averages (2005 - 2007)

Variety	Yield (bu/A)	Test Wt (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)
WestBred 528	132.1	61.6	95	5/26	33	6	11.3
Malcolm	127.9	59.5	93	5/31	35	1	11.3
Brundage	127.2	61.8	93	5/26	32	0	10.9
Mohler	127.1	60.2	91	6/1	35	4	11.8
Lambert	126.8	60.1	95	5/30	37	7	11.5
ORCF-102	125.2	60.2	93	5/31	36	1	11.4
Simon	125.1	59.9	93	6/1	35	0	11.4
Stephens	124.8	59.7	94	5/30	34	6	11.4
Madsen	124.3	59.8	93	6/2	35	2	11.6
Tubbs 06	123.9	58.9	94	6/4	38	19	11.8
Westbred 470	122.9	62.8	115	5/26	34	0	11.7
Daws	122.6	60.3	94	6/2	36	5	11.6
Brundage 96	122.2	59.2	93	6/1	32	0	11.2
IDO 620	120.6	59.2	94	6/5	38	30	11.7
Bruehl	120.4	57.3	92	6/5	38	12	11.9
IDO 587	119.8	58.8	93	5/29	33	1	11.4
ORCF-101	117.5	59.3	94	5/31	34	0	11.7
Clearfirst	111.4	59.7	93	6/2	34	0	12.3
Average	123.4	59.9	95	5/31	35	5	11.5
LSD (α =.05)	5.0	0.5	14.7	0.5	0.9	6.1	0.5
CV %	8.9	1.9	34.2	0.8	5.9	220.8	4.2
Pr > F	<.0001	<.0001	0.4695	<.0001	<.0001	<.0001	<.0001

Table 6. Winter Barley Irrigated Nurseries, 3-Year Averages (2005-2007)

Variety	Yield (bu/A)	Test Wt (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Plumps 6/64	Plumps 5.5/64	Plumps thins
91Ab36	162.2	49.6	88	5/25	31	2	9.9	80.8	13.0	6.4
Sunstar Pride	159.5	49.9	85	5/30	32	4	8.8	61.5	21.1	17.6
Strider	154.6	50.4	87	5/20	32	8	11.1	85.0	10.3	4.9
92Ab561	154.3	51.5	88	5/22	32	1	10.5	76.4	15.0	8.7
86Ab474	154.2	51.3	88	5/21	30	1	10.3	73.9	16.4	9.6
91Ab23	153.2	49.4	85	5/23	30	3	10.2	71.7	18.7	10.0
97Ab11	151.2	50.9	87	5/28	33	3	9.9	73.7	17.1	9.2
93Ab631	147.9	47.9	86	5/20	32	8	9.1	69.1	19.0	11.9
92Ab1308	147.4	49.6	85	5/18	34	19	11.1	75.4	14.9	9.4
Sprinter	146.9	50.5	89	5/25	35	6	10.8	71.5	19.4	10.3
Eight-Twelve	146.8	50.2	88	5/21	34	11	10.3	78.7	13.8	7.6
Boyer	146.4	49.7	88	5/24	34	4	10.5	73.9	16.6	9.6
Mal	144.7	49.4	87	5/25	34	8	10.6	70.8	17.7	11.6
Hesk	143.0	49.7	87	5/24	35	8	10.6	70.0	20.1	9.9
Average	150.9	50.0	87	5/23	33	6	10.3	73.7	16.6	9.8
Schuyler	137.6	50.5	89	5/25	35	6	11.4	62.0	25.3	12.9
Kold	133.5	50.4	85	5/23	33	3	11.9	68.5	20.2	11.4
94Ab1777	133.3	50.6	83	5/19	34	8	10.9	77.3	14.8	8.1
Charles	132.3	50.9	83	5/19	29	16	11.9	88.4	6.2	5.6
Hundred	130.8	49.7	82	5/24	33	5	10.6	69.4	21.0	9.7
95Ab2299	129.0	52.3	81	5/22	34	13	10.6	69.4	21.0	9.7
Kamiak	123.6	50.8	93	5/16	35	20	11.6	76.6	15.8	7.6
88Ab536B	105.3	50.6	86	5/16	36	14	11.8	78.0	13.7	8.3
Average	142.1	50.3	86	5/22	33	8	10.7	73.4	17.0	9.7
LSD (α =.05)	9.7	0.6	4.2	1.0	1.3	5.8	0.8	6.4	3.4	3.3
CV %	13.9	2.5	9.9	1.4	8.3	152.2	7.7	9.2	22.5	37.8
Pr>F	0.0033	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001

Table 7. Hard Winter Wheat Dryland Nurseries 3-Year Averages (2005 - 2007)

Variety	Yield (bu/A)	Test Wt (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)
Utah 100	40.4	59.3	93	6/12	25	0	13.9
Promontory	39.3	60.1	88	6/11	23	0	14.7
AgriPro Palomino (W)	38.6	60.6	87	6/9	19	0	15.2
Yellowstone	38.4	60.1	84	6/11	22	0	14.6
NuHorizon (W)	38.2	62.4	87	6/9	20	0	13.2
Deloris	37.7	60.0	87	6/12	24	0	14.1
Dumas	37.4	62.4	89	6/9	20	0	15.1
Boundary	37.3	57.8	90	6/12	20	0	14.4
IDO 621	37.2	60.4	90	6/12	28	0	14.5
Moreland	37.2	58.7	80	6/11	20	0	14.3
AgriPro Paladin	36.3	61.4	87	6/10	20	0	14.9
Bonneville	35.5	61.2	88	6/14	25	0	15.2
Neeley	35.1	60.0	89	6/12	22	0	14.5
Golden Spike	35.1	58.7	83	6/12	23	0	14.6
Garland	34.7	57.3	86	6/13	15	0	14.9
UI Darwin (W)	34.6	62.0	89	6/11	24	0	14.8
DW	34.5	60.3	80	6/11	21	0	14.4
Gary (W)	34.4	59.2	87	6/12	24	0	14.1
Weston	31.9	60.7	87	6/10	25	0	15.0
Average	36.5	60.1	87	6/11	22	0	14.6
LSD (α =.05)	6.8	1.0	8.0	0.9	1.3	0	0.8
CV %	23.3	2.1	9.3	0.7	5.8	0	3.1
Pr > F	0.7706	<.0001	0.2601	<.0001	<.0001	0	0.0007

Table 8. Soft White Winter Wheat Dryland Nurseries, 3-Year Averages (2005-2007)

Variety	Yield (bu/A)	Test Wt (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)
WestBred 528	46.0	58.7	89	6/10	20	0	13.2
Brundage	42.8	58.2	92	6/9	19	0	12.9
Brundage 96	42.3	54.5	93	6/12	21	0	13.6
WA7934	41.1	55.3	88	6/15	22	0	13.7
Westbred 470	40.0	59.6	90	6/10	20	0	13.5
Simon	39.7	56.4	89	6/11	21	0	13.4
IDO 620	38.1	54.6	86	6/15	22	0	14.2
ORCF-101	37.8	54.1	84	6/13	22	0	14.8
ORCF-102	37.7	56.1	92	6/13	22	0	14.4
Lambert	37.6	54.8	82	6/10	24	0	13.2
Madsen	37.6	55.0	88	6/14	21	0	14.7
Bruehl	37.5	53.6	88	6/17	22	0	14.2
Malcolm	36.4	55.2	88	6/12	22	0	14.0
Daws	36.2	56.6	93	6/13	21	0	13.5
IDO 587	36.2	54.0	91	6/11	20	0	14.7
Mohler	35.6	54.5	86	6/12	22	0	13.9
Stephens	34.7	55.0	89	6/11	20	0	14.3
Clearfirst	33.4	54.9	84	6/14	20	0	14.8
Average	38.4	55.6	88	6/12	21	0	14.0
LSD (α =.05)	3.7	1.4	8.8	1.1	1.3	0	1.0
CV %	11.9	3.0	12.3	0.8	6.5	0	4.2
Pr > F	<.0001	<.0001	0.4649	<.0001	<.0001	0	0.0022

Table 9. Hard Spring Wheat Irrigated Nurseries, 3-Year Averages (2005 - 2007)

Variety	Yield (bu/A)	Test Wt (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)
Hard Spring Wheat							
Otis (W)	101.3	61.6	98	6/25	37	4	12.2
Lolo (W)	99.7	61.8	99	6/24	34	11	12.4
Idaho 377s (W)	96.8	60.4	98	6/23	33	16	12.8
Jerome	95.8	61.1	98	6/21	31	1	12.5
Lochsa (W)	94.8	60.1	98	6/23	33	0	13.1
Jefferson	93.6	61.5	98	6/23	33	4	12.8
Saxon	93.3	60.1	98	6/25	34	0	12.8
Scarlet	91.9	60.3	99	6/24	35	12	12.4
WB936	89.3	60.4	98	6/21	30	1	13.1
Pristine (W)	89.3	62.9	98	6/20	32	2	13.3
Blanca Grande (W)	89.2	62.2	97	6/19	28	0	12.9
Summit	89.1	58.9	97	6/25	26	0	12.3
Tara 2002	88.1	61.2	98	6/21	34	5	12.9
Choteau	88.0	59.8	100	6/20	32	5	13.3
Buckpronto	87.5	61.2	98	6/20	31	2	13.7
Klasic (W)	81.8	61.5	97	6/19	24	0	12.7
Iona	80.3	61.4	98	6/23	35	10	13.0
Hollis	80.3	60.8	98	6/22	40	10	13.1
Durum Wheat							
Kronos	91.1	61.2	97	6/20	28	3	11.8
Utopia	89.3	60.3	97	6/23	28	4	11.8
AP1526	88.3	62.0	97	6/25	35	7	12.0
Matt	82.9	61.6	96	6/21	29	6	11.8
Topper	82.4	60.7	97	6/22	29	0	11.9
Average	89.7	61.0	97.8	6/22	31.8	4.5	12.6
LSD (α =.05)	3.5	0.4	0.9	1.3	0.7	3.1	0.6
CV %	9.6	1.8	2.2	1.8	5.2	170.1	6.2
Pr > F	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001

Table 10. Soft White Spring Wheat Irrigated Nurseries, 3-Year Averages (2005 - 2007)

Variety	Yield (bu/A)	Test Wt (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)
Alturas	101.6	60.8	97	6/25	32	2	10.5
Nick	98.9	61.3	99	6/22	32	2	11.3
UI Pettit	98.8	61.1	97	6/20	28	0	10.6
Skookum	98.4	59.6	98	6/27	35	2	11.2
Alpowa	97.3	60.9	97	6/27	34	6	11.3
Treasure	95.0	58.9	98	6/27	32	16	11.1
Challis	93.9	59.6	98	6/26	33	6	10.8
Eden	91.6	61.6	98	6/24	32	3	10.8
Jubilee	91.3	60.2	98	6/28	35	1	11.1
Penawawa	90.3	60.1	97	6/25	33	5	11.6
Louise	90.0	60.0	98	6/25	35	19	11.3
Whitebird	86.0	60.2	97	6/27	34	0	11.0
Average	94.4	60.3	98	6/25	33.0	5	11.1
LSD (α =.05)	2.9	0.3	0.7	0.4	0.6	3.1	0.3
CV %	7.7	1.5	1.8	0.6	4.5	153.1	3.8
Pr > F	<.0001	<.0001	0.0172	<.0001	<.0001	<.0001	<.0001

Table 11. 6-Row Barley Irrigated Nurseries, 3-Year Averages (2005 -2007)

Variety	Yield (bu/A)	Test Wt (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Plump (> 6/64)	Plump (>5.5/64)	% Thin
Feed										
Millennium	128.2	49.7	98	6/18	32	7	10.3	69.8	19.4	11.3
Goldeneye	122.0	51.4	98	6/21	31	17	11.0	82.9	11.1	6.0
Creel	120.5	50.3	98	6/21	32	28	9.0	73.6	16.2	10.2
98Ab12904	118.3	51.2	97	6/20	31	17	9.3	81.3	12.0	6.5
Colter	114.8	49.3	98	6/21	31	14	9.2	73.4	16.3	10.6
Herald	114.1	48.2	97	6/22	32	10	9.5	81.7	11.4	6.9
Aquila	113.8	51.6	98	6/18	31	8	10.7	84.5	9.7	5.9
Steptoe	111.8	48.9	98	6/21	31	23	9.3	84.9	8.9	6.2
Lacey	110.6	52.1	97	6/20	32	31	11.7	87.1	8.7	4.4
Legacy	107.2	51.4	98	6/22	34	48	11.3	84.8	9.6	5.7
Tradition	105.6	51.9	98	6/22	34	24	11.5	88.3	8.0	3.7
Drummond	103.2	51.6	98	6/21	34	27	11.7	86.7	9.2	4.2
Foster	96.7	51.3	98	6/20	33	24	10.8	89.4	7.0	4.3
Morex	92.2	50.6	98	6/23	34	53	11.2	73.4	16.3	10.5
Average	111.4	50.7	98	6/21	32	24	10.5	81.5	11.7	6.9
LSD (α =.05)	4.1	0.3	0.9	0.4	0.8	6.0	0.4	3.7	2.1	2.2
CV%	9.1	1.5	2.3	0.6	6.0	62.9	4.1	5.7	22.6	39.8
Pr > F	<.0001	<.0001	0.01	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001

Table 12. 2-Row Barley Irrigated Nurseries, 3-Year Averages (2005-2007)

Variety	Yield (bu/A)	Test Wt (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)	(> 6/64)	Plump (5.5/64)	% Thin
Feed										
01ST1587	119.5	52.7	98	6/26	28	32	10.2	88.8	6.3	4.6
Tetonia	117.9	52.1	98	6/28	29	31	10.3	81.4	11.0	7.5
Baronesse	117.3	51.9	97	6/27	29	35	9.9	84.6	9.3	6.6
Xena	117.3	52.1	98	6/26	30	34	9.7	83.9	9.9	5.9
Calgary	116.6	52.9	98	6/27	26	20	10.4	88.3	7.8	4.0
01ST1758	115.7	52.4	98	6/27	28	31	9.8	85.4	9.1	5.8
CDC Bold	115.6	52.7	97	6/27	28	22	10.1	83.1	10.9	5.9
B-99-AL-616	114.7	51.3	98	6/26	29	38	9.8	80.9	10.8	8.1
Boulder	114.0	53.8	98	6/25	29	29	9.8	90.5	5.5	3.9
Burton	111.7	52.5	98	6/27	31	20	10.3	88.2	6.3	3.3
95Ab11469	110.7	52.6	98	6/26	31	38	10.2	89.1	5.9	4.9
Camas	110.6	52.6	98	6/26	30	35	10.6	83.5	9.6	6.6
Idagold II	109.4	50.7	97	6/28	25	21	10.5	76.3	15.3	8.4
Radiant	109.3	51.8	98	6/27	30	39	9.5	73.3	14.4	10.0
Valier	106.0	52.4	98	6/27	30	32	10.6	80.8	11.5	7.5
Malt										
Conrad	110.5	51.9	98	6/26	29	31	10.8	88.6	6.7	4.8
Moravian 69	110.0	49.5	98	6/30	26	31	10.1	73.6	15.1	11.0
Moravian 37	107.7	52.1	98	6/28	26	29	10.7	87.2	8.1	4.4
Merit	101.5	50.1	98	6/28	31	34	10.7	77.2	12.7	9.7
B1202	100.5	50.9	96	6/27	29	37	11.1	85.7	9.0	5.1
AC Metcalfe	97.7	52.1	98	6/26	31	37	10.8	87.1	8.0	4.7
CDC Stratus	95.2	51.8	97	6/28	29	40	11.5	85.2	9.2	6.0
Harrington	92.3	50.0	98	6/28	31	47	11.4	71.3	15.8	12.7
Average	109.6	51.9	97.7	6/27	28.9	32.3	10.4	83.2	9.9	6.6
LSD (α =.05)	4.5	0.5	1.4	1.2	0.7	6.8	0.6	5.0	2.6	2.6
CV %	10.2	2.5	3.3	1.7	6.4	52.2	5.6	7.5	32.4	49.6
Pr > F	<.0001	<.0001	0.3553	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001

Table 13. Hard Spring Wheat Dryland Nurseries, 3-Year Averages (2005 - 2007)

Variety	Yield (bu/A)	Test Wt (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)
Hard Spring Wheat							
Otis (W)	34.1	59.0	96	7/13	24	0	13.5
Jefferson	30.5	59.2	93	7/9	21	0	14.4
Lolo (W)	30.5	60.2	94	7/11	20	0	12.8
Hollis	29.4	60.3	98	7/10	23	0	14.9
Lochsa (W)	29.3	60.3	91	7/10	21	0	13.5
Scarlet	29.1	57.9	90	7/12	22	0	13.9
WB 936	28.8	58.3	94	7/8	19	0	14.0
Idaho 377s (W)	28.8	57.1	93	7/10	21	0	14.4
Jerome	28.7	58.3	92	7/8	20	0	13.6
Saxon	28.4	57.0	97	7/11	21	0	14.1
Buckpronto	27.2	58.3	92	7/9	20	0	15.2
Blanca Grande (W)	26.9	58.9	89	7/8	19	0	13.8
Tara 2002	26.8	59.7	92	7/8	23	0	14.6
Choteau	26.4	58.0	90	7/11	19	0	14.6
Summit	26.1	56.9	89	7/15	15	0	13.1
Iona	25.7	59.4	92	7/11	20	0	13.9
Klasic (W)	25.5	58.0	91	7/8	15	0	14.2
Pristine (W)	25.4	61.3	89	7/8	20	0	15.0
Spring Durum							
Kronos	25.2	57.8	96	7/8	18	0	13.3
AP1526	24.0	58.4	97	7/12	21	0	13.3
Utopia	23.9	59.1	96	7/9	18	0	13.6
Matt	23.6	59.4	96	7/9	19	0	13.6
Topper	18.5	59.1	95	7/10	17	0	14.1
Average	27.1	58.8	93.2	7/10	19.9	0.0	14.0
LSD (α =.05)	4.1	2.7	5.6	0.9	1.5	0.0	1.4
CV %	18.6	5.4	7.5	0.6	9.2	0.0	5.9
Pr > F	<.0001	0.0606	0.022	<.0001	<.0001	0.0606	0.2044

Table 14. Soft White Spring Wheat Dryland Nurseries, 3-Year Averages (2005 - 2007)

Variety	Yield (bu/A)	Test Wt (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)
Nick	35.1	60.6	95	7/11	21	0	13.0
Treasure	33.8	60.1	94	7/15	20	0	13.1
Alpowa	33.4	60.7	96	7/14	21	0	12.6
Alturas	32.6	60.5	90	7/14	19	0	12.5
Challis	32.4	60.6	94	7/14	20	0	12.2
Jubilee	32.2	60.8	94	7/17	21	0	13.3
Louise	31.9	60.4	93	7/14	23	0	12.6
Eden	31.2	62.1	87	7/11	19	0	12.3
Penawawa	31.0	60.7	93	7/13	18	0	12.6
Whitebird	30.8	61.5	92	7/15	21	0	13.3
Skookum	30.7	60.3	95	7/14	22	0	12.8
UI Pettit	30.5	62.0	91	7/8	17	0	12.4
Average	32.1	60.8	93	7/13	20	0	12.7
LSD (α =.05)	4.1	0.8	3.9	1.0	1.2	0.0	0.9
CV %	16.1	1.4	5.3	0.6	7.4	0.0	4.3
Pr > F	0.3909	<.0001	0.0008	<.0001	<.0001	0.0	0.2802

Table 15. 6-Row Barley Dryland Nurseries, 3-Year Averages (2005 - 2007)

Variety	Yield (bu/A)	Test Wt (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)	(6/64)	Plump (5.5/64)	% Thin
Feed										
Creel	39.0	50.5	97	7/12	19	0	10.4	57.1	21.3	22.0
Steptoe	38.1	49.6	95	7/14	19	0	10.9	71.6	15.1	13.8
Goldeneye	37.3	51.0	95	7/17	20	0	13.4	64.0	19.6	17.0
Aquila	36.1	52.4	96	7/10	20	0	12.6	75.7	14.7	10.3
Colter	34.7	48.8	96	7/15	18	0	10.8	53.8	23.7	23.4
Millennium	34.2	50.2	93	7/10	17	0	12.7	47.8	27.8	24.9
Herald	31.9	46.8	95	7/15	18	0	10.1	60.4	20.1	19.9
Malt										
98Ab12904	34.8	51.1	93	7/13	17	0	10.8	54.3	21.9	24.0
Drummond	34.5	51.5	92	7/15	19	0	13.6	64.8	21.0	14.6
Lacey	34.1	50.7	94	7/13	19	0	13.1	63.6	20.8	16.0
Morex	33.9	51.4	95	7/17	20	0	14.4	52.2	22.1	26.3
Legacy	33.1	50.6	94	7/16	20	0	13.5	65.9	21.3	13.5
Foster	32.3	50.0	94	7/14	20	0	13.3	61.8	18.1	20.6
Tradition	32.2	51.9	95	7/15	19	0	13.8	65.7	17.8	17.1
Average	34.7	50.5	94.6	7/14	18.8	0.0	12.4	61.3	20.4	18.8
LSD (α =.05)	4.54	0.97	4.1	1.77	1.32	0	1.3	9.3	6.7	10.1
CV %	16.18	1.93	5.36	1.09	8.66	0	6.2	9.1	19.5	31.9
Pr > F	0.0460	<.0001	0.7628	<.0001	<.0001	0	<.0001	<.0001	0.0484	0.0644

Table 16. 2-Row Barley Dryland Nurseries, 3-Year Averages (2005 - 2007)

Variety	Yield (bu/A)	Test Wt (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Plump (> 6/64)	Plump (>5.5/64)	% Thin
Feed										
Xena	42.3	50.8	97	7/15	19	0	12.0	65.7	19.3	14.8
Baronesse	41.5	49.3	98	7/16	16	0	11.7	71.7	14.5	14.0
B-99-AL-616	40.6	48.2	98	7/17	17	0	12.4	70.3	15.6	14.0
Calgary	40.1	50.8	95	7/16	18	0	12.4	64.8	18.5	16.8
95Ab11469	39.9	50.4	96	7/16	19	0	12.4	76.2	13.2	10.5
Camas	39.9	50.4	96	7/16	19	0	12.4	76.2	13.2	10.5
Valier	39.7	51.6	96	7/19	18	0	14.2	53.6	9.4	3.3
Boulder	39.5	48.4	97	7/18	17	0	12.4	69.7	15.9	14.2
01ST1758	37.4	49.7	96	7/16	16	0	12.2	69.2	16.1	14.5
Radiant	37.1	48.9	95	7/20	17	0	12.7	63.9	19.1	16.6
Burton	36.9	49.0	96	7/21	15	0	6.8	62.8	15.2	13.7
01ST1587	36.7	49.9	95	7/19	16	0	12.8	70.0	14.1	15.5
Idagold II	33.8	49.5	97	7/19	17	0	12.6	54.2	23.9	21.8
CDC Bold	32.0	48.4	97	7/17	16	0	12.7	65.3	22.1	12.4
Malt										
CDC Stratus	44.4	49.5	96	7/20	17	0	13.8	67.8	19.7	12.5
Conrad	41.4	50.1	95	7/19	17	0	13.5	69.9	15.9	14.2
AC Metcalfe	40.4	50.7	95	7/16	18	0	13.5	77.7	14.6	7.3
Harrington	40.3	48.4	96	7/19	18	0	12.8	67.8	20.4	11.8
B1202	39.5	49.1	97	7/19	17	0	13.8	57.6	19.3	17.5
Moravian 37	38.6	50.4	98	7/17	17	0	13.2	74.1	12.9	12.8
Merit	30.4	48.3	95	7/18	17	0	13.0	63.8	21.0	14.8
Moravian 69	28.5	47.2	97	7/22	15	0	14.3	58.9	23.0	17.4
Average	38.2	49.5	96.1	7/18	17.0	0.0	12.6	66.9	17.1	13.7
LSD (α =.05)	11.6	2.1	3.3	1.4	1.3	0.0	3.5	17.2	7.2	11.1
CV %	21.4	5.1	4.3	0.8	9.3	0.0	16.9	15.8	25.0	48.3
Pr > F	0.0005	<.0001	0.4094	<.0001	<.0001	0.0000	0.1664	0.3466	0.0125	0.5806

Table 17. Irrigated Hard Winter Wheat Data Combined from Kimberly, Rupert, and Aberdeen, 2007.

Variety	Yield (bu/A)	Test Wt (lb/bu)	Spring Stand %	Heading Date	Height (in)	Lodging (%)	Protein (%)
IDO 621	131.9	62.6	97	5/26	30	5	11.6
NuDakota	127.5	61.6	98	5/21	29	6	12.2
Yellowstone	127.3	62.3	95	5/27	35	1	12.2
Promontory	126.6	62.5	95	5/27	34	11	12.1
W98-344	122.5	63.0	98	5/22	33	0	13.0
MDM (W)	122.2	60.9	97	5/31	37	19	12.7
Eddy	122.2	62.0	97	5/24	32	2	12.6
NuHorizon (W)	120.4	62.9	96	5/23	34	8	12.1
AgriPro Paladin	120.1	62.6	96	5/26	33	0	12.6
Neeley	119.3	62.0	95	5/30	35	19	13.2
TX97-F4-33-1B	118.6	62.4	95	5/22	31	1	12.5
Moreland	118.3	60.5	90	5/25	31	0	12.7
Golden Spike	117.4	61.4	96	5/29	35	17	12.1
Utah 100	117.4	61.4	96	5/28	40	0	12.6
WA7976	117.2	61.7	90	5/19	30	10	12.2
DW	116.9	61.8	97	5/28	32	10	12.8
Manning	116.7	62.2	96	5/27	34	8	12.2
Boundary	115.4	61.6	90	5/28	32	1	12.0
Garland	114.3	60.1	89	5/29	26	0	12.6
IDO 641 (W)	114.1	62.6	90	5/25	33	15	12.8
Bauermeister	112.8	59.9	97	5/31	35	20	13.1
Deloris	112.6	62.5	93	5/28	35	6	12.6
IDO 616	111.6	62.5	97	5/30	37	26	13.5
Gary (W)	110.0	60.4	87	5/29	35	31	12.4
UI Darwin (W)	109.2	63.2	97	5/27	37	8	13.2
Dumas	109.0	62.8	97	5/21	32	3	12.5
Bonneville	108.9	62.8	93	5/31	39	15	13.9
AgriPro Palomino (W)	106.8	61.7	94	5/22	29	0	12.9
Weston	106.7	63.0	90	5/26	38	21	13.2
NuHills	106.0	63.1	93	5/21	30	8	13.8
Average	116.7	62.0	94	5/26	33	9	12.7
LSD (α = .05)	10.5	0.8	9.2	5.5	2.1	14.3	0.7
CV%	11.1	1.7	12.1	4.7	7.7	196.8	3.3
P > F	<.0001	<.0001	0.5785	<.0001	<.0001	<.0001	<.0001

Table 18. Irrigated Soft White Winter Wheat Data Combined from Kimberly, Rupert, and Aberdeen, 2007.

Variety	Yield (bu/A)	Test Weight	Spring Stand	Heading Date	Height (in)	Lodging (%)	Protein (%)
93-64901A	137.2	59.9	96	5/30	35	6	10.6
Westbred 528	132.1	61.2	97	5/25	31	0	11.2
Brundage	132.0	61.3	92	5/25	29	0	10.6
Tubbs 06	131.9	58.9	96	5/30	35	0	11.1
WA7973	130.9	59.0	97	6/1	36	2	11.3
ORCF-102	130.6	60.0	90	5/29	34	0	10.8
99-435	129.0	59.2	93	5/29	36	2	11.9
Malcolm	127.2	59.8	92	5/29	33	3	11.2
Brundage 96	126.6	59.1	96	5/30	29	0	11.2
WA7934	126.1	58.9	91	6/1	36	24	11.6
02-859	125.2	58.4	93	5/29	30	0	11.0
Simon	124.7	59.9	91	5/30	33	0	11.4
99-419	124.2	59.9	89	6/2	35	1	11.5
Madsen	124.1	59.5	93	6/1	33	0	11.4
Coda	123.5	61.0	96	6/2	36	0	12.0
Bruehl	123.4	56.9	90	6/3	37	14	11.7
ORH010920	123.0	58.9	90	5/24	29	0	10.7
Lambert	122.8	60.3	96	5/28	34	0	11.3
Stephens	122.2	59.9	95	5/28	33	4	11.2
92-22407A	121.6	59.7	95	5/31	35	0	11.9
Westbred 470	121.2	61.7	87	5/25	31	0	12.0
Mohler	121.0	60.0	88	5/30	33	5	12.0
Daws	120.6	60.2	95	6/1	34	4	11.4
IDO 587	120.1	58.4	90	5/28	32	3	11.5
IDO 620	118.6	58.9	90	6/1	36	41	11.8
ORCF-101	115.7	58.3	94	5/30	32	0	11.8
ARS00235	115.1	60.0	96	6/4	37	13	12.6
Cara	114.8	57.1	94	6/3	34	11	12.5
Chukar	113.7	58.2	96	6/3	35	3	11.9
Clearfirst	113.5	59.6	94	6/1	32	0	12.2
Average	123.8	59.5	93	5/30	34	5	11.5
LSD (α = .05)	9.0	1.1	8.0	1.0	1.9	10.2	0.8
CV %	8.9	2.3	10.7	0.8	7.2	279.3	4.1
Pr > F	<.0001	<.0001	0.3969	<.0001	<.0001	<.0001	<.0001

Table 19. Irrigated Winter Barley Data Combined from Kimberly and Rupert 2007.

Variety	Yield (bu/A)	Test Weight	Spring Stand	Heading Date	Height (in)	Lodging (%)	Protein (%)	Plump (>6/64)	Plump (>5.5/64)	% Thin
91Ab36	168.9	49.2	75	5/26	30	3	10.4	85.5	10.4	4.5
86Ab474	162.9	50.9	81	5/21	28	1	9.9	76.7	14.6	7.6
Sprinter	158.2	50.0	75	5/28	33	0	10.7	71.0	19.6	9.6
93Ab669	154.9	50.3	76	5/19	32	10	11.3	87.7	8.9	3.8
02Ab2732	154.6	47.8	72	5/27	35	1	9.9	85.8	8.9	5.2
Schuyler	153.6	50.1	78	5/26	33	1	11.7	65.1	24.0	11.3
96AB69	153.3	48.8	73	5/23	27	1	10.7	63.1	20.9	16.2
Boyer	151.8	49.7	73	5/26	31	0	10.6	78.7	13.2	8.2
92Ab561	150.6	51.4	69	5/24	31	0	10.8	78.5	12.1	9.6
Mal	150.6	48.9	83	5/26	31	2	10.9	77.1	15.2	8.0
Strider	149.8	50.4	73	5/22	31	0	11.8	87.4	8.5	4.4
97Ab11	148.4	50.2	75	5/30	31	0	10.1	81.5	12.8	5.7
Sunstar Pride	148.0	49.4	61	5/31	27	0	9.5	70.0	18.1	12.0
92Ab1308	147.0	49.3	65	5/19	32	23	12.0	78.9	12.1	8.0
02Ab2739	145.3	48.2	69	5/25	33	0	10.4	87.9	7.7	4.3
93Ab631	139.9	47.2	68	5/22	29	3	9.1	74.1	15.9	10.3
Hesk	139.0	48.9	67	5/28	31	1	10.9	74.9	16.7	8.3
Eight-Twelve	132.5	49.6	59	5/26	30	0	10.7	85.7	9.5	5.0
91Ab23	131.2	49.0	67	5/27	28	0	10.7	75.9	15.7	9.3
94Ab1777	129.5	49.1	63	5/21	31	1	11.5	78.1	13.7	8.4
02Ab339	129.3	52.4	69	5/28	32	0	12.3	87.7	6.8	5.6
97BX42-116-17A	129.0	48.6	76	5/26	31	0	11.9	75.1	17.2	8.3
Hundred	124.9	48.5	58	5/27	29	2	10.5	71.7	19.2	9.3
88Ab536B	124.0	50.5	74	5/16	34	4	12.3	85.5	9.2	5.5
02Ab2701	121.6	49.0	66	5/28	32	0	11.2	83.9	9.6	6.3
Kamiak	120.0	50.7	87	5/14	31	11	12.4	82.1	12.2	5.8
Maja-Grande	119.9	51.7	64	5/22	30	1	12.2	87.1	8.7	4.6
Charles	116.6	50.1	49	5/21	27	0	13.7	84.4	7.2	8.9
Kold	114.0	50.1	61	5/26	29	0	13.0	76.1	15.4	8.8
95Ab2299	111.4	51.5	60	5/25	32	0	13.8	83.9	9.6	7.0
Average	139.4	49.7	69	5/24	31	2	11.2	79.4	13.1	7.7
LSD (α = .05)	21.7	0.9	11.3	2.3	2.6	6.1	1.5	13.6	7.4	6.7
CV %	15.6	1.9	16.5	1.63	8.6	286.0	8.1	10.5	34.4	53.5
Pr > F	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.011	0.0002	0.1687

Table 20. Irrigated Hard Spring Wheat Data Combined from Rupert/Paul, Idaho Falls, Ashton, and Aberdeen, 2007.

Variety	Yield (bu/A)	Test Weight	Spring Stand	Heading Date	Height (in)	Lodging (%)	Protein (%)
Lolo (W)	106.6	58.3	100	6/19	34	11	13.4
Lochsa (W)	103.6	59.0	100	6/18	33	0	14.3
Jefferson	102.9	60.5	100	6/17	33	5	13.4
Otis (W)	102.0	59.9	100	6/20	36	10	13.2
Choteau	101.7	60.2	100	6/19	32	5	14.2
Blanca Grande (W)	100.9	61.5	100	6/13	27	0	13.6
Jerome	100.1	59.6	100	6/14	30	4	13.6
Kronos	99.3	60.2	100	6/14	27	2	12.8
Scarlet	99.0	57.5	100	6/19	34	21	13.6
Saxon	98.6	58.8	100	6/18	34	0	13.7
Idaho 377s (W)	98.4	59.1	100	6/18	31	27	14.4
Alzada	98.1	60.3	100	6/15	29	4	13.0
AP1526	97.9	60.8	99	6/20	34	11	13.0
Pristine (W)	97.7	62.1	100	6/13	32	4	14.5
WB936	97.0	59.0	99	6/16	29	0	14.3
Iona	96.4	59.7	100	6/17	33	21	14.4
Buckpronto	96.0	59.8	100	6/14	29	1	14.6
Summit	95.9	57.8	100	6/19	26	0	12.8
Tara 2002	95.3	59.9	99	6/16	32	4	14.0
OR4201104	94.0	58.0	99	6/23	32	13	13.7
Snowcrest	92.9	60.4	99	6/14	26	0	14.3
Klasic (W)	91.7	61.1	98	6/13	23	0	13.8
Utopia	91.2	58.2	99	6/17	27	7	12.9
Topper	88.6	59.3	100	6/17	28	0	12.8
Matt	86.9	60.4	100	6/15	28	7	12.8
Hollis	83.6	59.3	100	6/18	39	11	14.3
Average	96.8	59.6	100	6/17	31	6	13.7
LSD ($\alpha = .05$)	5.5	0.6	1.0	0.7	1.4	6.7	1.5
CV %	8.4	3.4	1.4	0.6	6.4	150.7	7.8
Pr > F	<.0001	<.0001	0.5411	<.0001	<.0001	<.0001	0.1767

Table 21. Irrigated Soft White Spring Wheat Data Combined from Rupert/Paul, Idaho Falls, Ashton, and Aberdeen, 2007.

Variety	Yield (bu/A)	Test Weight	Spring Stand	Heading Date	Height (in)	Lodging (%)	Protein (%)
UI Pettit	111.9	60.2	100	6/14	28	1	11.4
Skookum	107.6	59.0	99	6/22	35	4	12.2
Alturas	107.6	59.9	99	6/19	32	6	11.4
Nick	102.6	60.2	100	6/16	31	4	12.1
Alpowa	102.6	59.7	100	6/21	34	12	12.3
Jubilee	101.6	59.8	100	6/20	35	3	11.7
Cataldo	101.2	59.2	100	6/15	30	0	11.9
Whitebird	100.2	59.6	100	6/22	34	0	11.7
Challis	100.0	58.5	100	6/20	32	8	11.8
Treasure	98.2	57.4	100	6/22	32	24	12.1
Waxy Penawawa	97.1	58.5	100	6/20	30	2	12.7
Penawawa	96.8	59.3	99	6/20	32	7	12.7
WA008008	94.4	59.0	100	6/16	31	7	12.4
Eden	93.9	60.3	100	6/20	32	6	11.5
Louise	93.0	58.5	100	6/20	34	27	12.4
Average	100.6	59.3	100	6/19	32	7	12.0
LSD (α = .05)	5.5	0.6	1.4	0.6	0.9	8.3	0.8
CV %	7.9	1.5	2.1	0.5	4.2	159.7	4.4
Pr > F	<.0001	<.0001	0.7265	<.0001	<.0001	<.0001	0.0089

Table 22. Irrigated 6-Row Spring Barley Data Combined from Rupert/Paul, Idaho Falls, Ashton, and Aberdeen, 2007.

Variety	Yield (bu/A)	Test Weight	Spring Stand	Heading Date	Height (in)	Lodging (%)	Protein (%)	Plumps (>6/64)	Plumps (>5.5/64)	% Thin
Feed										
Millennium	143.9	48.9	100	6/13	32	14	11.7	69.2	18.1	14.4
Goldeneye	137.9	50.5	100	6/16	30	24	12.4	79.2	12.2	8.9
Aquila	135.3	50.3	100	6/13	30	21	11.8	79.3	11.5	9.8
Creel	131.0	49.3	100	6/15	30	44	10.4	70.1	16.4	13.9
Herald	124.4	47.2	100	6/16	32	25	10.7	78.2	12.5	9.5
Steptoe	123.5	48.0	100	6/17	30	34	10.4	80.9	11.2	8.2
Colter	121.7	48.0	99	6/16	30	32	10.5	68.1	18.3	14.4
UT1788-435	114.5	50.1	99	6/10	32	60	12.1	75.0	13.5	12.0
Malt										
98Ab12904	134.5	49.8	97	6/15	31	38	10.5	75.2	14.7	10.5
Tradition	125.7	51.3	100	6/16	33	37	12.6	85.0	9.5	5.8
Lacey	124.8	51.6	98	6/15	31	41	13.3	82.4	11.2	7.0
Legacy	122.2	50.6	100	6/16	33	60	12.9	79.5	11.1	10.1
Drummond	119.6	50.6	100	6/16	32	44	12.8	81.1	12.4	7.1
Foster	111.9	50.2	100	6/16	33	36	12.2	85.4	8.4	6.5
Morex	104.8	49.5	99	6/17	32	58	12.4	68.0	16.7	15.6
Average	125.0	49.7	99	6/15	31	38	11.8	77.1	13.2	10.2
LSD (α = .05)	7.8	0.6	2.3	0.7	1.4	11.7	0.6	6.3	2.7	5.2
CV %	8.9	1.6	3.3	0.6	6.3	44.6	3.8	5.7	14.2	35.4
Pr > F	<.0001	<.0001	0.4239	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.0024

Table 23. Irrigated 2-Row Spring Barley Data Combined from Rupert/Paul, Idaho Falls, Ashton, and Aberdeen, 2007.

Variety	Yield (bu/A)	Test Weight	Spring Stand	Heading Date	Height (in)	Lodging (%)	Protein (%)	Plumps (>6/64)	Plumps (>5.5/64)	% Thin
Feed										
Champion	135.7	52.0	99	6/18	29	53	12.0	78.6	13.5	8.0
CDC Bold	132.4	52.0	99	6/21	27	33	11.8	82.7	10.6	6.7
Calgary	130.4	52.8	100	6/21	25	28	12.5	90.1	6.5	3.6
01ST1587	130.0	52.2	99	6/19	28	55	12.1	87.6	7.3	5.1
Boulder	127.9	53.8	100	6/19	28	45	11.7	91.5	5.1	3.7
Tetonia	127.3	51.1	100	6/22	28	40	11.8	76.6	12.7	10.8
Xena	127.0	50.8	100	6/21	29	54	11.8	79.7	11.8	8.7
Spaulding	127.0	52.7	100	6/21	29	42	11.5	82.2	10.3	7.6
Burton	126.1	52.3	99	6/22	31	35	12.4	91.3	5.3	3.8
01ST1758	125.5	51.2	100	6/20	27	54	12.3	81.0	11.7	9.0
Idagold II	124.8	50.0	99	6/23	24	29	12.4	74.7	16.8	9.0
95Ab11469	124.6	51.7	100	6/19	31	58	12.2	86.4	7.2	6.6
Baronesse	124.6	51.2	98	6/21	28	56	12.2	83.9	9.9	8.4
B-99-AL-616	122.4	50.5	100	6/21	28	57	12.0	80.6	10.5	8.6
01Ab11107	121.3	51.5	100	6/20	29	48	12.4	86.0	8.3	5.8
Camas	120.2	52.0	99	6/21	29	53	12.7	81.7	11.3	7.0
Haxby	118.8	53.0	100	6/20	28	46	12.5	87.9	7.0	5.2
Valier	117.2	52.2	100	6/22	29	45	13.0	82.4	10.5	7.0
Radiant	116.9	50.6	100	6/21	29	61	11.7	73.1	14.8	12.2
Eslick	109.3	51.3	100	6/21	29	61	13.1	75.8	13.9	10.8
Hays	105.1	48.4	100	6/21	30	60	11.9	64.2	19.4	16.5
Clearwater*	102.0	56.6	99	6/21	28	56	14.1	59.9	23.0	17.5
CDC McGwire*	101.4	58.8	99	6/23	30	48	13.6	43.8	28.9	27.9
Malt										
Pinnacle	121.9	53.2	100	6/18	30	34	11.7	93.5	3.2	2.9
2B99-2316	119.0	50.8	100	6/21	29	51	12.5	81.3	10.8	8.2
Moravian 37	118.2	51.7	100	6/23	25	55	12.6	85.0	9.4	5.4
Conrad	116.9	50.9	99	6/21	29	48	12.8	84.9	9.1	6.4
Craft	116.4	52.5	99	6/20	31	44	12.8	86.5	7.8	5.9
Moravian 69	115.3	49.0	100	6/24	26	48	12.0	72.9	15.8	11.3
98Ab11707	112.4	49.7	99	6/21	27	55	12.6	76.1	13.3	10.7
Geraldine	111.9	50.9	99	6/23	29	57	12.7	74.7	14.5	11.0
B1202	111.4	50.4	100	6/21	29	53	13.1	84.8	9.8	5.6
Hocket	111.0	51.4	100	6/20	29	47	12.8	86.5	7.6	6.3
CDC Stratus	108.6	51.3	99	6/22	29	55	13.3	87.4	8.6	5.3
Merit	106.4	49.4	100	6/24	30	49	12.6	76.7	12.8	10.6
2B99-2657	106.2	48.6	99	6/21	30	56	13.1	71.9	15.3	13.0
AC Metcalfe	104.8	51.5	100	6/20	31	50	13.1	87.9	7.4	4.9
Harrington	103.3	49.6	100	6/23	31	65	13.6	69.1	16.9	14.0
Average	117.9	51.6	100	6/21	29	50	12.5	80.0	11.5	8.7
LSD ($\alpha = .05$)	8.5	0.8	1.4	0.7	1.4	12.9	0.7	7.9	4.3	4.1
CV%	10.4	2.3	2.0	0.6	7.0	37.4	4.2	7.1	26.7	33.6
Pr >F	<.0001	<.0001	0.775	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001

* indicates hulless variety

Table 24. Agronomic data for winter wheat at Kimberly, irrigated, 2007.

Variety	Yield (bu/A) 2005	2006	2007	Test Wt. (lb/bu)	Spring Stand%	Heading Date	Height (in.)	Lodging (%)	Protein (%)
Hard Winter Wheat									
MDM (W)	146.9	---	123.3	63.1	100	5/27	36	16	13.4
IDO 621	---	130.5	121.4	64.5	100	5/21	30	0	11.9
Yellowstone	147.2	141.1	118.3	63.7	100	5/25	33	0	12.7
Boundary	132.0	125.2	115.9	63.4	99	5/24	32	0	12.1
NuHorizon (W)	123.9	132.4	115.3	65.5	100	5/17	32	0	12.3
Promontory	129.4	136.7	114.6	65.3	99	5/23	33	0	12.5
WA7976	---	---	114.1	63.5	100	5/26	30	0	12.7
Utah 100	140.6	139.5	112.4	63.0	100	5/24	39	0	12.8
Eddy	---	---	112.0	64.2	100	5/20	31	0	13.1
NuDakota (W)	---	---	111.7	64.0	100	5/16	30	0	12.8
AgriPro Paladin	142.7	135.3	110.6	64.6	100	5/21	32	0	13.3
Bauermeister	155.6	---	110.4	63.6	100	5/27	33	1	13.4
Garland	120.3	126.9	109.2	62.3	99	5/25	24	0	13.2
Gary (W)	137.4	134.2	109.0	63.6	100	5/25	34	10	12.7
W98-344	137.3	135.0	108.2	64.6	100	5/17	33	0	14.4
Neeley	131.9	131.7	108.0	64.4	100	5/26	33	13	13.3
IDO 616	---	---	107.0	64.6	100	5/25	36	0	13.3
Golden Spike (W)	146.9	144.5	106.9	63.2	100	5/25	33	23	12.9
Moreland	131.1	132.8	106.1	63.1	99	5/21	29	0	13.8
IDO 641	138.3	137.8	105.9	64.8	100	5/21	32	1	13.2
Manning	147.4	125.1	105.7	64.4	100	5/22	32	0	12.6
DW	139.3	137.2	102.9	64.0	100	5/24	31	0	13.4
UI Darwin (W)	---	---	102.5	64.9	99	5/23	37	0	13.6
Deloris	130.7	138.4	102.3	63.9	100	5/24	32	0	13.5
AgriPro Palomino(W)	120.8	134.6	100.7	63.9	98	5/19	29	0	13.5
Bonneville	125.3	130.6	100.2	64.5	100	5/26	38	0	14.2
Weston	129.4	128.7	97.2	64.7	100	5/21	37	0	13.3
TX97-F4-33-1B	---	---	96.8	65.1	100	5/18	30	0	13.5
NuHills (W)	114.3	133.6	96.1	64.8	100	5/16	29	0	14.0
Dumas	118.1	129.7	87.6	64.8	99	5/17	30	0	12.9
Average	131.8	133.7	107.7	64.1	100	5/22	32	2	13.1
LSD (α=.05)	13.6	9.8	13.5	0.7	0.9	1.3	3.1	12.1	
CV %	8.6	5.2	8.9	0.7	0.6	0.6	6.9	409.0	
Pr > F		<.0001	0.0002	<.0001	0.0009	<.0001	<.0001	0.04	

Table 25. Agronomic data for winter wheat at Rupert, irrigated, 2007.

Variety	Yield (bu/A) 2005	2006	2007	Test Wt. (lb/bu)	Spring Stand%	Heading Date	Height (in.)	Lodging (%)	Protein (%)
Hard Winter Wheat									
TX97-F4-33-1B	---	---	141.5	60.5	85	5/25	32	3	10.5
NuDakota (W)	---	---	132.1	59.9	94	5/22	31	19	10.4
Dumas	78.1	112.5	126.8	61.5	94	5/25	36	10	10.9
Promontory	102.0	129.8	126.8	59.7	91	5/30	37	31	11.2
IDO 621	---	113.9	126.5	61.3	94	5/29	34	15	10.6
Yellowstone	107.3	118.7	123.7	61.3	89	5/29	38	3	11.0
WA7976	---	---	120.8	61.1	95	5/31	36	30	10.7
W98-344	95.5	110.5	119.3	61.9	95	5/24	34	0	10.7
Moreland	94.2	91.2	118.6	58.7	92	5/28	35	0	10.9
Eddy	---	---	116.2	60.3	92	5/26	34	5	10.9
NuHills (W)	62.1	110.6	115.7	62.3	91	5/23	31	23	12.2
Utah 100	99.3	116.3	114.2	59.4	95	5/31	43	0	11.1
Golden Spike (W)	97.5	106.7	114.0	59.7	89	5/31	37	10	10.4
NuHorizon (W)	80.4	116.8	113.3	61.2	91	5/27	38	20	11.4
IDO 641	74.6	112.2	112.5	60.7	94	5/28	36	43	11.8
Neeley	90.6	103.6	112.0	59.7	90	6/1	38	45	12.0
Manning	98.9	102.1	111.7	60.5	92	5/29	38	23	11.0
Garland	100.6	109.0	111.5	58.4	92	5/31	28	0	11.3
Boundary	101.2	105.9	109.2	60.8	92	5/31	35	3	10.9
Gary (W)	87.4	95.2	108.8	57.6	86	5/31	36	63	10.8
DW	97.8	102.8	107.4	59.7	92	5/31	34	30	11.7
AgriPro Paladin	94.6	105.1	104.4	61.5	91	5/29	35	0	11.6
AgriPro Palomino(W)	84.7	102.5	103.4	60.5	94	5/24	32	0	11.4
MDM (W)	82.2	---	103.0	58.7	92	6/3	39	23	11.0
UI Darwin (W)	---	---	102.1	62.1	94	5/29	39	23	11.8
Deloris	101.2	100.5	101.0	61.8	84	5/30	37	18	10.9
Weston	85.2	88.0	99.9	62.0	94	5/27	40	55	12.6
Bauermeister	98.6	---	98.1	55.4	94	6/3	39	58	12.3
IDO 616	---	---	94.5	60.7	94	6/2	38	78	12.9
Bonneville	82.2	90.1	93.8	61.2	95	6/2	40	45	12.6
Average	90.8	106.3	112.8	60.3	92	5/29	36	22	11.3
LSD (α=.05)	14.0	17.1	20.2	2.3	7.7	2.0	2.5	38.8	
CV %	13.1	11.4	12.6	2.7	6.0	1.0	4.9	123.7	
Pr > F		0.0008	0.0004	<.0001	0.3435	<.0001	<.0001	0.0008	

Table 26. Agronomic data for winter wheat at Aberdeen, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand %**	**Date**	**(in.)**	**(%)**	**(%)**
Hard Winter Wheat									
IDO 621	---	119.6	147.9	62.0	99	5/27	28	0	12.2
AgriPro Paladin	124.0	113.5	145.5	61.7	99	5/28	33	0	13.0
DW	137.8	106.0	140.4	61.8	99	5/30	32	0	13.3
MDM (W)	113.6	---	140.2	60.9	98	6/2	36	18	13.6
W98-344	140.8	103.3	140.0	62.4	99	5/26	31	0	14.0
Yellowstone	140.3	120.8	139.9	61.9	97	5/29	35	0	12.8
NuDakota (W)	---	---	138.8	60.9	100	5/23	26	0	13.5
Promontory	145.7	120.6	138.6	62.5	96	5/28	33	3	12.7
Eddy	---	---	138.4	61.5	99	5/25	30	0	13.7
Neeley	146.2	91.7	137.9	62.0	96	5/31	34	0	14.2
Deloris	128.1	108.8	134.4	61.9	96	5/31	35	0	13.4
IDO 616	---	---	133.3	62.2	97	5/31	37	0	14.2
Bonneville	120.2	94.5	132.8	62.7	86	6/3	40	0	14.9
NuHorizon (W)	127.6	97.8	132.7	62.0	98	5/24	32	5	12.6
Manning	140.5	101.1	132.5	61.5	97	5/30	33	0	13.0
Golden Spike	138.3	112.0	131.3	61.4	98	5/31	35	18	12.9
Moreland	133.1	104.7	130.2	59.8	78	5/27	30	0	13.5
Bauermeister	134.5	---	129.9	60.6	98	6/2	35	3	13.6
IDO 641 (W)	127.9	104.0	127.5	62.4	75	5/26	31	0	13.3
UI Darwin (W)	---	---	126.5	62.7	98	5/28	35	0	14.2
Utah 100	152.8	111.4	125.5	61.7	95	5/31	38	0	13.8
Weston	117.2	86.7	123.0	62.4	76	5/31	38	8	13.8
Garland	110.0	104.1	122.4	59.6	76	5/31	25	0	13.4
WA7976	---	---	121.2	60.8	74	4/30	24	0	13.1
Boundary	130.0	100.1	120.9	60.8	79	5/31	30	0	13.0
AgriPro Palomino(W)	135.2	97.4	120.8	60.8	96	5/26	28	0	13.9
TX97-F4-33-1B	---	---	117.3	61.6	100	5/23	31	0	13.5
Dumas	124.5	88.3	112.7	62.1	97	5/23	29	0	13.6
Gary (W)	125.7	107.7	112.2	60.1	75	5/31	35	20	13.6
NuHills (W)	125.1	85.8	106.2	62.2	89	5/24	28	0	15.3
Average	131.4	102.6	130.0	61.5	92	5/27	32	2	13.5
LSD (α=.05)	11.8	12.6	20.8	0.9	27.0	16.7	4.9	14.2	
CV %	7.6	8.8	11.2	1.0	20.8	7.9	10.7	405.5	
Pr > F		<.0001	0.0062	<.0001	0.5340	0.4024	<.0001	0.1781	

Table 27. Agronomic data for winter wheat at Ririe, dryland, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand %**	**Date**	**(in.)**	**(%)**	**(%)**
Hard Winter Wheat									
NuHorizon (W)	53.5	34.7	26.6	62.7	81	6/2	18	0	13.4
NuDakota (W)	---	---	26.3	60.5	81	5/30	17	0	14.3
TX97-F4-33-1B	---	---	26.1	61.4	85	5/31	18	0	14.5
Utah 100	48.0	47.2	26.1	60.7	92	6/4	22	0	14.0
IDO 651	---	35.5	24.4	59.1	75	6/4	28	0	14.6
Boundary	55.5	32.2	24.1	59.4	89	6/5	19	0	14.9
IDO 653	---	36.2	23.8	61.1	82	6/4	24	0	14.6
W98-344	45.6	34.1	23.6	62.0	88	6/1	18	0	14.3
Yellowstone	53.9	37.9	23.6	61.0	75	6/5	22	0	15.1
IDO 616	---	35.9	23.4	62.0	82	6/6	25	0	15.5
Quantum 542 Hybrid	---	---	23.2	61.0	72	6/2	22	0	14.7
Deloris	51.7	38.4	23.2	60.7	83	6/5	22	0	14.0
Golden Spike (W)	48.8	33.3	23.2	61.2	74	6/5	21	0	14.4
Neeley	45.9	36.4	23.0	61.3	88	6/5	20	0	14.8
Gary (W)	44.2	36.0	23.0	60.9	81	6/5	24	0	14.5
AgriPro Paladin	52.0	34.0	22.9	62.8	81	6/3	18	0	14.6
Promontory	59.9	35.4	22.6	62.4	83	6/4	22	0	14.5
Dumas	58.9	30.9	22.4	62.9	83	5/30	18	0	14.4
Bauermeister	55.3	---	22.4	59.0	70	6/9	22	0	15.4
Garland	50.3	31.5	22.3	59.9	81	6/5	14	0	15.1
WA7976	---	---	21.7	58.2	79	6/7	18	0	14.9
Weston	38.6	35.5	21.6	62.2	82	6/4	22	0	15.0
Moreland	51.6	38.6	21.3	59.6	68	6/3	18	0	14.0
DW	44.3	37.9	21.3	61.7	68	6/5	19	0	14.7
Bonneville	48.8	36.4	21.2	62.5	82	6/7	23	0	15.3
AgriPro Palomino (W)	60.9	33.6	21.2	61.5	79	5/31	17	0	15.2
Juniper	49.3	41.5	20.8	62.7	83	6/5	25	0	13.7
NuHills (W)	44.4	34.1	20.7	62.9	82	5/30	18	0	15.7
UI Darwin (W)	49.3	34.2	20.3	62.6	84	6/4	23	0	15.0
MDM (W)	59.0	---	20.2	58.6	82	6/9	20	0	15.2
Average	49.2	35.7	22.9	61.1	80	6/4	20	0	14.7
LSD (α=.05)	14.4	6.5	3.9	1.1	16.9	1.6	2.0	0.0	
CV %	24.8	13.0	12.1	1.3	15.0	0.7	7.1	0	
Pr > F		0.0081	0.0401	<.0001	0.5411	<.0001	<.0001	0	

Table 28. Agronomic data for winter wheat at Kimberly, irrigated, 2007.

Variety	Yield (bu/A) 2005	2006	2007	Test Wt. (lb/bu)	Spring Stand%	Heading Date	Height (in.)	Lodging (%)	Protein (%)
Soft White Winter Wheat									
93-64901A	---	---	131.1	61.9	100	5/25	35	0	10.5
WA7934	133.9	145.3	127.2	61.0	100	5/29	36	22	11.7
Tubbs 06	139.0	133.0	126.3	61.0	100	5/26	34	0	10.9
WA7973	151.0	138.1	122.9	60.1	100	5/29	37	0	11.0
ORCF-102	138.6	128.6	121.2	62.0	99	5/24	33	0	11.1
Lambert	149.7	135.4	120.1	62.3	100	5/23	35	0	11.0
Coda	---	---	119.7	62.7	100	5/30	34	0	11.3
IDO 620	150.3	140.2	119.3	62.2	100	5/27	35	56	11.4
WestBred 528	142.3	148.7	118.8	63.2	100	5/21	31	0	11.2
99-435	---	129.1	118.7	60.8	100	5/24	36	0	12.0
Brundage 96	122.4	127.5	118.3	60.8	99	5/25	28	0	11.2
Brundage	134.5	129.7	117.6	63.8	100	5/19	30	0	10.6
02-859	---	---	117.4	60.5	100	5/24	28	0	11.2
IDO 587	134.1	129.6	115.9	60.2	100	5/24	33	0	11.3
Madsen	138.7	134.2	115.9	61.5	100	5/27	31	0	11.2
ORH010920	---	122.0	115.7	61.1	100	5/18	28	0	10.3
Bruehl	154.8	121.9	115.5	58.1	100	5/29	36	8	11.6
Bitterroot	---	142.3	114.3	61.7	100	5/28	34	0	11.6
Malcolm	145.3	139.0	114.2	62.5	100	5/23	33	0	11.1
Stephens	137.8	135.1	113.5	61.9	99	5/24	32	0	11.2
ARS00235	---	---	113.3	62.3	100	5/31	37	0	11.6
Simon	132.2	133.9	112.9	61.5	99	5/25	31	0	11.9
Daws	135.6	135.4	112.6	62.0	99	5/28	34	0	11.1
ORCF-101	124.7	127.6	110.8	60.4	98	5/27	32	0	11.3
Mohler	141.5	146.6	110.5	61.5	100	5/26	32	0	11.3
99-419	---	138.4	109.4	60.2	99	5/29	33	0	11.8
WestBred 470	141.7	131.6	108.6	64.7	100	5/20	32	0	11.9
Clearfirst	122.1	121.5	104.0	61.8	98	5/27	31	0	12.1
Chukar	---	---	101.4	58.2	100	5/30	34	5	12.1
Cara	---	---	94.5	57.9	100	5/30	31	1	13.5
Average	136.8	133.5	115.4	61.3	100	5/26	33	3	11.4
LSD (α=.05)	10.1	10.1	15.7	2.0	1.0	1.9	4.1	12.5	
CV %	6.2	5.4	9.7	2.3	0.7	0.9	8.9	291.7	
Pr > F		<.0001	0.0223	<.0001	0.0088	<.0001	<.0001	<.0001	

Table 29. Agronomic data for winter wheat at Rupert, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand%**	**Date**	**(in.)**	**(%)**	**(%)**
Soft White Winter Wheat									
Malcolm	88.5	116.5	132.0	57.1	92	6/1	36	10	11.1
Brundage	90.5	132.6	130.6	59.1	90	5/29	30	0	10.6
99-435	---	109.8	129.0	57.8	92	5/31	37	5	11.7
WestBred 528	98.3	128.6	128.5	59.6	93	5/26	33	0	10.8
99-419	---	122.4	123.9	59.6	89	6/3	37	3	10.4
Brundage 96	76.9	124.9	123.4	57.7	91	6/2	32	0	10.6
Simon	80.1	123.2	122.8	58.7	91	6/1	37	0	10.6
93-64901A	---	---	122.6	57.9	90	6/2	36	0	10.2
WA7973	82.5	127.6	122.5	57.7	93	6/2	38	3	10.7
Madsen	76.5	128.2	120.3	57.6	92	6/2	36	0	10.9
ORCF-102	82.6	118.9	119.1	58.4	92	5/31	36	0	10.4
Stephens	92.0	125.3	118.9	58.2	91	5/29	36	13	10.6
Mohler	92.0	121.1	118.8	58.5	89	6/1	36	15	11.5
Daws	79.8	128.9	118.3	58.4	91	6/3	36	13	10.7
Cara	---	---	117.7	56.2	85	6/4	37	15	11.2
Lambert	95.3	120.6	117.5	58.9	92	5/29	36	0	10.8
02-859	---	---	117.4	56.5	93	6/1	33	0	10.9
Westbred 470	82.5	127.6	117.2	60.6	91	5/26	34	0	12.0
ORH010920	---	128.5	116.5	56.5	88	5/26	30	0	10.5
Tubbs 06	89.6	106.0	115.6	56.6	91	6/1	36	0	10.4
Bitterroot	---	112.5	112.8	57.3	93	6/1	38	0	11.3
WA7934	81.7	108.8	112.1	55.7	89	6/3	36	43	10.9
Bruehl	95.1	112.1	110.6	54.0	89	6/5	39	35	11.0
Clearfirst	73.3	107.3	110.6	57.7	90	6/3	33	0	11.4
IDO 587	87.0	107.9	110.4	56.8	91	5/29	33	5	11.5
ARS00235	---	---	110.1	57.5	92	6/5	39	38	12.2
Chukar	---	---	109.7	57.8	91	6/5	39	5	10.9
ORCF-101	87.5	106.0	109.0	55.7	92	6/1	34	0	12.4
Coda	---	---	108.6	59.0	92	6/4	38	0	11.6
IDO 620	85.8	110.5	93.7	54.1	94	6/3	36	55	11.6
Average	84.9	117.1	117.3	57.5	91	6/1	36	9	11.0
LSD (α=.05)	15.2	19.6	14.5	2.2	5.4	1.4	2.7	24.1	
CV %	15.3	11.8	8.8	2.7	4.3	0.6	5.5	201.4	
Pr > F		0.0054	0.0011	<.0001	0.6883	<.0001	<.0001	<.0001	

Table 30. Agronomic data for winter wheat at Aberdeen, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand %**	**Date**	**(in.)**	**(%)**	**(%)**
Soft White Winter Wheat									
93-64901A	---	---	160.8	59.9	98	6/2	33	33	11.0
ORCF-102	144.2	126.2	154.3	59.7	79	6/1	34	34	11.0
Tubbs 06	156.8	134.1	153.8	59.2	99	6/1	34	34	12.0
WestBred 528	148.9	126.2	148.9	60.8	99	5/29	30	30	11.6
Brundage	151.6	111.0	147.7	61.0	88	5/29	28	28	10.7
WA7973	---	---	147.4	59.4	99	6/4	35	35	12.3
IDO 620	128.1	106.1	145.4	60.3	78	6/4	36	36	12.5
Bruehl	145.9	105.1	144.1	58.6	80	6/5	36	36	12.5
Coda	---	---	142.3	61.3	94	6/5	37	37	13.1
02-859	---	---	140.9	58.1	86	6/1	29	29	11.0
WestBred 470	142.6	118.3	140.6	59.9	71	5/30	28	28	12.2
ORH010920	---	111.6	139.4	59.1	82	5/28	29	29	11.2
99-419	---	118.3	139.2	60.0	78	6/5	34	34	12.3
99-435	---	115.9	139.2	59.1	88	6/2	35	35	12.0
WA7934	132.2	111.7	138.8	59.9	85	6/4	34	34	12.2
Simon	153.5	128.7	138.4	59.6	83	6/3	33	33	11.7
Brundage 96	148.7	119.7	138.2	58.9	98	6/2	28	28	11.8
Bitterroot	---	118.5	137.6	60.2	94	6/2	34	34	12.9
Mohler	149.2	129.7	136.5	59.9	76	6/2	33	33	13.1
Madsen	141.4	127.3	136.2	59.5	89	6/4	33	33	12.0
Malcolm	153.0	127.3	135.3	59.7	83	6/1	30	30	11.3
Stephens	144.0	121.9	134.4	59.5	95	6/1	31	31	11.9
IDO 587	143.9	115.6	134.0	58.2	80	6/1	32	32	11.6
Cara	---	---	132.0	57.4	99	6/7	34	34	12.9
Daws	139.6	122.7	131.0	60.3	96	6/3	33	33	12.3
Lambert	150.8	120.6	130.9	59.8	97	5/31	32	32	12.2
Chukar	---	---	130.0	58.6	99	6/6	33	33	12.8
ORCF-101	142.0	120.8	127.2	58.8	93	6/1	32	32	11.7
Clearfirst	123.3	114.4	126.0	59.3	94	6/3	33	33	13.2
ARS00235	---	---	121.9	60.2	97	6/7	35	35	14.1
Average	145.1	120.0	139.1	59.5	89.2	6/2	32.5	32.5	12.1
LSD (α=.05)	13.5	13.8	16.9	1.7	23.7	2.0	3.3	14.8	
CV %	7.9	8.2	8.4	2.0	18.9	0.9	7.2	504.7	
Pr > F		0.0002	0.0138	0.0038	0.4538	<.0001	<.0001	0.607	

Table 31. Agronomic data for winter wheat at Ririe, dryland, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand %**	**Date**	**(in.)**	**(%)**	**(%)**
Soft White Winter Wheat									
WA7934	57.8	40.9	24.7	57.3	75	6/8	21	0	12.7
Tubbs 06	57.6	34.9	24.3	56.8	80	6/5	23	0	12.5
Bitterroot	---	37.4	23.9	58.3	82	6/6	23	0	12.3
IDO 620	48.8	38.0	23.9	57.3	81	6/8	21	0	12.6
Daws	48.2	37.1	23.3	59.1	85	6/6	20	0	12.8
ORCF-102	54.0	35.8	23.1	57.4	85	6/7	21	0	13.4
WA7973	---	---	23.1	56.8	79	6/7	22	0	11.7
Brundage	70.8	35.0	22.7	60.2	83	6/1	18	0	11.4
Brundage 96	62.6	37.9	22.2	55.7	88	6/5	21	0	12.2
93-64901A	---	---	21.7	57.0	85	6/7	20	0	12.0
Madsen	56.5	35.1	21.1	56.9	70	6/6	21	0	13.7
WestBred 528	77.4	39.6	21.1	60.6	74	6/3	19	0	12.2
99-419	---	39.5	20.9	58.9	77	6/9	20	0	13.1
IDO 587	56.2	31.6	20.7	57.2	84	6/5	18	0	13.0
99-435	---	36.3	20.6	56.1	82	6/4	21	0	12.8
Coda	---	---	20.1	54.9	65	6/8	19	0	12.7
Malcolm	52.0	37.1	20.1	58.2	73	6/5	20	0	12.7
02-859	---	---	20.1	54.6	78	6/4	19	0	11.9
Simon	62.8	36.7	19.7	57.6	81	6/6	19	0	12.8
ORCF-101	59.5	34.3	19.5	56.6	66	6/5	22	0	13.3
Westbred 470	65.1	35.9	19.1	61.3	78	6/3	19	0	11.7
Bruehl	56.9	37.1	18.5	56.6	74	6/12	21	0	13.4
Lambert	62.4	32.6	17.9	54.3	56	6/5	24	0	12.9
Stephens	53.1	33.2	17.9	57.7	75	6/5	19	0	12.8
ARS00235	56.9	37.1	17.8	57.7	84	6/10	20	0	12.8
Chukar	---	---	17.1	53.9	78	6/11	19	0	13.2
Mohler	57	33.1	16.6	55.3	68	6/6	20	0	13.1
Cara	---	---	16.4	53.5	78	6/11	18	0	12.9
ORH010920	---	30.1	16.3	57.5	75	6/3	19	0	12.4
Clearfirst	53.1	32.3	15.0	54.8	63	6/8	19	0	14.0
Average	57.9	35.5	20.3	57.0	76.6	6/6	20.1	0	12.7
LSD (α=.05)	8.5	4.4	4.5	3.4	21.4	2.3	2.2	0	
CV %	12.4	8.9	15.6	4.2	19.9	1.0	7.7	0.0	
Pr > F		<.0001	0.0001	0.0005	<.0001	<.0001	<.0001	0	

Table 32. Agronomic data for winter barley at Kimberly, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein	Plump		
Variety	2005	2006	2007	(lb/bu)	Stand %	Date	(in.)	(%)	(%)	(>6/64)	(>5.5/64)	% Thin
Sprinter	150.3	159.9	170.2	50.3	74	5/30	33	0	10.8	59.6	26.4	14.6
Schuyler	141.4	156.3	168.5	50.7	77	5/28	33	0	11.4	55.8	30.1	14.9
92Ab1308	162.4	157.7	164.2	49.3	78	5/22	33	28	11.1	78.5	13.9	8.0
91Ab36	183.1	171.1	163.8	49.7	73	5/27	30	0	11.0	77.6	16.9	6.2
02Ab2732	---	---	163.6	47.7	81	5/27	34	0	10.8	75	14.7	10.6
02Ab2739	---	---	163.4	47.9	77	5/26	34	0	10.6	81.3	11.6	7.4
92Ab561	170.1	165.7	160.0	52.2	65	5/26	31	0	10.9	85.1	10.4	5.2
Boyer	173.1	158.7	155.6	50.0	65	5/28	32	0	11.0	80.1	13.4	6.6
86Ab474	174.3	150.7	155.3	51.1	81	5/22	28	1	10.3	65.3	22.8	12.7
Strider	183.2	151.7	154.1	51.2	64	5/24	32	0	11.6	89.6	7.7	3.1
02Ab339	---	---	153.7	53.1	70	5/29	34	0	11.6	95.4	3.2	2.2
97Ab11	175.1	153.1	153.5	50.9	71	6/1	30	0	10.6	71.3	20.6	8.7
93Ab669	---	---	153.2	51.3	73	5/22	33	13	11.3	85.7	10.4	4.7
Mal	158.0	151.7	153.2	48.8	84	5/28	32	1	11.0	66	22.9	11.7
95Ab2299	156.1	152.1	150.5	53.7	74	5/24	33	0	11.7	94.7	3.6	2.3
96AB69	---	152.1	150.3	48.8	62	5/26	28	1	11.0	54.5	26.2	19.8
97BX42-116-17A	---	165.1	150.2	48.4	79	5/27	32	0	10.6	63.4	22.4	14.5
93Ab631	176.2	152.7	148.1	47.2	69	5/25	29	0	10.1	68	20.7	12.4
Kamiak	130.3	150.4	144.3	52.6	92	5/15	31	23	12.7	85.6	10.1	4.4
Sunstar Pride	188.7	166.6	139.9	48.7	46	6/2	26	0	9.4	56.8	27	16.5
Eight-Twelve	152.2	158.7	136.0	49.4	57	5/27	29	0	11.3	77.1	15.4	8.5
Charles	156.8	149.6	134.4	51.3	58	5/20	28	0	11.9	94	3.3	3.4
02Ab2701	---	---	134.1	48.5	63	5/31	35	0	10.8	73.8	15.7	10.7
91Ab23	178.5	161.7	132.5	49.2	60	5/29	27	0	11.5	72.7	18.9	9.0
Hesk	168.2	172.1	132.4	48.4	55	5/30	30	0	11.2	66.3	23.8	10.7
88AB536B	111.5	126.1	128.9	52.1	75	5/19	34	0	12.4	89	7.6	4.0
94Ab1777	144.2	159.2	127.6	49.6	55	5/27	34	0	12.1	69.3	17.7	13.2
Kold	145.8	161.5	124.4	51.0	61	5/27	30	0	13.3	72.4	19.2	9.0
Maja-Grande	---	---	123.4	52.7	58	5/25	29	0	11.7	90.4	6.9	3.3
Hundred	132.6	158.0	118.3	48.9	56	5/29	26	2	12.2	66.7	23.4	10.4
Average	157.1	155.7	146.9	50.1	68	5/26	31	2	11.3	75.4	16.2	9.0
LSD (a==.05)	30.8	17.5	27.1	1.2	19.3	3.6	3.4	9.7				
CV %	16.9	8	12.9	1.6	20.1	1.7	7.9	306.6				
Pr > F		0.0025	0.0016	<.0001	0.0012	<.0001	<.0001	<.0001				

Table 33. Agronomic data for winter barley at Rupert, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein	Plump		
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand%**	**Date**	**(in)**	**(%)**	**(%)**	**(>6/64)**	**(>5.5/64)**	**% Thin**
91Ab36	155.7	120.6	174.2	48.6	77	5/25	31	5	9.6	93.8	4.9	1.6
86Ab474	139.7	122.4	170.4	50.8	81	5/21	29	0	9.7	89.1	8.0	3.5
93Ab669	---	---	156.5	49.3	79	5/15	31	8	10.0	87.5	9.2	3.7
96AB69	---	148.8	156.3	48.8	84	5/20	26	0	9.8	76.1	16.6	7.8
Sunstar Pride	169.0	147.8	156.1	50.1	76	5/30	28	0	8.0	87.9	8.5	3.8
Boyer	144.6	114.3	148.0	49.3	80	5/24	31	0	9.4	89.2	7.7	3.6
Mal	145.3	125.6	148.0	49.1	81	5/25	31	3	10.6	86.4	10.2	3.9
Sprinter	146.2	118.2	146.1	49.8	75	5/26	33	0	10.7	82.8	13.5	4.1
Strider	154.6	132.4	145.6	49.6	81	5/20	30	0	11.3	93.9	5.1	1.9
02Ab2732	---	---	145.6	47.8	63	5/27	36	3	8.7	92.2	5.8	2.5
97Ab11	148.6	128.0	143.4	49.6	79	5/28	32	0	8.8	89.7	8.2	2.2
92Ab561	147.5	143.1	141.3	50.6	73	5/22	31	0	10.2	90.8	7.2	2.4
Hesk	155.9	138.6	140.8	49.0	79	5/26	32	3	10.7	83.7	12.0	3.8
Schuyler	123.4	119.0	138.8	49.5	79	5/25	34	3	11.3	75.3	18.4	6.8
93Ab631	160.0	127.0	131.7	47.1	68	5/19	29	6	7.9	67.2	19.2	13.6
Hundred	136.7	108.1	131.5	48.1	60	5/26	31	3	9.8	83.8	12.5	4.0
94Ab1777	131.1	124.7	131.3	48.7	71	5/15	29	3	11.0	82.8	12.4	5.0
91Ab23	160.0	134.6	129.9	48.8	74	5/25	28	0	9.5	90.4	7.6	2.5
92Ab1308	151.5	132.2	129.9	49.3	53	5/17	32	18	10.4	89.4	7.5	3.2
Eight-Twelve	150.3	144.1	128.9	49.9	61	5/25	30	0	10.8	92.3	5.2	2.5
02Ab2739	---	---	127.3	48.6	60	5/24	31	0	10.3	91.0	5.8	3.1
88AB536B	110.4	69.5	119.1	48.9	74	5/14	34	8	12.0	83.5	10.2	6.3
Maja-Grande	---	---	116.4	50.6	71	5/19	30	3	11.5	88.2	8.8	3.4
02Ab2701	---	---	109.0	49.6	69	5/25	29	0	11.0	91.3	5.6	2.9
97BX42-116-17A	---	137.2	107.8	48.8	73	5/25	29	0	12.6	83.6	13.4	4.7
02Ab339	---	---	104.9	51.8	68	5/27	29	0	10.9	94.0	2.9	3.6
Kold	139.2	121.7	103.7	49.2	61	5/24	28	0	12.9	83.0	12.6	4.4
Kamiak	117.1	108.6	99.9	48.7	81	5/13	30	0	12.6	72.7	17.6	9.9
95Ab2299	137.7	116.0	72.3	49.3	46	5/26	32	0	14.3	80.0	10.8	9.6
Charles	135.1	114.2	64.7	48.9	41	5/23	26	0	13.7	82.6	7.8	10.4
Average	141.8	122.5	130.6	49.3	70.5	5/23	30.3	2.0	10.7	85.8	9.8	4.7
LSD (α=.05)	19.6	26.1	28.9	1.4	12.1	3.0	4.0	7.4				
CV %	11.8	14.9	15.6	2.1	12.3	1.5	9.3	258.0				
Pr > F		<.0001	<.0001	<.0001	<.0001	<.0001	0.0008	0.0074				

Table 34. Agronomic data for winter barley at Aberdeen, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein	Plump		
Variety	2005	2006	2007	(lb/bu)	Stand %	Date	(in.)	(%)	(%)	(>6/64)	(>5.5/64)	% Thin
93Ab669	179.4	128.6	128.5	48.7	54	5/27	27	0	12.5	89.9	7.2	3.1
91Ab36	190.2	141.7	119.2	47.4	60	6/3	24	0	10.7	85.2	9.3	5.6
97BX42-116-17A	---	91.6	111.4	47.4	59	6/4	24	0	12.4	78.2	15.8	5.7
Kamiak	134.0	90.1	103.3	49.5	87	5/25	22	0	11.9	88.0	8.8	3.0
02Ab2701	---	---	99.8	45.7	41	5/31	27	0	11.7	86.6	7.4	5.3
Schuyler	149.0	99.8	95.2	48.6	45	6/5	23	0	12.3	64.2	23.4	12.1
86Ab474	185.0	135.8	91.9	47.9	34	6/2	21	0	9.7	75.7	12.9	6.6
02Ab2732	---	---	89.9	47.8	35	6/7	29	0	10.1	90.2	6.2	2.6
02Ab2739	---	---	88.0	48.0	51	5/30	27	0	10.4	91.3	5.6	2.3
97Ab11	179.4	128.6	86.9	47.8	28	6/8	25	0	10.9	83.5	9.6	6.1
Sprinter	175.3	108.8	85.6	48.5	7	6/1	23	0	10.7	70.7	18.9	10.1
Eight-Twelve	174.0	95.2	70.4	47.9	33	6/2	20	0	10.1	87.6	8.0	4.0
Hundred	163.4	98.1	64.6	45.6	36	6/4	21	0	9.6	64.5	21.6	13.5
Hesk	160.0	109.4	62.7	46.3	22	6/2	24	0	10.9	74.8	14.2	10.4
Mal	156.4	119.6	55.1	42.7	22	6/7	24	0	11.1	78.9	12.6	8.3
93Ab631	168.8	118.6	51.6	43.7	19	6/1	22	0	9.4	87.0	7.8	4.9
96AB69	---	103.4	42.6	45.7	14	6/3	19	0	11.2	58.7	20.0	21.1
92Ab561	188.1	107.1	35.3	46.7	26	6/2	22	0	11.3	59.5	18.8	21.2
Boyer	163	113.3	32.6	44.3	11	6/6	22	0	11.5	66.7	18.6	14.4
88Ab536B	99.6	56.5	27.5	48.2	35	5/28	26	0	12.6	84.1	9.9	6.3
94Ab1777	161.3	87.3	26.2	48.3	7	5/31	24	0	11.5	82.3	10.9	7.0
Kold	169.1	102.4	18.2	43.4	7	6/6	22	0	12.9	72.8	14.4	13.0
91Ab23	185.7	142.9	17.8	46.4	11	6/7	19	0	11.0	64.7	20.6	16.3
Sunstar Pride	178.5	129.3	16.3	43.1	6	6/15	19	0	11.2	65.3	18.8	15.8
Strider	196.6	118.7	15.7	42.6	7	6/1	16	0	12.5	78.6	12.7	8.3
Maja-Grande	---	---	14.2	47.4	7	6/2	21	0	13.5	82.7	10.4	7.2
92Ab1308	174.8	102.9	12.8	45.7	6	6/2	24	0	14.4	68.9	15.0	12.8
95Ab2299	143.7	103.8	11.4	47.4	3	6/6	28	0	15.4	77.1	14.3	9.0
02Ab339	---	---	5.5	45.4	3	6/10	22	0	14.5	73.7	14.4	11.1
Charles	157.0	112.5	4.5	42.4	3	6/3	25	0	15.4	76.5	10.4	12.9
Average	164.5	106.9	56.2	46.3	26	6/3	23	0	11.8	76.9	13.3	9.3
LSD (α=.05)	19.5	27.0	58.5	5.3	28.7	4.0	4.2	0				
CV %	10.2	17.3	74.1	6.9	73.5	1.8	12.9	0				
Pr > F		<.0001	<.0001	0.1362	<.0001	<.0001	<.0001	0				

Table 35. Agronomic data for spring wheat at Rupert/Paul, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand%**	**Date**	**(in)**	**(%)**	**(%)**
Hard Spring Wheat									
Iona	108.5	89.9	109.3	62.0	100	6/7	37	0	12.8
Lochsa (W)	98.4	88.2	108.2	59.7	100	6/7	35	0	13.4
Saxon	111.8	89.4	104.3	59.9	100	6/9	36	0	12.3
Jerome	107.6	90.4	104.2	60.6	100	6/3	32	0	12.3
Jefferson	99.9	92.2	103.7	61.9	100	6/7	32	0	12.1
Choteau	93.7	73.8	103.5	62.1	100	6/10	33	0	13.2
Lolo (W)	113.2	96.5	102.8	62.1	100	6/9	37	0	12.4
Blanca Grande (W)	100.4	84.0	102.2	62.0	100	6/2	28	0	12.5
Buckpronto	94.5	82.5	101.6	61.3	100	6/2	31	0	13.2
Pristine (W)	99.0	83.2	100.1	63.4	100	6/2	33	0	13.7
02W50603	---	---	99.7	61.3	100	6/4	30	0	12.0
Otis (W)	116.6	97.8	98.6	62.1	100	6/10	37	0	12.3
WestBred 936	98.1	84.0	98.6	59.7	100	6/5	32	0	13.0
OR4201104	---	---	98.1	59.4	100	6/12	35	0	12.7
Cabernet	---	---	97.5	60.9	100	6/4	25	0	11.6
Summit	90.4	80.8	96.9	57.7	100	6/9	26	0	11.8
Idaho 377s (W)	112.7	93.1	96.8	61.2	100	6/7	32	0	13.0
Klasic (W)	87.0	79.2	96.4	61.3	100	6/2	25	0	12.3
Tara 2002	94.0	93.8	95.3	61.3	100	6/5	34	0	13.0
Scarlet	106.2	88.3	94.9	59.8	100	6/9	37	8	12.3
03W10348 (W)	---	---	94.7	59.5	100	6/3	29	0	12.9
Snowcrest (W)	---	---	94.1	60.9	100	6/3	26	0	13.0
02W0076W (W)	---	---	81.5	57.1	100	6/4	23	0	13.6
Hollis	92.1	69.9	58.4	60.6	100	6/9	41	3	13.2
Durum Wheat									
Kronos	102.4	91.4	100.7	61.1	100	6/2	29	0	11.0
Utopia	102.8	95.2	99.8	59.1	100	6/6	29	0	10.7
Alzada	---	81.8	99.7	61.3	100	6/3	31	0	11.0
Topper	88.8	82.9	92.1	60.2	100	6/5	30	0	10.6
Matt	99.6	83.9	87.3	61.0	100	6/4	30	3	10.9
AP1526	98.8	91.4	86.2	61.3	100	6/10	36	1	10.9
Average	100.9	85.9	96.9	60.7	100.0	6/6	31.6	0.5	12.3
LSD (α=.05)	10.5	13.3	11.3	1.2	0.0	1.9	3.1	4.2	
CV %	8.8	11.0	8.3	1.4	0.0	0.8	7.0	622.0	
Pr > F		0.003	<.0001	<.0001		<.0001	<.0001	0.4465	

Table 36. Agronomic data for spring wheat, Aberdeen, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand%**	**Date**	**(in)**	**(%)**	**(%)**
Hard Spring Wheat									
Blanca Grande (W)	112.7	62.4	134.8	62.7	100	6/11	30	0	12.6
03W10348 (W)	---	---	127.2	60.3	100	6/12	29	0	12.9
Pristine (W)	99.3	72.7	125.5	62.8	100	6/11	36	10	13.9
Saxon	111.5	85.7	124.7	59.6	100	6/15	37	0	13.0
Jefferson	109.3	82.9	123.2	61.3	100	6/15	35	15	13.1
Cabernet	---	---	122.8	60.9	100	6/13	30	0	12.6
Jerome	121.1	84.4	122.6	60.0	100	6/13	32	15	13.3
Lolo (W)	107.7	84.8	122.3	60.7	100	6/17	36	40	13.0
Otis (W)	118.4	89.6	122.0	59.1	100	6/18	39	35	12.9
Lochsa (W)	108.6	81.0	120.8	58.8	100	6/15	35	0	14.2
WestBred 936	95.6	78.3	119.8	59.6	100	6/13	32	0	13.6
02W50603	---	---	119.8	60.9	100	6/14	31	0	13.2
Klasic (W)	83.7	70.5	119.0	62.2	100	6/11	26	0	13.4
Choteau	96.6	79.6	117.9	61.0	100	6/16	35	18	14.1
Tara 2002	105.9	80.4	117.5	60.1	100	6/14	35	13	13.9
Snowcrest (W)	---	---	117.2	61.6	100	6/12	29	0	13.4
Summit	122.5	68.8	114.3	58.6	100	6/17	28	0	12.7
Buckpronto	103.0	76.6	114.2	60.4	100	6/11	30	0	14.7
02W0076W (W)	---	---	114.1	59.4	100	6/13	27	0	13.1
Hollis	103.8	69.2	107.8	61.3	100	6/15	41	35	14.1
OR4201104	---	---	107.3	58.1	100	6/22	35	50	13.9
Iona	106.6	77.6	106.6	59.1	100	6/13	33	75	14.7
Scarlet	105.4	81.9	105.5	59.4	100	6/16	37	71	13.8
Idaho 377s (W)	120.9	84.2	104.5	57.7	100	6/14	33	80	14.5
Durum Wheat									
Kronos	110.5	74.7	125.8	60.3	100	6/10	29	5	14.0
AP1526	103.3	77.9	122.8	61.1	100	6/17	38	39	14.6
Alzada	---	69.3	118.5	60.8	100	6/10	30	3	14.7
Matt	96.7	60.9	112.3	60.8	100	6/12	29	18	14.3
Topper	105.8	68.0	112.1	59.2	100	6/14	30	0	14.3
Utopia	115.7	80.5	107.7	57.3	100	6/14	28	18	14.3
Average	106.4	76.9	117.7	60.2	100.0	6/14	32.4	17.9	13.7
LSD (α=.05)	13.5	5.6	8.5	1.1	0.0	1.5	2.1	24.2	
CV %	10.7	5.2	5.2	1.3	0.0	0.7	4.5	96.1	
Pr > F		<.0001	<.0001	<.0001	0	<.0001	<.0001	<.0001	

Table 37. Agronomic data for spring wheat, Idaho Falls, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand%**	**Date**	**(in)**	**(%)**	**(%)**
Hard Spring Wheat									
Lochsa (W)	115.1	92.0	108.0	57.2	100	6/13	33	0	14.2
Lolo (W)	117.4	105.1	105.7	58.5	100	6/13	34	4	13.8
Snowcrest (W)	---	---	105.7	58.3	100	6/9	26	0	14.0
Blanca Grande (W)	109.5	73.0	103.8	60.2	100	6/9	27	0	13.6
Choteau	103.8	85.1	103.5	59.6	100	6/14	33	1	14.5
Tara 2002	105.6	83.5	103.3	58.8	100	6/11	33	4	14.1
Jefferson	111.0	90.5	102.8	58.5	100	6/12	36	4	14.1
Buckpronto	112.3	84.8	102.6	58.3	100	6/10	32	4	14.8
Otis (W)	123.2	111.8	102.6	58.6	100	6/15	37	4	13.9
Pristine (W)	95.5	94.2	102.3	60.3	100	6/10	31	5	14.0
Klasic (W)	105.8	65.3	102.3	59.4	100	6/10	24	0	13.3
Scarlet	108.7	93.7	102.0	57.2	100	6/13	34	6	14.4
Idaho 377s (W)	119.1	106.9	101.4	56.8	100	6/12	32	28	15.2
Jerome	112.7	93.8	99.9	56.5	100	6/9	31	0	13.9
WestBred 936	105.2	88.3	99.6	56.0	100	6/11	30	0	15.2
Summit	116.0	79.2	99.2	56.4	100	6/14	26	0	13.6
Iona	105.2	93.7	97.7	57.3	100	6/13	33	10	14.7
Saxon	105.2	93.1	93.0	56.6	100	6/13	33	0	14.5
Hollis	105.2	87.5	91.7	57.5	100	6/13	40	6	14.9
OR4201104	---	---	90.8	55.6	100	6/19	31	1	14.9
Durum Wheat									
AP1526	99.4	82.5	109.8	61.0	100	6/16	38	4	15.0
Kronos	112.5	77.2	105.7	59.4	100	6/9	28	4	14.3
Alzada	---	77.7	105.2	60.3	100	6/9	30	15	14.4
Matt	106.4	79.2	95.9	59.5	100	6/10	29	8	14.4
Utopia	106.5	79.4	95.2	56.9	100	6/11	27	8	15.2
Topper	100.6	72.3	93.8	58.2	100	6/11	29	1	14.5
Average	108.9	87.5	100.9	58.2	100	6/12	31.2	4.4	14.4
LSD (α=.05)	9.7	11.4	10.9	1.1	0.0	1.1	3.0	7.4	
CV %	7.5	9.3	7.9	1.3	0.0	0.5	7.0	110.3	
Pr > F		<.0001	0.0777	<.0001	0	<.0001	<.0001	<.0001	

Table 38. Agronomic data for spring wheat at Ashton, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand %**	**Date**	**(in)**	**(%)**	**(%)**
Hard Spring Wheat									
Lolo (W)	82.4	68.6	95.5	51.8	100	7/8	31	0	14.2
Scarlet	68.7	56.4	93.7	53.9	99	7/7	29	0	13.7
Idaho 377s (W)	84.9	73.8	91.1	60.9	100	7/8	28	0	14.8
Otis (W)	82.1	67.9	84.9	59.9	98	7/7	30	0	13.6
Choteau	70.5	55.2	81.8	58.3	99	7/7	28	0	15.1
Jefferson	72.1	56.7	81.8	60.4	99	7/6	27	0	14.1
OR4201104	---	---	79.6	58.7	98	7/11	28	0	13.2
Lochsa (W)	79.3	61.4	77.4	60.3	99	7/6	28	0	15.5
Hollis	55.2	49.9	76.3	57.9	100	7/7	34	0	14.8
Jerome	78.2	62.5	73.9	61.4	99	7/3	26	0	14.7
Summit	72.0	57.8	73.3	58.3	98	7/8	22	0	13.1
Saxon	76.5	53.6	72.2	59.3	99	7/6	28	0	15.1
Iona	71.0	58.4	72.2	60.3	98	7/7	31	0	15.5
WestBred 936	74.5	60.7	69.9	60.7	98	7/4	23	0	15.2
Buckpronto	75.0	56.6	65.5	59.1	99	7/3	25	0	15.6
Tara 2002	65.0	48.0	65.1	59.5	98	7/3	28	0	15.0
Blanca Grande (W)	72.8	52.9	62.8	61.3	98	7/1	23	0	15.5
Pristine (W)	77.5	59.4	62.7	62.0	100	7/2	27	0	16.3
Snowcrest	---	---	54.5	60.7	97	7/1	23	0	16.9
Klasic (W)	68.6	54.9	49.2	61.5	93	7/1	20	0	16.3
Durum Wheat									
AP1526	66.7	52.2	72.7	59.6	98	7/8	27	0	11.3
Alzada	---	57.9	69.1	58.9	99	7/6	25	0	11.7
Kronos	71.5	57.8	65.2	60.0	99	7/5	22	0	11.8
Utopia	75.8	55.0	58.7	59.1	98	7/7	23	0	11.5
Topper	67.1	50.9	56.4	59.6	99	7/7	24	0	11.7
Matt	72.0	50.4	52.2	60.2	98	7/5	23	0	11.5
Average	73.0	57.2	71.5	59.4	98	7/5	26	0	14.1
LSD (α=.05)	6.0	8.2	13.8	5.3	3.9	1.0	2.5	0.0	
CV %	7.0	10.2	13.7	6.3	2.8	0.4	6.9	0.0	
Pr > F		<.0001	<.0001	0.1408	0.5452	<.0001	<.0001	0	

Table 39. Agronomic data for spring wheat at Soda Springs, dryland, 2007.**

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand %**	**Date**	**(in)**	**(%)**	**(%)**
Hard Spring Wheat									
Blanca Grande (W)	35.2	29.8	15.6	60.4	96	7/2	16	0	15.4
WestBred 936	37.6	34.3	14.5	55.3	100	7/2	15	0	16.5
Jefferson	41.0	36.2	14.4	54.3	95	7/3	16	0	16.9
Tara 2002	33.6	32.9	13.9	61.2	99	7/1	18	0	16.9
Klasic (W)	31.5	31.6	13.4	50.8	98	6/30	13	0	17.3
Choteau	36.1	29.8	13.3	53.8	93	7/6	16	0	16.4
Jerome	38.4	34.4	13.2	51.2	98	7/2	15	0	16.6
Snowcrest	---	---	12.7	57.0	98	6/30	16	0	16.7
Buckpronto	35.7	33.6	12.5	57.3	96	7/2	15	0	17.5
Hollis	38.5	37.6	12.1	63.1	99	7/4	17	0	17.3
UI Winchester	---	40.7	10.6	57.9	97	7/5	12	0	16.1
Otis (W)	43.3	39.5	10.3	51.9	99	7/5	18	0	15.1
Pristine (W)	35.2	30.8	10.2	58.4	99	7/1	16	0	17.3
Scarlet	41.0	36.3	10.0	52.5	95	7/5	15	0	17.1
Summit	38.3	31.0	9.0	53.3	92	7/8	10	0	15.0
Iona	37.7	31.5	7.8	57.5	100	7/7	15	0	15.7
Idaho 377s (W)	38.4	40.2	7.7	52.3	100	7/5	16	0	16.9
Lolo (W)	42.7	41.6	7.4	56.7	99	7/5	15	0	---
Saxon	40.6	37.5	7.2	54.0	99	7/6	15	0	16.9
Lochsa (W)	44.8	36.1	7.0	58.1	99	7/3	16	0	---
OR4201104	---	---	2.9	51.1	99	7/9	13	0	16.8
Durum Wheat									
Alzada	---	31.6	13.4	48.0	99	7/2	18	0	16.7
AP1526	31.9	30.0	10.1	54.1	100	7/6	15	0	15.4
Utopia	34.7	28.4	8.7	57.2	99	7/2	14	0	16.7
Matt	35.4	27.9	7.6	55.6	100	7/2	15	0	17.8
Kronos	38.2	30.6	6.9	51.8	99	7/2	13	0	17.3
Topper	24.8	26.9	3.8	57.3	100	7/4	12	0	17.0
Average	36.9	33.8	10.2	55.2	98	7/3	15	0	16.6
LSD (α=.05)	7.1	5.5	6.9	9.2	5.0	2.0	3.4	0.0	
CV %	16.2	11.7	49.4	11.7	3.7	0.8	16.4	0.0	
Pr > F		<.0001	0.0261	0.1628	0.0883	<.0001	0.0011	0	

** This location constituted a crop failure.

Table 40. Agronomic data for spring wheat at Rupert/Paul, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand%**	**Date**	**(in)**	**(%)**	**(%)**
Soft White Spring Wheat									
Alpowa	124.2	90.2	109.4	61.3	100	6/11	38	8	10.0
Treasure	111.0	85.5	108.5	59.9	100	6/12	36	0	9.7
Challis	115.5	92.1	108.3	60.0	100	6/10	35	12	9.7
Alturas	118.7	84.7	108.0	60.4	100	6/10	34	5	10.2
Penawawa	108.1	92.8	107.9	61.1	100	6/10	35	1	10.5
Waxy Penawawa	---	---	106.6	60.4	100	6/10	32	0	9.8
UI Pettit	114.7	64.1	106.0	60.4	100	6/2	30	0	9.9
WA008008	---	---	102.5	60.6	100	6/6	34	0	9.7
Jubilee	107.5	93.3	100.2	62.4	100	6/10	37	0	9.8
Nick	107.2	96.2	98.8	61.0	100	6/6	33	0	10.1
Whitebird	99.8	85.5	98.5	61.5	100	6/11	36	0	9.7
Skookum	115.2	95.4	96.3	60.1	100	6/11	36	0	9.4
Cataldo	---	81.7	96.0	60.2	100	6/4	32	0	10.3
Eden	108.6	87.3	94.1	61.4	100	6/10	35	0	9.7
Louise	91.6	88.3	94.1	59.3	100	6/10	36	31	10.6
Average	112.2	87.4	102.3	60.7	100.0	161.2	34.6	3.8	9.9
LSD (α=.05)	12.3	10.3	10.6	1.0	0.0	1.2	1.9	16.6	
CV %	9.2	8.2	7.3	1.1	0.0	0.5	3.9	304.6	
Pr > F		<.0001	0.0147	<.0001	0	<.0001	<.0001	0.035	

Table 41. Agronomic data for spring wheat, Aberdeen, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand%**	**Date**	**(in)**	**(%)**	**(%)**
Soft White Spring Wheat									
Alturas	130.1	88.3	132.4	60.2	100	6/15	34	13	11.4
UI Pettit	107.0	80.7	128.3	61.3	100	6/12	31	5	11.4
Nick	113.8	83.6	127.0	60.9	100	6/14	33	15	11.8
Skookum	90.9	83.3	125.6	58.3	100	6/21	37	13	12.7
Waxy Penawawa	---	---	124.2	58.5	100	6/16	32	5	13.5
Cataldo	---	80.9	123.2	60.4	100	6/12	32	0	12.3
Challis	90.3	82.2	120.4	59.4	100	6/17	34	15	12.3
Penawawa	85.0	84.2	119.4	60.0	100	6/16	34	18	13.2
Jubilee	72.9	86.4	119.4	60.6	100	6/17	39	10	12.1
Whitebird	59.4	81.1	117.7	60.3	100	6/19	38	0	12.0
WA008008	---	---	116.2	59.4	100	6/13	32	25	12.7
Alpowa	114.5	89.7	116.1	60.0	100	6/19	36	33	13.6
Eden	113.0	84.3	116.0	61.0	100	6/18	37	15	11.6
Louise	131.1	73.0	106.1	58.4	100	6/17	36	70	12.7
Treasure	111.1	76.7	93.3	55.1	100	6/21	33	89	13.0
Average	101.6	82.6	119.0	59.6	100	6/16	34.5	21.6	12.4
LSD (α=.05)	5.6	5.9	9.7	0.9	0.0	1.4	2.2	27.0	
CV %	4.6	5.0	5.7	1.0	0.0	0.6	4.5	87.8	
Pr > F		<.0001	<.0001	<.0001	0	<.0001	<.0001	<.0001	

Table 42. Agronomic data for spring wheat, Idaho Falls, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand %**	**Date**	**(in)**	**(%)**	**(%)**
Soft White Spring Wheat									
UI Pettit	125.7	88.3	118.0	59.7	100	6/10	29	0	11.8
Skookum	126.7	98.5	114.5	57.6	100	6/17	35	3	13.1
Nick	122.1	94.8	113.3	58.1	100	6/10	32	0	13.1
Alturas	123.1	93.5	109.2	57.9	100	6/13	33	8	12.6
Alpowa	119.9	93.5	106.0	57.5	100	6/17	34	9	13.4
Cataldo	---	78.5	102.8	56.7	100	6/10	32	0	13.1
Jubilee	108.6	87.4	98.7	57.7	100	6/16	35	0	12.9
Treasure	125.3	93.1	95.6	54.8	100	6/17	32	9	14.0
Eden	112.2	79.0	94.9	58.5	100	6/15	33	10	12.8
Challis	113.8	87.4	93.9	54.7	100	6/14	33	6	13.7
Waxy Penawawa	---	---	92.3	55.4	100	6/17	31	4	14.3
WA008008	---	---	91.8	55.2	100	6/11	31	3	13.8
Louise	111.9	91.0	90.4	55.6	100	6/16	33	3	13.5
Penawawa	108.3	89.4	89.3	54.9	100	6/17	33	8	14.0
Whitebird	91.2	84.1	88.7	56.9	100	6/18	34	1	13.3
Average	118.9	89.5	100.0	56.7	100.0	6/14	32.6	4.1	13.3
LSD (α=.05)	10.5	9.7	11.6	1.4	0.0	1.2	1.2	11.5	
CV %	7.6	7.5	8.2	1.7	0.0	0.5	2.6	197.5	
Pr > F		0.0101	<.0001	<.0001	0	<.0001	<.0001	0.6338	

Table 43. Agronomic data for spring wheat at Ashton, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand %**	**Date**	**(in)**	**(%)**	**(%)**
Soft White Spring Wheat									
Whitebird	60.6	69.7	95.8	59.8	99	7/9	30	0	11.8
UI Pettit	77.9	80.4	95.5	59.4	99	7/2	23	0	12.5
Treasure	71.0	76.9	95.5	59.9	99	7/8	28	0	11.8
Skookum	72.0	70.1	94.0	60.0	95	7/8	31	0	13.4
Jubilee	66.5	77.3	88.2	58.4	99	7/9	29	0	11.9
Cataldo	---	81.4	82.8	59.4	98	7/3	25	0	12.0
Louise	68.8	65.3	81.3	60.5	98	7/7	32	3	12.7
Alturas	74.4	78.7	80.6	61.0	95	7/8	28	0	11.4
Alpowa	61.4	67.8	78.8	59.9	99	7/8	30	0	12.0
Challis	75.8	74.1	77.3	59.8	99	7/9	28	0	11.4
Nick	78.4	79.0	71.1	61.0	99	7/4	24	0	13.4
Eden	76.6	67.6	70.8	60.4	99	7/6	24	0	12.0
Penawawa	67.3	62.7	70.4	61.1	95	7/8	27	0	12.9
WA008008	---	---	67.2	60.7	100	7/4	26	0	13.4
Waxy Penawawa	---	---	65.3	59.6	99	7/9	25	0	13.3
Average	70.9	73.2	81.0	60.0	98	7/7	27	0	12.4
LSD (α=.05)	7.8	8.5	12.9	1.6	5.9	0.9	2.1	0.0	
CV %	9.2	8.0	11.2	1.9	4.2	0.3	5.5	0.0	
Pr > F		<.0001	<.0001	0.1078	0.7182	<.0001	<.0001	0	

Table 44. Agronomic data for spring wheat at Soda Springs, dryland, 2007.**

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand %**	**Date**	**(in)**	**(%)**	**(%)**
Soft White Spring Wheat									
Nick	39.9	38.5	22.0	56.1	99	7/2	18	0	14.6
Cataldo	---	42.9	18.9	54.8	94	6/30	17	0	14.0
UI Pettit	39.2	35.0	17.5	59.5	95	6/30	15	0	14.2
Eden	40.2	36.5	16.8	54.5	96	7/6	15	0	14.6
Treasure	42.5	42.9	16.0	55.2	98	7/9	15	0	15.2
Skookum	43.9	41.2	14.0	49.6	100	7/7	17	0	15.1
WA008008	---	---	13.8	52.6	98	7/2	16	0	14.9
Alpowa	42.5	44.1	13.7	56.7	99	7/6	16	0	14.6
Alturas	43.4	40.9	13.5	54.3	91	7/8	14	0	14.6
Challis	45.0	40.5	11.7	55.7	99	7/7	16	0	14.9
Louise	39.5	40.1	11.2	54.1	98	7/6	18	0	15.5
Penawawa	42.1	39.7	11.2	59.5	96	7/6	14	0	15.7
Waxy Penawawa	---	---	9.9	56.2	92	7/7	13	0	16.7
Jubilee	40.6	41.4	8.2	53.0	98	7/9	14	0	16.2
Whitebird	43.1	41.5	7.8	57.6	98	7/9	16	0	16.1
Average	41.8	40.4	13.7	55.3	97	7/5	15	0	15.1
LSD (α=.05)	6.1	4.8	10.0	10.2	8.5	1.3	2.4	0.0	
CV %	12.4	8.3	47.8	12.6	6.2	0.5	11.1	0.0	
Pr > F		0.0173	0.1969	0.9074	0.7217	<.0001	0.0005	0	

** This location constituted a crop failure.

Table 45. Agronomic data for spring barley at Rupert/Paul, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein	Plump		
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand %**	**Date**	**(in.)**	**(%)**	**(%)**	**(>6/64)**	**(>5.5/64)**	**% Thin**
6- Row Spring Feed Barley												
Millennium	138.7	138.4	177.0	48.9	100	5/30	35	5	9.9	76.6	15.4	8.5
Steptoe	94.7	124.4	165.8	48.4	100	6/4	32	10	8.8	83.2	10.3	6.9
Aquila	115.8	121.5	158.3	51.0	100	5/30	31	3	9.8	88.5	8.3	3.9
Creel	109.4	126.8	157.2	49.6	100	6/1	31	35	8.7	76.8	15.5	8.2
Goldeneye	114.1	137.0	155.0	50.3	100	6/3	31	0	10.2	84.7	10.1	5.8
Herald	142.6	114.7	152.7	48.2	100	6/4	35	1	9.3	88.1	7.7	4.2
Colter	123.7	121.9	150.8	48.4	100	6/2	33	3	9.0	74.0	16.5	10.2
UT1788-435	---	115.8	144.4	50.8	100	5/29	34	63	10.3	87.7	8.6	4.0
6- Row Spring Malt Barley												
98Ab12904	103.7	127.8	171.2	51.0	100	6/1	33	0	8.8	87.1	9.8	3.7
Lacey	114.2	119.3	162.8	52.4	100	6/2	33	35	10.9	91.4	6.8	2.0
Morex	88.6	97.3	153.3	50.6	100	6/4	33	59	10.0	80.5	13.8	6.1
Drummond	88.5	111.8	152.6	51.5	100	6/3	32	21	10.7	92.9	5.9	1.9
Tradition	99.7	100.5	148.1	51.4	100	6/4	34	19	10.3	93.1	5.5	1.8
Legacy	90.4	121.4	146.6	50.9	100	6/3	33	81	10.6	90.7	7.2	3.4
Foster	71.8	110.2	140.3	51.1	100	6/1	33	6	9.5	95.7	3.2	1.4
Average	106.8	118.8	155.7	50.3	100	6/2	32.7	22.7	9.8	86.1	9.6	4.8
LSD (α=.05)	16.0	16.5	15.8	0.9	0.0	1.1	2.2	29.8				
CV %	13.0	9.7	7.1	1.3	0.0	0.5	4.7	92.1				
Pr > F		0.0003	0.0014	<.0001	0	<.0001	0.0133	<.0001				

Table 46. Agronomic data for spring barley, Aberdeen, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein	Plump		
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand %**	**Date**	**(in.)**	**(%)**	**(%)**	**(>6/64)**	**(>5.5/64)**	**% Thin**
6-Row Spring Feed Barley												
Millennium	142.8	90.3	172.1	50.1	100	6/5	37	18	11.9	81.9	13.0	5.9
Goldeneye	137.4	78.2	172.1	52.9	100	6/10	34	59	12.9	91.3	5.8	3.2
Aquila	127.5	64.9	171.4	52.1	100	6/4	36	10	11.6	93.4	4.8	2.3
Creel	130.7	94.1	155.5	50.7	100	6/11	37	63	9.8	86.1	10.0	4.1
Herald	146.6	78.9	153.0	48.4	100	6/9	38	38	10.4	87.6	7.4	5.6
Colter	140.6	80.0	142.1	50.0	100	6/9	37	58	10.2	82.6	11.4	6.4
UT1788-435	---	81.0	129.5	50.8	100	6/3	39	76	12.2	86.7	8.8	5.1
Steptoe	142.6	77.9	126.9	48.2	100	6/11	38	75	10.5	89.6	6.0	4.2
6-Row Spring Malt Barley												
Tradition	115.7	74.5	158.0	52.4	100	6/11	39	40	13.0	96.2	2.6	1.3
98Ab12904	139.2	91.9	157.7	51.0	100	6/10	38	73	10.6	86.1	9.5	4.8
Legacy	122.9	73.1	150.2	53.0	100	6/11	39	75	13.1	95.7	3.3	1.6
Lacey	127.9	68.4	150.1	53.0	100	6/10	37	51	13.3	93.8	4.5	2.5
Drummond	117.3	73.7	137.7	50.8	100	6/11	41	70	13.0	89.5	7.6	3.3
Foster	103.1	68.7	133.7	51.9	100	6/12	40	55	12.4	95.9	2.9	1.7
Morex	94.9	63.8	115.1	50.7	100	6/12	39	95	13.3	81.2	11.5	7.3
Average	127.8	77.1	148.3	51.0	100.0	6/9	37.8	56.9	11.9	89.2	7.3	4.0
LSD (α=.05)	12.0	9.0	20.9	1.0	0.0	2.2	2.9	35.4				
CV %	8.0	8.2	9.9	1.4	0.0	0.9	5.4	43.5				
Pr > F		<.0001	<.0001	<.0001	0	<.0001	0.0009	0.0010				

Table 47. Agronomic data for spring barley at Idaho Falls, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein	Plump		
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand %**	**Date**	**(in.)**	**(%)**	**(%)**	**(>6/64)**	**(>5.5/64)**	**% Thin**
6 - Row Spring Feed Barley												
Goldeneye	147.3	131.2	153.2	48.1	100	6/11	33	35	13.0	51.4	27.3	21.9
Millennium	161.2	116.2	144.1	47.2	100	6/11	34	33	12.4	33.9	30.7	35.8
Creel	159.1	127.1	138.3	45.5	100	6/11	31	80	11.9	26.3	33.5	40.7
Herald	143.9	101.8	137.4	44.8	100	6/12	34	60	11.6	48.1	28.1	23.9
Aquila	134.9	104.1	131.6	46.5	100	6/10	32	70	13.7	42.5	28.0	30.2
Colter	149.7	113.8	130.7	45.4	100	6/11	32	68	11.6	33.8	33.6	33.2
Steptoe	139.4	109.4	129.8	45.9	100	6/12	33	50	11.1	56.9	24.5	19.0
UT1788-435	---	96.0	110.2	46.9	100	6/10	33	98	13.0	33.6	31.4	35.7
6 - Row Spring Malt Barley												
98Ab12904	148.6	118.2	131.0	47.3	100	6/10	32	80	11.5	39.0	33.0	28.7
Legacy	128.5	108.5	119.4	46.7	100	6/13	36	85	13.6	37.1	30.8	32.6
Tradition	123.9	99.0	118.3	49.4	100	6/11	35	88	13.1	56.7	26.3	17.8
Drummond	112.4	107.7	117.7	48.9	100	6/12	32	85	13.3	49.3	31.1	20.3
Foster	105.7	109.3	114.9	47.3	100	6/11	36	83	13.2	55.8	24.3	20.3
Lacey	134.8	114.7	114.6	48.5	100	6/11	33	78	14.0	49.2	30.6	21.0
Morex	102.3	98.8	88.3	46.4	100	6/13	35	80	13.5	29.4	30.5	40.7
Average	135.8	110.2	125.3	47.0	100	6/11	33.2	71.3	12.7	42.9	29.6	28.1
LSD (α=.05)	11.4	17.8	13.6	1.5	0.0	1.1	307.1	12.9				
CV %	7.1	11.2	7.6	2.2	0.0	0.5	6.5	12.7				
Pr > F		0.0095	<.0001	<.0001	0	<.0001	0.0693	<.0001				

Table 48. Agronomic data for spring barley at Ashton, irrigated, 2007.

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein	Plump		
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand %**	**Date**	**(in.)**	**(%)**	**(%)**	**(>6/64)**	**(>5.5/64)**	**% Thin**
6-Row Spring Feed Barley												
Millennium	106.9	65.6	82.6	49.6	99	7/8	20	0	12.4	84.4	13.1	7.4
Aquila	97.3	58.9	79.9	51.7	99	7/8	22	0	12.0	92.9	4.8	2.6
UT1788-435	---	57.9	74.0	51.9	95	7/1	23	3	12.9	91.9	5.0	3.2
Creel	107.3	67.8	73.1	51.3	99	7/8	21	0	11.2	91.1	6.5	2.6
Steptoe	97.5	61.8	71.7	49.6	99	7/11	19	0	11.3	93.8	3.8	2.5
Goldeneye	102.9	64.1	71.3	50.9	99	7/11	21	0	13.5	89.5	5.5	4.8
Colter	103.4	58.1	63.1	48.4	96	7/10	19	0	11.0	81.8	11.5	7.8
Herald	93.6	49.5	54.5	47.4	99	7/9	22	0	11.3	88.9	6.8	4.2
6-Row Spring Malt Barley												
Tradition	98.1	52.7	78.5	51.9	98	7/9	27	0	13.9	94.0	3.6	2.2
98Ab12904	97.5	54.5	78.1	50.1	89	7/9	20	0	11.1	88.6	6.5	4.7
Legacy	93.7	59.6	72.6	51.8	99	7/8	24	0	14.1	94.5	2.9	2.9
Lacey	89.9	58.4	71.7	52.4	90	7/9	23	0	15.0	95.3	2.7	2.3
Drummond	95.8	53.1	70.4	51.3	100	7/8	22	0	14.0	92.5	4.8	2.8
Morex	88.2	52.9	62.6	50.4	96	7/10	21	0	12.9	80.8	11.1	8.2
Foster	90.8	53.3	58.6	50.6	99	7/9	23	0	13.7	94.1	3.1	2.5
Average	97.1	57.7	70.8	50.6	97	7/8	22	0	12.7	90.3	6.1	4.0
LSD (α=.05)	8.8	7.1	12.0	1.1	9.2	0.8	3.0	1.8				
CV %	7.6	8.6	11.9	1.4	6.7	0.3	9.6	774.6				
Pr > F		<.0001	0.0006	<.0001	0.4422	<.0001	0.0008	0.4708				

Table 49. Agronomic data for spring barley at Soda Springs, dryland, 2007.**

	Yield (bu/A)			Test Wt.	Spring	Heading	Height	Lodging	Protein	Plump		
Variety	**2005**	**2006**	**2007**	**(lb/bu)**	**Stand %**	**Date**	**(in.)**	**(%)**	**(%)**	**(>6/64)**	**(>5.5/64)**	**% Thin**
6-Row Spring Feed Barley												
Aquila	46.3	47.3	14.5	43.0	99	7/3	16	0	15.9	52.8	25.1	22.9
Millennium	42.3	46.5	13.9	49.1	100	7/4	14	0	16.0	21.0	29.7	49.9
Steptoe	49.3	51.5	13.4	45.5	100	7/7	16	0	13.8	37.5	27.2	35.6
UT1788-435	---	45.7	13.3	46.2	99	7/3	16	0	15.0	35.8	28.2	36.6
Creel	54.8	50.0	12.3	38.1	100	7/6	15	0	14.0	26.1	23.9	50.1
Colter	43.2	49.3	11.5	35.9	99	7/8	15	0	13.2	25.8	27.2	47.7
Goldeneye	51.1	51.0	9.9	44.6	99	7/12	16	0	18.0	33.5	27.3	39.8
Herald	41.9	44.8	8.9	37.6	99	7/8	16	0	13.3	36.1	25.1	40.0
6-Row Spring Malt Barley												
98Ab12904	45.3	46.1	13.0	38.7	99	7/7	13	0	14.0	20.2	22.8	57.2
Drummond	42.5	48.6	12.4	36.3	94	7/9	15	0	16.7	35.1	30.5	34.6
Legacy	43.8	44.7	10.8	47.3	99	7/9	15	0	16.9	42.0	29.1	29.6
Tradition	38.2	48.0	10.5	35.8	99	7/8	14	0	16.9	30.8	25.1	44.9
Lacey	48.0	44.0	10.4	41.5	98	7/7	15	0	16.5	37.3	27.3	36.0
Morex	48.0	45.7	8.0	40.0	100	7/10	15	0	17.9	16.3	21.3	63.1
Foster	43.5	46.6	6.9	40.1	99	7/10	15	0	18.0	25.0	23.7	51.9
Average	45.7	47.6	11.3	41.3	99	7/7	15	0	15.7	31.7	26.2	42.7
LSD (α=.05)	7.6	7.8	7.2	9.8	3.7	3.9	2.2	0.0				
CV %	13.9	11.6	44.3	16.6	2.6	1.4	10.4	0.0				
Pr > F		0.6771	0.6667	0.107	0.3631	0.0017	0.438	0				

** This location constituted a crop failure.

Table 50. Agronomic data for spring barley at Rupert/Paul, irrigated, 2007.

Variety	Yield (bu/A) 2005	2006	2007	Test Wt. (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protien (%)	Plump (>6/64)	Plump (>5.5/64)	% Thin
2-Row Spring Feed Barley												
Tetonia	123.0	136.2	147.8	51.4	100	6/10	31	48	9.1	81.5	11.3	7.8
Idagold II	132.0	112.4	145.7	50.6	100	6/11	26	24	10.7	79.2	14.8	6.8
Spaulding	---	120.2	144.7	53.3	100	6/10	30	33	9.8	88.4	7.7	3.9
Xena	146.4	136.4	144.1	51.2	100	6/9	31	67	9.4	85.4	10.0	6.1
Haxby	---	118.7	143.8	52.4	100	6/9	30	60	10.5	91.3	5.3	3.8
Boulder	112.9	113.6	142.7	53.6	100	6/4	29	59	9.3	93.3	4.5	3.0
Champion	---	---	142.3	51.3	100	6/4	30	78	10.2	76.3	14.4	9.8
Calgary	134.8	114.2	142.1	52.9	100	6/10	28	17	10.1	93.6	4.3	2.3
01Ab11107	---	---	141.1	50.9	100	6/6	31	51	10.2	89.3	6.8	4.3
Camas	130.1	103.8	140.5	52.5	100	6/9	32	73	10.9	88.1	8.4	3.3
CDC Bold	129.8	122.2	140.5	52.0	100	6/10	29	36	9.0	90.3	7.2	3.2
Burton	114.0	121.6	140.4	52.2	100	6/10	32	42	10.7	91.5	5.7	3.4
Baronesse	134.8	129.7	140.2	51.2	100	6/8	31	90	9.9	84.5	9.8	6.7
95Ab11469	113.1	106.9	139.9	51.9	100	6/6	33	74	10.4	89.6	6.3	4.3
Valier	108.7	107.1	139.9	52.9	100	6/10	31	50	9.9	89.5	7.5	3.3
B-99-AL-616	121.6	112.4	137.7	49.8	100	6/8	32	89	9.4	79.9	11.5	8.2
01ST1587	122.6	124.2	135.4	50.4	100	6/5	33	93	9.9	83.3	9.2	8.0
Radiant	114.5	104.6	134.5	50.1	100	6/10	32	83	9.9	72.0	15.7	12.3
01ST1758	127.8	124.3	131.2	48.7	100	6/6	29	71	10.4	70.9	16.5	13.9
Hayes	---	80.7	125.0	49.0	100	6/9	33	81	9.7	69.0	18.7	12.6
CDC McGwire*	---	101.1	123.2	59.5	100	6/12	31	54	11.0	51.2	30.3	19.3
Eslick	---	104.1	118.3	49.5	100	6/9	31	95	11.6	73.4	15.4	11.7
Clearwater*	---	80.1	112.9	56.7	100	6/9	30	88	12.3	64.3	19.8	16.4
2-Row Spring Malt Barley												
Moravian 37	124.4	107.8	139.7	51.3	100	6/10	27	75	11.3	87.6	7.7	4.9
Moravian 69	147.0	91.8	139.4	50.4	100	6/13	29	36	9.5	85.3	10.0	5.0
2B99-2316	---	122.8	138.8	50.8	100	6/9	32	66	11.1	81.8	10.2	8.3
C83	---	---	138.3	51.1	100	6/12	28	64	10.1	91.7	4.7	3.4
C84	---	---	138.2	50.2	100	6/11	30	88	10.1	85.7	8.4	6.0
Pinnacle	---	120.3	135.1	53.2	100	6/3	34	34	10.3	96.0	2.3	2.0
Geraldine	---	104.6	134.6	50.7	100	6/11	31	71	10.7	78.6	12.4	9.2
B1202	112.0	108.0	130.8	50.9	100	6/9	31	79	10.8	86.9	8.7	4.3
AC Metcalfe	103.5	94.2	130.2	52.1	100	6/7	33	46	10.9	91.2	5.8	3.2
CDC Stratus	95.3	102.6	129.4	52.3	100	6/11	32	60	10.7	93.6	4.2	2.3
2B99-2657	---	93.8	128.2	49.2	100	6/10	34	79	10.6	79.5	12.7	7.8
Craft	---	104.0	125.5	52.9	100	6/7	33	54	10.5	93.8	4.4	2.2
98Ab11707	---	103.8	125.4	49.9	100	6/7	32	85	10.8	77.1	12.6	10.4
Merit	120.2	96.6	125.1	50.3	100	6/11	32	59	9.8	81.7	11.2	7.4
Hockett	---	100.6	122.2	52.5	100	6/6	32	50	10.3	95.2	3.0	2.2
Harrington	91.8	88.7	117.8	50.6	100	6/12	35	85	10.7	76.7	15.5	7.3
Conrad	118.4	108.6	107.8	51.9	100	6/8	30	58	10.8	89.4	6.6	4.7
Average	119.0	106.6	134.0	51.6	100	6/9	31	63	10.3	83.7	10.0	6.6
LSD (α=.05)	13.9	21.7	20.9	1.9	0.0	2.1	3.2	36.7				
CV %	9.8	14.4	11.1	2.7	0.0	0.9	7.4	41.3				
Pr > F		<.0001	0.0229	<.0001	0	<.0001	<.0001	0.0002				

* indicates hulless variety

Table 51. Agronomic data for spring barley, Aberdeen, irrigated, 2007.

Variety	Yield (bu/A) 2005	2006	2007	Test Wt. (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Plump (>6/64)	Plump (>5.5/64)	% Thin
2-Row Spring Feed Barley												
CDC Bold	132.8	101.6	170.5	53.6	100	6/14	31	53	13.0	88.6	6.1	5.4
Calgary	152.9	104.2	154.6	53.7	100	6/14	29	54	13.4	92.9	4.5	3.2
Champion	---	---	149.5	52.6	100	6/13	36	81	12.9	82.7	9.9	7.3
01ST1587	140.1	104.1	144.9	52.9	100	6/14	33	80	13.2	92.1	4.3	3.9
01ST1758	134.0	101.3	144.4	52.2	100	6/14	33	99	13.2	84.8	7.6	7.9
Burton	132.6	100.9	143.2	53.1	100	6/15	38	35	13.8	93.4	3.7	3.1
Xena	149.0	96.1	142.3	51.0	100	6/14	34	79	13.4	78.5	10.7	10.0
Boulder	134.8	95.0	141.5	55.2	100	6/14	36	68	13.1	94.3	3.0	2.9
Baronesse	150.4	89.8	138.6	50.4	100	6/14	33	79	14.6	77.7	10.8	13.0
95Ab11469	136.9	90.2	137.3	51.8	100	6/13	37	86	13.3	85.8	6.6	7.9
Spaulding	---	---	136.7	52.6	100	6/14	34	71	12.6	84.7	8.5	7.2
B-99-AL-616	144.5	105.0	135.1	50.0	100	6/15	34	85	14.0	80.8	9.8	10.1
Haxby	---	89.3	134.2	53.3	100	6/14	35	60	13.4	89.8	5.3	5.0
Idagold II	138.1	98.7	133.1	49.0	100	6/19	30	63	13.7	68.1	20.6	11.8
Tetonia	139.9	97.3	130.6	50.3	100	6/15	34	74	14.1	74.2	12.0	14.0
Camas	143.3	88.9	129.9	51.4	100	6/14	36	88	14.0	77.7	12.7	10.2
Valier	142.1	93.1	127.9	50.9	100	6/15	33	78	15.3	71.3	15.6	12.6
01Ab11107	---	---	127.5	52.1	100	6/13	36	98	14.0	88.0	7.2	5.2
Eslick	---	93.7	123.3	52.1	100	6/14	34	93	14.1	81.5	9.9	9.1
Radiant	147.2	90.1	120.1	50.4	100	6/15	35	90	13.3	73.9	13.7	12.7
Hayes	---	62.8	110.1	48.1	100	6/15	36	98	13.1	60.2	20.4	19.5
CDC McGwire*	---	88.7	104.7	56.9	100	6/19	35	94	15.8	43.0	30.3	28.1
Clearwater*	---	84.6	102.7	54.8	100	6/16	33	90	16.0	61.8	21.0	17.7
2-Row Spring Malt Barley												
Pinnacle	---	95.1	142.7	53.6	100	6/12	36	59	12.0	93.1	3.3	3.0
Craft	---	94.3	133.4	51.6	100	6/13	35	76	14.4	80.9	9.4	10.1
2B99-2316	---	81.9	131.7	50.3	100	6/15	33	89	14.1	78.9	11.4	10.3
Conrad	144.5	93.5	127.4	50.1	100	6/14	36	89	15.0	80.1	11.4	9.2
Moravian 69	150.5	99.2	125.4	47.2	100	6/19	32	93	13.6	61.5	20.7	18.0
Geraldine	---	87.8	123.2	51.7	100	6/15	35	88	13.8	77.6	11.8	11.2
98Ab11707	---	89.2	122.3	49.3	100	6/14	32	88	14.0	76.9	12.8	10.6
C83	---	---	121.7	48.2	100	6/19	31	91	14.8	77.4	13.0	10.1
Moravian 37	145.2	97.3	120.5	51.8	100	6/19	30	78	14.2	83.1	10.5	6.2
Hockett	---	85.1	119.0	50.8	100	6/13	36	80	14.3	83.7	8.2	8.7
CDC Stratus	121.1	81.6	118.4	52.2	100	6/15	35	94	14.7	90.2	5.1	5.0
Harrington	135.4	76.3	115.6	49.1	100	6/15	36	96	15.6	68.1	18.0	14.6
C84	---	---	112.6	47.6	100	6/18	31	100	15.2	68.9	15.8	15.7
B1202	125.8	77.0	111.9	50.3	100	6/15	34	89	15.3	84.4	9.4	6.6
AC Metcalfe	140.9	84.4	108.4	51.6	100	6/14	36	85	14.1	86.8	8.0	5.6
Merit	132.9	85.9	107.2	48.8	100	6/19	35	80	14.5	74.1	13.2	13.1
2B99-2657	---	85.5	99.6	46.0	100	6/14	35	91	15.2	59.4	19.4	21.5
Average	139.3	90.5	128.1	51.2	100.0	6/15	34.0	81.4	14.1	78.8	11.4	10.2
LSD (α=.05)	17.0	12.1	20.1	1.9	0.0	1.2	3.4	23.5				
CV %	10.2	9.6	11.2	2.6	0.0	0.5	7.2	20.6				
Pr > F		<.0001	<.0001	<.0001	0	<.0001	<.0001	<.0001				

* indicates hulless variety

Table 52. Agronomic data for spring barley at Idaho Falls, irrigated, 2007.

Variety	Yield (bu/A) 2005	2006	2007	Test Wt. (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Plump (>6/64)	(>5.5/64)	% Thin
2-Row Spring Feed Barley												
Boulder	140.5	96.1	147.9	53.8	100	6/18	28	45	12.6	86.6	8.6	5.4
Calgary	133.4	88.7	147.2	52.1	100	6/17	28	20	14.2	80.5	14.1	6.3
01ST1587	149.3	108.4	147.1	52.9	100	6/18	27	65	13.0	83.0	12.3	5.9
01Ab11107	---	---	147.1	52.2	100	6/19	29	65	13.3	81.7	12.7	6.4
CDC Bold	104.6	101.4	145.7	51.7	100	6/18	30	30	13.6	71.6	18.8	10.0
Spaulding	---	---	144.6	52.9	100	6/19	31	20	12.4	74.6	15.9	10.0
Champion	---	---	143.3	52.0	100	6/16	29	73	13.2	64.5	24.4	11.5
Burton	124.8	97.4	142.9	52.8	100	6/19	32	40	13.1	88.7	7.7	4.4
Idagold II	106.4	93.2	140.4	50.3	100	6/20	24	18	13.7	68.1	22.4	10.6
95Ab11469	130.9	95.2	139.0	51.8	100	6/16	30	55	13.2	80.1	10.9	9.7
Camas	128.7	93.2	138.8	52.5	100	6/18	31	41	13.6	76.9	15.5	8.3
Tetonia	143.2	96.8	138.1	50.6	100	6/20	30	48	13.4	62.8	21.9	15.6
Baronesse	133.4	98.1	135.6	51.3	100	6/20	29	55	13.1	75.5	14.8	10.4
01ST1758	141.6	90.0	134.6	51.8	100	6/19	28	70	13.9	70.3	19.3	11.4
Xena	113.0	105.5	134.3	50.4	100	6/19	31	75	13.4	66.1	20.5	14.0
Haxby	---	95.4	132.9	53.1	100	6/18	30	50	13.2	80.8	12.2	7.5
Valier	95.9	104.7	130.5	53.4	100	6/19	32	48	13.8	80.9	13.5	6.4
B-99-AL-616	131.3	98.0	128.3	50.9	100	6/19	27	60	13.3	72.4	16.4	11.7
Radiant	132.8	104.9	124.6	50.0	100	6/19	29	68	12.3	58.0	23.4	18.8
Clearwater*	---	77.7	120.1	57.3	100	6/18	31	70	14.7	42.1	36.4	22.3
CDC McGwire*	---	81.3	119.5	59.6	100	6/19	31	73	13.9	34.7	31.9	34.2
Eslick	---	102.3	118.6	50.6	100	6/19	28	73	14.3	60.0	24.4	16.2
Hayes	---	89.3	117.2	47.8	100	6/19	30	79	13.2	46.3	29.5	24.3
2-Row Spring Malt Barley												
Moravian 37	111.8	87.9	140.8	51.2	100	6/21	26	63	13.4	76.9	15.7	8.0
Craft	---	91.7	137.0	53.1	100	6/18	32	60	13.2	80.6	12.4	7.5
Pinnacle	---	97.8	136.9	53.3	100	6/16	31	35	12.6	92.4	4.5	3.7
Conrad	108.8	89.5	135.6	50.7	100	6/18	29	60	13.8	79.1	13.5	8.3
CDC Stratus	79.7	87.7	132.4	52.2	100	6/20	29	48	14.7	85.4	11.3	4.5
Moravian 69	119.8	90.7	131.5	48.2	100	6/22	25	43	13.4	60.0	24.7	16.1
2B99-2316	---	87.3	131.0	50.8	100	6/18	31	66	13.1	76.0	15.0	9.6
B1202	98.3	100.1	126.2	49.9	100	6/19	29	45	14.7	79.1	14.8	7.2
Merit	106.3	97.1	126.0	49.1	100	6/21	32	40	14.0	67.7	18.5	14.6
2B99-2657	---	98.8	125.7	49.2	100	6/19	30	53	13.6	63.4	21.5	16.2
Hockett	---	91.6	125.7	51.2	100	6/17	29	75	14.2	79.1	14.1	8.5
Geraldine	---	92.8	122.3	50.6	100	6/21	30	53	13.5	62.1	24.2	14.7
98Ab11707	---	100.1	120.2	49.3	100	6/19	28	78	13.8	63.8	20.9	16.5
AC Metcalfe	99.9	92.6	118.2	51.8	100	6/18	33	48	14.4	85.2	9.4	6.3
Harrington	77.3	84.4	104.6	47.8	100	6/21	30	73	15.9	48.3	25.6	27.0
Average	117.0	93.7	132.4	51.6	100.0	6/19	29.3	54.6	13.6	71.2	17.7	11.8
LSD (α=.05)	10.7	12.5	14.1	1.6	0.0	1.2	2.1	12.9				
CV %	7.6	9.6	7.6	2.2	0.0	0.5	5.1	23.1				
Pr > F		<.0001	<.0001	<.0001	0	<.0001	<.0001	<.0001				

* indicates hulless variety

Table 53. Agronomic data for spring barley at Ashton, irrigated, 2007.

Variety	Yield (bu/A) 2005	2006	2007	Test Wt. (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Plump (>6/64)	(>5.5/64)	% Thin
2-Row Spring Feed Barley												
Champion	---	---	107.8	52.0	95	7/11	22	0	11.5	90.7	5.1	3.2
01ST1587	95.4	69.7	92.7	52.5	98	7/11	19	0	12.1	92.1	3.5	2.6
Tetonia	96.1	73.6	92.6	52.0	98	7/14	18	0	10.7	88.0	5.6	5.8
01ST1758	101.4	66.7	91.8	52.2	100	7/12	20	0	11.5	97.8	3.5	2.9
Radiant	92.0	63.8	88.6	51.7	100	7/12	20	0	11.1	88.5	6.2	5.0
B-99-AL-616	96.5	77.1	88.3	51.5	99	7/13	20	0	11.2	89.4	4.4	4.5
Xena	104.4	71.4	87.5	50.7	99	7/11	20	0	10.9	88.8	5.8	4.5
Baronesse	101.5	71.7	84.0	52.0	93	7/12	19	0	11.2	97.9	4.3	3.5
95Ab11469	95.0	61.7	82.3	51.4	100	7/11	24	0	12.0	90.1	4.8	4.4
Spaulding	---	---	81.9	52.0	99	7/12	22	0	11.1	81.0	9.2	9.4
Idagold II	86.5	67.4	80.1	50.2	98	7/12	19	0	11.5	83.4	9.3	6.8
Boulder	101.0	62.2	79.6	52.7	99	7/12	19	0	11.8	91.6	4.3	3.4
Calgary	82.0	67.2	77.8	52.7	99	7/13	17	0	12.4	93.5	3.2	2.5
Burton	87.2	61.2	77.8	51.2	96	7/12	23	0	11.8	91.5	3.9	4.2
Eslick	---	69.4	77.1	53.1	99	7/11	22	0	12.3	88.4	5.8	6.1
CDC Bold	100.6	64.3	73.1	50.7	97	7/13	19	0	11.7	80.1	10.3	8.3
Clearwater*	---	55.8	72.5	57.7	96	7/12	20	0	13.4	71.4	14.6	13.7
Camas	87.8	70.2	71.6	51.5	98	7/12	19	0	12.3	84.2	8.4	6.3
Valier	88.2	63.8	70.3	51.7	99	7/12	20	0	13.0	87.7	5.5	5.8
01Ab11107	---	---	69.4	51.0	99	7/14	20	0	12.1	85.1	6.4	7.1
Hayes	---	57.9	68.0	48.8	100	7/12	20	0	11.7	81.3	8.8	9.4
Haxby	---	61.2	64.2	53.1	98	7/12	19	0	12.8	89.7	5.2	4.3
CDC McGwire*	---	61.6	58.4	59.2	97	7/13	21	0	13.5	46.3	23.0	30.1
2-Row Spring Malt Barley												
Conrad	96.8	71.2	96.7	50.9	95	7/13	21	0	11.7	91.0	4.7	3.2
98Ab11707	---	85.4	81.8	50.3	96	7/12	18	0	11.6	86.6	7.0	5.3
Moravian 37	80.6	67.7	77.3	52.4	100	7/13	19	0	11.5	92.3	3.6	2.4
Hockett	---	63.9	77.1	51.1	99	7/13	21	0	12.2	87.8	4.9	5.7
B1202	82.4	56.4	76.6	50.4	99	7/13	20	0	11.6	88.6	6.1	4.4
Harrington	82.3	57.7	75.3	50.8	100	7/13	21	0	12.3	83.2	8.6	7.1
2B99-2316	---	65.4	74.7	51.2	99	7/12	22	0	11.8	88.4	6.5	4.4
Pinnacle	---	57.3	73.0	52.8	100	7/10	21	0	11.7	92.5	2.8	3.0
2B99-2657	---	61.1	71.2	50.0	97	7/12	21	0	12.8	85.4	7.5	6.3
Craft	---	61.7	69.6	52.5	96	7/11	23	0	13.0	90.7	5.1	3.7
Geraldine	---	61.6	67.5	50.6	96	7/14	19	0	12.9	80.6	9.5	8.9
Merit	89.8	63.2	67.3	49.5	99	7/13	21	0	12.1	83.1	8.4	7.1
Moravian 69	91.4	68.9	64.9	50.1	100	7/13	17	0	11.4	84.9	7.6	5.9
AC Metcalfe	80.1	57.4	62.6	50.6	99	7/11	21	0	12.9	88.5	6.2	4.3
CDC Stratus	87.9	51.8	54.2	48.6	97	7/14	19	0	13.0	80.4	13.7	9.2
Average	91.5	64.4	77.0	51.6	98	7/12	20	0	12.0	86.4	6.9	6.2
LSD (α=.05)	10.2	11.1	12.1	1.0	7.7	1.0	2.2	0.0				
CV %	9.5	12.4	11.2	1.4	5.6	0.4	7.8	0.0				
Pr > F		<.0001	<.0001	<.0001	0.6363	<.0001	<.0001	0				

* indicates hulless variety

Table 54. Agronomic data for spring barley at Soda Springs, dryland, 2007.**

Variety	Yield (bu/A) 2005	2006	2007	Test Wt. (lb/bu)	Spring Stand %	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Plump (>6/64)	Plump (>5.5/64)	% Thin
2-Row Spring Feed Barley												
95Ab11469	49.2	55.4	18.2	47.4	99	7/8	16	0	16.6	52.0	23.6	24.4
B-99-AL-616	55.4	57.4	13.6	43.9	99	7/9	13	0	16.3	46.4	27.3	26.0
CDC McGwire*	---	46.2	13.2	56.3	96	7/8	16	0	17.8	3.7	7.2	89.1
01ST1758	43.8	55.2	13.2	44.3	99	7/7	14	0	16.2	41.3	25.3	33.1
Hayes	---	49.1	12.9	46.9	99	7/9	13	0	14.9	54.6	22.0	23.6
Haxby	---	54.3	11.5	47.1	100	7/8	15	0	17.7	17.5	26.2	55.8
CDC Bold	44.5	60.4	11.1	47.5	98	7/6	13	0	16.4	48.0	28.0	23.8
Xena	50.9	64.9	11.1	47.5	99	7/6	17	0	16.7	38.5	28.1	33.3
Camas	47.5	62.2	10.7	46.8	100	7/9	15	0	16.4	35.9	28.0	36.5
Clearwater*	---	48.1	10.7	53.3	96	7/9	15	0	17.0	2.2	10.7	87.2
Boulder	51.7	62.6	10.3	41.9	100	7/9	14	0	16.2	44.1	22.4	33.1
Champion	---	---	9.6	44.0	100	7/7	15	0	16.1	28.2	24.0	47.8
Idagold II	36.6	51.0	8.2	42.4	98	7/7	14	0	16.9	53.0	26.9	19.9
Baronesse	51.0	63.2	7.6	39.8	100	7/7	14	0	18.0	41.0	26.2	32.3
Burton	51.8	59.0	7.6	43.4	100	7/8	14	0	16.4	42.2	25.7	32.0
01ST1587	46.0	50.7	5.5	43.3	100	7/14	13	0	17.4	38.1	23.5	38.0
Tetonia	49.2	56.6	5.5	43.9	100	7/13	13	0	17.6	45.2	24.7	30.3
Eslick	---	58.0	5.0	46.7	100	7/9	13	0	17.8	26.2	32.4	41.4
Valier	47.2	58.9	4.3	47.3	98	7/10	14	0	18.9	---	---	---
Radiant	43.7	54.7	3.1	46.0	99	7/12	14	0	17.4	35.0	28.8	36.2
Spaulding			3.1	40.0	100	7/11	14	0	17.0	---	---	---
Calgary	40.7	59.7	1.4	26.0	100	7/12	12	0	0.0	31.3	17.5	26.6
01Ab11107	---	---	2.7	46.5	99	7/14	14	0	17.2	46.4	29.0	24.5
2-Row Spring Malt Barley												
Pinnacle	---	56.4	17.2	51.3	100	7/4	14	0	15.5	45.6	21.6	32.7
98Ab11707	---	53.7	15.7	52.2	100	7/9	14	0	15.2	62.1	20.8	17.1
Moravian 37	50.1	52.4	13.2	45.1	100	7/8	15	0	17.1	42.8	24.6	32.6
2B99-2657	---	47.2	12.5	48.5	99	7/7	15	0	15.6	53.5	25.0	21.4
Conrad	53.9	58.1	12.2	47.1	99	7/11	14	0	17.2	50.8	24.1	25.2
Craft	---	57.0	12.2	49.7	100	7/5	16	0	16.1	60.5	25.3	14.5
Harrington	46.0	57.7	9.6	38.5	99	7/9	15	0	17.2	54.1	28.2	17.6
CDC Stratus	52.1	54.4	9.0	44.3	99	7/9	14	0	17.8	61.4	23.9	14.7
Merit	33.9	48.6	8.6	45.0	99	7/9	14	0	16.8	58.0	26.1	15.6
AC Metcalfe	40.6	56.3	8.0	47.6	100	7/9	14	0	17.4	74.0	16.7	8.9
B1202	59.2	51.9	7.5	43.9	100	7/9	13	0	17.9	35.6	29.8	34.4
Geraldine	---	59.5	6.5	37.6	100	7/13	13	0	16.9	47.3	25.6	27.1
Hockett	---	54.7	5.6	50.9	98	7/9	15	0	17.5	70.8	17.8	10.0
2B99-2316	---	53.5	5.4	60.8	98	7/11	14	0	17.7	---	---	---
Moravian 69	41.0	39.7	4.8	36.3	100	7/12	13	0	18.2	48.6	26.3	23.0
Average	47.4	55.2	9.1	45.6	99	7/9	14	0	16.5	40.4	22.2	28.7
LSD (α=.05)	12.0	10.7	9.9	7.8	2.0	3.9	2.1	0.0				
CV %	21.7	13.9	72.0	10.4	1.5	1.2	10.5	0.0				
Pr > F		0.0005	0.1685	<.0001	0.0045	<.0001	0.0042	0				

* indicates hulless variety

** This location constituted a crop failure.

Table 55. Hard Winter Wheat Yield Percentage of Location Averages, 2007.

	(100% =Average)				
Variety	**Kimberly**	**Rupert**	**Aberdeen**	**Ririe**	**Variety Average**
IDO 621	113	112	114	104	111
Yellowstone	110	110	108	103	108
Promontory	106	112	107	101	107
Neeley	100	99	106	115	105
TX97-F4-33-1B	90	126	90	114	105
NuDakota (W)	104	117	107	90	104
W98-344	100	106	108	103	104
Utah 100	104	101	97	114	104
Eddy	104	103	106	97	103
NuHorizon (W)	107	100	102	99	102
AgriPro Paladin	103	93	112	100	102
MDM (W)	114	91	108	93	102
Moreland	98	105	100	101	101
Golden Spike (W)	99	101	101	102	101
Boundary	108	97	93	105	101
WA7976	106	107	93	95	100
Garland	101	99	94	100	99
IDO 616	99	84	103	107	98
DW	96	95	108	93	98
NuHills (W)	89	103	82	116	97
Deloris	95	90	103	101	97
Manning	98	99	102	88	97
Bauermeister	102	87	100	98	97
IDO 641	98	100	98	91	97
Gary (W)	101	97	86	101	96
Dumas	81	112	87	98	95
UI Darwin (W)	95	91	97	89	93
Bonneville	93	83	102	93	93
AgriPro Palomino(W)	93	92	93	93	93
Weston	90	89	95	94	92
Location Average (bu/A)	108	113	130	23	

Table 56. Soft White Winter Wheat Yield Percentage of Location Averages, 2007.

	(100% =Average)				
	Kimberly	**Rupert**	**Aberdeen**	**Ririe**	**Variety Average**
93-64901A	114	105	116	107	110
Tubbs 06	109	99	111	120	110
ORCF-102	105	102	111	114	108
Brundage	102	111	106	112	108
WA7934	110	96	100	122	107
WestBred 528	103	110	107	104	106
Brundage 96	103	105	99	109	104
99-435	103	110	100	101	104
Bitterroot	99	96	99	118	103
Malcolm	99	113	97	99	102
Daws	98	101	94	115	102
IDO 620	103	80	105	117	101
Madsen	100	103	98	104	101
99-419	95	106	100	103	101
02-859	102	100	101	99	101
Simon	98	105	99	97	100
Coda	104	93	102	99	99
IDO 587	100	94	96	102	98
WestBred 470	94	100	101	94	97
Bruehl	100	94	104	91	97
Lambert	104	100	94	88	97
Stephens	98	101	97	88	96
ORH010920	100	99	100	80	95
Mohler	96	101	98	82	94
ORCF-101	96	93	91	96	94
ARS00235	98	94	88	88	92
Chukar	88	94	93	84	90
Cara	82	100	95	81	90
Clearfirst	90	94	91	74	87
WA7935	107	0	106	114	82
Location Average (bu/A)	115	117	139	20	

Table 57. Winter Barley Yield Percentage of Location Averages, 2007.

	(100% =Average)			Variety
	Kimberly	Rupert	Aberdeen	Average
91Ab36	111	133	212	152
93Ab669	104	120	229	151
86Ab474	106	130	164	133
Schuyler	115	106	170	130
97BX42-116-17A	102	82	198	128
02Ab2732	111	111	160	128
Sprinter	116	112	153	127
97Ab11	104	110	155	123
02Ab2739	111	97	157	122
Kamiak	98	76	184	120
02Ab2701	91	83	178	117
Eight-Twelve	93	99	125	106
Mal	104	113	98	105
Hesk	90	108	112	103
96AB69	102	120	76	99
Hundred	81	101	115	99
93Ab631	101	101	92	98
92Ab561	109	108	63	93
Boyer	106	113	58	92
Strider	105	111	28	81
Sunstar Pride	95	119	29	81
92Ab1308	112	99	23	78
94Ab1777	87	101	47	78
88AB536B	88	91	49	76
91Ab23	90	99	32	74
Maja-Grande	84	89	25	66
Kold	85	79	32	65
02Ab339	105	80	10	65
95Ab2299	102	55	20	59
Charles	91	49	8	50
Location Average (bu/A)	147	131	56	

Table 58. Hard Spring Wheat Yield Percentage of Location Averages, 2007.

	(100% =Average)				
Variety	**Rupert/Paul**	**Aberdeen**	**Idaho Falls**	**Ashton**	**Variety Average**
Lolo (W)	106	104	105	134	112
Lochsa (W)	112	103	107	108	107
Jefferson	107	105	102	114	107
Otis (W)	102	104	102	119	106
Choteau	107	100	103	114	106
Scarlet	98	90	101	131	105
Idaho 377s (W)	100	89	101	127	104
Jerome	108	104	99	103	103
03W10348 (W)	98	108	---	---	103
Blanca Grande (W)	105	115	103	88	103
Cabernet	101	104	---	---	102
02W50603	103	102	---	---	102
Saxon	108	106	92	101	102
Kronos	104	107	105	91	102
Alzada	103	101	104	97	101
AP1526	89	104	109	102	101
Iona	113	91	97	101	100
WestBred 936	102	102	99	98	100
Pristine (W)	103	107	101	88	100
Summit	100	97	98	103	99
Buckpronto	105	97	102	92	99
OR4201104	101	91	90	111	98
Tara 2002	98	100	102	91	98
Snowcrest (W)	97	100	105	76	94
Utopia	103	91	94	82	93
Klasic (W)	99	101	101	69	93
Topper	95	95	93	79	91
02W0076W (W)	84	97	---	---	90
Matt	90	95	95	73	88
Hollis	60	92	91	107	87
Location Average (bu/A)	97	118	101	72	

Table 59. Soft White Spring Wheat Yield Percentage of Location Averages, 2007.

	(100% =Average)				
	Rupert/Paul	**Aberdeen**	**Idaho Falls**	**Ashton**	**Variety Average**
UI Pettit	104	108	118	118	112
Skookum	94	106	115	116	108
Alturas	106	111	109	100	106
Alpowa	107	98	106	97	102
Jubilee	98	100	99	109	101
Nick	97	107	113	88	101
Cataldo	94	104	103	102	101
Whitebird	96	99	89	118	101
Treasure	106	78	96	118	100
Challis	106	101	94	95	99
Penawawa	105	100	89	87	96
Waxy Penawawa	104	104	92	81	95
WA008008	100	98	92	83	93
Louise	92	89	90	100	93
Eden	92	97	95	87	93
Location Average (bu/A)	102	119	100	81	

Table 60. 6-Row Barley Yield Percentage of Location Averages, 2007.

	(100% =Average)				
	Rupert/Paul	**Aberdeen**	**Idaho Falls**	**Ashton**	**Variety Average**
Feed					
Millennium	98	116	115	117	112
Goldeneye	98	116	122	101	109
Aquila	102	116	105	113	109
Creel	101	105	110	103	105
Herald	105	103	110	77	99
Colter	97	96	104	89	97
Steptoe	95	86	104	101	96
UT1788-435	90	87	88	104	92
Malt					
98Ab12904	110	106	105	110	108
Legacy	114	101	95	103	103
Tradition	93	106	94	111	101
Lacey	94	101	91	101	97
Drummond	98	93	94	99	96
Foster	100	90	92	83	91
Morex	107	78	70	88	86
Location Average (bu/A)	156	148	125	71	

Table 61. 2-Row Barley Yield Percentage of Location Averages, 2007.

(100% =Average)

	Rupert/Paul	Aberdeen	Idaho Falls	Ashton	Variety Average
Feed					
01ST1587	100	113	111	120	111
Spaulding	107	107	109	120	111
CDC Bold	104	133	110	95	111
Calgary	105	121	111	101	110
Boulder	106	110	112	103	108
01ST1758	97	113	102	119	108
Burton	104	112	108	101	106
Champion	106	117	108	94	106
Baronesse	104	108	102	109	106
95Ab11469	104	107	105	107	106
B-99-AL-616	102	105	97	115	105
Valier	104	100	99	114	104
Tetonia	110	102	104	91	102
01Ab11107	105	100	111	90	101
Idagold II	108	104	106	87	101
Camas	104	101	105	93	101
Haxby	107	105	100	88	100
Xena	107	111	101	76	99
Radiant	100	94	94	106	98
Clearwater *	84	80	91	126	95
Hayes	93	86	89	100	92
Eslick	88	96	90	88	90
CDC McGwire*	91	82	90	70	83
Malt					
Pinnacle	100	111	103	115	108
CDC Stratus	96	92	100	140	107
Moravian 37	127	94	106	84	103
2B99-2316	103	103	99	97	100
Craft	93	104	103	100	100
Moravian 69	103	98	99	95	99
C83	103	95	---	---	99
Geraldine	100	96	92	98	97
98Ab11707	93	95	91	106	96
Hockett	91	93	95	104	96
C84	103	88	---	---	95
B1202	97	87	95	99	95
Conrad	80	99	102	90	93
Merit	93	84	95	100	93
2B99-2657	95	78	95	92	90
AC Metcalfe	97	85	89	81	88
Harrington	87	90	79	83	85
Location Average (bu/A)	135	128	132	77	

* indicates hulless variety

2007 Winter Grain Yield Percentage Across All Locations Charts

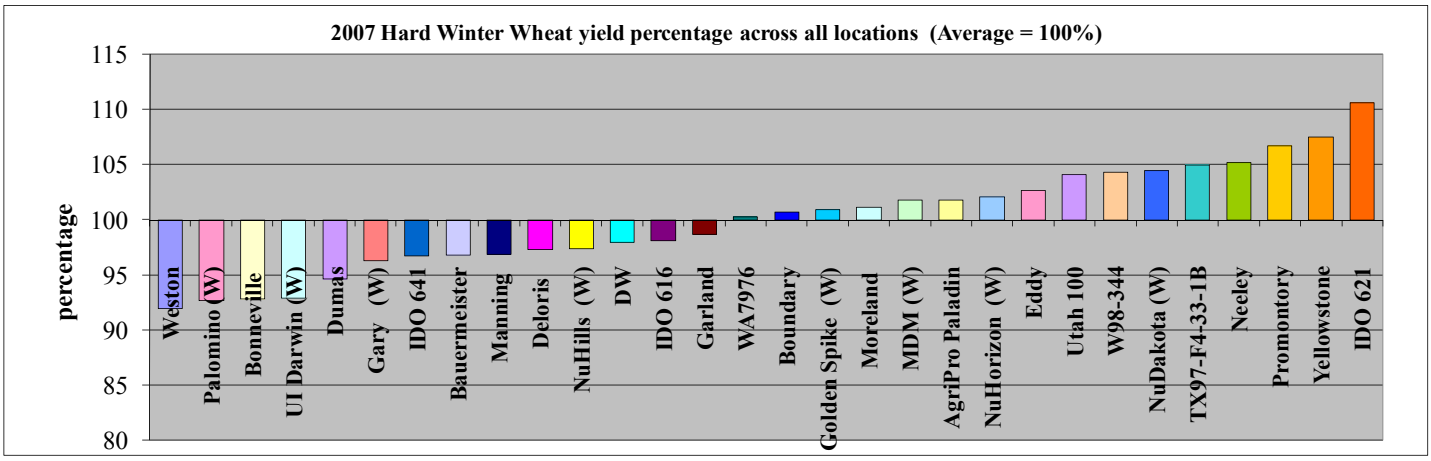


Chart 2. Hard Winter Wheat Yield Percentage Across All Locations

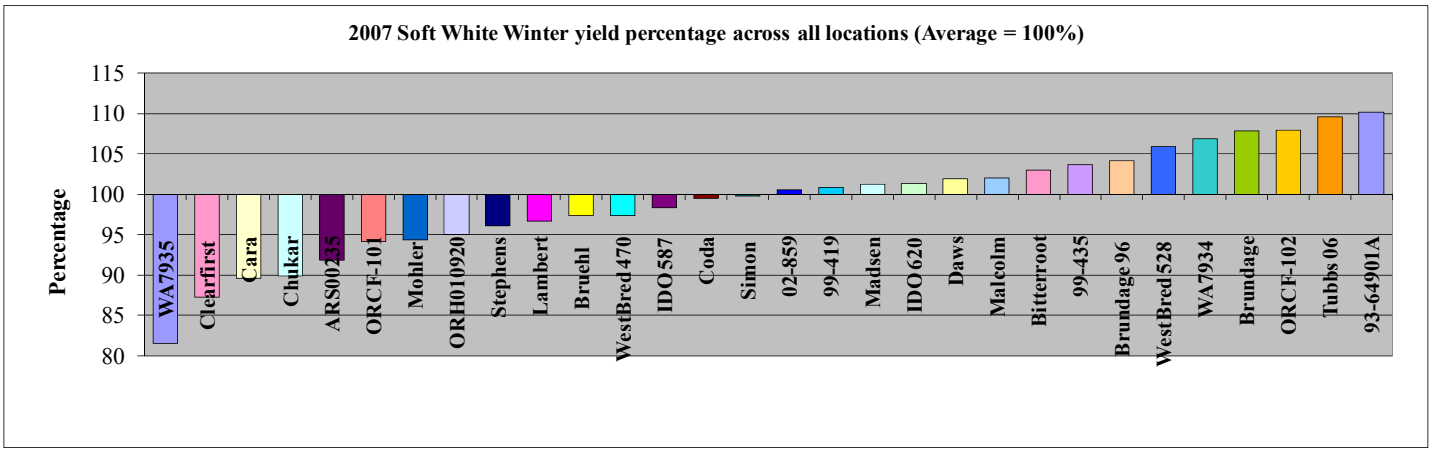


Chart 3. Soft White Winter Wheat Yield Percentage Across All Locations

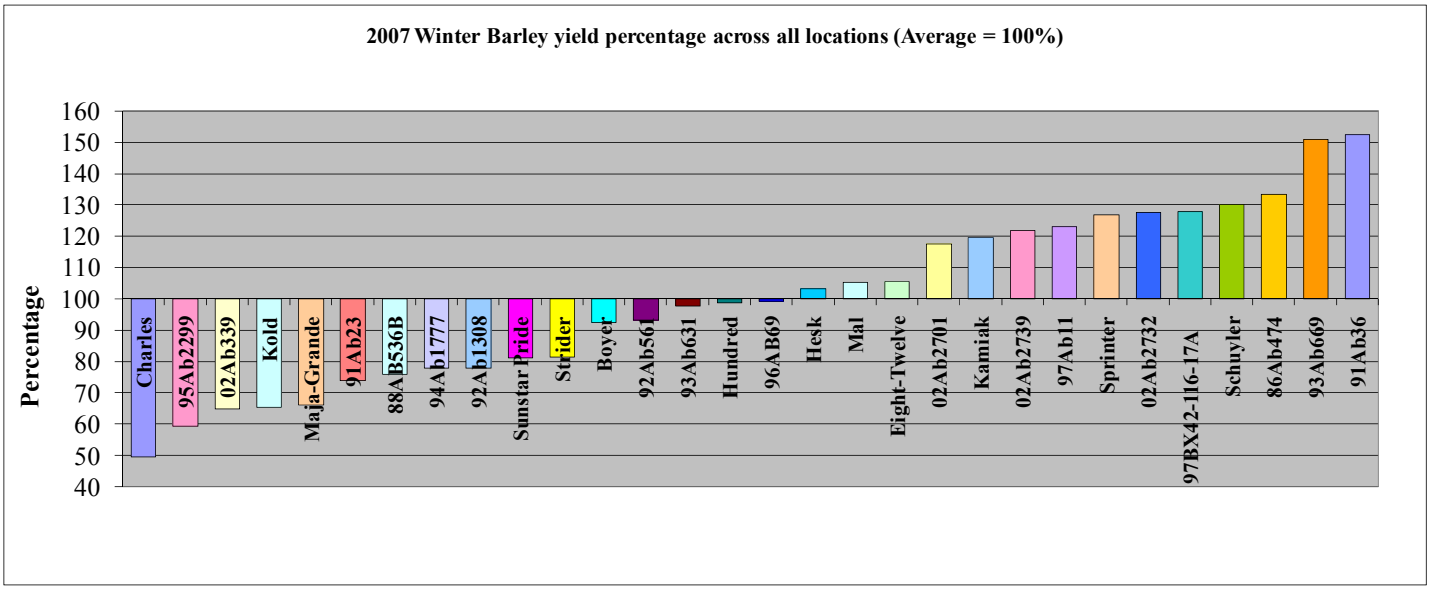


Chart 4. Winter Barley Yield Percentage Across All Locations

2007 Spring Grain Yield Percentages Across Irrigated Locations Charts

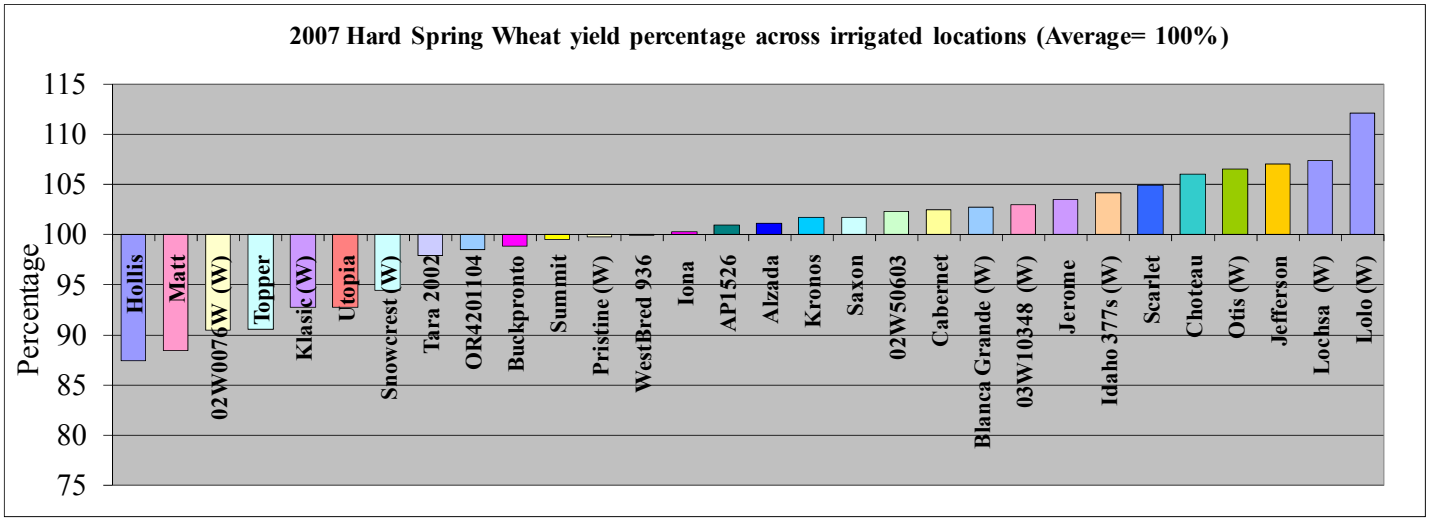


Chart 5. Hard Spring Wheat Yield Percentage Across Irrigated Locations

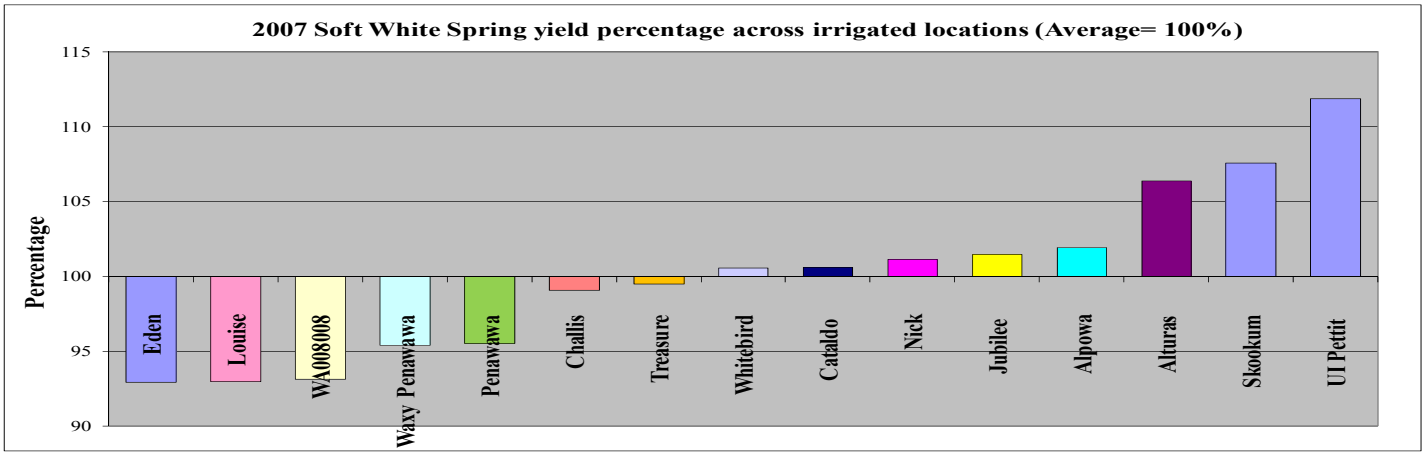


Chart 6. Soft White Spring Yield Percentage Across Irrigated Locations

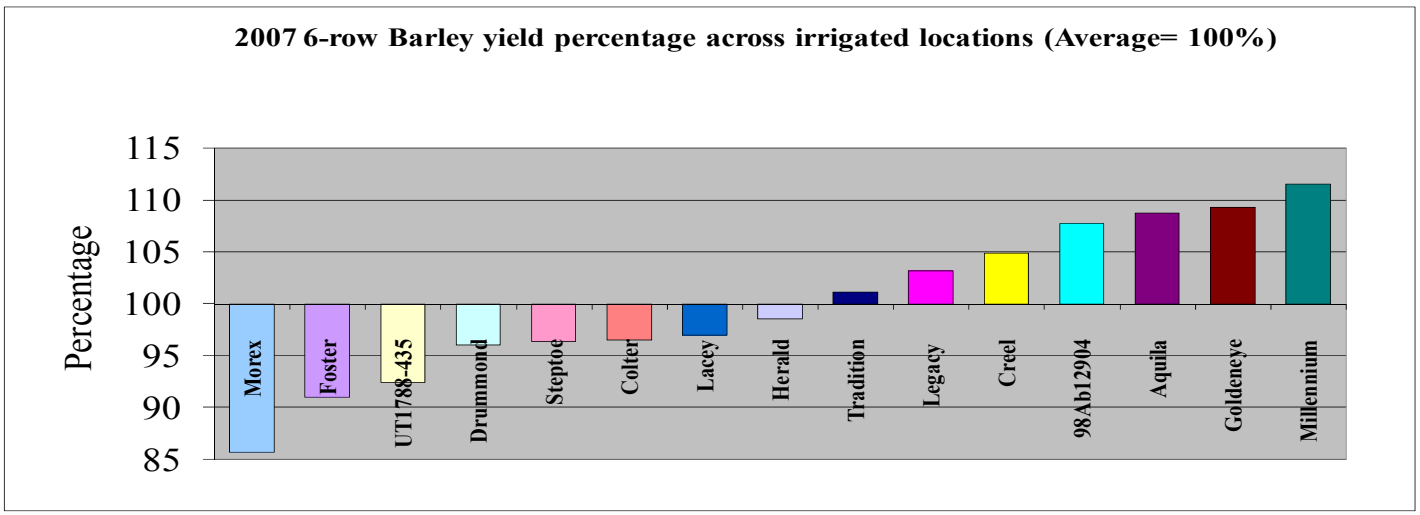


Chart 7. 6-Row Barley Yield Percentage Across Irrigated Locations

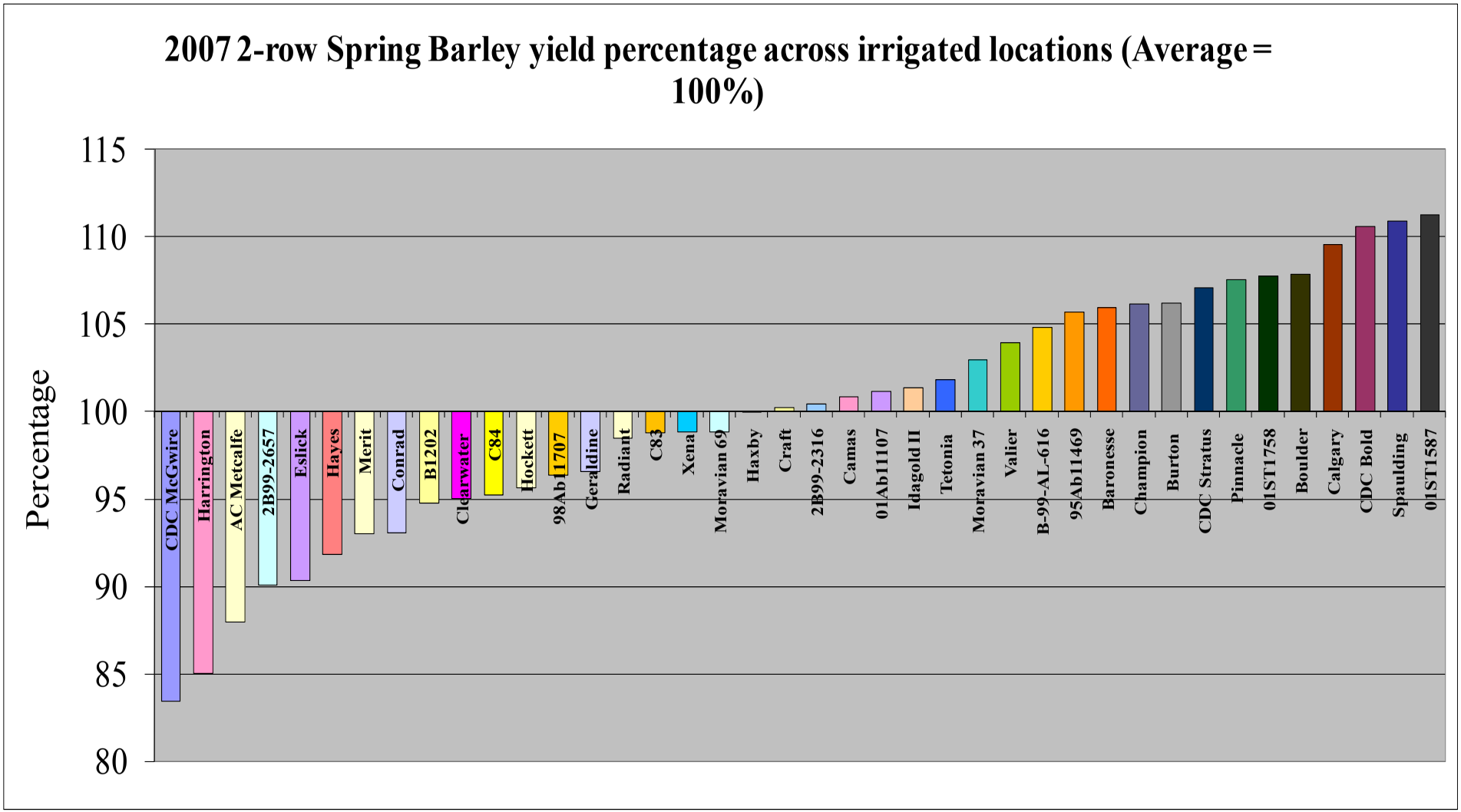


Chart 8. 2-Row Spring Barley Yield Percentage Across Irrigated Locations

Table 62. Hard Winter Wheat Grain Protein & Kernel Hardness, 2006.

	----------Grain Protein %----------					----------Kernel Hardness 0-100----------				
Variety	**Kimberly**	**Rupert**	**Aberdeen**	**Ririe**	**Average**	**Kimberly**	**Rupert**	**Aberdeen**	**Ririe**	**Average**
AgriPro Paladin	12.6	14.6	13.7	14.7	**13.9**	61	62	68	59	**62.5**
Bonneville	13.3	15.9	14.5	15.0	**14.7**	63	63	68	61	**63.8**
Boundary	12.0	12.8	12.7	13.9	**12.9**	62	54	68	55	**59.8**
Deloris	12.5	14.1	13.6	14.1	**13.6**	67	63	66	59	**63.8**
DH940361	12.3	13.7	14.0	15.1	**13.8**	65	6	69	68	**52.0**
Dumas	11.9	13.7	13.9	14.7	**13.6**	63	61	66	60	**62.5**
DW	12.5	14.2	13.4	13.9	**13.5**	65	62	68	59	**63.5**
Garland	12.7	14.2	13.2	14.5	**13.7**	56	59	61	56	**58.0**
Gary (W)	12.0	14.4	13.1	13.8	**13.3**	68	60	72	59	**64.8**
Golden Spike (W)	12.1	13.8	12.9	14.3	**13.3**	65	58	66	54	**60.8**
IDO 621	11.6	12.8	12.5	13.4	**12.6**	60	59	65	51	**58.8**
IDO 641 (W)	11.7	12.8	13.0	13.6	**12.8**	55	54	60	51	**55.0**
IDO 660	12.8	14.3	14.4	14.7	**14.1**	59	60	68	61	**62.0**
Manning	12.5	13.9	13.6	13.9	**13.5**	61	60	67	58	**61.5**
Moreland	12.9	14.1	13.6	13.4	**13.5**	59	56	69	57	**60.3**
MT01148	12.7	14.5	14.4	14.2	**14.0**	64	61	61	53	**59.8**
Neeley	13.3	14.8	12.9	14.0	**13.8**	64	65	62	58	**62.3**
NuFrontier (W)	11.6	13.4	13.7	13.4	**13.0**	56	61	64	51	**58.0**
NuHills (W)	12.4	14.4	15.1	15.0	**14.2**	58	61	67	60	**61.5**
NuHorizon (W)	11.7	13.2	15.1	13.2	**13.3**	56	59	67	50	**58.0**
Promontory	12.0	13.0	12.5	13.8	**12.8**	62	59	65	56	**60.5**
Survivor	13.3	15.1	14.3	14.3	**14.3**	62	66	67	57	**63.0**
Utah 100	12.1	13.7	13.0	13.6	**13.1**	67	66	73	60	**66.5**
W96-359W (W)	12.4	14.3	14.0	15.1	**14.0**	62	58	66	59	**61.3**
W98-344	12.9	13.8	14.3	14.4	**13.9**	65	55	69	54	**60.8**
Weston	12.9	14.5	13.9	14.4	**13.9**	49	50	54	52	**51.3**
Yellowstone	12.1	13.5	12.9	14.1	**13.2**	59	61	68	61	**62.3**
Location Average	**12.4**	**14.0**	**13.6**	**14.2**	**13.5**	**61.2**	**57.7**	**66.1**	**57.0**	**60.5**

Table 63. Soft White Winter Wheat Grain Protein & Kernel Hardness, 2006.

	--------Grain Protein %--------					--------Kernel Hardness 0-100--------				
Variety	**Kimberly**	**Rupert**	**Aberdeen**	**Ririe**	**Average**	**Kimberly**	**Rupert**	**Aberdeen**	**Ririe**	**Average**
92-16004A	11.5	13.5	11.4	11.5	**12.0**	28	17	22	15	**20.5**
Bitterroot	12.0	12.6	12.4	13.9	**12.7**	31	21	27	29	**27.0**
99-419	13.2	12.3	11.8	14.0	**12.8**	29	18	23	25	**23.8**
99-435	11.8	14.2	13.0	13.5	**13.1**	38	25	35	33	**32.8**
Beamer	11.5	13.7	12.2	12.7	**12.5**	31	21	30	15	**24.3**
Bruehl	13.0	13.7	12.7	13.4	**13.2**	32	23	24	29	**27.0**
Brundage	10.6	12.4	11.4	13.1	**11.9**	34	21	27	27	**27.3**
Brundage 96	13.1	12.8	11.6	13.5	**12.8**	29	19	26	25	**24.8**
Clearfirst	11.2	13.7	12.3	15.0	**13.1**	37	27	29	36	**32.3**
Daws	10.7	13.0	12.3	13.0	**12.3**	36	21	27	31	**28.8**
IDO 587	11.6	13.6	11.7	14.5	**12.9**	31	22	23	29	**26.3**
IDO 620	11.8	13.6	12.4	13.8	**12.9**	30	22	23	28	**25.8**
Lambert	12.0	13.1	12.5	12.5	**12.5**	39	27	31	34	**32.8**
MacVicar	11.6	13.2	11.6	13.7	**12.5**	34	22	25	33	**28.5**
Madsen	11.8	13.5	12.0	14.1	**12.9**	35	24	26	28	**28.3**
Malcolm	11.9	13.0	11.7	13.3	**12.5**	33	17	24	25	**24.8**
Masami	10.9	13.4	11.5	13.6	**12.4**	34	24	25	24	**26.8**
MEL (Coda) club	11.4	13.7	12.1	14.2	**12.9**	37	25	26	27	**28.8**
Mohler	11.8	13.3	12.2	12.0	**12.3**	34	22	28	18	**25.5**
ORCF-101	11.9	13.4	12.4	14.3	**13.0**	31	20	29	22	**25.5**
ORCF-102	11.4	12.8	12.2	12.9	**12.3**	33	30	31	28	**30.5**
ORH010920	11.5	12.3	12.2	13.0	**12.3**	28	17	22	19	**21.5**
Simon	11.1	13.7	12.2	12.3	**12.3**	32	25	29	17	**25.8**
Stephens	11.6	12.9	12.0	13.7	**12.6**	34	23	28	18	**25.8**
Tubbs 06	11.2	13.1	12.3	13.2	**12.5**	35	27	29	19	**27.5**
WA7934	12.2	13.6	12.2	12.7	**12.7**	29	16	25	14	**21.0**
WA7935	11.5	13.7	13.0	13.3	**12.9**	30	21	26	13	**22.5**
WB 528	11.7	12.4	12.4	13.1	**12.4**	32	21	29	17	**24.8**
Westbred 470	12.7	12.2	12.9	13.7	**12.9**	37	17	25	14	**23.3**
Location Average	**11.7**	**13.2**	**12.2**	**13.4**	**12.6**	**32.9**	**21.9**	**26.7**	**23.9**	**26.3**

Table 64. Hard Spring Wheat Grain Protein Percent (%), 2006.

Variety	Rupert/Paul	Aberdeen	Idaho Falls	Ashton	Soda Springs	Average
Blanca Grande (W)	15.2	15.9	15.5	14.7	13.4	**14.9**
Buckpronto	16.4	16.5	16.4	15.9	14.8	**16.0**
Choteau	15.6	16.0	16.2	16.1	14.8	**15.7**
Hollis	14.9	16.1	16.4	15.2	14.3	**15.4**
Idaho 377s (W)	14.4	15.7	13.9	14.9	13.2	**14.4**
Iona	15.0	16.0	15.5	15.5	13.9	**15.2**
Jefferson	15.1	15.5	15.1	15.4	13.9	**15.0**
Jerome	15.2	15.3	15.3	14.6	12.6	**14.6**
Klasic (W)	14.6	16.0	15.1	14.3	12.9	**14.6**
Lochsa (W)	15.5	15.9	15.9	14.3	13.8	**15.1**
Lolo (W)	14.5	14.8	15.2	14.9	12.9	**14.5**
Macon (W)	14.5	15.3	15.1	15.4	12.8	**14.6**
OR4201019 (W)	14.3	14.4	14.6	14.6	13.5	**14.3**
OR4201027 (W)	14.9	14.8	14.8	13.9	13.3	**14.3**
Otis (W)	14.4	15.1	14.9	13.9	13.0	**14.3**
Pristine (W)	15.9	16.1	15.7	15.1	14.0	**15.4**
Saxon	15.6	15.9	14.9	15.3	14.1	**15.2**
Scarlet	14.2	14.8	15.5	15.7	13.1	**14.7**
Summit	15.0	15.2	15.5	14.7	12.9	**14.7**
Tara 2002	15.1	15.6	15.6	15.6	13.9	**15.2**
WB936	15.6	15.6	16.4	15.6	13.4	**15.3**
Winsome (W)	14.7	14.5	14.2	14.2	12.2	**14.0**
Location average	**15.0**	**15.5**	**15.4**	**15.0**	**13.5**	**14.9**

Table 65. Soft White Spring Wheat Grain Protein Percent (%), 2006.

Variety	Rupert/Paul	Aberdeen	Idaho Falls	Ashton	Soda Springs	Average
Alpowa	12.7	12.7	12.0	9.8	12.4	**11.9**
Alturas	12.3	12.1	12.0	9.0	12.2	**11.5**
Cataldo	12.7	13.0	12.5	9.9	12.1	**12.0**
Challis	12.6	12.8	11.4	9.3	11.4	**11.5**
Eden	12.1	12.1	12.3	9.4	12.2	**11.6**
Jubilee	12.7	13.0	11.8	9.7	12.6	**12.0**
Louise	12.2	13.2	12.0	9.7	12.0	**11.8**
Nick	12.2	13.4	12.8	10.1	13.0	**12.3**
Penawawa	12.7	13.5	12.2	9.3	11.7	**11.9**
Skookum	12.7	12.6	12.6	10.1	12.7	**12.1**
Treasure	12.3	12.8	11.9	9.2	12.2	**11.7**
UI Pettit	12.8	11.7	12.1	9.5	12.2	**11.7**
Whitebird	12.4	12.2	12.2	9.9	13.0	**11.9**
Location average	**12.5**	**12.7**	**12.1**	**9.6**	**12.3**	**11.8**

Table 66. Hard Spring Wheat Kernel Hardness (0-100), 2006.

Variety	Rupert/Paul	Aberdeen	Idaho Falls	Ashton	Soda Springs	Average
Blanca Grande (W)	36.5	29.5	47.5	41.7	40.0	**39.0**
Buckpronto	42.0	41.0	51.7	45.6	56.0	**47.3**
Choteau	41.4	43.7	59.6	59.4	61.0	**53.0**
Hollis	40.9	36.8	57.7	49.9	58.0	**48.7**
Idaho 377s (W)	43.1	35.7	56.0	48.2	51.0	**46.8**
Iona	42.3	41.1	54.7	48.5	55.0	**48.3**
Jefferson	43.4	41.8	56.5	56.3	62.0	**52.0**
Jerome	41.5	40.3	55.1	48.6	51.0	**47.3**
Klasic (W)	37.7	30.6	45.7	35.3	39.0	**37.7**
Lochsa (W)	48.6	45.3	62.9	57.1	57.0	**54.2**
Lolo (W)	46.6	39.9	61.6	56.1	55.0	**51.8**
Macon (W)	42.9	36.1	53.9	48.9	50.0	**46.4**
OR4201019 (W)	46.2	41.8	59.1	60.5	65.0	**54.5**
OR4201027 (W)	46.1	40.8	58.9	58.4	59.0	**52.6**
Otis (W)	45.4	39.0	58.6	56.1	55.0	**50.8**
Pristine (W)	51.1	45.2	57.9	59.8	60.0	**54.8**
Saxon	48.8	52.7	69.7	64.6	68.0	**60.8**
Scarlet	43.1	44.3	61.7	56.1	56.0	**52.2**
Summit	36.4	34.6	51.4	49.6	50.0	**44.4**
Tara 2002	35.6	35.3	54.5	45.7	47.0	**43.6**
WB936	38.0	38.9	57.0	46.2	47.0	**45.4**
Winsome (W)	48.8	41.8	66.1	64.0	62.0	**56.5**
Location Average	**43.0**	**39.8**	**57.2**	**52.6**	**54.7**	**49.5**

Table 67. Soft White Spring Wheat Kernel Hardness (0-100), 2006.

Variety	Rupert/Paul	Aberdeen	Idaho Falls	Ashton	Soda Springs	Average
Alpowa	12.1	20.7	21.3	30.0	17.4	**20.3**
Alturas	13.5	17.8	14.7	25.0	16.5	**17.5**
Cataldo	10.3	19.3	11.2	23.0	16.0	**16.0**
Challis	16.6	20.9	16.3	28.0	18.0	**20.0**
Eden	16.5	24.2	23.7	30.0	20.5	**23.0**
Jubilee	12.8	22.4	22.0	30.0	19.3	**21.3**
Louise	13.7	23.1	21.2	29.0	20.1	**21.4**
Nick	10.9	22.0	16.9	31.0	20.7	**20.3**
Penawawa	8.4	18.5	14.3	23.0	13.4	**15.5**
Skookum	9.8	18.4	17.3	24.0	16.0	**17.1**
Treasure	8.8	16.5	16.6	24.0	17.9	**16.8**
UI Pettit	9.9	22.7	20.4	28.0	27.1	**21.6**
Whitebird	9.4	20.9	20.6	30.0	22.7	**20.7**
Location average	**11.7**	**20.6**	**18.2**	**27.3**	**18.9**	**19.3**

Table 68. Percent flour protein and flour yield for soft white winter wheat at Kimberly, Rupert, Ririe, and Aberdeen, 2006.

	Flour Protein (%)					Flour Yield (%)				
Variety	**Aberdeen**	**Kimberly**	**Rupert**	**Ririe**	**Average**	**Aberdeen**	**Kimberly**	**Rupert**	**Ririe**	**Average**
92-16004A	10.3	8.9	11.3	9.8	**10.1**	68.6	69.7	56.6	65.7	**65.2**
92-22407A	10.3	8.9	10.1	11.6	**10.2**	70.6	67.7	66.6	66.0	**67.7**
99-419	9.6	8.7	10.3	11.3	**10.0**	65.8	66.9	61.3	60.1	**63.5**
99-435	10.1	9.4	11.6	10.7	**10.5**	67.8	68.4	59.6	64.3	**65.0**
Beamer	10.8	8.8	11.2	11.5	**10.6**	69.7	72.3	62.1	65.8	**67.5**
Bruehl	10.6	9.4	11.5	10.9	**10.6**	66.1	70.0	62.4	63.9	**65.6**
Brundage	9.4	8.6	10.6	10.5	**9.8**	67.7	69.4	61.4	63.4	**65.5**
Brundage 96	9.3	8.7	10.9	11.1	**10.0**	68.5	67.7	60.9	62.7	**65.0**
Clearfirst	10.4	9.5	11.6	12.5	**11.0**	70.4	70.5	63.4	65.1	**67.4**
Daws	9.7	8.5	11.3	10.4	**10.0**	67.4	68.0	62.1	64.1	**65.4**
IDO 587	9.5	8.8	11.4	11.8	**10.4**	68.5	69.7	61.4	61.9	**65.4**
IDO 620	10.1	9.3	11.8	11.2	**10.6**	66.4	69.2	57.9	61.9	**63.9**
Lambert	9.8	8.8	11.1	10.0	**9.9**	68.5	68.3	61.2	66.5	**66.1**
MacVicar	9.5	8.7	11.3	11.0	**10.1**	68.8	69.9	60.4	63.2	**65.6**
Madsen	10.0	9.0	11.9	12.0	**10.7**	71.5	70.3	64.5	64.9	**67.8**
Malcolm	9.6	8.8	11.2	11.1	**10.2**	67.9	69.3	60.4	64.3	**65.5**
Masami	9.5	8.3	11.2	11.4	**10.1**	67.8	69.1	59.0	60.4	**64.1**
MEL	10.1	8.6	11.8	11.7	**10.6**	70.4	72.1	62.6	66.7	**68.0**
Mohler	10.8	9.0	11.2	10.3	**10.3**	69.1	71.8	63.1	67.3	**67.8**
ORCF-101	10.2	9.2	11.5	12.3	**10.8**	69.1	69.7	62.9	63.9	**66.4**
ORCF-102	10.7	8.7	11.0	10.9	**10.3**	68.0	68.7	64.2	65.7	**66.7**
ORH010920	10.1	8.8	10.9	11.2	**10.3**	67.3	68.2	62.3	63.9	**65.4**
Simon	10.6	8.5	11.7	10.8	**10.4**	71.3	70.8	63.7	66.1	**68.0**
Stephens	10.4	8.7	11.1	11.4	**10.4**	68.0	70.6	59.7	62.3	**65.2**
Tubbs 06	10.6	8.5	11.2	11.6	**10.5**	68.0	69.6	63.2	63.5	**66.1**
WA7934	10.8	9.5	11.9	11.1	**10.8**	67.2	68.1	58.1	62.0	**63.9**
WA7935	11.1	9.0	12.2	11.7	**11.0**	64.4	68.8	56.6	61.2	**62.8**
WB 528	10.9	9.1	10.2	11.6	**10.5**	66.8	69.1	65.1	63.4	**66.1**
Westbred 470	11.2	9.3	10.5	11.9	**10.7**	64.2	68.4	65.3	61.5	**64.9**
Location average	**10.2**	**8.9**	**11.2**	**11.2**	**10.4**	**68.1**	**69.4**	**61.7**	**63.9**	**65.8**

Table 69. Percent break flour yield and cookie diameter for soft white winter wheat at Kimberly, Rupert, Ririe, and Aberdeen 2006.

	Break Flour Yield (%)					Cookie Diameter (cm)				
Variety	**Aberdeen**	**Kimberly**	**Rupert**	**Ririe**	**Average**	**Aberdeen**	**Kimberly**	**Rupert**	**Ririe**	**Average**
92-16004A	40.0	42.4	34.6	40.4	**39.4**	8.6	8.4	7.9	8.3	**8.3**
Bitterroot	39.2	39.1	34.5	34.5	**36.8**	8.4	8.4	8.0	8.1	**8.2**
99-419	39.6	43.5	39.2	30.2	**38.1**	8.4	8.2	8.0	8.0	**8.2**
99-435	33.4	36.2	35.9	37.8	**35.8**	8.3	8.1	7.9	7.8	**8.0**
Beamer	32.9	33.2	32.7	34.7	**33.4**	8.5	8.3	7.8	8.0	**8.2**
Bruehl	31.6	37.2	28.1	33.9	**32.7**	8.5	8.5	8.1	8.1	**8.3**
Brundage	35.2	37.7	32.0	37.7	**35.7**	8.7	8.5	8.0	8.2	**8.4**
Brundage 96	38.5	37.8	35.3	33.4	**36.3**	8.6	8.8	8.2	8.1	**8.4**
Clearfirst	32.7	33.6	35.2	32.9	**33.6**	8.4	7.8	7.9	7.7	**8.0**
Daws	36.6	37.0	37.5	37.2	**37.1**	8.1	7.8	7.8	7.9	**7.9**
IDO 587	35.3	33.2	35.1	32.0	**33.9**	8.4	8.1	7.8	8.0	**8.1**
IDO 620	39.9	35.1	36.9	36.8	**37.2**	8.1	8.0	7.9	7.9	**8.0**
Lambert	36.5	35.7	37.0	36.7	**36.5**	8.3	8.0	7.9	8.2	**8.1**
MacVicar	38.3	30.7	33.6	34.8	**34.4**	8.4	8.0	7.9	8.0	**8.1**
Madsen	35.1	28.5	29.0	33.1	**31.4**	8.4	8.1	8.0	7.9	**8.1**
Malcolm	33.4	33.6	30.7	34.9	**33.2**	8.6	7.9	7.8	7.9	**8.1**
Masami	39.0	35.6	38.3	38.0	**37.7**	8.4	8.2	8.0	7.9	**8.1**
MEL	36.6	36.1	36.5	33.6	**35.7**	8.4	8.3	8.0	7.9	**8.2**
Mohler	32.2	33.3	31.5	36.6	**33.4**	8.5	8.3	7.9	8.1	**8.2**
ORCF-101	30.8	29.6	37.5	29.8	**31.9**	8.4	8.2	7.9	7.9	**8.1**
ORCF-102	34.1	34.3	35.6	32.4	**34.1**	8.2	8.1	8.0	8.0	**8.1**
ORH010920	31.9	32.8	34.0	35.1	**33.5**	8.3	8.3	7.9	8.0	**8.1**
Simon	33.7	32.3	36.9	33.9	**34.2**	8.3	8.3	7.9	8.0	**8.1**
Stephens	35.2	35.7	36.0	35.0	**35.5**	8.2	8.0	7.9	8.0	**8.0**
Tubbs 06	33.2	29.1	33.6	35.0	**32.7**	8.1	7.9	7.8	7.9	**7.9**
WA7934	37.5	36.2	40.0	39.7	**38.4**	8.2	8.1	7.9	7.9	**8.0**
WA7935	42.3	33.6	37.1	39.7	**38.2**	8.1	8.2	7.8	7.9	**8.0**
WB 528	31.2	32.4	34.8	34.7	**33.3**	8.4	8.1	7.9	8.0	**8.1**
Westbred 470	32.1	33.5	32.4	35.8	**33.5**	8.0	8.1	7.8	7.9	**8.0**
Location average	**35.4**	**34.8**	**34.9**	**35.2**	**35.1**	**8.4**	**8.2**	**7.9**	**8.0**	**8.1**

Table 70. Percent flour protein for soft white spring wheat, 2006.

	Flour Protein (%)					
Variety	**Aberdeen**	**Rupert**	**Idaho Falls**	**Ashton**	**Soda Springs**	**Average**
Alpowa	9.4	8.9	9.3	7.5	9.4	**8.9**
Alturas	9.4	9.0	9.0	6.9	9.8	**8.8**
Cataldo	10.0	9.5	10.1	7.5	9.9	**9.4**
Challis	9.8	9.0	8.8	6.8	8.8	**8.6**
Eden	9.1	8.7	9.0	6.8	9.2	**8.6**
Jubilee	9.5	8.9	8.8	8.0	9.9	**9.0**
Louise	9.8	8.8	9.0	8.0	9.4	**9.0**
Nick	10.4	9.2	10.0	8.2	10.4	**9.6**
Penawawa	9.7	9.3	9.4	7.7	9.2	**9.1**
Skookum	9.0	9.2	9.6	8.3	10.0	**9.2**
Treasure	8.9	8.7	9.0	7.5	9.3	**8.7**
UI Pettit	8.5	9.4	9.0	7.5	9.2	**8.7**
Whitebird	8.5	8.9	8.9	7.6	10.0	**8.8**
Location Average	**9.4**	**9.0**	**9.2**	**7.6**	**9.6**	**9.0**

Table 71. Percent flour yield for soft white spring wheat, 2006.

	Flour Yield (%)					
Variety	**Aberdeen**	**Rupert**	**Idaho Falls**	**Ashton**	**Soda Springs**	**Average**
Alpowa	62.8	63.6	66.6	67.1	60.7	**64.2**
Alturas	67.7	69.5	68.4	69.0	65.4	**68.0**
Cataldo	65.0	65.9	64.2	66.8	63.7	**65.1**
Challis	65.7	67.7	68.4	68.0	65.9	**67.1**
Eden	69.4	70.8	70.7	69.1	66.3	**69.3**
Jubilee	66.8	67.4	69.0	66.9	64.5	**66.9**
Louise	64.5	69.5	68.2	67.8	65.2	**67.0**
Nick	66.2	66.9	66.7	67.8	64.5	**66.4**
Penawawa	59.7	63.7	64.7	65.6	62.3	**63.2**
Skookum	65.2	68.1	69.3	65.7	64.6	**66.6**
Treasure	63.9	67.8	69.3	68.1	66.3	**67.1**
UI Pettit	68.1	69.8	69.8	69.2	68.4	**69.1**
Whitebird	66.1	68.5	68.9	65.7	65.3	**66.9**
Location Average	**65.5**	**67.6**	**68.0**	**67.4**	**64.9**	**66.7**

Table 72. Percent break flour yield for soft white spring wheat, 2006.

	Break Flour Yield (%)					
Variety	**Aberdeen**	**Rupert**	**Idaho Falls**	**Ashton**	**Soda Springs**	**Average**
Alpowa	41.4	40.6	38.4	36.3	35.6	**38.5**
Alturas	40.9	36.6	37.2	37.1	38.4	**38.0**
Cataldo	37.1	35.7	37.6	33.6	32.6	**35.3**
Challis	43.7	36.2	37.1	36.2	36.6	**38.0**
Eden	41.7	39.6	39.4	39.2	35.3	**39.0**
Jubilee	43.5	40.9	40.6	40.8	40.4	**41.2**
Louise	39.5	38.0	37.6	38.9	36.8	**38.2**
Nick	34.7	35.4	35.1	32.9	31.3	**33.9**
Penawawa	42.8	40.2	38.5	35.7	34.9	**38.4**
Skookum	47.7	39.5	39.6	40.0	38.2	**41.0**
Treasure	46.9	41.8	40.1	38.6	37.3	**40.9**
UI Pettit	37.6	34.4	37.2	39.4	32.1	**36.1**
Whitebird	43.9	41.8	38.8	40.0	39.0	**40.7**
Location Average	**41.6**	**38.5**	**38.2**	**37.6**	**36.0**	**38.4**

Table 73. Cookie Diameter for soft white spring wheat, 2006.

	Cookie Diameter (cm)					
Variety	**Aberdeen**	**Rupert**	**Idaho Falls**	**Ashton**	**Soda Springs**	**Average**
Alpowa	8.1	7.9	8.1	8.6	7.8	**8.1**
Alturas	8.4	8.0	8.2	8.7	8.2	**8.3**
Cataldo	8.3	8.1	8.1	8.4	7.9	**8.2**
Challis	8.4	8.1	8.4	8.6	7.0	**8.1**
Eden	8.5	8.4	8.4	8.6	8.2	**8.4**
Jubilee	8.5	8.5	8.4	8.8	8.5	**8.5**
Louise	8.5	8.2	8.5	8.8	8.4	**8.5**
Nick	8.3	8.5	8.3	8.5	8.0	**8.3**
Penawawa	7.9	8.1	8.1	8.5	8.0	**8.1**
Skookum	8.4	8.2	8.2	8.6	8.2	**8.3**
Treasure	8.6	8.4	8.3	8.9	8.6	**8.6**
UI Pettit	8.6	8.4	8.7	8.8	8.5	**8.6**
Whitebird	8.4	8.3	8.7	8.8	8.4	**8.5**
Location Average	**8.4**	**8.2**	**8.3**	**8.7**	**8.1**	**8.3**

Table 74. Percent flour protein and flour yield for hard winter wheat at Aberdeen, Kimberly, Rupert and Ririe 2006.

	Flour Protein (14% mb)					Flour Yield (%)				
Variety	**Aberdeen**	**Kimberly**	**Rupert**	**Ririe**	**Average**	**Aberdeen**	**Kimberly**	**Rupert**	**Ririe**	**Average**
Hard Red Winter Wheat										
AgriPro Paladin	11.8	10.8	12.9	13.2	**12.2**	69.2	69.8	65.5	67.5	**68.0**
Bonneville	12.5	11.5	14.6	14.0	**13.2**	71.8	72.5	66.9	70.5	**70.4**
Boundary	11.0	10.1	11.4	12.7	**11.3**	72.5	71.1	68.4	67.9	**70.0**
Deloris	12.0	10.9	12.7	13.2	**12.2**	72.8	72.4	69.6	71.0	**71.5**
DH940361	12.7	10.7	12.4	14.1	**12.5**	68.6	71.5	69.3	66.4	**69.0**
Dumas	12.1	9.9	12.1	13.3	**11.9**	69.5	71.5	69.8	69.4	**70.1**
DW	11.7	10.5	12.6	12.7	**11.9**	69.8	69.0	66.1	68.1	**68.3**
Garland	11.2	10.7	12.2	13.1	**11.8**	66.1	66.3	65.3	64.7	**65.6**
IDO 616	---	---	---	12.4	**12.4**	---	---	---	69.4	**69.4**
IDO 621	10.8	9.9	10.9	---	**10.5**	71.0	71.3	68.4	---	**70.2**
IDO 651	---	---	---	11.9	**11.9**	---	---	---	68.3	**68.3**
IDO 652	---	---	---	12.4	**12.4**	---	---	---	68.3	**68.3**
IDO 653	---	---	---	13.2	**13.2**	---	---	---	64.7	**64.7**
IDO 660	12.5	10.7	12.7	---	**12.0**	67.1	67.5	64.0	---	**66.2**
Juniper	---	---	---	13.2	**13.2**	---	---	---	68.7	**68.7**
Manning	11.8	10.4	12.4	12.5	**11.8**	69.8	68.9	64.6	67.9	**67.8**
Moreland	12.0	11.0	12.3	12.5	**12.0**	71.1	68.4	63.0	65.6	**67.0**
MT01148	12.9	11.1	13.3	13.0	**12.6**	70.9	73.1	70.1	67.9	**70.5**
Neeley	11.2	11.5	13.2	12.6	**12.1**	68.3	69.9	64.3	67.2	**67.4**
Promontory	10.9	10.2	11.5	12.5	**11.3**	71.8	71.9	69.5	69.6	**70.7**
Survivor	12.8	11.6	13.7	13.1	**12.8**	70.5	71.3	66.4	68.5	**69.2**
Utah 100	11.2	10.0	12.0	12.1	**11.3**	70.4	69.7	66.2	67.3	**68.4**
W98-344	13.0	11.2	12.6	13.4	**12.6**	68.5	69.5	67.7	67.8	**68.4**
Weston	13.1	11.8	13.8	13.4	**13.0**	68.8	70.7	64.4	66.2	**67.5**
Yellowstone	11.5	10.4	12.2	12.9	**11.8**	72.1	71.1	68.9	67.9	**70.0**
Location Average	**11.9**	**10.7**	**12.6**	**12.9**	**12.0**	**70.0**	**70.4**	**66.9**	**67.9**	**68.8**
Hard White Winter Wheat										
AgriPro Palomino (W)	12.0	10.5	12.7	13.7	**12.2**	63.8	67.8	63.7	64.6	**65.0**
Gary (W)	10.8	9.7	12.4	12.4	**11.3**	69.1	69.2	59.7	68.0	**66.5**
Golden Spike (W)	11.1	10.3	12.2	13.2	**11.7**	73.0	73.0	68.2	67.9	**70.5**
IDO 641 (W)	11.4	9.9	12.4	---	**11.2**	69.5	70.0	67.5	---	**69.0**
NuFrontier (W)	12.4	10.0	12.1	12.4	**11.7**	67.2	69.8	68.4	67.2	**68.2**
NuHills (W)	13.3	10.5	12.6	13.7	**12.5**	64.0	66.7	65.4	64.8	**65.2**
NuHorizon (W)	12.3	10.0	12.0	12.3	**11.7**	67.6	69.2	68.2	67.2	**68.1**
UI Darwin (W)	---	---	---	13.3	**13.3**	---	---	---	68.4	**68.4**
Location Average	**11.9**	**10.1**	**12.3**	**13.0**	**12.0**	**67.7**	**69.4**	**65.9**	**66.9**	**67.6**

Table 75. Bake volume for hard winter wheat at Aberdeen, Kimberly, Rupert and Ririe 2006.

	Bake Volume (cc)				
Variety	**Aberdeen**	**Kimberly**	**Rupert**	**Ririe**	**Average**
Hard Red Winter Wheat					
AgriPro Paladin	1175	1075	1200	1250	**1175**
Bonneville	1050	1125	1400	1075	**1163**
Boundary	1175	1000	1025	1125	**1081**
Deloris	1150	1125	1225	1300	**1200**
DH940361	900	875	1075	1200	**1013**
Dumas	1075	950	1100	1150	**1069**
DW	1200	1050	1250	1300	**1200**
Garland	1050	975	1050	1150	**1056**
IDO 616	---	---	---	1225	**1225**
IDO 621	950	950	950	---	**950**
IDO 651	---	---	---	1150	**1150**
IDO 652	---	---	---	1200	**1200**
IDO 653	---	---	---	1225	**1225**
IDO 660	1250	1100	1400	---	**1250**
Juniper	---	---	---	1250	**1250**
Manning	1100	950	1225	1250	**1131**
Moreland	1175	1050	1150	1100	**1119**
MT01148	1200	1075	1225	1250	**1188**
Neeley	975	1000	1150	1225	**1088**
Promontory	975	925	1125	1225	**1063**
Survivor	1050	950	1225	1225	**1113**
Utah 100	1100	975	1200	1200	**1119**
W98-344	1225	1100	1175	1275	**1194**
Weston	1175	1075	1200	1275	**1181**
Yellowstone	1150	1025	1225	1300	**1175**
Location Average	**1105**	**1018**	**1179**	**1214**	**1143**
Hard White Winter Wheat					
AgriPro Palomino (W)	1150	1000	1125	1250	**1131**
Gary (W)	1050	900	1200	1225	**1094**
Golden Spike (W)	1150	975	1225	1200	**1138**
IDO 641 (W)	1200	1000	1225	---	**1142**
NuFrontier (W)	1125	875	1100	1225	**1081**
NuHills (W)	1225	1000	1175	1200	**1150**
NuHorizon (W)	1150	875	1100	1225	**1088**
UI Darwin (W)	---	---	---	1250	**1250**
Location Average	**1150**	**946**	**1164**	**1225**	**1134**

Table 76. Percent flour protein for hard spring wheat, 2006.

	Flour Protein (14% mb)					
Variety	**Aberdeen**	**Ashton**	**Idaho Falls**	**Rupert**	**Soda Springs**	**Average**
Hard Red Spring Wheat						
Buckpronto	13.1	12.4	12.5	12.9	13.1	**12.8**
Choteau	12.9	13.1	13.1	12.4	13.6	**13.0**
Hollis	12.8	11.9	12.8	11.4	13.1	**12.4**
Iona	13.1	12.3	12.4	11.6	13.1	**12.5**
Jefferson	12.2	12.1	11.9	11.7	12.9	**12.2**
Jerome	12.1	11.2	11.9	11.9	11.4	**11.7**
Saxon	12.5	11.7	12.0	12.1	12.7	**12.2**
Scarlet	11.7	12.3	11.9	10.9	11.7	**11.7**
Summit	12.0	11.3	11.9	11.5	11.9	**11.7**
Tara 2002	12.5	12.3	12.2	11.7	13.2	**12.4**
UI Winchester	---	---	---	---	12.3	**12.3**
WB936	12.7	12.0	13.1	12.2	12.5	**12.5**
Location Average	**12.5**	**12.1**	**12.3**	**11.8**	**12.6**	**12.3**
Hard White Spring Wheat						
Alta Blanca (W)	---	---	---	---	11.5	**11.5**
Blanca Grande (W)	12.8	11.4	12.2	12.0	12.5	**12.2**
Idaho 377s (W)	12.2	11.4	11.2	10.7	11.6	**11.4**
Klasic (W)	12.9	11.2	12.0	11.1	12.0	**11.8**
Lochsa (W)	12.7	11.8	12.7	12.0	12.4	**12.3**
Lolo (W)	11.1	11.3	11.4	10.7	11.4	**11.2**
Macon (W)	11.9	12.2	11.7	10.9	11.4	**11.6**
OR4201019 (W)	10.5	10.9	10.6	10.2	11.7	**10.8**
OR4201027 (W)	11.1	10.2	11.1	11.1	11.7	**11.0**
Otis (W)	11.4	10.9	11.5	11.0	11.9	**11.3**
Pristine (W)	12.4	11.4	12.0	11.9	12.5	**12.0**
Winsome (W)	10.6	11.3	10.6	10.8	10.9	**10.8**
Location Average	**11.8**	**11.3**	**11.5**	**11.1**	**11.8**	**11.5**

Table 77. Percent flour yield for hard spring wheat, 2006.

	Flour Yield (%)					
Variety	**Aberdeen**	**Ashton**	**Idaho Falls**	**Rupert**	**Soda Springs**	**Average**
Hard Red Spring Wheat						
Buckpronto	70.5	67.9	70.7	69.1	66.6	**69.0**
Choteau	70.3	66.0	69.4	66.3	67.5	**67.9**
Hollis	70.4	68.1	70.2	72.1	68.7	**69.9**
Iona	72.4	69.2	70.7	72.6	68.9	**70.8**
Jefferson	71.9	69.2	72.0	71.7	69.8	**70.9**
Jerome	71.2	68.7	72.2	70.5	69.2	**70.4**
Saxon	70.6	69.4	69.9	69.4	68.2	**69.5**
Scarlet	72.1	68.3	71.4	71.6	68.4	**70.4**
Summit	65.5	65.5	68.0	67.6	64.6	**66.2**
Tara 2002	70.6	69.2	71.0	69.9	69.3	**70.0**
UI Winchester	---	---	---	---	67.9	**67.9**
WB936	70.9	67.6	70.8	70.1	67.8	**69.4**
Location Average	**70.6**	**68.1**	**70.6**	**70.1**	**68.1**	**69.4**
Hard White Spring Wheat						
Alta Blanca (W)	---	---	---	---	61.9	**61.9**
Blanca Grande (W)	65.3	67.7	67.7	67.4	66.0	**66.8**
Idaho 377s (W)	65.4	64.9	67.5	68.5	65.0	**66.3**
Klasic (W)	70.1	68.1	69.4	71.0	67.3	**69.2**
Lochsa (W)	71.3	69.3	71.1	71.8	70.5	**70.8**
Lolo (W)	67.3	65.4	68.6	68.1	66.6	**67.2**
Macon (W)	70.4	67.9	70.3	70.8	67.7	**69.4**
OR4201019 (W)	67.2	67.7	70.0	68.3	65.8	**67.8**
OR4201027 (W)	66.2	67.7	70.3	69.2	67.6	**68.2**
Otis (W)	68.0	67.6	70.6	69.7	68.3	**68.8**
Pristine (W)	70.3	69.2	70.0	70.2	68.2	**69.6**
Winsome (W)	65.7	65.3	69.2	65.4	66.6	**66.4**
Location Average	**67.9**	**67.3**	**69.5**	**69.1**	**66.8**	**67.7**

Table 78. Bake volume for hard spring wheat, 2006.

	Bake Volume (cc)					
Variety	**Aberdeen**	**Ashton**	**Idaho Falls**	**Rupert**	**Soda Springs**	**Average**
Hard Red Spring Wheat						
Buckpronto	1050	1050	1125	1125	1100	**1090**
Choteau	1075	1075	1225	1100	1200	**1135**
Hollis	1150	1125	1200	1100	1225	**1160**
Iona	1175	1175	1175	1050	1225	**1160**
Jefferson	1175	1125	1200	1125	1225	**1170**
Jerome	1225	1150	1100	1200	1175	**1170**
Saxon	1200	1125	1125	1150	1225	**1165**
Scarlet	1175	1075	1125	1000	1175	**1110**
Summit	1125	1050	1125	1100	1175	**1115**
Tara 2002	1300	1150	1250	1150	1400	**1250**
UI Winchester	---	---	---	---	1125	**1125**
WB936	1250	1100	1300	1125	1400	**1235**
Location Average	**1173**	**1109**	**1177**	**1111**	**1221**	**1157**
Hard White Spring Wheat						
Alta Blanca (W)	---	---	---	---	1175	**1175**
Blanca Grande (W)	1275	1050	1250	1125	1400	**1220**
Idaho 377s (W)	1050	1000	1025	900	1100	**1015**
Klasic (W)	1200	1075	1200	1125	1225	**1165**
Lochsa (W)	1050	1075	1150	1025	1225	**1105**
Lolo (W)	975	950	950	975	1100	**990**
Macon (W)	1200	1100	1200	1100	1150	**1150**
OR4201019 (W)	1000	925	950	975	1200	**1010**
OR4201027 (W)	1100	900	1025	1025	1150	**1040**
Otis (W)	1075	950	975	1025	1150	**1035**
Pristine (W)	1075	1000	1100	1050	1400	**1125**
Winsome (W)	1000	975	1025	1000	1125	**1025**
Location Average	**1091**	**1000**	**1077**	**1030**	**1200**	**1088**

This Page Intentionally Left Blank

Idaho Preferred Mix

Use of the following varieties could increase the overall functionality and consistency of Idaho wheat. This listing is not all-inclusive*. It is provided as a guide for producers to consider when making planting decisions. Growers are encouraged to contact extension agents and other industry representatives for local agronomic characteristics.

*Due to the large number of varieties available, the following list includes only (a) varieties that are being grown in Idaho as identified by the latest USDA, NASS survey and/or (b) varieties recently available that meet end user needs.

NOTE:
Ratings are based on variety performance in Idaho.
This list is based on Idaho growing conditions and is developed with input from end users of Idaho wheat. Approximately 60% of Idaho wheat is exported, 40% is used domestically.
Variations in states' ratings may occur due to different growing conditions and different end user needs.

Quality Plus (Q+)

Varieties in this group usually have above average milling and baking quality.

Acceptable Quality (AQ)

Most milling and baking attributes of these varieties are acceptable, but they are not above average for all properties.

Limited Markets (LM)

It is suggested that these varieties be grown only if a buyer is confirmed before the seed is planted. Putting these varieties into the general distribution channel erodes the overall quality and/or consistency of Idaho's wheat.

2007 Idaho Preferred Mix

Spring Varieties

	Soft White Spring	Hard Red Spring Min 13% Protein	Hard White Spring Min 13% Protein
Q+	Alturas	**Q+** Hollis	**Q+** Klasic
	Challis	Jefferson	Lochsa
	Jubilee	Jerome	Macon
	Louise	Tara 2002	Snow Crest
	Nick	WB 936	**AQ** 377s
	Treasure		Blanca Grande
	Zak	**AQ** Hank	Lolo
		Iona	Plata
AQ	Eden	Scarlet	Pristine
	Wakanz	Sunstar King	
	Wawawai	WB 926	**LM** Winsome
LM	Alpowa	**LM** Express	
	Penawawa	Rick	

Winter Varieties

	Soft White Winter			Hard Red Winter			Hard White Winter Min 12% Protein
Q+	Brundage 96	Lewjain		**Q+** Bonneville			**AQ** Gary
	Brundage	Simon		Deloris			Golden Spike
	Hubbard	Stephens		DW			NuFrontier
	ID587	WB 528		Moreland			NuHorizon
AQ	Beamer	Hill 81	Mohler	**AQ** Boundary			**Clubs**
	Cashup	Lambert	ORCF 101	Falcon			
	Eltan	Madsen	Rod	Finley			**Q+** Chukar, Edwin, Hiller, Rely, Tres
	Finch	Malcolm	Sprague	Promontory			
			Weatherford	Utah 100			
LM	Daws			**LM** Declo	Q 542		**AQ** Coda
	MacVicar			Estica	Weston		
	Tubbs			Garland			**LM** Bruehl, Rhode
	WB 470			Hatton			

Published and distributed by the Idaho Agricultural Experiment Station, Gregory A. Bohach, Director, University of Idaho College of Agricultural and Life Sciences, Moscow, Idaho 83844-2337.

Research Bulletin 169