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2025 Small Grains Report

Southcentral and Southeast Idaho Cereals Research and Extension Program

Juliet Marshall, Tod Shelman, Linda Jones, Sara Argo Price, Chance Reynolds, Justin Hatch, Emily Galvin, Julia Piaskowski, and Sarah Windes

University of Idaho
College of Agricultural and Life Sciences

Southcentral and Southeastern Idaho Cereals Research and Extension Program

www.uidaho.edu/extension/cereals/scseidaho

Cover Image

A dryland wheat field in Rockland, Idaho, on a farm owned by Cordell (“Cory”) and Jamie Kress. Courtesy of Sara Argo Price.

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Grower Cooperators:
Kyle Wangemann and Scott Brown – Soda Springs
Cory and Jamie Kress – Rockland
Dave Scott – Ririe
Clark Hamilton – Ririe
Luke Adams - Rupert
Taylor Grant, Grant 4-D Farms – Rupert
Marc Thiel – Idaho Falls
Jake Ozburn – Soda Springs

Cereals Research and Extension Employees
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UI Extension Educators
Justin Hatch – Caribou County
Joseph Sagers - Jefferson County
Reed Findlay - Bannock and Bingham Counties
Jason Thomas - Minidoka County
Ron Patterson - Bonneville County
Bracken Henderson - Franklin County
Anthony Simerlink - Power County
Tom Jacobsen – Fremont County
Jared Gibbons – Madison County

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2025 Small Grains Report for Southcentral and Southeastern Idaho

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Additions and Changes:

All locations were planted, but the Ririe winter dryland location was abandoned in the spring due to planting of spring grain into the trials. Soda Springs winter trial had a significant frost in June of 2025 which significantly damaged the developing grain. For site-specific information regarding conditions, refer to Results and Discussion.

Introduction

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 over multiple locations and years. This information will assist Idaho producers in comparing and selecting varieties best suited to their area and growing conditions. Variety selection is an important part of the economic viability of Idaho crops, and crop enterprise budgets are available at the Department of Agricultural Economics and Rural Sociology website: https://www.uidaho.edu/extension/food/idaho-agbiz/crop-budgets .

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, and other agronomic traits. Bringing a new variety to the marketplace is a cooperative effort by many individuals and organizations.

Varieties are best evaluated by comparing performance over several locations and preferably over more than one year. Varietal performance can change in response to both environmental and cultural/management conditions. This report summarizes yield and agronomic data of small grain (wheat and barley) trials conducted throughout Southcentral and Southeastern Idaho that were harvested in 2025, milling and baking data from trials harvested in 2024.

Materials & Methods

Locations

Cereal trials were established at seven winter and five spring locations throughout south central and southeast Idaho during the fall of 2024 and the spring of 2025. For location details, please see the descriptions on pages 6 to 12. The Ririe winter, Soda Springs winter & spring, and Rockland winter trials were grown under dryland conditions. All other trials were grown under irrigation. The trials at Aberdeen, Tetonia and Kimberly were grown at UI Research and Extension Centers, and the remaining trials were grown in producers' fields.

Agronomic Practices

Treated 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.

Thousand kernel weights and planting rates in pounds per acre for each variety are reported in Table 1. Row spacing was set at 7-inch using double disk openers for all irrigated locations and the Soda Springs winter and spring dryland locations. The Rockland dryland location used a planter with heavy duty double disk openers for no-till planting conditions set at 7-inch row spacing. Plots at all winter locations were planted 5 feet wide by 14 feet long then

reduced back to 10 feet long using glyphosate herbicide or tillage. Spring locations were planted 5 feet wide by 20 feet long then sprayed or tilled back to 16 feet. 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 to the following methodology: Yield goals (bu/A) 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 wheat, soft white spring wheat, and winter barley; lbs/acre nitrogen needed = 2 x yield goal.

Hard winter and hard spring wheat; lbs/acre nitrogen needed = 2.5 x yield goal, plus 40 lbs nitrogen/acre topdressed at flowering.

Spring 2 row barley: lbs/acre nitrogen needed = 1.7 x the yield goal.

Hard wheat nurseries received the remaining balance of nitrogen as urea (46-0-0) topdressed at heading using hand broadcast spreaders. Fertilizers and pesticides applied are listed on pages 6 to 12. Planting and harvesting operations by university personnel were timed to approximately coincide with corresponding cooperator operations. Nurseries were harvested with either a Wintersteiger Classic or Zurn 150 small plot combines. (Wintersteiger data were recorded using HarvestMaster 800 Classic GrainGage systems and Mirus software. Zurn 150 utilized HarvestMaster H2 Classic Graingage.)

Evaluation for Diseases

FHB: The winter FHB nursery was established in one location (Kimberly) while spring FHB nurseries were established in two locations (Aberdeen and Kimberly). Each entry was planted in two head-rows in two replications. Corn spawn was spread in the field when plants were at the tillering growth stage in the spring. Additional inoculation of the trials was conducted by spraying the conidial suspension (100,000 spores/ml) at early anthesis. A sprinkler system was installed across the experimental plots to create a conducive environment for disease infection and development. FHB rating (measured as FHB incidence and severity from 30 randomly chosen heads per entry) was done at the soft dough growth stage.

Dwarf Bunt: The 2024 trial was conducted in a dwarf bunt nursery established by the Utah State University in Logan. The nursery is artificially inoculated with *Tilletia controversa* spores every year. Each winter wheat entry of the soft white winter and the hard winter wheat trials was planted in single head-row in two replications. Dwarf bunt severity was rated on each head row at maturity.

Stripe Rust: Entries planted in the EVT in Aberdeen were evaluated for their reaction to stripe rust under natural infection. Stripe rust was rated at the flag leaf stage as infection type (1 – 9 scale), and severity was measured based on the modified Cobb scale (0 – 100%).

Description of Agronomic Data

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

- Yield is calculated at 60 pounds per bushel for wheat, 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 was analyzed with a Bruker TANGO NIR grain analyzer. Protein data are found in conjunction with the agronomic data noted above in Tables 4 to 66. 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 2024 harvest in this report. Data are given for these characteristics from the 2023 harvest and are found in tables 69-82.

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 for soft white wheat.
- 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 on a 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 45; hard wheats are above 45.
- SRC (Solvent Retention Capacity): a measure of the flour performance in absorbing water and flour quality.

Additional evaluations include the following:

Hard Wheats

Bake volume: This is the volume of an experimental loaf of bread measured in cubic centimeters and reflects protein quality per unit of protein; higher volume is preferred.

Soft Wheats

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

Barley

- Plumps: Percent plump is the percent of a sample that stayed on top of a 5.5/64" x ¾" slotted screen after shaking and consists of the 6/64" and 5.5/64" percentages combined. Both screen percentages are included in the report for increased precision.
- Thins: the percent of a sample that passed through a 5.5/64" x ¾" screen after shaking.

Statistical Analyses

Data were analyzed using spatial analysis in R and SAS 9.4 software with the PROC MIXED procedure. With the large amount of data generated by these trials, accurate analyses requires additional help to ensure accuracy and appropriate analyses. We rely on the expert assistance of Emily Galvin for data curation and Julia Piaskowski for analysis and interpretation.

Statistical Interpretation needs updating

Some 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. The 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 obtained from only one replication or are from a composite sample of all replications (e.g. quality data).

Where standard errors are calculated, it is an estimate of the degree of variation associated with reported estimate. As an example, if the yield of a variety is 145 buA, and the standard error is 2, then the variety estimated average is 145 bu/A plus or minus 2 bu/A.

Varieties Tested

A list of released varieties tested through 2023-2025 is given in Table 1. Included in this table are seed weight (thousand kernel weight), 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 selected 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 comparisons between averages from the previous ten years 2015-2024 in comparison to the current year - 2025.

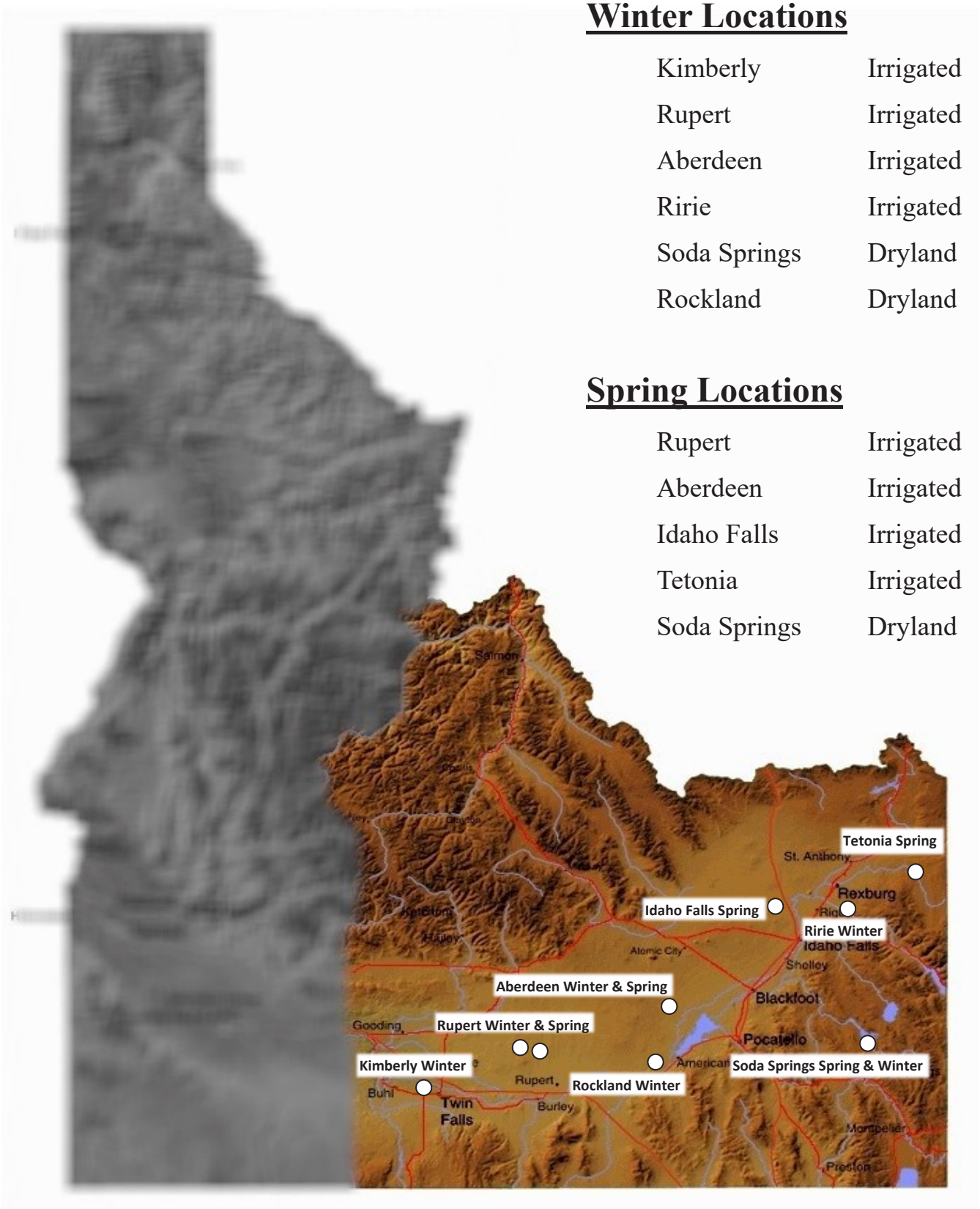
Southcentral & Southeast Idaho Cereal Variety Trial Locations

Winter Locations

Kimberly	Irrigated
Rupert	Irrigated
Aberdeen	Irrigated
Ririe	Irrigated
Soda Springs	Dryland
Rockland	Dryland

Spring Locations

Rupert	Irrigated
Aberdeen	Irrigated
Idaho Falls	Irrigated
Tetonia	Irrigated
Soda Springs	Dryland



Location Descriptions

Kimberly Winter Irrigated:

Kimberly Research & Extension Center
3825 N. 3600 E. Kimberly, ID

Coordinates: 42°33'06.87"N 114°20'34.46"W
Elevation: 3894 ft.
Soil Type: #10 Bahem silt loam, 1-4% slopes
Previous Crop: Mustard
Planting Date: October 11, 2024
Harvest Date: August 4, 2025
Chemicals applied: Huskie 15 oz./A, Axial Star 16 oz./A,

Fertility:

	Organic Matter %	pH	Free Lime %	Hard winter wheat N#/A	Soft white winter wheat N #/A	P	K	S
12" soil test results (N & S= 0-24")	1.4	8.1	10.5	130	130	30 ppm	370 ppm	8 ppm
Fertilizer applied (lbs/A)	-	-	-	400 #	230 #	100#		40# S
Total	**1.4**	**8.1**	**10.5**	**530 #**	**360 #**	**100 #**		**40 # S**

Rupert Winter Irrigated:

Cooperator: Luke Adams
Located at 100 W. and 600 N. Rupert, Idaho

Coordinates: 42°41’15.14” N 113°40’47.05"W
Elevation: 4184 ft.
Soil Type: #24 Portneuf silt loam, 1-4% slopes
Previous Crop: Spring Barley
Planting Date: October 10, 2024
Harvest Dates: July 31, & August 1, 2025
Chemicals applied: Huskie 15 oz./A, Axial Star 16 oz./A

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	8.1	8.8	118 #	118 #	53 ppm	301 ppm	209 ppm
Fertilizer applied (lbs/A)	-	-	-	407 #	221 #	52	60	75 lbs/A Elem. S
Total	**1.6**	**8.1**	**8.8**	**525 #**	**339 #**		**-**	**-**

Location Descriptions

Aberdeen Winter Irrigated:

Aberdeen Research & Extension Center
1693 S. 2700 W. Aberdeen, ID

Coordinates: 42°57'22.27"N, 112°49'30.43"W
Elevation: 4404 ft.
Soil Type: Declo loam, 0-2%slopes
Previous Crop: Green Manure Oriental Mustard
Planting Date: October 1, 2024
Harvest Dates: July 30 & August 6, 7, 8, 2025
Chemicals applied: Huskie 15 oz. /A, Axial Star 16 oz./A,

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")	1.0	8.1	8.0	140	140	34 ppm	476 ppm	24 ppm
Fertilizer applied (lbs/A)	-	-	-	340 #	300 #	100 #	50	25 # SO4 + 100 Elem S preplant
Total	**1.0**	**8.1**	**8.0**	**480 #**	**440 #**	**100 #**		**25 # S**

Ririe Winter Irrigated:

Cooperator: Clark Hamilton
Located at HWY 26 and 175 E, South of highway.

Coordinates: 43°36'07.80"N, 111°41'13.66"W
Elevation: 5183 ft.
Soil Type: #42 Ririe Silt Loam, 4-12% slopes
Previous Crop: Potatoes
Planting Date: October 8, 2024
Harvest Date: August 11, 2025
Chemicals applied: Talinor 13.7 oz./ A, MCPA 10 oz, Rezuvant 16 oz./A

Fertility:

	Organic Matter %	pH	Free Lime %	Hard winter wheat N#/A	Soft white winter wheat N #/A	P	K	S
12" soil test results (N & S= 0-24")	1.7	7.9	6.5	261 #	261 #	40 ppm	417 ppm	717 ppm
Fertilizer applied (lbs/A)	-	-	-	190 #	150 #	-	-	-
Total	**1.7**	**7.9**	**6.5**	**451**	**411**	-	-	-

Location Descriptions

Rockland Winter Dryland:

Cooperators: Cory and Jamie Kress
Rockland, ID

Coordinates: 42°23'08.23"N, 112°52'47.24"W
Elevation: 5520 ft.
Soil Type: #51 Newdale Silt Loam, 4-12% slopes
Previous Crop: Fallow
Planting Date: September 25, 2024
Harvest Date: August 4, 2025
Chemicals applied: Huskie 12.8oz/A
Fertility:

	Organic Matter %	pH	Free Lime %	Winter wheat N#/A	P	K	S
Fertilizer applied (lbs/A)	-	-	-	42 #	-	-	-

Soda Springs Winter Dryland:

Cooperator: Dan Lakey
Located south of town on Reservoir road and ½ mile south on Balls Road.

Coordinates: 42°38'27.24"N, 111°38'31.28"W
Elevation: 5768 ft.
Soil Type: 700AA Rexburg, Ririe complex, very deep, cool, 1 to 4% slopes
Previous Crop: Fallow
Planting Date: October 3, 2024
Harvest Date: September 8, 2025
Chemicals applied: Huskie 15 oz/A, Axial Bold 16 oz/A
Fertility:

	Organic Matter %	pH	Free Lime %	Winter wheat N#/A	P	K	S
12" soil test results (N & S= 0-24")	1.7	7.4	<1.0	45 #	32 ppm	366 ppm	97 ppm
Fertilizer applied (lbs/A)	-	-	-	80	20	15	15
Total	**1.7**	**7.4**	**<1.0**	**80**	**20**	**15**	**15**

Location Descriptions

Ririe Winter Dryland:

Cooperator: Trevor Davey / Dave N

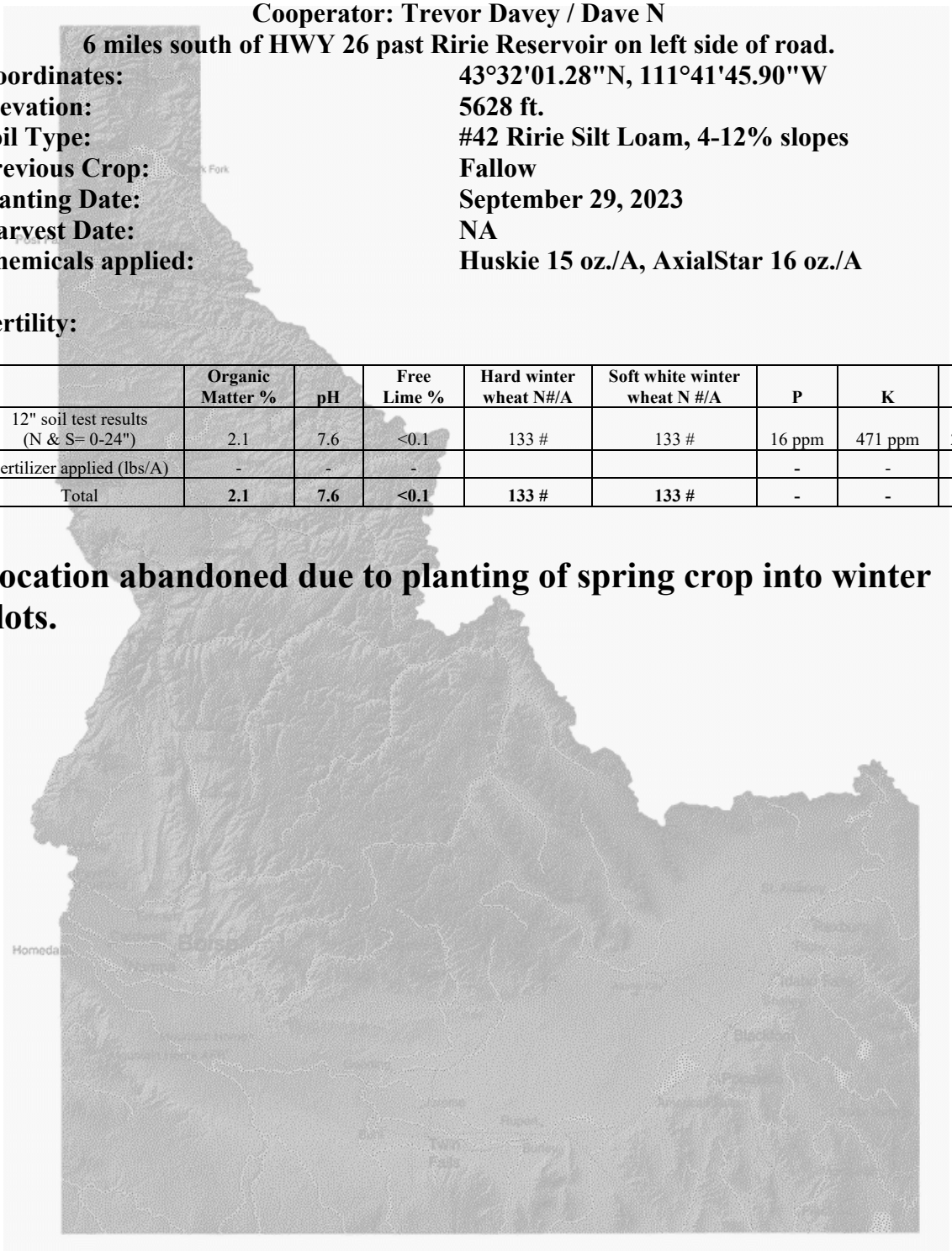
6 miles south of HWY 26 past Ririe Reservoir on left side of road.

Coordinates: **43°32'01.28"N, 111°41'45.90"W**
Elevation: **5628 ft.**
Soil Type: **#42 Ririe Silt Loam, 4-12% slopes**
Previous Crop: **Fallow**
Planting Date: **September 29, 2023**
Harvest Date: **NA**
Chemicals applied: **Huskie 15 oz./A, AxialStar 16 oz./A**

Fertility:

	Organic Matter %	pH	Free Lime %	Hard winter wheat N#/A	Soft white winter wheat N #/A	P	K	S
12" soil test results (N & S= 0-24")	2.1	7.6	<0.1	133 #	133 #	16 ppm	471 ppm	22 ppm
Fertilizer applied (lbs/A)	-	-	-			-	-	-
Total	**2.1**	**7.6**	**<0.1**	**133 #**	**133 #**	**-**	**-**	**-**

Location abandoned due to planting of spring crop into winter plots.



Location Descriptions

Rupert Spring Irrigated:

Cooperator: Taylor Grant, Grant 4-D Farms
700 N 100 E, Rupert, ID

Coordinates: 42°44'56.59"N, 113°32'8.59"W
Elevation: 4273 ft.
Soil Type: #36 Sluka silt loam, 1-4% slopes
Previous Crop: Potatoes
Planting Date: April 9, 2025
Harvest Dates: September 2, 2025
Chemicals applied: Huskie 15 oz/A, AxialStar 16 oz./A,
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")	1.8	8.1	13.0	184	184	66 ppm	276 ppm	79 ppm
Fertilizer applied (lbs/A)	-	-	-	110	70	-	-	24 #
Total	**1.8**	**8.1**	**13.0**	**294**	**254**	**-**	**-**	**24 #**

Aberdeen Spring Irrigated:

Aberdeen Research & Extension Center
1693 S. 2700 W., Aberdeen, ID

Coordinates: 42°57'22.27"N, 112°49'30.43"W
Elevation: 4404 ft.
Soil Type: Declo loam, 0-2%slopes
Previous Crop: Mustard
Planting Date: April 3, 2025
Harvest Date: August 14, 15, & 18, 2025
Chemicals applied: Huskie 15 oz/A, AxialStar 16 oz./A,
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")	1.0	8.1	8.1	221	221	42 ppm	376 ppm	31 ppm
Fertilizer applied (lbs/A)	-	-	-	150	50	50	-	25# SO_4
Total	**1.0**	**8.1**	**8.1**	**371**	**271**	**50**	**-**	**25#SO_4**

Location Descriptions

Idaho Falls Spring Irrigated:

Cooperator: Marc Thiel
Approximately 20 S. on 45th West Idaho Falls, ID

Coordinates: 43°29'1.25"N, 112°07' 25.32"W
Elevation: 4687 ft.
Soil Type: #22 Pancheri silt loam, 0-2% slopes
Previous Crop: Barley
Planting Date: April 10, 2025
Harvest Date: August 20, 2025
Chemicals applied: Huskie 15 oz/A, AxialStar 16 oz./A.
Fertility: Wheat Field

	Organic Matter%	pH	Free Lime %	Hard Spring wheat N#/A	Soft white spring wheat & spring barley N #/A	P	K	S
Wheat								
12" soil test results (N & S= 0-24")	1.5	**8.1**	**10.4**	**184**	**184**	12 ppm	116 ppm	39 ppm
Fertilizer applied (lbs/A)	-	-	-	**150**	110	30#		
Total	**1.5**	**8.3**	**10.4**	**334**	**294**	**30 #**	**-**	**-**

Tetonia Spring Irrigated:

Tetonia Research and Extension Center
888 West Hwy 33 Newdale, Idaho

Coordinates: 43°51'31.55"N, 111°16'39.34"W
Elevation: 6181 ft.
Soil Type: #13517 Kucera–Ririe complex, 0–4% slopes
Previous Crop: Fallow
Planting Date: May 2, 2025
Harvest Date: September 2, 2025
Chemical applied: Huskie 15 oz/A, AxialStar 16 oz./A
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")	1.5	7.8	1.3	112	112	25 ppm	323 ppm	22 ppm
Fertilizer applied (lbs/A)	-	-	-	130	90			
Total	**1.5**	**7.8**	**1.3**	**242**	**202**			**22**

Location Descriptions

Soda Springs Spring Dryland:

Cooperators: Kyle Wangemann and Scott Brown

Location 8 miles north of Soda Springs on Hwy 34.

Coordinates: 42°45'55.53"N 111°33'54.41"W
Elevation: 6171 ft.
Soil Type: 485 AA Foundem – Rexburg very deep complex, 1 to 4 % slopes
Previous Crop: Fallow
Planting Date: April 29, 2025
Harvest Date: September 3, 2025
Chemicals applied: Huskie 12 oz/A, Axial Bold 15oz/A, Starane Ultra 6 oz/A

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")	-	-	-	NA	NA	-	-	-
Fertilizer applied (lbs/A)	7# Zn	-	-	53	53	36#	-	18#
Total		-	-	**53**	**53**	**36#**	-	**18#**

Temperature and irrigation/precipitation totals for all locations, recorded with on-site weather stations provided with financial support from the Idaho Wheat Commission.

Variety Trial Site	Dates of station recording range	Maximum temperature °F	Minimum temperature °F	# of days above 90°F	# of days below 50°F	# of days below 40°F	Spring & Summer Precipitation and Irrigation
Kimberly	May 30 - August 7, 2024	110	33	37	20	6	5.11
Ririe Irrig.	May 17 - August 16, 2024	104	27	20	60	20	12.55
Ririe Dryland	May 17 - August 22, 2024	101	23	30	57	22	1.54
Tetonia	May 16 – Sept. 10,2024	93	24	10	82	37	11.92
Soda Springs Winter	June 12 – August 29, 2024	99	23	24	63	22	2.42
Rupert Spring	July 16 - August 26, 2024	110	37	32	18	1	2.9
Idaho Falls	June 13 - August 28, 2024	102	29	24	53	13	10.16
Aberdeen Winter	May 22 - July 12, 2024	96	28	8	42	15	14.86

Table 1. Released varieties tested in 2024-2025 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						
AP Exceed	11PN039#20	44	10,309	97	2020	AgriPro / Syngenta Cereals
AP Olympia	PN17MM604207	35	12,960	77	2023	AgriPro / Syngenta Cereals
Appleby CL+	ORI2161250CL+	37	12259	82	2019	Oregon State AES
Devote	WA8271	36	12,600	79	2019	Washington AES, USDA
Eltan	WA7431	25	18,144	55	1990	Washington AES, USDA
Gale	OR2180377	39	11,631	86	2024	Oregon State AES
Jameson	WA8290	36	12,600	79	2022	Washington AES, USDA
LCS Blackjack	LWW15-71945	37	12,259	82	2019	Limagrain Cereal Seeds, LLC
LCS Hulk	LWW14-73163	43	10,549	95	2017	Limagrain Cereal Seeds, LLC
LCS Hydra AX		37	12,259	82	2025	Limagrain Cereal Seeds, LLC
LCS Jefe	LWW17-8185	37	12,427	80	2021	Limagrain Cereal Seeds, LLC
LCS Kamiak		45	10,080	99	2024	Limagrain Cereal Seeds, LLC
LCS Kraken AX		39	11,631	86	2025	Limagrain Cereal Seeds, LLC
LCS Reaper II AX		42	10,800	93	2025	Limagrain Cereal Seeds, LLC
LCS Scorpion AX		38	11,937	84	2024	Limagrain Cereal Seeds, LLC
LCS Shine	LCS72916	38	11,937	84	2018	Limagrain Cereal Seeds, LLC
Mallory CL+		40	11,340	88	2025	Oregon AES
Nimbus	OR2130755	46	9,969	100	2022	Oregon State AES
Norwest Tandem	LOR-334	43	10,673	94	2016	OSU / Limagrain Cereal Seeds, LLC
Otto	WA008092	34	13,341	75	2011	Washington AES, USDA
Perrine	WA8415	42	10,800	93	2024	Washington AES/Nutrien Ag
Piranha CL+	WA8305	37	12,427	80	2020	Washington AES, USDA
Rollie	WA8334	34	13,341	75	2022	Washington AES, USDA
Sockeye CL+	WA8306	40	11,340	88	2020	Washington AES, USDA
Stephens	OR65-116	51	8982	111	1977	Oregon AES
SY Assure	04PN096-2	41	11,063	90	2016	AgriPro / Syngenta Cereals
SY Ovation	03PN108#21	37	12,259	82	2011	AgriPro / Syngenta Cereals
UI Sparrow	IDO1108DH	39	11,631	86	2016	Idaho AES
VI Encore	**UIL 17-7706 CL+**	42	10,930	91	2024	Idaho AES / Limagrain Cereal Seeds
VI Gem	UIL13-046145A	33	13,957	72	2024	Idaho AES / Limagrain Cereal Seeds
VI Shock	UIL15-72223	32	14,175	71	2020	Idaho AES / Limagrain Cereal Seeds, LLC
WB1529	BZ6W07-436	34	13,341	75	2013	Bayer Crop Science / WestBred
WB1621	---	39	11,782	85	2022	Bayer Crop Science / WestBred
WB1783	BZ6W09-471	44	10309	97	2016	Bayer Crop Science / WestBred
Hard Red and White (W) Winter Wheat						
ArTek	Apst-52	39	11631	86	2024	Nutrien Ag
CS Bridger CLP		27	16800	60	2024	Circle S Seeds
Curlew	UT9325-55	40	11340	88	2009	Utah AES, USDA
Flathead	MT1564	43	10,549	95	2019	Montana AES
FourOSix	MT1462	41	11063	90	2018	Montana AES
Greenville	UT9743-42	41	11,063	90	2011	Utah AES, USDA
Irv (W)	OR2110679	36	12600	79	2018	Oregon AES
Juniper	IDO 575	36	12,600	79	2005	Idaho AES, USDA
Kairos	T44	40	11,340	88	2021	Highland Specialty Grain
Keldin	ACS55017	46	9969	100	2011	Bayer Crop Science / WestBred
LCS Blackbird	LWH18-0122	42	10,800	93	2022	Limagrain Cereal Seeds, LLC
LCS Jet	NSA 7208	42	10,800	93	2015	Limagrain Cereal Seeds, LLC
LCS Missile	LWH19-0192	39	11782	85	2022	Limagrain Cereal Seeds, LLC
LCS Rocket	NSA10-2196	35	12960	77	2018	Limagrain Cereal Seeds, LLC
Milestone	ACS14132-412	40	11,340	88	2020	Nutrien Ag
Millie (W)	OR2130118H	40	11340	88	2021	Oregon State AES
MT Meadowlark	MT2068	28	16200	62	2024	Montana AES
NuMont	MT1491	39	11,631	86	2023	Montana AES
Promontory	UT1567-51	36	12,600	79	1990	Utah AES, USDA
Rubicon	Apst-132	44	10,428	96	2025	Nutrien Ag
Scorpio	WA8268	35	12960	77	2019	Washington AES, USDA
Sequoia	WA8180	36	12,777	78	2015	Washington AES, USDA
UI SRG	IDO656	44	10,309	97	2012	Idaho AES, USDA
Utah 100	UT000150	30	15,120	66	1996	Utah AES, USDA
WB4303	---	40	11340	88	---	Bayer Crop Science / WestBred
WB4401	XC4109	40	11,340	88	2019	Bayer Crop Science / WestBred
WB4422	---	40	11,340	88	2022	Bayer Crop Science / WestBred
WB4445CLP	---	32	14175	71	2024	Bayer Crop Science / WestBred
WB4510CLP	XD4201	40	11,340	88	2017	Bayer Crop Science / WestBred
WB4640	---	23	19,552	51	2024	Bayer Crop Science / WestBred
WB4733CLP	---	32	14,175	71	2023	Bayer Crop Science / WestBred
WB4739AX	---	42	10930	91	2023	Bayer Crop Science / WestBred
Yellowstone	MT00159	52	8,723	115	2005	Montana AES

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

Table 1 (cont'd). Released varieties tested in 2025 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 Spring Wheat						
Alturas	IDO526	40	11,340	88	2002	Idaho AES, USDA
Bush	WA8351	48	9,450	106	2024	Washington AES, USDA
Butch CL+	WA8354CL+	44	10,309	97	2023	Washington AES, USDA
Louise	WA7921	52	8,723	115	2004	Washington AES, USDA
Roger (club wheat)	WA8235	44	10,309	97	2022	Washington AES, USDA
Ryan	WA8214	40	11,340	88	2016	Washington AES, USDA
Seahawk	WA8162	40	11,340	88	2015	Washington AES, USDA
Soda	WA8327	50	9,072	110	2025	Washington AES, USDA
Tekoa	WA8189	34	13,341	75	2016	Washington AES, USDA
UI Cookie	IDO1405S	36	12,600	79	2019	Idaho AES, USDA
UI Stone	IDO599	36	12,600	79	2012	Idaho AES / Limagrain Cereal Seeds
UI Warrior	IDO1902S	47	9,755	103	2024	Idaho AES, USDA
WB6211CLP	XD6305	54	8,400	119	2020	Bayer Crop Science / WestBred
WB6430	BZ608-125	36	12,777	78	2013	Bayer Crop Science / WestBred
Hard Red Spring Wheat						
Alum	WA8166	48	9,450	106	2015	Washington AES, USDA
Choteau	MT9920	36	12,600	79	2003	Montana AES
CP3530	---	36	12,600	79		Land O'Lakes
CP3915	---	32	14,175	71		Land O'Lakes
CP5555	---	36	12,600	79		Land O'Lakes
Dagmar	MT1621	32	14,175	71	2019	Montana AES
Expresso	DA984-034SRR	40	11,340	88	2006	Bayer Crop Science / WestBred
Glee	WA8074	40	11,340	88	2012	Washington AES, USDA
Hale	WA8315	44	10,309	97	2022	Washington AES, USDA
Holmes	BZ917-221	40	11,340	88	2023	Nutrien Ag Solutions
HSG Timberline	---	42	10,800	93		Highland Specialty Grain
Jefferson HF	IDO462	36	12,600	79	2020	Idaho AES, USDA
LCS Boom	LARR19-0024	38	11,937	84	2022	Limagrain Cereal Seeds, LLC
LCS Hammer AX	LARA18-90008	34	13,341	75	2022	Limagrain Cereal Seeds, LLC
LCS Sentry		37	12,259	82		
MT Carlson	MT1939	34	13,341	75	2023	Montana AES
MT Ubet	MT2030	34	13,341	75	2024	Montana AES
Net CL+		44	10,309	97		Washington AES, USDA
WB9668	BZ908-552	30	15,120	66	2013	Bayer Crop Science / WestBred
WB9707	XC9304	50	9,164	109	2019	Bayer Crop Science / WestBred
WB9724CLP	---	42	10800	93	---	Bayer Crop Science / WestBred
WB9749	---	36	12,600	79	2024	Bayer Crop Science / WestBred
WB9879CLP	IMICHT79	36	12600	79	2011	Bayer Crop Science / WestBred
Hard White Spring Wheat						
Alzada (durum)	YU894-75	48	9,450	106	2003	Bayer Crop Science / WestBred
Tiburon (durum)		56	8,100	123		
WB8148 (durum)	MTD18148	48	9,450	106	2024	MSU, MAES and Bayer Crop Science / WestBred
Dayn	WA8123	38	11,937	84	2012	Washington AES / AgriPro /Syngenta Cereals
SY Teton	SY10136	46	9,861	101	2015	AgriPro / Syngenta Cereals
UI Gold	IDO1804S	41	11,063	90	2022	Idaho AES
UI Platinum	IDO694C	42	10,800	93	2014	Idaho AES, Anderson Group
WB7202CLP	XA7320	42	10,800	93	2017	Bayer Crop Science / WestBred
WB7313	---	48	9,450	106	2020	Bayer Crop Science / WestBred
WB7589	BZ9S09-0735W	44	10,428	96	2014	Bayer Crop Science / WestBred
WB7696	XB9512	39	11,631	86	2018	Bayer Crop Science / WestBred
WB7747	---	33	13,745	73	2024	Bayer Crop Science / WestBred

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

Table 1 (cont'd). Released varieties tested in 2025 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
Two-Rowed Spring Barley							
Feed	Altorado	BZ509-601	56	8,100	99	2016	Highland Specialty Grains
Feed	Ascent	HO516-429	36	12,600	63	2025	Highland Specialty Grains
Feed	Carleton	HO517-245	52	8,723	92	2023	Highland Specialty Grains
Feed	Champion	YU501-385	50	9,072	88	2007	Highland Specialty Grains
Feed	Claymore	BZ509-216	54	8,400	95	2015	Highland Specialty Grains
Feed	Rulon	UTSB10905-72	52	8,723	92	2023	Utah AES
Feed	Successor	DH190481	54	8,400	95	2023	Oregon State University
Food	Goldenhart[2]	2Ab09-X06F058HL-31	42	10,800	74	2018	Idaho AES, USDA
Food	Kardia	2Ab09-X06F084-51	46	9,861	81	2016	Idaho AES, USDA
Food	Transit[2]	03AH3054-51	46	9,861	81	2010	Idaho AES, USDA
Malt	ABI Eagle	2B11-4949	48	9,450	85	2018	Busch Agricultural Resources, LLC, Ft. Collins, CO
Malt	ABI Raptor	2IM14-8212	48	9,450	85	2022	Busch Agricultural Resources, LLC, Ft. Collins, CO
Malt	ABI Voyager	2B03-B3719, TR09402	42	10,800	74	2011	Busch Agricultural Resources, LLC, Ft. Collins, CO
Malt	BC Lexy		50	9,072	88		Limagrain Cereal Seeds, LLC
Malt	CDC Clear	HB08304	55	8,247	97	2013	CDC University of Saskatchewan/ SeCan
Malt	CDC Copeland	TR150	52	8,723	92	1999	CDC University of Saskatchewan/ SeCan
Malt	CDC Fraser	TR12135	50	9,072	88	2018	CDC University of Saskatchewan/ SeCan
Malt	Esma	---	54	8,400	95	---	Ackermann Saatzucht GmbH & Co. KG
Malt	GemCraft	2Ab08-X05M010-65	44	10,309	78	2018	USDA ARS, Idaho AES
Malt	KWS Acantis	2017	50	9,072	88	2025	KWS Cereals
Malt	KWS Enduris		40	11,340	71	2024	KWS Cereals
Malt	KWS Kayas		62	7,316	109		KWS Cereals
Malt	LCS Genie	---	48	9,450	85	2011	Limagrain Cereal Seeds, LLC
Malt	LCS Odyssey	NSL08-4556-A	54	8,400	95	2015	Limagrain Cereal Seeds, LLC
Malt	LG Slovan		52	8,723	92	2017	Limagrain Cereal Seeds, LLC
Malt	Moravian 69	C69	50	9,072	88	2005	Molson Coors Beverage Company
Malt	Moravian 179	C10-116-201	54	8,400	95	2019	Molson Coors Beverage Company
Winter Barley							
Malt	ABI Magic	2W114-7577	43	10,549	76	2023	Busch Agricultural Resources, LLC, Ft. Collins, CO
Malt	BC Clementine	---	55	8,247	97	---	Limagrain Cereal Seeds, LLC
Malt	BC Fay	---	47	9,651	83	---	Limagrain Cereal Seeds, LLC
Malt	KWS Donau	---	54	8,400	95	---	KWS Cereals
Malt	LCS Calypso	---	54	8,400	95	2017	Limagrain Cereal Seeds, LLC
Malt	Thunder	10.0777	48	9,549	84	2016	Oregon AES, USDA
Malt	Top Shelf	DH162310	53	8,558	93	2024	Secobra / Agrii UK / Scoular
Malt	Wintmalt	---	50	9,072	88	2014	KWS Lochow
Malt	KWS Antonis		66	6,915	116	2024	KWS Cereals
Malt	KWS Chillis		42	10,800	74	2024	KWS Cereals
Malt	KWS Tardis		84	5,400	148	2021	KWS Cereals
Feed	Memento	---	52	8,723	92	2017	Scoular
Feed	UT10201	UTWB10201	32	14,175	56	2017	Scoular
Food	Upspring[2]	05ARS748-270	42	10,800	74	2018	Idaho AES, USDA

[1]Adjusted to plant 800,000 seeds per acre under irrigation according to the number of seeds per pound for each variety.
[2] Hulless barley

NOTES

RESULTS AND DISCUSSION

Planting Conditions, 2024-2025
September rains provided some moisture for planting of fall seeded crops. Dryland plots emerged fair to well after seeding and were well-established prior to winter. October and November were below average in precipitation, resulting in low subsoil moisture conditions. At Aberdeen, fall precipitation was much lower than long-term averages (see Chart 1a), requiring fall pre-irrigation and additional irrigation after planting.

Spring planting conditions were generally good for stand establishment of spring grain, and soil moisture was adequate to dry depending on location. Early irrigation was needed for optimum crop health. A cool spring with consistent temperatures resulted in good emergence and plant growth.

Weather
Higher than average moisture in December and February improved soil moisture and added to mountain reserves. Winter conditions were good with little to no winter damage in irrigated fields. Dryer than average conditions have continued since 2021, with annual growing year 2024-25 precipitation recorded as 5.86 inches (Chart 1b) at the Aberdeen R&E Center. The growing degree days were average for the fall, with the fall-planted crop entering the winter with slightly higher than average Growing Degree Days (GDD) accumulation (Chart 1c). Spring temperatures were low through May, and temperatures remained at average through the summer with few high temperature extremes. The total GDD

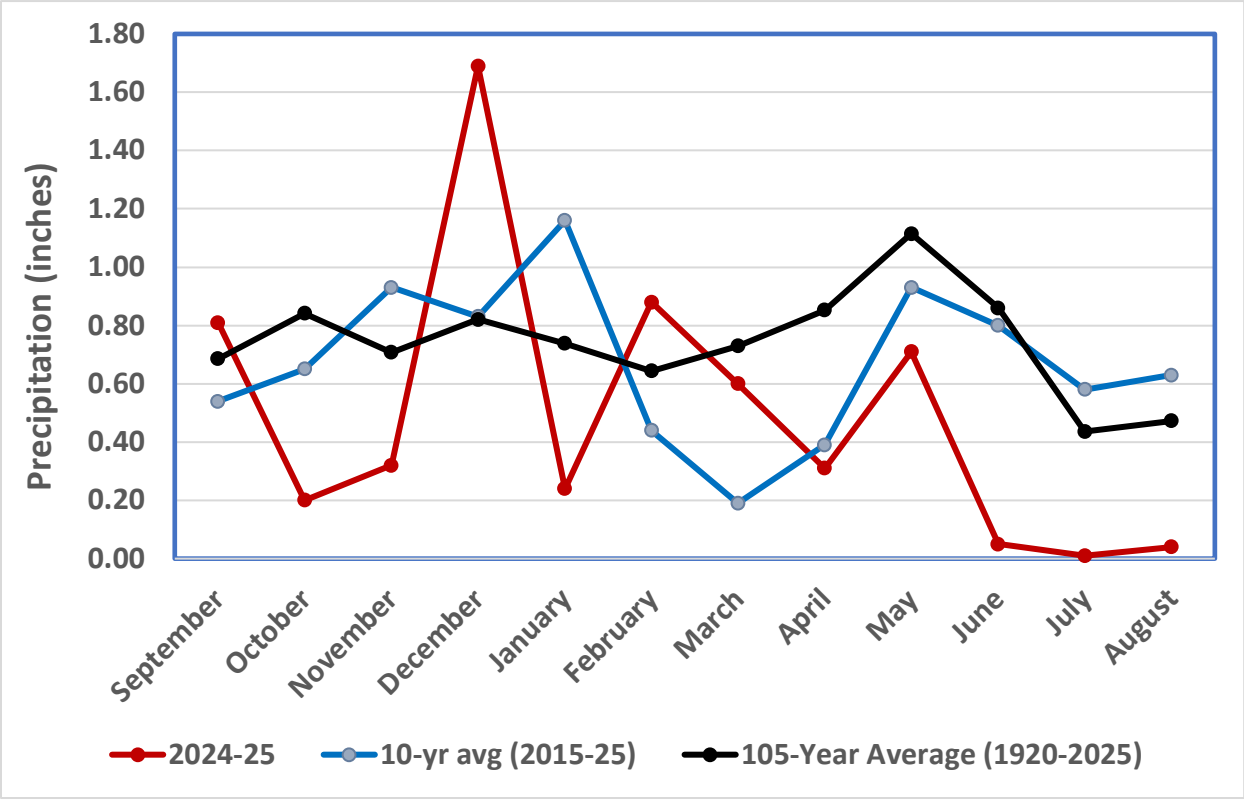


Chart 1a. 2024-2025 growing year precipitation recorded at Aberdeen, ID, versus 10-year and 105-year averages. Source: NWS & Agrimet data.

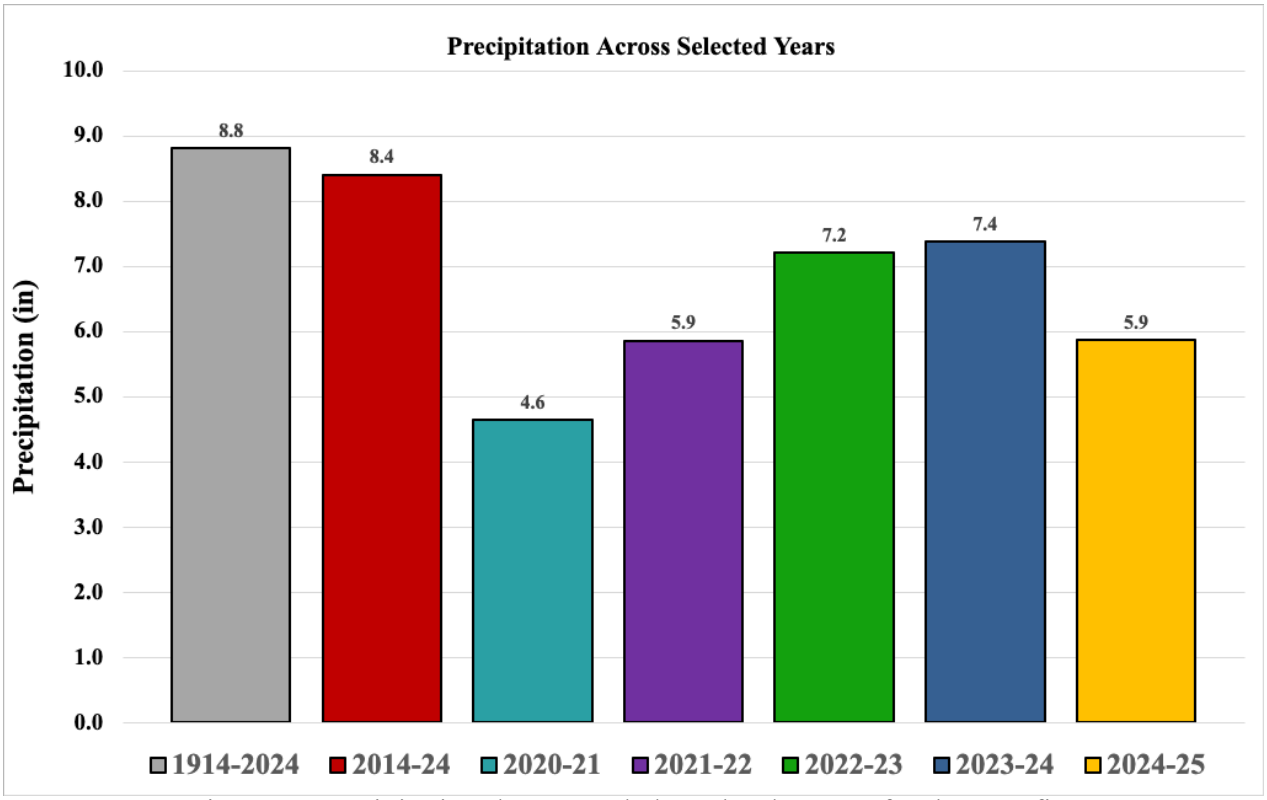


Chart 1b. Growing year precipitation data recorded at Aberdeen, ID for the past five years, versus the 11-year (2014-2024) and 110-year averages (1914-2024). Source: Agrimet data.

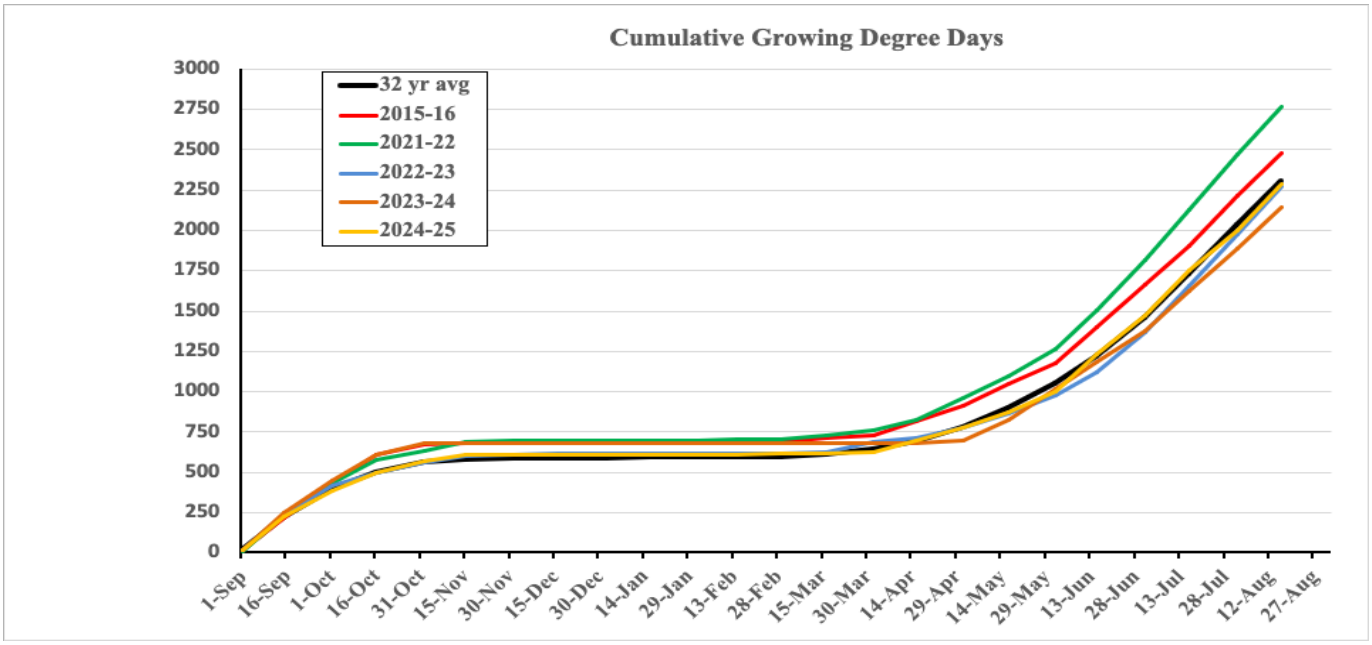


Chart 1c. Growing Degree Days (GDD) data recorded at Aberdeen, ID, in 2025 versus 2016, 2022, 2023, 2024 and 32-year averages. 2025 GDD (in gold) closely follows the 32-year average (in black) and is difficult to see. Source: Agrimet data.

accumulated in 2025 were similar to the 32-year average (Figure 1c).

Growing conditions were excellent for cool season crops, and winter wheat, winter barley and spring barley yields were excellent (see Table 3, page 66). Low temperatures (28-29 degrees F) and severe frost conditions occurring on June 21 resulted in significant yield losses for both winter wheat and spring grains in Soda Springs and other upper elevation areas. Winter wheat fields near Soda Springs were at flowering, and cold temperatures resulted in significant damage and low yields.

Heading dates of winter and spring wheat were 5-6 days earlier than the previous 10-year average, with spring barley 4 days earlier than the 10-year average (Table 3). Consistently cool nights and daytime temperatures without extreme heat events resulted in excellent grain fill conditions.

Natural precipitation was below the 10-year and 107-previous year averages in almost every month except September, December and February. Low rainfall in June through August resulted in excellent harvest conditions and low to no sprout damage (Chart 1b). The results of falling number tests can be found in 2025 tables and our website. Low FN results for any variety in 2025 is likely a reflection of LMA associated issues or partial waxy endosperm and not sprout damage.

Over all locations (Table 3), yields were significantly greater than the 10-year average for winter wheat (20 bu/A), and almost at the lowest of the 10-year average for spring wheat (likely due to low soil moisture and dry spring conditions after planting). Yields for spring barley were at average in these trials, with very high yields in commercial production. Test weights for winter cereals was excellent, and average to below average for spring grain. Plant heights were at 10-year averages for winter wheat, 1 inch greater for spring wheat and at average for spring barley. Lodging was less than average for spring wheat and for spring barley.

Of the grain that survived frosts, test weights were excellent for winter wheat. Test weights were at or slightly below average for spring crops. With spring barley test weight grading at 48 lbs/bu for #1 grade, spring barley test weight in the southeastern Idaho area is consistently at or greater than 50 lbs/bu. Barley test weight in 2025 average 51.7 lbs/bu.

Crop quality was considered good to excellent with very little damage from Fusarium head blight (FHB) and very low to no vomitoxin levels detected overall. Standard practices of fungicide application in fields of grain planted after corn reduces FHB and levels of DON (deoxynivalenol or vomitoxin associated with FHB infection), and overall due to the dry conditions, FHB disease levels were low. Some areas near corn production did have DON contamination above threshold levels (>0.5 ppm), resulting in rejected barley for malt useage.

Disease and Insect Problems

Major insect and disease issues were limited. Very little wireworm damage occurred, and cereal leaf beetles were responsible for low levels of leaf damage during the season. There were low levels of stripe rust reported very late in the growing season in southern and eastern Idaho, and bacterial leaf streak (Xanthomonas) occurred frequently in eastern Idaho without significant yield loss. Physiological leaf spot

(PLS) was not identified as a problem in 2025.

There was low levels of snow accumulation and very little winter wheat was damaged by snow mold. Overall, foliar diseases were low as compared to previous years although black chaff and bacterial streak were widespread. Infection with *Xanthomonas* often occurs earlier in the season facilitated by hail or sleet events, then develops rapidly as the temperature increases during the summer and then spreads via irrigation. There is very little that can be done to prevent or reduce the disease as fungicides are completely ineffective on bacterial diseases. Reducing frequency of irrigation and increasing amount of irrigation per center pivot rotation is supposed to reduce how fast the disease spreads with splashing water. Clean seed is also supposed to reduce likelihood of transmission to additional fields; however, these bacterial strains are everywhere, and frost, sleet or hail events are unpredictable and uncontrollable. Effective measures to reduce the disease are often not practical nor possible when environmental conditions are conducive for infection and spread.

Wireworms (of various species) were damaging in only limited areas across the region, in many years reducing stand and yield of spring wheat and barley in dryland production. As the soils quickly became dry and warmed as the season progressed, damage dropped as the wireworms buried deeper into the soil. In general, winter grain could be used to avoid wireworm damage as wireworms are less active in warmer, drier soils when winter wheat would be planted. However, seedling emergence in fall dry soils is problematic, and winter kill increases under cold and dry conditions, especially for winter barley. Many insecticides applied as seed treatments reduce but do not control wireworms and the resultant feeding damage. Newer insecticides offer much better protection and are insecticidal, reducing wireworm issues over the past several years.

Wheat Stem Sawfly (*Cephus cinctus* Norton) was not damaging in dryland spring grain as in previous years. The discovery of Hessian fly (*Mayetiola destructor* Say) in southern Idaho in 2015 raised a great deal of concern, as many of our currently grown varieties are not Hessian Fly resistant. The Hessian fly larvae were discovered in late-planted spring wheat in the Parma area, although wireworm may also damage spring barley. There was a second report of Hessian fly in 2021 occurring in volunteer wheat near Parma. Thankfully, Hessian fly has not yet become a problem in our production areas.

Volunteer grain continues to contribute to some green bridge conditions. Usually, early planted winter wheat and barley suffer from barley yellow dwarf (BYD) and wheat streak mosaic virus (WSMV) infections, but many producers have the equipment necessary to avoid having to plant too early to get all their acreage planted. There was a long dry break between spring harvest in 2023 and 2024, and the subsequent planting of the winter crop, which significantly reduces the green bridge risk.

Stripe rust (*Puccinia striiformis* f.sp. *tritici*) Stripe rust did not infect susceptible varieties of fall-planted wheat, and there was no disease carryover to the spring. Some susceptible spring wheat became infected very late in the season and would have benefited from fungicide applications post-heading. Actively scouting fields of susceptible varieties is highly recommended to identify infection as early as possible. Fungicides can then be applied to prevent

yield loss especially should stripe rust infect wheat plants prior to flowering. Susceptible varieties, such as Brundage soft white winter wheat, may need two fungicide applications to control stripe rust in high pressure years. Two-rowed barleys tend to have greater levels of resistance to stripe rust than do the six-rowed varieties, although barley stripe rust contributed to significant infections in 2024 in two-rowed malt barley "Voyager."

Reported from Dr. Xianming Chen (USDA-ARS in Pullman, WA) in 2025: Four different stripe rust races were detected from 15 wheat isolates (PSTv-4(20.0%),PSTv-37(53.33%),PSTv-39(13.33%),PSTv-325(13.33%). In 2025 and 2024, Race PSH-97 was identified in barley (virulent on Topper, Abed Binder 12, and Bancroft), first detected from Ecuador samples and first detected in the US in 2020 from two California samples and one Idaho sample. In 2021, it was detected from only one sample from California. It was not detected in 2022 but was detected from one California sample in 2023.

Barley scald (*Rhynchosporium secalis*) did not reach damaging levels in 2025 and foliar disease throughout the region was limited on barley. In most years, low levels of early season scald infection do little to affect the barley crop and can be ignored. Previous years (2009-2011) were not by any means typical, and scald ran rampant in fields in 2009 where application of fungicides would have prevented significant crop loss. This will be a disease to watch in future years, especially as production of winter barley increases the chances of high levels of disease developing which then may affect early development in spring barley. Barley scald will also increase in minimum and no-till situations where the fungus may reside in residue.

Snow mold *(Typhula spp.)* occurs during long periods of snow cover when snow falls on unfrozen soil. Stand of winter wheat in upper elevation areas was not significantly affected in 2020 through 2025. In 2019 wheat stands were reduced 75-100% in production fields around Ashton. Those fields were replanted with spring grain. Even though some higher elevation areas recorded record-long snow cover, snow mold did not significantly reduce yield.

Strawbreaker foot rot (formerly *Pseudocercosporella herpotrichoides* now *Ocumacula yallundae* and *O. acuformis*) is a stem-based disease usually found in winter wheat and barley, but in some years can be found in spring grains. Strawbreaker, also called eyespot, occurred throughout the production region in 2019 and 2020, and in 2020 and 2022 was as prevalent in spring grain as in in winter grain. Infection occurs from residue-borne fungi when there is excess moisture, humidity and cool temperatures through the winter and spring. Characteristic elliptical lesions form at the lower nodes of the stem, weakening the tiller and increasing lodging. This disease is exacerbated by heavy seeding rates, rainy spring conditions and successive years of grain production. High rates of nitrogen fertilizers also promote the disease, especially when applied alone without other 'balancing' nutrients. The most effective means of reducing this disease is through crop rotation. However, if detected early in the spring, this disease is reduced with the application of benomyl fungicides like Benlate, Topsin M, or Mertect.

***Fusarium* spp.** causing foot rot, some *Rhizoctonia* **spp.** and **Take-all** (*Gaeumannomyces graminis* var. *tritici*) occurs frequently in grain following grain. Fusarium infection occurs in deficit moisture conditions early to mid-season

under dryland conditions and occurs where irrigation was not increased to compensate for moisture deficits. Due to the dry fall / winter springs conditions, there weren't many reports of take-all, which often occurs in over-irrigated and thickly seeded fields. Spring grain fields were seeded into dry soils, and Pythium and Rhizoctonia infections were limited. Some fields of barley had Rhizoctonia infections occurring after volunteer plants were killed with herbicide immediately after to planting. It is highly recommended to eliminate volunteer grain in the fall prior to winter setting in, or at least two to *three* weeks prior to spring sowing. Later planting reduces spring yield and quality, but substantial and greater yield reductions occur with soil-borne diseases in grain following grain. Diseases that spread from dying grain can cause a great deal of damage to the developing roots and seedlings of the newly planted crop, reducing tillering, water and nutrient uptake.

Rhizoctonia infections can occurr in production fields where wheat followed wheat but were not reported as problematic in 2025. Symptoms are more severe with heavier wheat straw residue leading to reduced stands in affected areas, with the cool wet springs exacerbating the severity. Symptoms include stunting and yellowing of plants, fewer tillers and leaves with yellow stripes that resembled nutrient deficiencies. Best management practices include crop rotation and even distribution of straw at harvest with combine choppers / spreaders.

Pythium this year was not damaging to winter wheat and early planted spring wheat and barley. Pythium can be very damaging to early planted spring grain when rains and cool temperatures followed planting, which was definitely an issue in 2019 but less so in 2020 and 2021. Conditions were not optimal for Pythium in 2024 or 2025. Seed treatments (with metalaxyl, mefenoxam and / or ethaboxam) can prevent or reduce infection of vulnerable seedlings. There are strains of Pythium with resistance to metalaxyl / mefenoxam, that do not show resistance to ethaboxam fungicide.

Overall, growing conditions in 2025 were not conducive to widespread grain infections of **Fusarium head blight (FHB)** (also called Head Scab, causal organisms *Fusarium graminearum* and other *Fusarium* spp.). FHB infections were found in spring barley fields in the Minicassia production regions near Rupert. Hot and dry conditions at flowering were not favorable for infection in spring grains. Low levels of DON occurred in grain that was planted in fields following corn or in production areas with high corn acreage. A significant problem in 2015, FHB reduced yields and contaminated grain with toxins over multiple years - in 2011, 2012, 2014 and 2015. In 2015, *Fusarium graminearum* was widespread but **was not** restricted to where wheat follows corn production. Spores formed on corn residue can travel many miles in the wind.

This disease also can be severe where spring grain followed corn, as the fungus reproduces extensively on corn residue. Rejectable levels of deoxynivalenol toxin, (abbreviated as DON and also called VOM, short for vomitoxin), which is a by-product of the fungal infection process, resulted in contaminated malt barley in 2015. While it is consistently an issue in isolated fields in many years, the severity is usually limited in our area due to hot, dry environments. It is highly recommended that irrigated spring grain be treated with an appropriate fungicide at flowering to reduce infection, especially when a hard white or hard red spring wheat or barley follows corn production. Even in 2019 and 2025 where conditions did not favor FHB, low levels of

DON (less than 2 PPM) were found in barley following corn or near areas where corn residue exists. In 2024 and 2025, there were very few reported cases of FHB or DON being problematic in spring wheat or spring barley. For prevention, it is essential that a **triazole** fungicide be utilized, as strobilurin fungicides are ineffective in reducing the accumulation of toxins.

The **"Spot Form of Net Blotch**" (SFNB) of barley *Pyrenophora teres* f.sp. *maculata* was first diagnosed in a few fields near Blackfoot in 2013. In 2014, SFNB became severe in many areas throughout Idaho and Montana. This disease occurs widely in North Dakota and the upper Mid-West, reducing yields by up to 50% and grain weight by 20%. SFNB was still problematic in 2019, especially in no-till situations, but was not as severe as in 2015. Areas that have reduced tillage and low crop diversity are at increased risk as this disease survives in barley stubble. Some varieties are more susceptible than others. Crop rotation and fungicide applications significantly reduce the impact of this disease. Fields that had been sprayed with fungicides at herbicide timing have been observed to have significantly less disease. Additional testing to develop control recommendations in our environment is required, but infections and damage since 2019 has been very low.

Cereal cyst nematode (*Heterodera avenae*) (CCN) damage was extensive in spring wheat and spring barley fields in the northern Snake River Plain, with visible damage in crops from Rexburg, Plano, and St. Anthony through the Ashton area. CCN affects all grassy crop species and can even infect grassy weeds. Research conducted in St. Anthony with Dr. Richard Smiley (Professor Emeritus, Oregon State University) identified resistant and tolerant varieties of spring wheat and barley and results were published in 2015. CCN screening trials have been conducted in a heavily infested field west of Rexburg and in the St. Anthony area. Crop rotation to broadleaf crops will substantially reduce CCN populations in the soil and subsequent damage to spring grain.

Green Bridge

A "green bridge" is generally defined as the overlap of different cropping cycles (or crop generations) within a year. This means there is the constant availability of living, green host material of a given crop. This occurs in many locations in southern and southeast Idaho for several reasons: 1) late maturing tillers (as occurred in 2010) of winter wheat stay green and grow even after harvest; 2) windy conditions causes shattering of spring grains (as in 2010) prior to complete maturity of the crop; 3) hailstorms induce shattering of grains prior to crop maturity. Shattered grain germinates and results in the continuous presence of living host material, which means there is a constant supply of host plant material for disease-causing organisms and insects; and 4) In most years, volunteer grain blown out of the combine at harvest germinates and provides a green bridge, increasing the likelihood and risk of higher disease and insect problems for the next growing season. Many growers use the volunteer growth as feed or forage for livestock, but that can result in extensive carryover of pathogenic organisms from year-to-year. In years like 2019, 2020, 2021, 2024 and 2025 where conditions are very dry in June, July, August and September, green bridge situations are less of a problem as there is little moisture for germination, unless irrigation is applied to stimulate germination of residual seed.

Other green bridge examples include heavy, unusual rains in August of 2014 prior to harvest, which resulted in extensive losses due to sprout but also set up green bridge

conditions when grain shattered and germinated before harvesting could occur. Because of the green bridge, aphids and certain disease-causing organisms can jump to the emerging winter crop, causing direct damage and / or transmitting viruses. In 2015, many growers irrigated the volunteer for forage. With an early harvest and a long warm fall of 2015, the volunteer from the spring crop was in grain fill prior to a killing frost in November. The green bridge situation resulted in extensive BYD and stripe rust infection in the fall volunteer.

In the fall of 2014, 2015 and 2016, high populations of aphids moved into the earliest emerging winter wheat and barley, contributing to a widespread occurrence of BYD in southern Idaho. Corn is a 'silent' host of barley yellow dwarf virus, hosting high concentrations of the virus without symptoms or damage to corn. Late in the fall season, aphids (especially English grain aphids and Bird-cherry oat aphids) move from corn to winter cereals, landing on the newly emerged grain and transmitting the virus to the new crop. Aphid populations may build up before a killing frost occurs. Severe stunting and yellowing of grain become apparent in the spring, resulting in yield reductions of over 50% in the most severely affected fields. However, in the springs of 2017 through 2021, lower levels of fall transmission occurred due to dry summers, delayed fall planting, use of insecticidal seed treatments and excellent growing conditions, preventing widespread losses from BYD.

2025 Report: Discussion of Location Conditions and Results

Following five years of below-average precipitation, subsoil moisture was very low. In 2022, dry patchy areas in production fields became evident when maximum evapotranspiration occurred during grain fill. There were no soil moisture reserves when higher temperatures hit in June, July and August. Spring grains were damaged the most, resulting in lower test weights and shriveled grain. In contrast, even with limited subsoil moisture the cool spring in 2024 provided good grain production environment, reducing crop stress and resulting in good test weight. Again with very low soil moisture reserves in 2025, temperatures were more "average" with no sudden temperatures swings or extended periods of high temperatures, and grain fill was consistent and steady, resulting in excellent yield potential for winter and spring grains.

NASS within the USDA reports Idaho 2025 planted wheat acres at 1.215 million acres, of which 1.14 million were harvested. For spring wheat, 420,000 acres were harvested of the 435,000 acres planted with an average yield of 84 bu/a (as compared to 2024 at 89 bu/A). For winter wheat, 720,000 acres were harvested of the 780,000 acres planted with an average yield of 99 bu/A (as compared to 2024 at 89 bu/A).

For barley, 490,000 of 520,00 acres planted in 2025 were harvested (NASS) for a total harvest of 54.88 million bushels (compared to 55.59 million bushels in 2024, 60.48 million bushels in 2023, and 59.9 million bushels in 2022). The majority (75%) of barley acres are produced under irrigation. The average yield in the state was reported as 112 bu/A, (compared to 109 bu/A in 2024, 112 bu/A in 2023 and 111 bu/A in 2022). Idaho produced 39% of the 2025 US barley crop. See the following websites: https://www.idahobarleycommission.org/ and https://www.nass.usda.gov/Statistics_by_State/Idaho/index.php

It is best to consider three year or multiple year, multiple site averages when choosing varieties for your specific location. Conditions vary tremendously from year to year, and one-year results can often be misleading. Yield stability and disease reactions often require many years and/or locations of evaluations. Balance selections based on yield, good test weight, protein levels appropriate to market class (low protein for soft wheats, high proteins for hard wheats) as well as disease resistance specific to your production zone. While the multiple location/three-year average data presented in the Tables provide more accurate information, new varieties will have limited performance information, which may not be a good reflection of long-term performance.

Protein Targets
Hard Red Winter Wheat = 12.5% minimum
Hard Red Spring = 14.0% minimum
Soft White Winter = 10.5% (9-12%)
Soft White Spring = 10.5% (9-12%)
Club wheat <10%
Malt Barley = 9.5-12.5%

Keldin + 11-52-0 – In-furrow fertilizer was added to one variety in the hard winter group to test the effect of starter fertilizer on yield. (Monoammonium phosphate or 11-52-0 at 20 lbs phosphate per acre was included in-furrow.) In Table 4, Keldin was 2 bu/A greater than Keldin +11-52-0 with the starter fertilizer which is not statistically different. Table 4 included three years of data over multiple irrigated sites. Other agronomic traits were very similar indicating no effect of starter fertilizer. Under dryland conditions (Table 5), Keldin + 11-52-0 was 2 bu/A greater than Keldin without 11-52-0. The impact of starter fertilizer is often greater under dryland conditions where there is usually not a lot of excess nutrients left from the previous crop.

WINTER GRAIN RESULTS

Winter Wheat 3-Year Averaged Data

Three-year averages of hard winter wheat over **all irrigated locations** (Table 4, 11 site-years) put HSG124, WB4640, LCS Jet, WB4401, WB4303 with 157, 156, 155, 155, and 154 bu/A, respectively. Test weights were good, averaging 60.3 lbs/bu. The protein target for hard red winter wheat is 12.5%, and these trials results averaged lower protein (11.8%). Most of the lower yielding varieties had enough residual soil and applied nitrogen to meet protein goals, but the higher yielding varieties would require additional protein to hit desired targets.

Averaged over all 2025 irrigated locations, the highest yielding **hard winter wheat** varieties (Table 6) were WB4640, (170 bu/A), HSG124 (169 bu/a), WB4303 (168 bu/A), Keldin (168 bu/A at 1.5 seeding rate), LCS Rocket (167 bu/A), LCS Jet (167 bu/A) with LCS Rocket having <60 lb test weight and lower grain protein than the other high yielding varieties with no lodging. Test weight in 2025 was very good due to optimal grain filling conditions and low heat stress. There was no location with sprout damage from late-season rain. Heading dates in 2025 were 2 days earlier than in 2024. Dryland locations in 2025 headed up to 8 days earlier than 2024. WB4640, as the highest yielding named hard red winter variety (irrigated), headed at the average for the irrigated trials, was 1 inch taller and had 11.9% protein and 63.0 lbs/bu test weight.

Average 3-year dryland yields for hard red and white winter (Table 5) were 28 bu/A, where the top yielding varieties included Keldin (34 bu/A), Yellowstone (32 bu/A), FourOsix (31 bu/A), Curlew,

Sequoia, and LCS Missile (all at 30 bu/A). Protein average for these trials was low at 11.6%, and test weight averages were slightly low, with 59.2 lbs/bu average.

Seeding rates of Keldin were tested at 0.75, 1, 1.25 and 1.5 of the typical irrigated recommended seeding rate of 1 million seeds per acre. The yields between the seeding rates were not significantly different, and were 163, 162, 160, and 168 bu/A, respectively (Table 6). Keldin at the standard seeding rate was 102% of average across all locations.

Seeding Rate as a percentage of recommended (1 mill/A)	Yield as Bu/A over locations
Keldin x 0.75	**163**
Keldin x 1.00	**162**
Keldin x 1.25	**160**
Keldin x 1.50	**168**

The top yielding **soft white winter varieties over the last three years** over all **irrigated** locations (Table 15) are SY Ovation (157 bu/A), AP Exceed (153 bu/A), LCS Blackjack (152 bu/A), LCS Hulk (151 bu/A) and VI Gem (151 bu/A). Test weights averaged slightly low, at 59.6 lbs/bu. Proteins for the trials were within the soft white winter protein targets between 9–12% grain protein, averaging 10.5%. **Averaged over all 2025 irrigated locations**, the highest yielding **soft white winter wheat** named varieties (Table 17) were LCS Scorpion AX (171 bu/A), LCS Hulk (166 bu/A), LCS Blackjack (165 bu/A) and VI Shock (162 bu/A). Heading date averaged May 29, 4 days earlier than 2024, 13 days earlier than 2023 and 12 days earlier than 2022 (June 10). Plant height was at the average of the previous 10 years, taller than 2024 with greater lodging. Average test weights were good at 60.1 lbs/bu and grain protein averaged 10.8%.

Seeding rates of SY Ovation were tested at 0.75, 1, 1.25, 1.5 and 1.75% of the typically recommended seeding rate of 1 million seeds per acre. The yields between the seeding rates were not significantly different, and were 160, 160, 158, 159, and 154 bu/A, respectively (Table 17). With SY Ovation, increasing seeding rates did not increase yield, and looking at percent of average yield (Table 17), SY Ovation at the standard seeding rate was 102% of average across all locations.

Seeding Rate as a percentage of recommended (1 mill/A)	Yield Bu/A over locations
SY Ovation x 0.75	**160**
SY Ovation x 1.00	**160**
SY Ovation x 1.25	**158**
SY Ovation x 1.50	**159**
SY Ovation x 1.75	**154**

Average 3-year dryland yields for soft white winter (Ririe, Rockland and Soda Springs) were 29 bu/A, where the top yielding varieties included Sockeye CL+ (34 bu/A), Eltan (34 bu/A), Piranha CL+ (34 bu/A), Norwest Tandem (32 bu/A), Rollie (32 bu/A), Devote (31 bu/A), Otto (31 bu/A), and VI Encore CL+ (32 bu/A). All except Eltan had test weight less than 60 lbs/bu and protein between 10 – 12%.

Winter Barley 2-Year Averaged Data

Two-year, multiple location averages for winter barley are presented in Table 24 (representing 4 site-years). Top yielding released varieties include Clementine (144

bu/A), Memento (134 bu/A), LCS Calypso (131 bu/A) and Thunder (128 bu/A). There are malt, feed and food lines in this trial, with Upspring being a hulless food line with very high test weight (comparable to winter wheat) but having reduced spring stands, and yield. Proteins were in the target range for malt specs except for the food lines including Upspring, which averaged 12.7% grain protein. For the one-year **irrigated averages in 2025** (Table 25), the top yielding lines and varieties are KWS Antonis (218 bulA), KWS Tardis (200 bu/A), BC Clemintine (191) bu/A), KWS Chillis (188 bu/A), and Memento (182 bu/A). Irrigated trial averages in 2022 was 170 bu/A with excellent test weight average of 51.1 lbs/bu. Results in 2023 and 2024 were damaged by winter kill and June frosts. Heading dates averaged 5/24, the same as in 2024.

Kimberly Research and Extension Center, Irrigated Winter Grain

Winter wheat nurseries were planted following mustard on October 11, 2024 – and were planted into good conditions. Preplant irrigation helped provide conditions for uniform germination. There was no winter damage, and the wheat was planted late enough to avoid BYDV infection. Stripe rust was absent. Plots were harvested August 4th. See page 6 for additional details.

The hard winter wheat group (Table 7) yield ranged from 147 to 184 bu/A, with an average of 171 bu/A. The highest yielding named varieties were CS Bridger CLP with 184 bu/A, 61.6 lb/bu and 11.5% grain protein, Keldin with 184 bu/A, 61.5 lb/bu test weight and 10.8% grain protein and Artek with 184 bu/A, 61.3 lb/bu test weight and 12.4% protein, and FourOsix at 183 bu/A, 61.2 lbs/bu and 12.1% protein. Keldin with 11-52-0 yielded 184 bu/A, 4 bu/A greater than Keldin without starter fertilizer. Site average for yield of the hard winter group was 171 bu/A, 2 bu/A more than 2024, and 14 bu/A greater than 2023 yields. Test weight average was 60.3 lbs/bu, and grain protein average for the location was a little low at 11.7%. Lodging rates averaged 39%. The plots were fertilized for expected yield that was lower than the highest yielding varieties, often resulting in low grain protein in the higher yielding lines. Heading dates averaged 5/23, 1 day earlier than 2024. Total N available was 530 lbs N/acre. Optimal grain protein for hard red winter wheat should be 12.5% or greater. The ratio of applied N to (170 average) bu/A yield was 3.1, within the 3.0 to 3.5 ratio needed for optimal protein in hard winter wheat. Grain protein was disappointingly lower than expected.

Soft white winter wheat yields averaged 180 bu/A – 1 bu/A greater than 2024, 44 bu/A greater than in 2023 (Table 20), and 13 bu/A greater than 2022. Irrigated yield varied from 147 (UI Sparrow) to 201 bu/A (WBXH1055) with lower CV's for the location (5.8%) than in 2024 (7.4%) and 2023 (8.2%). AP Exceed (200 bu/A), LCS Scorpion AX (200 bu/A), AP Olympia, (196 bu/A), and SY Assure (192 bu/A) were the highest yielding varieties. Lodging rates averaged 29%. Heading dates averaged 5/25, 1 day earlier than 2024, and 12 days earlier than in 2023 (6/6). Test weight averaged 59.1 lbs/bu, and grain protein average for the location was at 9.9%. With a total of 360 lbs available N in the nursery (see site description on page 6) and average yield for soft white winter wheat nursery at 180 bu/A, the lbs of N to yield calculates to 2.0 lbs of nitrogen per bushel of yield.

Rupert, Luke Adams, Irrigated Winter Grain

Plots were planted October 10, 2024 in silt loam soil following spring barley into good

soil moisture and seedbed conditions (see page 6.) Spring stands of the winter wheat nurseries were good, without cold damage. There were no visual symptoms of BYD occurring at this site. Plots were planted within a winter wheat field of AP Exceed. Plots were harvested August 1st and 2nd.

Winter barley plots averaged 173 bu/A (Table 26), 93 bu/A greater than in 2024. In 2022 and 2021 the average yields were 151 bu/A. (The 2023 trials were plowed under due to winter kill of the surrounding winter barley field.) Yields ranged from 118 to 221 bu/A. The highest yielding varieties included KWS Antonis (222 bu/A), KWS Tardis (219 bu/A) and BC Clementine ((202 bu/A). Proteins varied widely and averaged 11.8%. With a total of 340 lbs available N in the nursery (see site description on page 6) and average yield at 173 bu/A, the lbs of N to yield calculates to 2.0 lbs of nitrogen per bushel of yield. Heading date for the winter barley (5/25) averages 2 days later than 2024 (5/23) and 5 days earlier than in 2022 (5/30). Lodging averaged 18%, with very high lodging in some varieties.

Average yield for the Rupert hard winter wheat trial (Table 8) was 169 bu/A, 98 bu/A greater than in 2024 (71 bu/A), 41 bu/A greater than 2022 and 13 bushels greater than 2021. (The 2023 trials were plowed under due to winter kill of the surrounding winter barley field.) Yield ranged from 136 bu/A to 190 bu/A. The highest yielding (named) varieties were WB4640 (190 bu/A), WB4303 (186 bu/A), Keldin (182 bu/A), WB4401 (182 bu/A), Flathead (180 bu/A), LCS Missile (180 bu/a), and Yellowstone (180 bu/A). Test weight averaged 60.9 lbs/bu. Lodging averaged 9%, with higher lodging in Keldin, Yellowstone and WB4739AX. The higher yielding varieties also had good test weight. Grain protein averaged 11.0%, which is low considering the lbs of nitrogen to yield calculates to 3.1 lbs of N per bushel of yield.

The soft white winter group (Table 18) ranged in yield from 131 to 190 bu/A, averaging 165 bu/A, 85 bu/A greater than 2024, 29 bu/A greater than 2022, and 2 bu/A less than 2021. (The 2023 trials were plowed under due to winter kill of the surrounding winter barley field.) The highest yielding named varieties were LCS Scorpion AX (180 bu/A), VI Shock (178 bu/A), VI Gem (175 bu/A), SY Ovation (173 bu/A) and AP Exceed (173 bu/A), and Test weights averaged at 59.6 lbs/bu. The proteins were acceptable with the trial average at 10.3%, with 2.1 lbs of nitrogen to average bu/A yield. Lodging was low, averaging 2%.

Seeding rates of SY Ovation were tested at 0.75, 1, 1.25 and 1.5 and 1.75% of the typically recommended seeding rate of 1 million seeds per acre. The yields between the seeding rates were not significantly different, and were 169, 168, 169, 173, and 168 bu/A, respectively. With SY Ovation, increasing seeding rates did not increase yield.

Aberdeen Research and Extension Center, Irrigated Winter Grain

The winter trials in Aberdeen were planted October 1st, in a Declo loam soil into good seedbed conditions and soil moisture, and harvested August 6th, 7th and 9th. The preceding crop was green manure oriental mustard. Neither BYD nor stripe rust was observed in the winter grain. (See page 7 for additional location information.) Overall soil field conditions were better than in 2024, resulting in improved performance of winter barley and winter wheat trials.

Winter barley yields ranged from 129 bu/A to 212 bu/A with an overall average of 167 bu/A (Table 27), 70 bu/A greater than 2024,

99 bu/A greater than 2023 which had damage from winter conditions, and 24 bu/A less than in 2022. Yield in 2022 averaged 189 bu/A, which is more representative of the yield potential in this location. High yielding varieties included KWS Antonis (212 bu/A), KWS Chillis (192 bu/A), KWS Tardis (184 bu/A), BC Clementine (180 bu/A) and Memento (175 bu/A). Spring stands were very good, with only one advanced line showing winter damage – DH200620. Of note, if winter kill is a problem, the hulless or naked food lines are often the most susceptible and are the first to show damage. Test weight averaged 52.6 lbs/bu, with low lodging, and 12.0% grain protein. The ratio of applied N to average bushel yield was 2.6 lbs N/bu (440 lbs N/167 bu/A). Despite the high ratio, grain protein levels were not high in the malt lines. With the inclusion of hulless lines with high test weight overall average protein was higher than expected for the malt varieties.

The hard winter wheat survival (Table 9) as measured by stand in the spring averaged 100%, and performance of the winter wheat trials at this location was good, not excellent. Overall yields were similar to previous years, averaging about 10 bu/A less than 2024, 2023 and 2022. Stripe rust was not found in the winter wheat and lodging was low except in a few varieties. The highest yielding named varieties were Milestone (1641 bu/A), Keldin (158), Kairos (147 bu/A), LCS Rocket (157 bu/A), Scorpio)152 bu/A), and WB4303 (152 bu/A). Heading date for this group at Aberdeen (5/24) was 8 days earlier than in 2024 (6/1) and was 16 days earlier than in 2023. Test weights were very good at 61.5 lbs/bu for the overall average. Grain protein averaged 12.4%. The ratio of applied N to average bushel yield was high at 3.4 lbs N/bu (480 lbs N/142 bu/A). Flathead, Millie (hard white), WB4422, Keldin, MT Meadowlark, and CS Bridger CLP showed a good combination of high test weight and grain protein.

As with the hard winter wheat winter survival, there was no winter kill damage in soft winter wheat (Table 19), and yield performance of the winter wheat trials at this location was less than in 2024. The overall yield average in the Aberdeen soft white winter trial was 129 bu/A, the same as 2024, 15 bu/A less than 2023 and 33 bu/A less than 2022, ranging from the low of 114 bu/A (AP Olympia) to a high of 145 bu/A. The highest yielding named varieties were SY Ovation (145 bu/A), LCS Blackjack (141 bu/A), LCS Scorpion AX (140 bu/A) and LCS Hulk (140 bu/A). Heading date for this group at Aberdeen (5/25) was 9 days earlier than in 2024, and 5 days earlier than 2023. The test weights averaged very good at 60.4 lbs/bu and the overall grain protein was 11.5%. The ratio of applied N (411 lbs N) to average bushel yield (129 bu/A) was 3.2 lbs N/bu. Despite the relatively high N, grain protein remained at or below target for soft white winter wheat. There was no lodging except for two varieties, LCS Scorpion AX and UI Sparrow, both at about 2% lodging.

Seeding rates of SY Ovation were tested at 0.75, 1, 1.25 and 1.5 and 1.75% of the typically recommended seeding rate of 1 million seeds per acre. The yields of the seeding rates were 142, 145, 137, 131 and 118 bu/A, respectively. The lower seeding rates yielded higher but with an LSD of 30 bu/A, the results are not significantly different.

Ririe, Clark Hamilton, Irrigated Winter Wheat

Located near Ririe, this irrigated location was added in 2019 on the Hamilton Farm. (See page 7 for additional location information.) The plots were planted

October 8th, into silt loam soil following potatoes, and harvested August 11, 2025.

Spring stand of the hard winter wheat trial at this high elevation location was excellent for all varieties (Table 10), and the average yield was 156 bu/A, varying from 140 to 174 bu/A (HSG086). The high yielding named varieties included LCS Rocket, LCS Blackbird, WB4640 (all at 168 bu/A), Rubicon (166 bu/A), LCS Jet (166 bu/A) and Keldin (161 bu/A). Test weights averaged 62.0 lbs/bu. Grain proteins were 12.4%, with 2.9 lbs N per bushel (451 total N available /156 bu average yield), indicating optimum levels of N to meet yield and protein of the average yielding varieties. However, LCS Jet, LCS Blackbird and Keldin still had excellent grain proteins of 12.6, 12.7% and 12.5%, respectively. Average heading date (6/2) was 6 days earlier than 2024 (6/8) was 14 days earlier than 2023.

For the soft white winter wheat trial (Table 20), the yield varied from 136 bu/A to 162 bu/A (AP Exceed and UIL 17-355144A, respectively), with an overall average of 148 bu/A). Test weights averaged 61.1 lbs/bu, and grain protein averaged 11.6%. The ratio of lbs N to bushel yield was 2.8 (411 total N available /148 bu average yield), indicating greater than optimum levels of N to meet yield and protein. The high-yielding lines and varieties included LCS Hydra AX (160 bu/A but with high grain protein), WB1621 (157 bu/A), and VI Shock (154 bu/A). Average heading date (6/3) was 6 days earlier than 2024 (6/9) was 14 days earlier than 2023.

Ririe, LDS Church Farm, Dave Scott, Dryland Winter Wheat

This is a high elevation location (5600 ft.) and is our main location to test grain for winter hardiness under dryland conditions. However, this location was abandoned due to the interseeding of spring grain into the winter plots.

Rockland, Cory and Jamie Kress, Dryland Winter Wheat

The hard red and white winter wheat trial at the Kress' was planted following fallow on September 25th and harvested August 4th. Snow mold diseases were not a significant problem, and spring stands were not damaged. Dwarf bunt (*Tilletia controversa* Kuhn) was also not a problem this year, but all winter varieties were included in dwarf bunt testing in Logan, UT, by Dr. Felipe Sabadin, Utah State University professor and wheat breeder. When using varieties that are susceptible to dwarf bunt, it is highly recommended that an appropriate seed treatment is used to prevent dwarf bunt infection.

The hard winter wheat yield average (Table 11) was 41 bu/A, 10 bu/A greater than in 2024, 3 bu/A less than 2022, (which was at a different location, at Gilbert and Carl Hofmeister's farm). The 2023 location at Kress' was not harvested due to snow mold damage. The 2025 hard winter wheat yield ranged from 34 to 46 bu/A with a yield CV at 7.7%. The top yielding named varieties this year were WB4445CLP (46 bu/A), FourOsix (46 bu/A), Keldin (45 bu/A with starter 11-52-0), FourOsix (45 bu/A), Yellowstone (45 bu/A), and Curlew (44 bu/A). Trial average heading date (5/31) was 13 days earlier than 2024, and 11 days earlier than 2022 (6/11). Grain proteins were poor at 10.6%. Total nitrogen in the soil and via preplant application was 133 lbs N/A, resulting in (133/41) 3.2 lbs N/bu, which should have been adequate to obtain target grain protein of 12.5%

Average yield for the 2025 soft white winter wheat (Table 21) was 41 bu/A, 4 bu/A

greater than in 2024 (37 bu/A), and 2 bu/A less than the SWW trial in 2022, which was at a different location (Gilbert and Carl Hoffmeister). The top yielding named varieties this year were Sockeye CL+ (49 bu/A), Piranha CL+ (45 bu/A), SY Ovation (44 bu/A), Devote (44 bu/A), Jameson (44 bu/A), Nimbus (42 bu/A) and VI Encore CL+ (43 bu/A) followed by, Perrine, Eltan and Otto. The test weight average was a little low at 58.7 lbs/bu. Grain protein averaged 10.2%. Heading date (6/1) was 13 days earlier than in 2024 (6/14) and was 10 days earlier than 2022 (6/11). Eltan planted with an application of monoammonium phosphate at 20 lbs phosphate per acre 11-52-0 in furrow averaged 2 bu/A less in 2025, 5 bu/A less in 2024 and 14 bu/A greater than Eltan without the preplant fertilizer in 2022.

Soda Springs, Dan Lakey, Dryland Winter Wheat

The hard winter wheat trials at the Ozburn's was planted following fallow on October 3rd and harvested September 8th. Spring stands were reduced due to the extended snow cover at this dryland location. Dwarf bunt (*Tilletia controversa* Kuhn) was not a problem this year, but all winter varieties were included in dwarf bunt testing in Logan, UT, by Felipe Sabadin, Utah State University professor and wheat breeder. When using varieties that are susceptible to dwarf bunt, it is highly recommended that an appropriate seed treatment is used to prevent dwarf bunt infection.

A significant frost event June 21 and 22nd occurred after heading of most of the hard winter varieties (6/18). In the hard winter trial, the average yield was 4 bu/A and the latest maturing varieties had the least damage from the cold temperatures (Table 12 - data reported for stand, and heading date versus yield information). For the soft winter wheat, the average yield was 8 bu/A. The average heading date was 6/19, and the later maturing varieties were less damaged. (Table 22 - data reported for stand, and heading date versus yield information). The data can only be utilized to estimate heading dates and winter survival at this location.

SPRING GRAIN RESULTS

Spring Wheat 3-Year Averaged Data

Over **three years over all locations**, averaging over twelve site-years, the highest yielding hard spring varieties under irrigation (Table 29) were Dayn (hard white spring wheat at 118 bu/A), Jefferson HF (HRS at 114 bu/A), LCS Hammer AX (HRS at 113 bu/A), UI Gold (hard white at 112 bu/A), WB9707 (HRS at 112 bu/A), and SY Teton (hard white at 110 bu/A). The hard reds with the best combinations of test weight and high protein include WB9707 (61.7 lbs/bu and 14% protein), Holmes (61.3 lbs/bu and 13.8% protein), Alum (60.7 lbs/bu and 13.7% protein), Dagmar (60.4 lbs/bu and 14.3% protein) and WB9668 (60.6 lbs/bu and 14.8% protein). The average 3-year test weight was 60.5 lbs/bu, and the average grain protein was 13.6%. The **2025 combined irrigated average** (four locations) for hard spring wheat (Table 31) was 94 bu/A, 6 bu/A less than 2024, and 15 bu/A less than 2023 (119 bu/A). Jefferson HF, UI Gold (W) and CP 3555, were the highest yielding lines at 108 bu/A, 106 bu/A and 105 bu/A, respectively. High protein red spring lines were WB9668 (15.2%), Dagmar (14.7%), CP3915 (14.4%), Expresso (14.4%) and WB9707 (14.4%) meeting the >14.0% grain protein target.

There is only one **dryland location** for spring wheat (Soda Springs), and the three-

year average data is in Table 30. Highest yielding hard spring varieties include Alum at 35 bu/A, Hale and Dayn (hard white) at 34 bu/A, and Mt Ubet at 33 bu/A. Test weights averaged 60.6 lbs/bu, but grain protein was at 10.5% indicating higher fertilization is required to bring the hard spring wheat up to preferred levels of grain protein. Choteau showed highest grain protein (11.1%) and had good test weight (61.3 lbs/bu) under dryland conditions. With only 53 lbs of N/A applied, the lbs of N/bu was only 1.8, inadequate to meet protein targets. Additional preplant N is required at this location.

Three-year averages for soft white spring wheat over all irrigated locations (Table 38) put Soda (WA8327) at the highest yield (121 bu/A) followed by WB6430 (120 bu/A), Alturas (119 bu/A), UI Warrior (118 bu/A) and UI Stone (118 bu/A). Test weights averaged 59.8 lbs/bu, with Soda, UI Warrior, Bush Seahawk, and Tekoa greater than 60 lbs/bu. The **2025 combined irrigated average** for soft white spring wheat (Table 40) was 102 bu/A. Soda yielded 111 bu/A), WB6430 yielded 109 bu/A, Alturas yielded 107 bu/A, and UI Stone yielded 106 bu/A. Test weight was 60.0 lbs/bu for the average, and grain protein 10.3%, which was good for soft white spring wheat. Average yields were lower than 2024 (110 bu/A), 2023 (125 bu/A) and 2022 (113 bu/A). Test weights were average due to favorable temperatures conditions during grain fill but with very dry conditions from June to harvest.

There is only one **dryland location** for soft white spring wheat (Soda Springs), three-year average data for which is in Table 39. Alturas was the highest yielding variety at 48 bu/A, followed by Soda (47 bu/A), Louise (46 bu/A), Tekoa (45 bu/A), WB6430 (44 bu/A), UI Stone at 44 bu/A and the soft white club wheat Roger (44 bu/A). Test weight average was 59.0 lbs/bu, and protein was low at 8.7%. With only 53 lbs of N/A applied, the lbs of N/bu was only 1.8, inadequate to meet yield and protein targets. Additional preplant N is required at this location.

Spring Barley 3-Year Averaged Data

Spring malt varieties and feed/food lines are reported in separate tables.

Three-year irrigated averages (12 site-years) for the malt varieties (Table 47) puts Esma as the highest yielding variety at 153 bu/A. GemCraft and LCS Odyssey were at 143 and 142 bu/A, Moravian 179 and ABI Raptor yielded 137 bu/A. Test weights averaged 50.7 lbs/bu, and percent plumps average 96%. Proteins averaged 10.3%, and some varieties had greater lodging than average, including GemCraft and CDC Copeland.

For the only dryland location for spring malt (Soda Springs), the three-year average data is in Table 48. Gemcraft (51 bu/A) and Esma (49 bu/A) and CDC Copeland were the higher yielding varieties. Esma and ABI Voyager had good plumps for dryland conditions. Grain proteins aveaged 9.9%, and test weights averaged 48.5 lbs/bu. Thins were highest for Moravian 69 and GemCraft. Average heading date was July 15.

Looking at **combined irrigated averages** for 2025 (Table 49), Esma, KWS Acantis, KWS Kayas, BC Lexy, KWS Enduris and Moravian 179 yields were 163, 156, 151, 146, 145, and 145 bu/A respectively, all with excellent test weight, protein and plumps. The heading date for the 2025 trials averaged 6/19, 11 days earlier than the 2024 trials (6/30), 10 days earlier than in 2023

and 11 days earlier than the 2022 average heading date. Plumps, proteins and test weights were excellent.

For the irrigated feed and food varieties, over three years (12 site-years), Ascent and Altorado were the highest yielding named feed varieties (Table 56) at 148 and 146 bu/A, respectively. Kardia (hulled) was the highest yielding food barley, followed by Goldenhart (a hulless barley, as reflected in the very high test weight). In the **combined 2025 irrigated trials** (Table 58), the top yielding named varieties were Altorado (149 bu/A) Carleton (145 bu/A), Ascent (142 bu/A), and Champion (133 bu/A). Successor, while lower in yield, is notable for tolerance to imidazolinone herbicides (Beyond), often associated with soil residual levels that damage barley in rotation with crops where imidazolinone was applied to control grassy weeds. Heading dates for feed lines averaged 6/16, ten days earlier than 2024 (6/26) in 2024, were 12 days earlier than in 2023 and 7 days earlier than in 2022. Kardia was the highest yielding food barley (132 bu/A) but is hulled with lower test weight in comparison to the hulless food barleys.

For the only dryland location for spring feed and food barley (Soda Springs), the three-year average data is in Table 57. Altorado, Champion, Ascent and Carleton yields were 51, 50, 48 and 45 bu/A, respectively. Grain protein averaged 10.8%. The hulless food lines tend to perform poorly under dryland conditions. The hulled food line, Kardia, yielded 42 bu/A and hulless Goldenhart yields were at 25 bu/A.

Rupert, Duane Grant 4-D Farms, Irrigated Spring Grain

The variety trials in Rupert were planted April 8th 22th in silt loam soils (14 days earlier than in 2024) with good soil moisture and harvested September 2nd. The preceding crop was potatoes. There were no major weather-related problems other than a typical dry summer and low subsoil moisture.

There was some lodging for the **hard spring wheat** nursery, averaging at 4% (Table 32) and substantially higher for Dagmar, Hale, Net CL+, CP3530 and LCS Sentry (some lines that may be better adapted to lower irrigation or dryland conditions). Average yield was 120 bu/A, compared to 84 bu/A in 2024, 117 bu/A in 2023, 104 bu/A in 2022, 109 bu/A in 2021, 114 bu/A in 2020 and 131 bu/A in 2019. Test weight average was 59.2 lbs/bu, and average protein was at 12.8%, below the market target of 14.5%. The top yielding named varieties were LCS Hammer AX (143 bu/A and 12.8% protein), WB9707 (137 bu/A and 13.3% protein), Dayn (136 bu/A and 11.8% protein), and Jefferson HF (135 bu/A and 12.0% protein). The ratio of available and applied N (294 lbs N/A) to average bushel yield (120) was 2.54 lbs N/bu, very low and related to low overall protein. All hard red and white spring plots were topdressed at flowering with 40 units of N/A. Heading date for this location was 6/9, 11 days earlier than in 2024 (6/22), and seven days earlier than 2023 (6/16).

The **soft white spring wheat** yield (Table 41) average was 122 bu/A, 37 bu/A more than in 2024 (85 bu/A). In 2023, yield averaged 112 bu/A at that location, and 2022 was 102 bu/A. Tekoa yielded 136 bu/A with 9.4% protein, Soda has 134 bu/A and 9.3% protein, WB6430 yielded 131 bu/A at 9.7% grain protein, and UI Warrior yielded 128 bu/A at 9.8% protein with low lodging compared to the others. The ratio of available and applied N (254 lbs N/A) to average bushel yield (122) was 2.1 lbs N/bu. The proteins were good to low with the trial average of 9.9% despite the excessive level

of N. The yield CV was also good at 9.2%, indicating the variability in this trial was acceptable.

The **spring malt barley** trial at Rupert (Table 50) had average yields of 140 bu/A, 27 bu/A greater than in 2024 (113 bu/A), 8 bushels less than 2023 (148 bu/A) and 9 bu/A more than 2022. Yield ranged from 82 bu/A (CDC Clear, a hulless malt barley from Canada) to 162 bu/A (advanced line LGBU17-1320A). The ratio of available and applied N (254 lbs N/A) to average bushel yield (140) was moderate at 1.8 lbs N/bu. Lodging averaged 7% overall, and grain protein averaged 9.3%. KWS Acantis was the top yielding named malt barley (161 bu/A), followed by Esma (161 bu/A), KWS Enduris (158 bu/A), KWS Kayas (152 bu/A), LG Slovan (150 bu/A), BC Lexy (149 bu/A), and Moravian 179 (147 bu/A). Test weights averaged 49.0 lbs/bu, and plumps were 97.6%. Heading date for this trial was 6/13, 11 days earlier than in 2024 (6/24), 9 days earlier than 2023 (6/22). High plumps and test weight reflect good conditions during grain fill.

The average yield for two-rowed feed barley in Rupert for 2025 (Table 59) was 126 bu/A, 18 bu/A greater than 2024 (93 bu/A), 6 bu/A less than 2023 (132 bu/A), and 12 bu/A greater than 2022 (104 bu/A). The high yielding two-rowed feed varieties were Altorado (149 bu/A), Ascent (141 bu/A), and Carleton (136 bu/A). Average test weight for this trial was 52.4 lbs/bu for the feed barleys, which included hulless and hulled (Kardia) food barleys. The hulless, high beta-glucan food barleys Transit and Goldenhart yielded 98 and 93 bu/A but also had high test weights (55.6 and 56.6 lbs/bu, respectively). For this trial, the ratio of available and applied N (254 lbs N/A) to average bushel yield (126 bu/A) was 2.0 lbs N/bu for the food barley with average grain protein of 10.4%.

Aberdeen Research and Extension Center, Irrigated Spring Grain

Spring variety trials were planted April 3rd, 9 days earlier to 2024, 18 days prior to 2023 (April 21st), 3 days earlier than in 2022 and 1 day later than in 2021. Trials were planted into Declo loam soils with good soil moisture and were harvested August 23rd and 26th and 31st. The preceding crop was mustard. Stripe rust of wheat came in late season at escalated to damaging levels in susceptible varieties. Overall, disease pressure was very low.

The CV for yield in the Aberdeen hard spring trial was a good at 7.7% for yield (Table 33). Hard spring wheat yield varied from 80 bu/A (Alzada, which is a durum wheat) to 112bu/A (UI Gold seeded at a 1.5% seeding rate). The top five named varieties for yield were the hard white spring UI Gold (112 bu/A), CP3555 (108 bu/A), Jefferson HF (104 bu/A), and Net CL+ (103 bu/A). The high yielding hard reds included CP3555 with 13.8% grain protein, Jefferson HF at 14.8% protein), and CP3530 at 14.9% protein. Varieties with higher test weight and grain protein are Hale (16.9% protein and 63.0 lb/bu), WB7696 (16.2% protein and 63.0 lb/bu), MT Ubet (16.1% protein and 61.9 lbs/bu), and WB9707 (16.0% protein and 64.4 lbs/bu). Test weights for the hard spring wheats averaged 62.6 lbs/bu. There was no lodging, and the grain protein average was 15.1%. (All hard spring wheat trials are top-dressed at flowering with 40 units of N to promote higher protein.) The ratio of available and applied N (371 lbs N/A) to average bushel yield (93) was 4.0 lbs N/bu. Yields were lower than expected and excess N contributed to higher protein. Average yields were 93 bu/A in 2025, 2 bu/A greater than in 2024 (91 bu/A), 2023

(108 bu/A) and 20 bu/A less than in 2022 (113 bu/A). Heading dates for the hard red spring wheat averaged 6/6, 13 days earlier than 2024 (6/19), and 11 days earlier than 2023 (6/17).

The soft white spring wheat yields at Aberdeen (Table 42) averaged 110 bu/A (compared to 2024 at 123 bu/A) with a range from 83 (Roger soft white club wheat) to 117 bu/A (Soda). The average yield was 13 bu/A less than in 2024, 30 bu/A less than 2023 (140 bu/A) and 3 bu/A less than 2022 (113 bu/A). Highest yields of lines and named varieties were obtained from UI Stone (122 bu/A), Alturas (121 bu/A), WB6430 (118 bu/A), and Soda (117 bu/A). The heading date of 6/6 was 13 days earlier than 2024 (6/19), was 1 days earlier than 2023 (6/7) and was 16 days earlier than 2022 (6/22). There was no lodging averaging and test weights averaged 62.5 lbs/bu. The ratio of available and applied N (271 lbs N/A) to average bushel yield (110 bu) was 2.5 lbs N/bu with an average site grain protein of 11.4%.

Two-rowed malt barley lines (Table 51) yield average was 133 bu/A, 6 bu/A less than in 2024 and 2023 (139 bu/A) and 5 bu/A greater than in 2022 (127 bu/A). Yield ranged from 96 bu/A (Moravian 69) to 168 bu/A. The top yielding lines were CDC Fraser (168 bu/), Esma (153 bu/A), BC Lexy (150 bu/A), ABI Eagle (146 bu/A) and ABI Raptor (145 bu/A). The average heading date (6/9) was 12 days earlier than 2024 (6/21), 13 days earlier than 2023 (6/22), and 16 days earlier than 2022 (6/25). Lodging averaged 7%. The ratio of available and applied N (271 lbs N/A) to average bushel yield (133 bu/A) was 2.0 lbs N/bu with an average site grain protein of 11.9%. Plumps were high, and average plant height was 36 inches.

The average yield for two-rowed feed barley in Aberdeen for 2025 was 142 bu/A (Table 60) was 18 bu/A greater than in 2024 (124 bu/A), and 10 bu/A greater than 2023 (132 bu/A). The high yielding two-rowed feed varieties were Carleton (160 bu/A), Altorado (158 bu/A), Successor (157 bu/A), and Champion (156 bu/A). Average test weight for this trial was 55.5 lbs/bu. The hulless, high beta-glucan food barleys Goldenhart and Transit yielded 119 and 101 bu/A but also had high test weights (61.0 and 56.6 lbs/bu, respectively). Kardia is hulled with lower test weight than the hulless lines, but with substantially higher yields (125 bu/A). The heading date for this trial was 6/9, 12 days earlier than 2024 (6/21) for the feed lines. The food barleys tend to head several days after the feed barleys. Lodging averaged about 10%. For this trial, the ratio of available and applied N (271 lbs N/A) to average bushel yield (141 bu/A) was 1.9 lbs N/bu with an average site grain protein of 13.9%, with higher values for the food lines with 16.1% grain protein for Transit.

Idaho Falls, Marc Thiel, Irrigated Spring Grain

The Idaho Falls plot site followed barley and were planted April 10th, 5 days earlier than in 2024, (8 days earlier than 2023) in silt loam soils with good soil moisture. Plots were harvested August 20th.

Average grain yield for the hard spring wheat (Table 38) was 60 bu/A, 54 bu/A less than 2024 (114 bu/A), 92 bu/A less than 2023 (152 bu/A), and 68 bu/A less than 2022 (128 bu/A). Hard spring wheat ranged in yield from 48 (Glee) to 71 bu/A (CP3555). Average grain protein was at 13.7%, and test weight was at 59.8 lbs/bu. The five highest yielding named varieties were CP3555 (71 bu/A and 13.0% protein), MT Ubet (71 bu/A and 14.5% protein), UI Gold (69 bu/A and 11.8% protein), Jefferson

HF (68 bu/A and 12.9% grain protein) and Dayn (68 bu/A and 12.5% protein). The only varieties to hit 14.0% grain protein were MT Ubet, (14.5%), MT Carlson (14.5%), Dagmar (14.5%) and WB9668 (with 15.5% grain protein and also good test weight at 60.4 lbs/A). The ratio of available and applied N (334 lbs N/A) to average bushel yield (60 bu/A) was 5.6 lbs N/bu, resulting in high protein levels. Heading date for the trial average (6/12) was 14 days earlier than 2024 (6/26) and 10 days earlier than 2023.

UI Stone, Bush, Alturas, Soda, Tekoa, and WB6430 topped the yield chart (Table 43) for the soft white spring wheat varieties at Idaho Falls at 86, 85, 85, 82, 76, and 74 bu/A, respectively, with an overall average of 76, 45 bu/A less than in 2024 (121 bu/A), 54 bu/A less than 2023 (130 bu/A) and 42 bu/A less than 2022. Yields ranged from 68 bu/A (Butch CL+) to 86 bu/A (UI Stone). Test weight averages were good at 60.5 lbs/bu, and grain proteins were at 10.8%. The ratio of available and applied N (294 lbs N/A) to average bushel yield (76 bu/A) was 3.9 lbs N/bu, higher than needed to meet the yield potential for higher yielding varieties and despite which overall the grain protein was good for soft white spring wheat. Heading date for the trial average (6/14) was 13 days (6/27) earlier than 2024 and was ten 3 days earlier than 2023 (6/17).

Two-rowed malt barley yields (Table 56) in Idaho Falls averaged 131, 1 bu/A less than 2024 (132 bu/A), 21 bu/A less than in 2023 (152 bu/A), and 4 bu/A greater than 2022 (128 bu/A). The yield ranged from 69 (CDC Clear) to the highest yielding at 149 bu/A. Top yielding named varieties included Gemcraft (149 bu/A), KWS Kayas (143 bu/A), CDC Copeland (140 bu/A), LCS Odyssey (137 bu/A) and Esma (137 bu/A). Test weight average was very good at 51.1 lbs/bu (weighted higher by the inclusion of the hulless variety CDC Clear), protein average was 10.9% and lodging was very low at 1%. The ratio of available and applied N (294 lbs N/A) to average bushel yield (131) was 2.2 lbs N/bu, indicating the amount of available N was more than adequate and still did not push protein level too high. Heading dates (6/17) were 13 days earlier than 2024 (6/30) and were 11 days earlier than in 2023 (6/28).

Two-rowed feed barley trial (Table 61) averaged 111 bu/A, with the top yielding lines averaging 134 bu/A (YU522-536), 132 bu/A (Altorado), 129 bu/A (Rulon) and 128 bu/A (Carleton). The test weight average for the feed lines was 54.2 lbs/bu and protein average was 11.6%.

Tetonia Research Center, Irrigated Spring Grain

The Tetonia location was planted May 2nd, 14 days earlier than in 2024, 13 days prior to 2023 and 9 earlier than in 2022 in silt loam soil into good soil moisture following summer fallow. Plots were harvested September 12th.

The average yield for the hard spring wheat (Table 35) was 109 bu/A, 18 bu/A greater than 2024 (91 bu/A), compared to 108 bu/A in 2023, and 113 bu/A in 2022. Heading dates (7/1) were 10 days earlier than in 2024 (7/11), were 7 days earlier than 2023 (7/8) and were 4 days earlier than in 2022 (7/5). The range in yield varied from 92 bu/A (Alzada spring durum wheat) to 128 bu/A (SY Teton). Test weights were average at 61.0 lbs/A, and protein averaged 13.3%. The high yielding named varieties were SY Teton (128 bu/A), Dayn (127 bu/A), WB7313 (125 bu/A), WB7589 (125 bu/A), UI Platinum (124 bu/A), Jefferson HF (123 bu/A), LCS Hammer AX (123 bu/A) and Alum (120 bu/A). The highest proteins were seen in WB9668 (15.2%), WB9707 (at

14.6%), CP3915 (14.4%) and Dagmar (14.4%). The ratio of available and applied N (242 lbs N/A) to average bushel yield (109) was 2.2 lbs N/bu, low for meeting yield and protein targets of hard red spring wheat. The average protein level for hard spring wheat was 13.3%. Additional N would be helpful to boost grain protein to the hard red target of 14.4%.

In the soft spring wheat trial (Table 44), yield ranged from a low of 104 bu/A (WA8434) to a high of 135 bu/A. The high yielding named varieties were Soda (135 bu/A), UI Warrior (121 bu/A), and WB6430 (121 bu/A). The average yield for the soft white spring trial was 117 bu/A, 11 bu/A greater than 2024 (106 bu/A), 1 bu/A more than 2023 (116 bu/A) and 3 bushels more than in 2022 (120 bu/A). Heading dates averaged 7/3, eight days earlier than in 2024 (7/11), 10 days earlier than 2023 (7/13), and seven days earlier than 2022 (7/10). The test weight average was good at 59.8 lbs/A, with no lodging occurring. Grain protein averaged 9.0% (202 N available for 117 bu/A average yield). The ratio of 1.7 lbs N/bu resulted in lower yields and very low protein levels.

Two-rowed malt barley yield average was 152 bu/A, 43 bu/A greater than in 2024 (109 bu/A) (Table 53), and were 21 bushels higher than 2023 (131 bu/A), and 8 bushels higher than in 2022 (144 bu/A). Yield ranged from 93 bu/A (CDC Clear) to 180 bu/A. The highest yielding named lines being KWS Acantis (180 bu/A), BC Lexy (176 bu/A), Esma (174 bu/A), KWS Kayas (172 bu/A), GemCraft (171 bu/A) and LCS Slovan (169 bu/A). There was no lodging despite the exceptional yields. Overall test weight was good at 49.7 lbs/bu, protein averages were low at 9.1% and plumps were 98%. The N: bu (202/152) ratio calculates as 1.3 lbs N/bu, indicating there was sufficient N for yield and protein. Additional N may have benefited yield and grain protein.

The barley feed and food lines (Table 62) averaged 139 bu/A, 30 bu/A greater than in 2024 (109 bu/A), 41 bu/A greater than 2023 (98 bu/A) and 9 bu/A greater than in 2022 (130 bu/A). Carleton (166 bu/A), Altorado (156 bu/A), Kardia (153 bu/A), and Ascent (149 bu/A) were the top yielding varieties. The test weights were very high at 53.4 lbs/bu. Kardia (a hulled, high beta-glucan food line) was the highest yielding food line with a test weight of 50.7 lbs/bu. All other hulless lines had high test weight (56-60 lbs.bu), with higher protein than the hulled lines. With a N:bu ratio of 1.4 lbs N/bu, additional N would be required to meet yield and yield and protein goals of the feed and food lines.

Soda Springs, Kyle Wangemann and Scott Brown, Dryland Spring Grain

The only spring dryland extension trials were in Soda Springs. The nursery was planted April 29th, 16 days earlier than in 2024 (May 15th), 17 days earlier than in 2023 (5/19), and 21 days earlier than in 2022. The previous year the field was in fallow and plots were planted into good soil moisture. A very dry summer reduced yields. Barley and wheat plots were harvested September 3rd

Yield averages for the hard red and hard white spring nursery (Table 36) were 37 bu/A, 10 bu/A greater than in 2024 (27 bu/A), 10 bu/A less than in 2023 (47 bu/A), and 12 bu/a greater than in 2022 (25 bu/A). The range in yield went from 28 bu/A (Choteau) to 45 bu/A. The five highest yielding named varieties were Alum (45 bu/A), Net CL+ (44 bu/A), MT Ubet (44 bu/A), Jefferson HF (43 bu/A), and MT Carleson (42 bu/A). The average heading date at this location was 7/2, seven days

earlier than in 2024 (7/9), 11 days earlier than in 2023 (7/13), and 10 days earlier than in 2022. Test weights averaged 59.4 lbs/bu, and proteins were very low, averaging 10.7%. The lines with the best combination of test weight and protein include Choteau (60.5 lbs/bu and 11.9% grain protein) and WA8436CL+ (60.5 lbs/bu and 11.3% grain protein).

For the soft white spring wheat (Table 45), the nursery averaged 46 bu/A, 19 bu/A greater than in 2024 (27 bu/A), 6 bu/A less than in 2023 (52 bu/A), 15 bu/A greater than in 2022 (31 bu/A). The yield ranged from 38 (UI Cookie) to 55 bu/A. Bush, Tekoa, Soda, Louise, and Alturas were the five top yielding varieties at 55, 53, 53, 49 and 48 bu/A, respectively. Test weight average was at 58.0 lbs/bu, and proteins were very low at 8.6%.

For the dryland barley trials, two-rowed malt barley yields (Table 54) ranged from 36 bu/A (Moravian 69) to 52 bu/A. The yield average was 46 bu/A, 18 bu/A greater than in 2024 (28 bu/A), 9 bu/A less than 2023 (55 bu/A), 3 bu/A less than in 2022 (43 bu/A) and 22 bu/A greater than 2021. The highest yielding named lines were KWS Acantis (52 bu/A), KWS Kayas (51 bu/A), ABI Raptor (49 bu/A), ABI Voyager (49 bu/A), and GemCraft (49 bu/A). There was no lodging, overall test weight was low at 47.6 lbs/bu and plumps were low at 86%. Protein averages were low at 9.1%. With 53 lbs/A of applied N, the ratio of 1.5 lbs N/bu resulted in lower yields and very low protein levels.

The feed lines averaged 41 bu/A in 2025, 14 bu/A greater than in 2024 (27 bu/A), 10 bu/A less than 2023 (51 bu/A), 1 bu/A less than 2022 (42 bu/A). The highest yielding named varieties included Champion (54 bu/A), Altorado (53 bu/A), Ascent (46 bu/A) and Claymore (41 bu/A) (Table 63). The food barleys yielded less than the feed varieties, with Kardia (hulled, high beta-glucan food line) yielding 40 bu/A and a 48 lb test weight. The hulless lines had test weights of 53 to 58 lbs/bu. Proteins averaged 9.8%, and of the food lines, proteins averaged 10.0, very low for feed or food usage.

Table 2. Variety Descriptions

SPRING BARLEY - Malt

ABI Eagle (2B11-4949) – released by Busch Agricultural Resources in 2018, Eagle is a two-rowed barley that has been tested in the variety trials since 2017. Yield and test weight were greater than ABI Voyager with the previous 3-yr average yield 12 bu/a greater than ABI Voyager (Table 47). ABI Eagle should replace Merit 57, having similar levels of test weight, grain protein and heading date, is 3-4 inches shorter, with higher plumps. Lodging was a little less than Voyager. In 2024, ABI Raptor yielded 103% of location averages (Table 55). FHB reaction has been moderately susceptible.

ABI Montana (2IM16-0154) – a two-rowed malting barley released in 2024 by AB InBev, ABI Montana has been in the dryland trials for two years. Yield in Soda Springs has been at trial average (Table 54) and similar to CDC Copeland. Heading date is similar to ABI Voyager and Raptor with lower protein.

ABI Raptor (2IM14-8212) – a two-rowed malting barley released in 2022 by AB InBev, ABI Raptor has been in program testing for five years. Yields have been greater than Voyager and Eagle with lower test weight. Heading is earlier than Eagle, similar to Voyager, is two-three inches shorter than Voyager, has better lodging resistance and lower in grain protein. FHB tolerance is similar to Voyager, and both are improved over ABI Eagle.

ABI Voyager (B3719) – a 2011 release from Busch Agricultural Resources, Voyager yields were below the average of 3-year irrigated trials (Table 47), below CDC Copeland and ABI Eagle, with average lodging, high test weight and plumps. ABI Voyager has a little earlier heading date (1-2 d), good protein, but is taller (2-4 inches) than average. ABI Voyager is susceptible to cereal cyst nematode (CCN), MR to MS to FHB and shows average levels in ppm of DON.

BC Lexy – a two-rowed European malt variety under the second year of testing in Idaho for Limagrain Cereal Seeds, but was not in 2024 trials and not in the 3-year averages. BC Lexy yields were 109% of trial average in 2023 (Table 52) and 107% of trial averages in 2022. In 2025, yields were 110% across all irrigated locations (Table 55). BC Lexy is short with good test weight, average lodging, low grain protein and high plumps (Table 49). Yield. Height, and heading date was similar to Moravian 179.

CDC Clear – CDC Clear is the first hulless malt barley from CDC Canada and is carried by SeCan. Hulless varieties have higher malt extract than hulled varieties, and CDC Clear has low protein and low β-glucan. CDC Clear was released in 2013. With yields comparable to AC Metcalfe, CDC Clear has good agronomic performance and disease resistance, but lodging resistance is less than that of AC Metcalfe. CDC Clear is susceptible to BYDV and barley scald. Yields (69%) and plant stand in these trials are below average, with very high test weight.

CDC Copeland (TR150) – a two-rowed malt variety developed by the Crop Development Centre, University of Saskatchewan and released in 1999, Copeland has been in the trials since 2009 in southern Idaho. Copeland yields are similar to ABI Voyager in irrigated production (Table 47), yielding 97% of irrigated averages in 2025 (Table 55), but doing well

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in dryland production areas. Copeland was 3-6 inches taller than average with greater lodging and was higher than average for grain protein and plumps, with very good test weight. In FHB screening trials, CDC Copeland is MR-MS for FHB infection and had low-to-average DON levels in the grain.

CDC Fraser (TR12135) – CDC Fraser was tested in 2019 in these trials, and is a malt variety from Crop Development Centre, University of Saskatchewan, released in 2018. For the first year in the trials, CDC Fraser outperformed AC Metcalfe by 118% and performed similar to ABI Voyager, with yields, test weight, heading date and protein at average, and plumps above average. 2025, CDC Fraser yields were better under irrigation, similar to LCS Genie, and beow trial average (Table 49). CDC Fraser is adapted to western Canada, was taller than average with higher lodging potential under high input conditions. Malt profile is intermediate between CDC Copeland and AC Metcalfe.

Esma – entered into the trials in 2018 by Ackermann Saatzucht GmbH & Co. KG, Esma is the highest yielding two-rowed feed / malt variety over many years, averaging 111% of average for yield in 2025 (Table 55). Over the past three years, Esma has yielded 163 bu/A over all irrigated trials (Table 49). Esma has good test weight, early to medium maturity, is 3-4 inches shorter with low to medium lodging. Esma has performed well under dryland conditions, comparable to GemCraft (Table 48). Esma has good malt quality with high plumps, low beta-glucan, high extract, and good FAN potential. Esma is MS to S to FHB. Like many of the European malt types, Esma is suited for the craft beer market.

GemCraft (2Ab08-X05M010-65) – released by the USDA-ARS and Idaho AES in 2018, GemCraft is a PVP 2-row malt barley released for the craft industry and favored by the Brewers Association due to its good taste profile. Yields over the previous three years were above trial average, similar to LCS Odyssey (Table 47). Test weight and plump were slightly below trial averages. Plant height is 5-7 inches shorter than CDC Copeland, and heading date was 1 day earlier, with similar plumps. Lodging tends to be greater under irrigated production systems. GemCraft yielded very well in dryland production (Table 48). GemCraft is MS to S to FHB.

KWS Acantis – a new two-rowed malting barley approved in 2024 for release in Europe. KWS Acantis was tested in 2025 in the UI Extension Variety Trials, having very high yields, similar to Esma (Table 49). Test weight, plant height, lodging and grain protein was lower than Esma, with similar heading date and plumps.

KWS Enduris – newly released in 2025, KWS Enduris is a dual purpose malting / distilling barley with high spirit yield and good malting characteristics. KWS Enduris is under final testing for malt certification in the UK. KWS Enduris yields were less than KWS Acantis and two days later in heading. Yield was similar to Moravian 179 (Table 49) in the first year of testing. KWS Enduris has resistance to net blotch, barley scald and powdery mildew.

KWS Kayas – a new two-rowed malting barley first tested in the trials in 2025. Yield was similar to BC Lexy and Moravian 179 with lower test weight and similar plant height. KWS Kayas yielded 109% over all locations, greater than GemCraft, having very low protein and high plumps. Heading date was similar to GemCraft.

LCS Genie – a European malt barley released in the U.S. through Limagrain Cereal Seeds, Genie is a short-statured two-rowed malt variety with yields similar to Moravian 69 (Table 47) and lower than trial average over three years. LCS Genie yields were 93% of average in 2025 (Table 55). Protein was lower and plumps were similar to Moravian 69. LCS Genie is about 1-3 inches shorter than average with average lodging. Genie is susceptible to FHB and had high levels of DON in seed in the FHB disease nurseries. Genie has excellent malt quality and as a low GN variety, can also be used in distilling.

LCS Odyssey (NSL08-4556-A) – LCS Odyssey is a European two-rowed malt barley released and distributed through Limagrain Cereal Seeds. In the past three years of testing, LCS Odyssey was in the group of highest yielding varieties, similar to GemCraft (Table 47). In 2025, LCS Odyssey was 96% of trial averages (Table 55), not performing as well as in 2024 and 2023. Test weights were slightly lower than average with average lodging, even as LCS Odyssey is 3-5 inches shorter than the trial average. Heading date is 1-3 days later than average with low proteins and good plumps. LCS Odyssey is more susceptible than current U.S. malt varieties to FHB and had higher levels of DON accumulation in harvested grain. LCS Odyssey has excellent resistance to cereal cyst nematode (CCN) and is resistant to PNW races of barley stripe rust. Odyssey has excellent malt quality for all-malt brewing with dual usage in distilling (as a low-GN or glycosidic nitrile variety).

LG Slovan – a spring malting barley from the Czech Republic and tested in 2024 at two locations, Aberdeen and Rupert, and at all irrigated locations in 2025. LCS Slovan yielded 110% and 1121% of location averages at Rupert and Tetonia, averaging 102% overall (Table 55), similar in yield to ABI Raptor with higher test weight (Table 49). LCS Slovan has very high plumps and average grain protein.

Moravian 69 (C69) - two-rowed spring malt barley released by Molson Coors Beverage Co. in 2005. Moravian 69 (M69) has very high yield potential, especially in the Magic Valley area where it is widely grown, with 3-year yield over all locations lower than ABI Raptor (Table 47). In 2024, Moravian 69 yields were 108% of location averages, while in 2025, Moravian 69 was at 85% of location averages (Table 55). M69 is short (2-4 inches below average) but may still be susceptible to lodging. Protein, test weight and plumps are at average in these trials. Moravian 69 is considered more susceptible to FHB with higher-than-average accumulation of DON in the seed.

Moravian 179 (C10-116-201) – Moravian 179 is a two-rowed malt line from Molson Coors adapted to the higher production conditions of southern Idaho. Yields of Moravian 179 tend to be higher than Moravian 69 with lower lodging but higher protein. Three-year yields were similar to ABI Raptor averaged over 3-yr irrigated locations (Table 47). In the cooler years of 2023 and 2024, Moravian 179 yields were at 95% and 102% of trial averages, respectively. In 2025, Moravian 179 was at 97% of trial averages (Table 59) Moravian 179 had very high plumps, good test weight and lower percent lodging than average. Proteins were high, with plant height similar to Moravian 69 and 2-4 inches shorter than average. Molson Coors lines are under Title V and PVP.

SPRING BARLEY – Food

Goldenhart (2Ab09-X06F058HL-31) – Released by the USDA-ARS in Aberdeen in 2018, Goldenhart is a spring two-rowed hulless food barley with beta-glucan content similar to Transit (9-10%) released for significantly increased yield potential under dry land conditions. Three-year averages for irrigated production (Table 56) put Goldenhart lower in yield than Kardia. In 2025, yields were 74% of trial averages (Table 64). Goldenhart has very high test weight and protein (Table 56) as expected for hulless barley. Emergence of the hulless barley varieties generally tends to be poor, especially under dryland production. Goldenhart and the hulless barleys are MS to S to FHB and DON accumulation. PVP was applied for Goldenhart.

Kardia (2Ab09-X06F084-51) – Kardia is a two-rowed, hulled food barley line released in 2016 by the USDA-ARS in Aberdeen and the University of Idaho AES as a replacement for Salute, with yield improvement of 4-5% over Salute. Yield (3-years, Table 56) of Kardia was greater than Transit and Goldenhart (both hulless). The beta-glucan level of Kardia is 7- 8.5% compared to 6.5% in Salute. Kardia is MS to S to FHB and as a hulled line has lower test weight than the hulless food barley. Yields in 2023 were 124% of trial averages and 102% in 2025 (Table 64) which included feed lines.

Transit (03AH3054-51) – a two-rowed hulless variety released by the USDA-ARS and the University of Idaho AES in 2010 for high-beta glucan content (waxy) and intended for human consumption. Seed beta-glucan content (9-10%) is higher than other previous industry standards such as CDC Fibar and CDC McGwire. Transit yields are lower or similar to Goldenhart. As expected for a hulless line, test weights are high for barley. Emergence of the hulless barley varieties generally tends to be poor, especially under dryland production. Transit and the hulless barleys are susceptible to FHB and DON accumulation.

SPRING BARLEY – Feed

Altorado (BZ509-601) – Altorado is a 2016 release from Highland Specialty Grains. Altorado is a two-rowed feed barley with very high yield potential. Irrigated 3-yr average yield was 16 bu/A greater than Champion with comparable high test weight (Table 658. Altorado is similar to Champion in disease resistance, test weight, and lodging with lower in grain protein and plant height (2 inches). Altorado's heading date averaged 1-2 days later than Champion. In 2025, the yield was 118% of the trial average (Table 64). (The trial averages include the lower yielding food lines.)

Ascent – Highland Specialty grain released in 2024 as a feed barley. Ascent yields surpassed Altorado in the three-year trial summaries (Table 56). Ascent has high test weight and was at trial averages for heading date and lodging. Ascent was 3 inches taller than average and had high plumps. IN 2025, Ascent yields were 109% of trial averages (Table 64).

Carleton (HO517-245) – Carleton is a two-rowed feed barley with very high yield potential, released in 2022 by Highland Specialty Grains as a replacement for Oreana. This is the third year in the UI trials, and it has been extensively tested in Montana and Canada. (TR20761 is the co-op testing number for Carleton in the Canadian regional trials.) Carleton is slightly shorter than Altorado and tends to have

similar standability. Under irrigation in these trials, yields were 3 bu/A greater than Claymore and 5 bu/A less than Altorado (Table 56). Carleton has much better FHB tolerance and less DON accumulation than Oreana and is earlier in heading date.

Champion (YU501-385) – a 2007 release from WestBred, LLC, now handled by Highland Specialty Grains. Champion is a very high yielding two-rowed spring feed barley with excellent test weight. Combined over locations and years, Champion yields were above trial average, which included lower yielding food barleys. Champion plant height was 1 inch taller than average, higher than average protein of most of the currently available feed lines, and heads at trial average. Champion is MR to MS to FHB.

Claymore (BZ509-216) – two-rowed feed barley from Highland Specialty Grains released in 2015. In three-year averages, Claymore consistently is in the top yielding group of feed lines, greater than Champion. Claymore is tall and similar in height to Champion (Table 56), is 1-3 days later in heading, with good test weight. In 2024, yields were 107% of trial average, but in 2025, yields were 95% of trial average. Claymore has good FHB tolerance (MR to MS).

Rulon (UTSB10905-72) – Rulon is a six-row spring feed barley with good yields and plump kernels released in 2023 by USU (Dr. Margaret Krause, Dr. David Hole). Rulon yield and test weight were less than Champion in 2024 and 2025 irrigated trials (Table 58), was 1 inch taller and 3-5 days earlier in heading. There is foundation seed available through the Utah Crop Improvement Association.

Successor (DH190481) – Successor is a spring 2-row feed barley released by Oregon Agricultural Experiment Station in 2023 that has imidazolinone-tolerance. Successor is early flowering and is lower yielding under irrigation (Table 58) and dryland conditions (Table 54). It is notable for tolerance to imidazolinone herbicides and can be planted in a rotation with crops that are treated with these chemicals. Successor is well adapted to dryland production in the Pacific Northwest but in 2024 and 2025 performed poorly in Soda Springs (Table 54). It is comparable in performance to the only other currently available imidazolinone-tolerant cultivar, Survivor, which has not been tested in UI EVTs. Foundation seed is available from Washington State Crop Improvement.

WINTER BARLEY

ABI Magic (2W114-7577) – the first two-rowed winter barley released by Busch Agricultural Resources in 2023. ABI Magic is a mid-season, med-tall winter barley that is agronomically similar to Charles but with higher test weight and 3-days earlier in maturity than Charles. ABI Magic has a prostrate to semi-prostrate juvenile growth habit with an erect and dense head type. ABI Magic has a wide area of adaptation in the Intermountain West with excellent malt quality. In the first year of trials in Rupert and Aberdeen, ABI Magic yields were slightly less than Wintmalt (Table 25) with similar test weight and grain protein. ABI Magic was two days earlier in heading, 3 inches taller and slightly greater in lodging than Wintmalt. Yield in 2025 was 91% of average (Table 28).

BC Clementine – a two-rowed winter barley developed in Germany by Breun Craft, targeted for the German all-malt style beers. Clementine yields averaging 225 bu/A in Aberdeen in 2022 without significant lodging. Over the past 2 years, Clementine had high yield (144 bu/A), plump, and test weight average protein (Table 24). Averaged over both locations, yields were 119% of trial averages in 2024, and 113% of average in 2025 (Table 28). Winter survival was very good in comparison to trial average in 2024.

BC Fay – another winter barley developed in Germany by Breun Craft, targeted for the German all-mart style beers. Fay is a two-rowed barley with good disease resistance (fungal and viral). Yields in Aberdeen (2022) were 214 bu/A with excellent test weight and high percentage plumps. In the multilocation and year summaries, Fay had higher lodging than Clementine and higher grain protein with yield similar to Wintmalt. Winter survival was very good in comparison to trial average (Table 25).

KWS Antonis – winter six-rowed KWS malting barley registered in the Czech Republic in 2024. In the first year of testing in these trials, yield of KWS Antonis was 218 bu/A (Table 25) with high test weight, high plump, lower than average protein and 4 inches taller than average. Even with the high yield and height, lodging was less than average. Yield across both locations was 127% of average (Table 28).

KWS Chillis – newly released winter malt barley from KWS Lochow in Germany having high yields similar to BC Clementine and high test weights (Table 25). In the first year of testing, KWS Chillis yields were 113% of average, with good plumps, lower than average proteins, but higher than average lodging. Plant height was 3 inches taller than trial average.

KWS Donau –The variety KWS Donau is a two-rowed winter malt barley produced and released through KWS Lochow in Germany and marketed through KWS Cereals in the U.S. KWS Donau had very high yields, test weight and plumps in the three-year average results, doing very well in 2019 and 2020, but not as well in the hotter production year of 2021. In Aberdeen in 2022, yields hit 195 bu/A. Average yields over multiple years is below BC Clementine (Table 24) and similar to Thunder. Lodging was below average and winter survival in 2023 and 2024 was very good. Heading date / maturity was 1 day earlier than the average, and proteins were at 10.4%, compared to the trial averages of 111.2%. For end use quality, extract content for Donau is at the level of 81.4% with a low level of proteolytic and cytolytic modification,

which is preferred in the craft brewing industry. KWS Donau had the winter survival in 2023 and 2024.

KWS Tardis – KWS Tardis is a high-yielding, two-rowed feed barley released in 2021 in the UK (parentage 11-12 x KWS Orwell). Yields have been comparable to 6-row feed barleys with strong straw, good disease resistance and reduced brackling. In 2025, the yields of KWS Tardis was 200 bu/A, less than KWS Antonis and higher than BC Clementine and KWS Chillis (Table 25). Lodging and plant height were lower than trial averages, plumps were excellent, and protein was at trial average.

LCS Calypso – is a two-rowed winter malt barley released by Limagrain Europe to replace LCS Violetta, having improved winter hardiness and yield and excellent malt quality. Yields and test weight were similar to Thunder at 101% of trial averages (Tables 24 and 28) over two years. LCS Calypso has good test weight, is 1-2 inches taller than average with avergae grain protein and lower than average lodging. LCS Calypso had good winter survival in 2023 and 2024.

Memento – Secobra / Agrii UK. Memento is a European two-rowed winter feed barley (deficiens type) released in 2017 (pedigree Baslic x KWS Cassia) being carried in Idaho through Scoular. Yields in 2025 were at 108% of trial averages (Table 24), greater than Thunder, and over the past 2 years, had average test weight and lodging. Spring stands were good and heading date was 1 day earlier than trial average. Memento has resistance to barley scald, net blotch and barley yellow mosaic virus.

Thunder (10.0777) – Thunder is an AMBA approved two-rowed winter malt release from Oregon State University (2016) with excellent yield potential and better winter survival than older winter malt barleys. Thunder averaged 128 bu/A over the three-year summary (2024-25) with good test weight (51.4 lbs/bu) and spring stand. In 2020 and 2023, poor winter conditions reduced spring stand, but in 2021, Thunder yielded 108% of trial averages and in 2022 Thunder yields were 113% of trial averages. Winter survival is one of the best of the widely grown US lines (Table 24). Heading date is 1 day earlier than the trial average and plant height is 1-4 inches less. Plumps and protein were very good although lodging was greater than trial averages. Thunder is susceptible to preharvest sprouting, as are most of the winter and spring malt varieties.

Top Shelf (DH162310) – released in 2024 through Oregon State University AES, DH162310 is now named Top Shelf. Top Shelf is a winter 2-row malt that is a non-GN variety (glycosidic nitrile non-producer or GN0), an important trait for the distilling industry. Glycosidic nitrile is a compound present in most American malts which, during distilling, can be converted to ethyl carbamate - a carcinogen. Great Western Malting is currently trialing it, and in UI Trials, Top Shelf yielded 183 bu/A in 2022 in Aberdeen. Over the past two years, Top Shelf yields were below average (Table 24) and winter kill reduced stands in 2023 and 2024. Proteins and percent plumps were high.

Upspring (05ARS748-270) – Upspring is a hulless, high beta-glucan (7% BG) winter two-rowed food barley variety released from USDA-ARS breeding program in 2018 in conjunction with the University of Idaho AES. Upspring was released as an alternative to Buck. Upspring headed 3-5

days later than the trial average and had a poor spring stand compared to the hulled varieties. As a hulless barley, test weight approaches that of winter wheat, at 59.8 lbs/bu averaged over 2 years (2024-25). Grain protein was 12.7%. Seed germination and emergence can be very low, and winter survival was poor in 2020, 2023, 2024 and 2025 in both locations (Aberdeen and Rupert). Overall winter survival (measured as spring stand) was 79% in 2021, 95% in 2022, 1% in 2023, 6% in 2024 and 58% in 2025. Upspring was released under PVP.

UT10201 is a six-row winter feed barley that was released by the Utah Agricultural Experiment Station in 2017. UT10201 has high yield potential under good agronomic conditions and high winter survival. The last three to four trial years have not been optimal for winter barley production. Yields and test weight of UT10201 have been below average and it was 3-4 inches shorter than trial average (Table 24). Foundation seed is available through the Utah Crop Improvement Association.

Wintmalt – a two-rowed winter malt developed by KWS Lochow (Germany) and imported from Europe. Wintmalt is being produced in the PNW, has good foliar disease resistance, and is an AMBA approved malt variety. In the two-year summary (2024-25), Wintmalt's yield was similar to Top Shelf and less than KWS Donau and Thunder. Test weight (50.6 lbs/bu) and plant height were below trial average. Wintmalt heading was 1-2 day later than average, grain protein was below trial average, and plumps were good.

SPRING WHEAT – Soft White

Alturas (IDO526) – a low-protein soft white spring wheat released by Idaho AES and USDA-ARS in 2002. Alturas has a partial waxy endosperm which may make it vulnerable to low falling numbers even without sprout damage. Alturas is adapted to both irrigated and dry land conditions and yields run above average in all trials (Table 38 and Table 48) similar to WB6430 and UI Stone, with average test weight and 2 day later heading date than average. Plant heights are 2 inches taller than average. Alturas is susceptible to the current races of stripe rust and to FHB.

Bush (WA8351) – named in honor of the pioneering Bush family, the first black landowners and settlers of Tumwater, WA. Bush has good agronomic qualities, including high yield, stripe rust and Hessian fly resistance, and wide adaptability. In previous testing in Washington, Bush yields were 7% greater than Ryan and similar to Seahawk (Table 40). Bush has excellent test weight, end use quality and bright white flour.

Butch CL+ (WA8345CL+) – a soft white spring wheat named for the WSU cougar mascot, Butch, planting this spring Clearfield line will be important for replanting into winter wheat damaged from winter kill or snowmold. Clearfield wheats have 2-gene resistance to imazamox herbicides such as to Beyond® herbicide for hard-to-control grassy weeds in winter wheat production. In the third year of testing, yield was less than average (95% of location averages) under irrigated and dryland conditions (Table 46). In 2025 in irrigated and dryland trials, Butch CL+ yields were higher than UI Cookie for yield with better test weight. Test weight was slightly below trial average and it was 3-4 inches shorter than average.

Louise (WA7921) – soft white spring wheat released in 2004 from Washington State University's spring wheat breeding program and used as a long-term quality check for soft white spring wheat. Louise is a later maturity, tall wheat with below average yields and high lodging potential under irrigated conditions. Louise performed below average for yield under irrigated and dryland conditions over the three previous years. Under dryland conditions, yields were higher than WB6430 (Table 39) with good test weight and low protein. Louise is susceptible to stripe rust and very susceptible to FHB.

Roger (WA8325) – a club wheat released in 2022 from Washington State University, Roger has been tested since 2021 (but was not tested in 2022) in the UI EVT, with yields similar to WB6211CLP and Louise. Roger is the first spring club wheat released with Hessian fly resistance. Roger has similar test weight, lower yield, and higher lodging than Melba and 2025 yields were 93% of location averages (Table 46), doing well in the upper elevation area of Tetonia.

Ryan (WA8214) – Ryan is a partial waxy soft white spring wheat released from Washington AES and USDA in 2016. Over the previous three years, Ryan irrigated yields were slightly below trial average and less than Seahawk (Table 38). Under dry land conditions, yield was similar to Butch CL+ (Table 39), and with low test weight. Ryan has Hessian fly resistance, tolerance to low acid / high aluminum soils, and HTAP (high temperature adult plant) resistance to stripe rust. Ryan was early to heading, similar to WB6430, was 1-2 in shorter than average, had lower test weight and may

lodge a little under higher input environments.

Seahawk (WA8162) – a soft white spring wheat released from WSUs spring wheat breeding program in 2014 adapted to dry land and irrigated production areas. Yield is similar to UI Stone and Ryan under irrigation (Table 38) and dryland production (Table 39) with better test weight. Plant height is a little above average and heading is 2-4 days later than UI Stone. Seahawk may have a tendency to lodge under high production practices. Seahawk yielded 98% of trial averages in 2024 (Table 46). Seahawk has resistance to Hessian fly, is very resistant to stripe rust, and susceptible to FHB. Seahawk has tolerance to high aluminum, low pH soils.

Soda (WA8327) - a new soft white spring wheat released in 2025 from the Washington Agricultural Research Station, Soda yielded 111% of trial average in 2025 (Table 46) and yielded slightly above WB6430 in the 3-year irrigated averages (Table 38) with higher test weight. Soda was 3 inches taller than WB6430 and two days later in heading. Soda is widely adapted, has Hessian fly resistance, aluminum tolerance and resistance to stripe rust.

Tekoa (WA8189) – a Washington State University 2016 release, Tekoa is a soft white spring wheat released for higher rainfall areas. Yields in 2023-25 were below average (Table 38). In 2024, yields averaged 101% of trial averages, doing well in Rupert, Idaho Falls and Soda Springs. In 2025, Tekoa yields were 105% of average. Tekoa does not yield as well in seasons where irrigation was restricted at the end of the growing season. Tekoa is adapted to low pH soils where aluminum toxicity can occur. Tekoa has good test weight, is 3-5 days later in maturity (heading date) than UI Stone and a little higher to average for plant height. Tekoa is resistant to stripe rust, Hessian fly, and susceptible to FHB, similar to Seahawk.

UI Cookie (IDO1405S) – a soft white spring wheat released in 2019 by the University of Idaho Ag Experiment Station. Three-year irrigated averages (Table 38) show UI Cookie a little below trial average for yield, yielding less than UI Stone, is lower for test weight and higher for grain protein, and similar in heading compared to UI Stone. Yield performance under dry land conditions is below trial average (Table 39). In 2025, UI Cookie yielded at 92% of trial average (Table 46). UI Cookie has acceptable end use quality, similar or better resistance to FHB than UI Stone, better resistance to stripe rust and improved threshability over Stone.

UI Stone (IDO599) - a soft white spring wheat released by Idaho AES in 2012, UI Stone has good yield potential, similar to Alturas (Table 38), and less than WB6430. The 3-yr average for yield under dryland trials (Table 39) was less than Alturas. In 2025, UI Stone performed at 103% of average yield (Table 46), in 2024 was 100%, and in 2023 performed at 109% of average. UI Stone was selected for good end use quality and reduced FHB susceptibility (it carries the Fhb1 resistance gene). The FHB reaction in UI Stone is similar to Seahawk. UI Stone also has tolerance (not resistance) to cereal cyst nematode and is susceptible to the current races of stripe rust. Test weight, heading, height and lodging are close to average, heading is 1 day later WB6430.

UI Warrior (IDO1902S) – a soft white spring wheat developed by the University of Idaho Ag Experiment Station, UI Warrior is exclusively licensed through Ririe Grain Coop. UI Warrior yields are competitive to Alturas and WB6430 under irrigation, although in 2025 UI Warrior yielded 99% of trial averages. UI Warrior yields were slightly less than WB6430 over the previous three years (Table 38), with higher test weight, similar maturity, and 3 inches taller. UI Warrior has stripe rust resistance and good end use qualities. Certified seed should be available in 2026.

WB6211CLP - a soft white spring wheat intended for a replacement to WB3510CL+, WB6211CLP is a Clearfield® Plus Variety from WestBred, with two-gene tolerance to Beyond (imazamox) herbicide. Clearfield wheats have resistance to imazamox herbicides such as Beyond® for hard-to-control grassy weeds. WB6211CLP has resistance to Hessian fly and good resistance to yellow (stripe) rust, much improved over WB3510CL+ which was very susceptible. WB6211CLP yields are below average for the dryland trials, below UI Warrior and similar to Ryan (Table 39), yielding at 98% of trial averages in 2025 (Table 46). Plant height of WB6211CLP is 1-2 inches taller than WB6430 under irrigation.

WB6430 (BZ608-125) – a soft white spring wheat released by WestBred (a unit of Bayer Crop Science) in 2014. WB6430 is a UI Pettit-type of soft white spring wheat with consistently high yield potential (Table 38), usually with good test weight, and has moderate resistance to stripe rust. Maturity is slightly earlier than average and WB6430 is also 2-4 inches shorter than average with good straw strength. In 2024, WB6430 yielded at 105% of trial averages, and in 2025, WB6430 yielded 102% of average (Table 46). FHB reaction for WB6430 is more susceptible than Seahawk (which is moderately susceptible) and has had high levels of DON accumulation in the grain.

SPRING WHEAT – Hard White and Red

Alum (WA8166) – a high protein hard red spring wheat released in 2015 by Washington State University's Ag Experiment Station for tolerance to aluminum in low pH soils. Over the past three years in the irrigated trials, Alum has had yields less than Jefferson HF, has high test weight, and was much higher in protein (Table 29). Alum heads about 1-3 days later than average, is 2-4 inches taller than average, and may lodge under high input production conditions. Alum is MR to MS to stripe rust and has moderate resistance to Hessian fly. Alum would be suited for the Ashton / Tetonia area (Table 35) where acidic soils are problematic, also doing well across dry land conditions (Table 30). Alum yields were 105% of location averages in 2025 (Table 37) and 119% of the dryland location average.

Choteau (MT9920) – is a semidwarf hard red spring wheat released by Montana State University in 2003 for dry land production areas. Choteau has the solid-stem characteristic, which contributes to resistance to the stem sawfly. Choteau yields were a little below average and similar to UI Platinum under dryland conditions in Soda Springs (Table 30). Choteau is similar in height to Jefferson HF and 1-2 days later in maturity. Choteau has average to good test weight, higher protein and has acceptable end use quality.

Three hard red spring wheats were trialed from Land O'Lakes / Winfield Solutions /

Croplan in 2025, and presented results represent only one year of testing (see Table 30). As these trials are managed for the average of the plots and the surrounding fields, it is likely the CP varieties did not meet their full yield potential due to the very late maturity of three of the four CP lines. RESISTANCE to stripe rust.

CP3555 – a hard red spring wheat released through Croplan / Land O'Lakes. CP3915 will produce high yields and grain protein when adequately fertilized for high yielding production conditions. In the first year of trialing in the UI EVT, yields of CP3555 were similar to UI Gold and WB9707. Test weights and protein were below average (Table 31). CP3555 was taller than Jefferson HF under irrigation and three days later in heading. CP3555 has high test weight, very good tolerance to BLS, resistance to stripe rust and good straw strength.

CP3530 – Croplan CP3530 is a high yielding hard red spring wheat with high grain protein. CP3530 stands well when planted at moderate seeding rates but may lodge at high seeding rates. In the first year of trialing in the UI EVT, yield and grain protein of CP3530 were similar to Holmes with lower test weight (Table 31). Grain protein was higher than CP3555 and close to trial average. Lodging was higher than trial averages. CP3530 has good resistance to FHB, strong stem rust resistance, and BLS resistance.

CP3915 – a hard red spring wheat released via Croplan / Land O'Lakes, CP3915 yields were below trial averages (Table 31), similar to WB7696. In the first year of trialing in the UI EVT, CP3915 had good test weight and high protein, headed 2 days later than trial averages and was 2 inches taller with some lodging.

Dagmar (MTS1588) – the dry land hard red spring wheat Dagmar is a 2019 release from Montana State University. In the 2019 UI trials, Dagmar was the top yielding variety in Soda Springs. In 2025, Dagmar yielded 103% and 102% of trial averages in Idaho Falls and Soda Springs. Dagmar also has good yield potential under irrigation but will lodge under higher input production (Table 29) and would benefit from growth regulators. Dagmar has good test weight, high protein, is early to medium maturity and was 2-4 inches taller than the irrigated trial average. Yields were at average in dryland trials (Table 30), and below average under irrigation (Table 29). Dagmar is semi-solid stemmed with resistance to wheat stem sawfly, but it does not have aluminum tolerance.

Dayn (WA8123) – Dayn is a hard white spring wheat released in 2012 by Washington AES and the USDA-ARS. Dayn is being handled in southern Idaho through Syngenta Cereals. Dayn was the highest yielding hard white spring wheat (Table 29) over the past nine years of the irrigated trials, yielding 112% of trial averages in 2024 and 113% of trial average in 2025 (Table 37). Test weight was at trial average. and heading date was 1 day earlier. Protein (13.0%) was a little below average, but as a hard white, protein targets are above 12.5%. Dayn was 1-3 inches taller than average and has good lodging resistance. End use quality is acceptable. Dayn is resistant to stripe rust and like all hard white wheats is susceptible hard white spring wheat for FHB.

Expresso (DA984-034SRR) – a hard red spring wheat bred and released in 2006 by WestBred (Bayer CropScience) with good resistance to stripe rust. Expresso was included due to its susceptibility to low falling number (FN). Yield performance was

similar to UI Platinum and Glee (Table 29), having average test weight, high protein (14.1%) and later maturity. Expresso has medium plant height.

Glee (WA8074) – hard red spring wheat released in 2012 through Washington State University with desirable end use quality and resistance to stripe rust. Glee is included in the trial as a quality check. Yield of Glee is lower than average in the irrigated trials (Table 29) and similar than Jefferson under dry land trials (Table 30). Glee has good test weight, is taller than average (3-5 inches taller than WB9668) and is at average for percent grain protein.

Hale (WA8315) – a hard red spring wheat released from Washington State University in 2022, Hale was the consistently highest yielding variety in WSU trials in the >20 in and 16-20 inches rainfall zones. Hale is resistant to Hessian fly, has high yields and has very good disease resistance and end-use quality. This is the third year in the UI EVT and irrigated yields were slightly below average (Table 29). Hale had good test weight and grain protein (13.9%) was above trial average, but below 14.5% HRS target. Hale performed very well under dryland conditions in Soda Springs, yielding 122% of trial yield average in 2023 and 123% in 2024 and having very good test weight. Hale is not tolerant to high acid soils where aluminum can reach toxic levels. Hale is medium-tall in height, has good stripe rust and Hessian Fly tolerance, good end-use quality and good falling number ratings.

Holmes (BZ917-221) – is a red-chaffed, hard red spring wheat developed by Nutrien Ag Solutions for the PNW and released in 2023. Holmes is a one-gene semi-dwarf with medium maturity. Over the previous three years (Table 29), yields were below average and similar to Dagmar and greater than WB9668. Holmes has very high test weight and grain protein averaging at 13.8%. Heading date has been 1-2 days earlier than average and is 1-3 inches taller than WB9668. Holmes contains Yr36 and is MR to susceptible current races of stripe rust, exhibiting susceptibility to the current 2024 race. In 2024 under dryland conditions, Holmes yields were similar to Choteau with very good test weight and lower grain protein.

HSG Timberline – a newly released hard red spring wheat from Highland Specialty Grains, HSG Timberline yields in 2025 irrigated trials were 93% than average, with low test weight. HSG Timberline was 3 days later in heading than average showing some lodging potential, with higher grain protein and high FN (Table 31).

Jefferson HF (IDO462) – hard red spring wheat released by Idaho AES and USDA-ARS in 1998. Jefferson is primarily intended as a dry land variety due to it being taller than average (can be 3-4 inches taller than average under irrigation depending on the year) and susceptible to lodging. Irrigated and dry land yields have been at or above nursery averages (Table 29, 30). Jefferson has high test weight and good quality when there is adequate soil nitrogen and sulfur, and when it has a minimum of 13% grain protein. In 2025, Jefferson HF yields were 112% of average (Table 37), with good yield under irrigation but with lower protein (13.1%). Jefferson HF was developed from Jefferson but specifically selected for Hessian fly resistance for which it was segregating. Jefferson (HF) is susceptible to the current races of stripe rust and very susceptible to FHB.

LCS Boom (LARR19-0024) – a hard red spring wheat released by Limagrain Cereal Seeds in 2022 for the MonDak production region having good disease resistance (European Genetics). In the second year of testing, LCS Boom yields were similar to WB9668, with excellent test weight and high average protein (Table 31). Heading date was similar to WB9668, and while 3-5 inches taller than WB9668, lodging was low. LCS Boom has FHB tolerance and resistance to stripe rust.

LCS Hammer AX – LCS Hammer was released by Limagrain Cereal Seeds in 2022 and is the first hard red spring wheat with the CoAXium herbicide resistance trait. Tested in 2023 - 2025, LCS Hammer has medium to tall plant height, good test weight, and intermediate resistance to FHB. The area of adaptation is considered the MonDak region and tested here at or above trial average for grain protein (13.5%, while trial ave. at 13.6%) and at or above trial average for yield (Table 29 and Table 37), similar to Jefferson HF. In 2025, LSC Hammer AX yields were 107% of trial averages across all locations. LCS Hammer AX headed at trial average, 1-2 days later than WB9668 and 4-5 inches taller than WB9668. LCS Hammer has intermediate reactions to stripe rust and FHB.

LCS Sentry – a hard red spring wheat targeted for the Montana and Idaho production areas, both dryland and irrigated. LCS Sentry is (from European genetics) resistant to stripe rust and stem rust, has good straw strength, high grain protein, very high test weight and yield. End use quality is rated as desirable. In the first year in UI EVT, yield was similar to WB9668 and below trial average and very good test weight. Grain protein was 14.2%, higher than the trial average but below WB9668 (at 15.2%).

MT Carlson (MT1939) – from Montana AES, MT Carlson is a hard red spring wheat released in 2023 and developed for dryland conditions. MT Carlson was tested in irrigated and dryland trials in 2023 and 2024. MT Carlson yields were similar to Dayn in 2025 (Table 31) with lower test weight and grain protein (at 13.9%) and low lodging. MT Carlson dryland yields have been very good in higher rainfall Montana production with better end-use quality than Vida. In 2025, MT Carlson yields were 103% of trial average (Table 37), doing well under dryland conditions at 111% of location yield average. MT Carlson has resistance to wheat stem sawfly (similar to Vida, less than Dagmar) and is tolerant of lower pH soil. Carlson also has better end use quality than Vida.

MT Ubet (MT2030) – a new hard red spring wheat released for dryland production by Montana AES in 2024, irrigated trial results in Table 29 show MT Ubet with average yield and lower test weight. MT Ubet was 1-2 day later in heading than WB9668, 5 inches taller and lower in grain protein under irrigation. Under dryland conditions, yield of MT Ubet was above average, similar to Dayn, with excellent test weight (Table 30). Proteins were at trial average.

Net CL+ (WA8280 CL+) – a 2019 release from Washington State University, Net CL+ is a hard red spring, two-gene Clearfield variety (having Als1 and Als2). Net CL+ has good end use quality and is intended for dry land production. Under irrigation (Table 31), Net CL+ yields were below trial average and similar to WB9668. Net CL+ headed 3-4 days later and is 1-4 inches taller than average (depending on year) with average grain protein. Net CL+ may have a tendency to lodge under higher production

conditions. Yield, proteins and test weight were above average under dryland conditions. (Net CL+ wasn't in 2024 trials.)

SY Teton (SY10136) – Syngenta Cereals released this hard white spring wheat in 2015. In the 2023-2025 three-year averages, SY Teton was one of the highest yielding of the hard white and hard red spring wheat group (Table 29). SY Teton was 8 bu/A less than Dayn for yield, with lower test weight and 3-4 inches shorter (Table 33) but with better end-use quality. Heading date is at trial average, similar to Dayn, and grain protein is a little low (13.2%), but optimum for a hard white wheat. Reaction to head blight was similar to Dayn, which was less susceptible than the majority of hard white spring wheat varieties. In 2025, SY Teton averaged 107% of trial average (Table 37), doing well in Tetonia and Soda Springs. SY Teton is moderately susceptible to stripe rust and may lodge at higher seeding rates.

UI Gold (IDO1804S) – Hard white spring wheat released from UI breeding program in 2022, UI Gold has had consistently high yields under irrigated trials in southern Idaho, 6 bu/A less than Dayn (Table 29) with better end-use quality. UI Gold is similar to Dayn in plant height and grain protein (13.1%), with lower test weight and 2-3 days later in heading date. Both are susceptible to FHB, as are most hard white spring wheats. UI Gold is susceptible to stripe rust and will need fungicide applications in years when stripe rust is prevalent.

UI Platinum (IDO694C) – a University of Idaho (IAES) hard white spring wheat, UI Platinum yields were below average with very good end use quality, lower test weight and good lodging resistance. Over the last three years, yield has been similar to WB7589 with similar test weight, lower protein (13.3%) and heading 2-3 days earlier (Table 29). In some environments, UI Platinum will show dark chaff discoloration similar to black chaff infection, which is not a disease but a genetic trait called melanism. UI Platinum is susceptible to stripe rust and very susceptible to FHB.

WB7313 (XD9201) – a hard white spring wheat released in 2020 from WestBred, WB7313 has greater yield potential than WB7589 and WB7696. Yield of WB7313 was similar to SY Teton across irrigated locations (Table 29) with higher test weight and grain protein (13.9%). In 2025, yileds were 100% of irrigated average, in 2024 yields were 92% of trial averages, and in 2023 yield was 101% of trial yield averages. Grain protein and test weight were at trial averages, and WB7313 headed 1-2 days earlier than Dayn, was 4 in shorter and had higher grain protein. WB7313 has good end use quality, resistance to stripe rust and similar FHB tolerance to Dayn. WB7313 has a tendency to show low falling number traits below 300s (Table 29).

WB7589 (BZ9S09-0735W) – a short-statured, hard white spring wheat most similar to Klasic in agronomic and end use quality. WB7589 was released in 2015 by WestBred (a unit of Bayer Crop Science) as a replacement for Klasic, having better resistance to stripe rust and higher yield potential. WB7589 yields are similar to UI Platinum (Table 29) with similar test weight and higher grain protein. Under heavy disease pressure, WB7589 was moderately resistant to stripe rust in 2016. WB7589 is susceptible to FHB.

WB7696 (XB9512) – a hard white spring wheat released in 2018 by WestBred (Bayer Crop Science), WB7696 was first tested in these trials in 2019, with yields and test

weights similar to UI Platinum (Table 29). WB7696 had lower test weight, is mid-maturity with lower-than-average protein, but at 13% is acceptable for a hard white spring wheat. Three-year irrigated yields were 16 bu/A less than Dayn, is 3-4 in shorter, with lower test weight and similar grain protein. WB7696 is susceptible to stripe rust and has a tendency to show low falling number traits below 300s (Table 29).

WB7747 – an irrigated hard white spring wheat with good straw strength, resistance to stripe rust, high test weight and grain protein. WB7747 is medium-late in maturity and should be managed for FHB control. Average yields were similar to WB7313 with later heading date, higher test weight and higher falling number values (Table 29).

WB9668 (BZ908-552) – a hard red spring wheat, WB9668 has been tested in the trials since 2014. Three-year data shows WB9668 to be lower than average for yield with good test weight and excellent grain protein at 14.8% (Table 29), but it yields very well under typical production conditions. WB9668 is 2-4 inches shorter than average, has lower lodging and an average heading date. WB9668 is very resistant to the current races of stripe rust and moderately susceptible to susceptible to FHB. WB9668 is also among the most resistant hard red spring wheats for cereal cyst nematode (CCN).

WB9707 (XC9304) – WB9707 is a hard red spring wheat released by Westbred / Bayer Crop Science in 2020. In the sixth year of trial testing, WB9707 yields were at 102% of irrigated trial averages (Table 37), but over the past three years yields were among the highest of the hard red spring wheat varieties (Table 29), with higher test weight (61.7 lbs/bu) and good grain protein (14.0%). Even in a hot year (2021) where trial test weight averaged 58.7 lbs/bu, test weight of WB9707 was 60 lbs/bu with 14.2% grain protein in irrigated trials. Heading was similar to Jefferson HF, and similar in plant height. WB9707 very susceptible to stripe rust, has FHB tolerance, and has a tendency to show low falling number traits below 300s (Table 29).

WB9724CLP – is a two-gene Clearfield wheat with tolerance to imazamox herbicide Beyond®. (The main use of Clearfield tolerant spring wheat includes planting following beans where imazamox may have a residual presence in the soil, or to reduce wheat red volunteer in Clearfield white spring wheat production.) WB9724CLP yields have been below average under dryland conditions (91% of dryland trial averages in Table 37), but with excellent test weight. WB9724CLP is at the trial average for height and is 3 days later in heading date as Jefferson HF (Table 30).

WB9749 – a hard red spring wheat in the first year of testing, WB9749 was released by Westbred / Bayer Crop Science in 2024. Yields across irrigated locations were 94% of trial averages (Table 37) and had good test weight (61.1 lbs/bu) and grain protein (13.6%). Compared to WB9668, WB9749 had similar yield, higher test weight and lower protein. WB9749 was 2 inches taller than WB9668.

WB9879CLP (IMICHT79) – developed by Montana State University and carried by WestBred /Bayer Crop Science, WB9879CLP is a hard red spring wheat with the solid stem characteristic that reduces impact from wheat stem sawfly. WB9879CLP is a two-gene Clearfield wheat with tolerance to imazamox herbicide Beyond®. Additional use of spring

Clearfield tolerant wheat includes planting following beans where imazamox may have a residual presence in the soil, or to reduce wheat red volunteer in Clearfield white spring wheat production. In 3-year summaries under dryland conditions, yields and plant height were average and comparable to Jefferson HF with higher test weight and protein (Table 30).

SPRING DURUM

Alzada (YU894-75) – durum wheat released in 2004 by WestBred (a unit of Bayer Crop Science) for excellent durum quality. Alzada yields are less than the average of other locally adapted hard red and white spring wheats, but greater than Tiburon, Imperial and WB8148 (all durums) with average test weight and grain protein. Alzada is very susceptible to FHB and is susceptible to the current races of stripe rust. Alzada has solid stems and performs well in dryland areas where the stem sawfly is a problem.

Tiburon – Tiburon is a durum that was released by Arizona Plant Breeders in 2013. Tiburon has lodging resistance, large grain size, average test weight and high protein (but lower than Alzada). Yield of Tiburon in 2025 was 91% of trial average, and lower than WB8148 and Alzada over the 3-year trials.

WB8148 (MTD18148) – developed through Montana State University and licensed through Bayer Crop Science, MT8148 is a spring durum for high quality pasta. WB8148 had higher test weight and protein than Alzada but was lower in yield. WB8148 was 4 inches shorter than trial average and 5 inches shorter than Alzada.

WINTER WHEAT – Soft White Winter

AP Exceed (11PN039#20) – is a soft white winter wheat primarily adapted to intermediate to high rainfall and irrigated production in Eastern Washington and Eastern Oregon, AP Exceed was released in 2020 by AgriPro / Syngenta Cereals. AP Exceed has done consistently well in southern Idaho, yielding 153 bu/A over the previous three years (Table 14), and 107% of trial average in 2024 and 100% of trial average in 2025 (Table 23). AP Exceed yields were similar to LCS Hulk and SY Ovation, was earlier and shorter than the average of the trials with good straw strength and had good test weight over several bad years for test weight. AP Exceed is tolerant to stripe rust and susceptible to soil borne mosaic virus.

AP Olympia (PN27MM604207) – a medium maturity soft white winter wheat from AgriPro / Syngenta released in 2023 for higher rainfall and irrigated conditions. AP Olympia yields are similar to WB1621 with lower test weight. AP Olympia has good to excellent winter hardiness, good tolerance to BYDV and stripe rust, but is susceptible to Soil Borne Mosaic Virus (SBMV). In the 2025 UI EVT, yields were 100% of average, doing very well in Kimberly and Rupert (Table 23). Heading date, test weight and plant height were similar to trial averages (Table 14).

Appleby CL+ (ORI2161250CL+) – Appleby CL+ is an OSU soft white winter wheat released in the fall of 2019 named after Dr. Arnold Appleby, a long-time professor of Weed Science at OSU. Clearfield wheats have resistance to imazamox herbicides such as to Beyond® herbicide for hard-to-control grassy weeds. Appleby CL+ is intended for low to intermediate rainfall zones (eastern areas of Oregon and Washington) and was tested in the dryland trials with yields at 84% of average. Appleby CL+ suffered stand loss due to severe winter conditions in 2023. Appleby CL+ has a 2-4 day earlier heading date than Eltan, has good resistance to stripe rust and rated as 'Desirable' for end-use quality.

Devote (WA8271) – a soft white winter wheat released in 2019 by the Washington State Ag Experiment Station and USDA-ARS, intended for rainfed production in areas of <12 inches of precipitation. In Washington, yields exceed Otto and has stripe rust resistance, good eyespot resistance, Fusarium crown rot resistance (FCR or dry land foot rot) resistance and has cold and snow mold tolerance. In Idaho, Devote performs agronomically similar to UI Sparrow with better test weight (Table 15). Devote and has excellent emergence when deep planted, yielding 109% of average in 2024, and slightly less than Eltan over three years in testing. Heading date was 4 days earlier than Eltan. Test weight was very good and plant height was about 1-2 in less than Eltan. Devote has good FCR, strawbreaker (eyespot), snow mold and stripe rust resistance. Devote is moderately resistant to dwarf bunt (similar to Eltan) but still requires difenoconazole seed treatment to prevent infection and quality issues. End use quality is better than Eltan.

Eltan (WA7163) – soft white winter wheat released in 1990 by the Washington AES. Eltan has wide adaptability in the dry land production areas with good snow mold tolerance. Yields are still consistently good to average in dry land trials (Table 15). Eltan will lodge under irrigation and is one of the latest varieties for heading date but is still a good choice for dry land production areas. Under heavy stripe rust pressure, Eltan was susceptible to stripe rust, and is

moderately resistant to moderately susceptible to dwarf bunt, so difenoconazole seed treatment is recommended.

Gale (OR2180377) – OSU in 2024 released a new soft white winter wheat in honor of Gale Gingrich, a former extension faculty with OSU. Gale has higher yield, is 1-2 days earlier in maturity and lower in test weight than Rosalyn under Willamette Valley production. Gale is awn-tipped and has greater resistance to stripe rust than Rosalyn. Yields and test weight of Gale were below average over the previous three years (Table 14), and at 93% of 2025 trial yields. Gale has "Most Desirable" end use quality.

Jameson (WA8290) – WSU released the dryland soft white winter wheat in 2022 for production areas below 12 inches of precipitation and in the 12-16 inch zone. Jameson emerges well when planted deep (comparable to Otto and Devote), has good eyespot resistance, moderate resistance to snow mold, and resistance to stripe rust. Jameson has lower than average test weight. Jameson has been rated as Most Desirable for end use quality, having the 5+10 glutenin genes and good falling numbers. In the first year of dryland testing in UI EVT, Jameson yields were similar to Devote (Table 21), with lower test weight, protein and was 2 inches taller.

LCS Blackjack (LWW15-71945) – Blackjack is a 2019 release from the Limagrain Cereal Seeds program; it is an awnless soft white winter derived from a Bobtail/Rosalyn cross with excellent yields in the 3-year averages (Table 14), similar to SY Ovation in yield and heading date with lower test weight and height (2 inches shorter). In 2024 yields were 113% of trial averages, and in 2025 yields were 102% of average (Table 23). LCS Blackjack has shown reduced yields in previous years due to winter kill and stand reduction in Ririe (in 2023). Straw strength is very good, and LCS Blackjack is resistant to stripe rust, has good stress resistance and good disease resistance to stem-based diseases.

LCS Hulk (LWW14-73163) – a soft white winter with released in 2018 by Limagrain Cereal Seeds for its wide adaptation in the PNW and high yield potential, yielding 108% of average in 2024 and 102% of normal in 2025 (Table 23). Three-year average yields were less than SY Ovation, with lower test weight, similar heading date, was 2 inches shorter in height and higher in grain protein (Table 16). LCS Hulk has high adaptability, excellent standing power, and good resistance to stem-based diseases. Height is 1 inch taller than average and heading date is at or 1day later than trial average (Table 14). LCS Hulk has good test weight and average protein. LCS Hulk is resistant to stripe rust.

LCS Hydra AX – released in 2024, LCS Hydra AX is a late maturity CoAXium soft white winter wheat. CoAXium wheats have the non-GMO, AXigen herbicide tolerance trait to help control annual and perennial grassy weeds. CoAXium wheats can used with Aggressor herbicide (ACCase inhibitors). LCS Hydra AX has moderate resistance to stripe rust, high test weight and high yields in high rainfall production regions of the PNW. In the first year of testing in the UI EVT, LCS Hydra yields were greater than Stephens and similar to AP Olympia (Table 16), having excellent test weight and higher protein. LCS Hydra AX showed a tendency to have lodging under high input conditions and was 1 inch taller than trial average.

LCS Jefe (LWW17-8185) – LCS Jefe is a soft white winter wheat best suited for intermediate rainfall production areas of the

PNW and trialed in these UI EVT for the first time in 2023-24. LCS Jefe was released in 2021 by Limagrain Cereal Seeds, having good stripe rust tolerance, very high test weight and low protein. Over the previous three years, LCS Jefe irrigated yields and heading dates were similar to WB1783 (Table 14) but had lower test weights and was 1 inch shorter.

LCS Kamiak – LimaGrain Cereal Seeds released LCS Kamiak soft white winter wheat in 2023 for intermediate to high rainfall areas of the PNW (16-20 in zone). LCS Kamiak has high levels of resistance to stripe rust and is resistant to crown rot sand C-stripe. LCS Kamiak has very good winter hardiness. LCS Kamiak has high test weight, and in the first year of testing, yields were similar to SY Assure and SY Ovation (Table 16). LCS Kamiak was 3 days earlier than SY Ovation, 2 inches shorter with similar grain protein and test weight. End-use quality is rated as Desirable.

LCS Kraken AX – is a early to medium maturity CoAXium soft white winter wheat released by LCS. CoAXium wheats have the non-GMO, AXigen herbicide tolerance trait to help control annual and perennial grassy weeds. CoAXium wheats can used with Aggressor herbicide (ACCase inhibitors). LCS Kraken AX is broadly adapted with good resistance to stripe rust and very good winter hardiness. With high test weight, LCS Kraken also has "Most Desirable" end-use quality.

LCS Reaper II AX – is a early maturity CoAXium soft white winter wheat released by LCS for high production zones of the PNW. CoAXium wheats have the non-GMO, AXigen herbicide tolerance trait to help control annual and perennial grassy weeds. CoAXium wheats can used with Aggressor herbicide (ACCase inhibitors). LCS Reaper AX is taller than LCS Artdeco with very good test weight and excellent stripe rust resistance. LCS Reaper has average straw strength and "Desirable" end-use quality.

LCS Scorpion AX – is a CoAXium soft white winter wheat released by LCS for high production zones of the PNW and improved straw strength over other CoAXium lines. CoAXium wheats have the non-GMO, AXigen herbicide tolerance trait to help control annual and perennial grassy weeds. CoAXium wheats can used with Aggressor herbicide (ACCase inhibitors). LCS Scorpion AX has yielded well in the PNW high production zones and has good stripe rust resistance and good test weight. IN 2025, LCS Scorpion yields were the highest in the irrigated soft white winter wheat trials (at 106% of average as seen in Table 23), with test weight, plant height and grain protein at trial averages (Table 16).

LCS Shine (LCS72916) – a broadly adapted soft white winter wheat with good test weight and high yield potential in low to intermediate rainfall zone in the PNW. LCS Shine was released in 2018 and has a good quality profile derived from a cross of Bobtail and LCS Biancor. LCS Shine has excellent stripe rust and Cephalosporium stripe resistance. Shine wasn't tested in 2022 and isn't in the 3-yr summary tables. In the previous dryland trials, LCS Shine yields were comparable to UI Sparrow, and was seven days earlier in heading and 6 inches shorter than UI Sparrow. Under irrigation (Table 14), LCS Shine yields were slightly lower than LCS Hulk and VI Gem, with similar test weight and heading date to VI Gem, and was 6 in shorter.

Mallory CL+ – released by USU in 2024, Mallory CL+ is an awnless soft white winter wheat with 2-gene resistance to imazamox

herbicide. Pedigree is Rosalyn/3/ORCF-103/AP100CL//OR2060371. Mallory CL+ yields were improved over Appleby CL+ and was shorter with lower test weight. Mallory CL+ is an earlier maturity variety with stripe rust resistance and good end-use quality. Seed is available from the Washington Crop Improvement Association.

Nimbus (OR2130755) – Nimbus is a SWW variety released by OSU in 2022 for low to intermediate rainfall production areas. Its pedigree is Carstens V/Skiles. It has most desirable (MD) end-use quality and one IMI gene conferring tolerance to imazamox (Beyond®) residues. It is tall with intermediate to early maturity. It's broadly adapted to the PNW and has good stripe rust resistance and is moderately resistant to strawbreaker foot rot (eyespot caused by *Ocumacula yallundae* and *acuformis*). Nimbus is a tall semidwarf, three inches taller than trial averages (Table 14), and had yield similar to UI Sparrow, average test weight and grain protein over the past three years. Nimbus may lodge under high input conditions.

Norwest Tandem (LOR-334) – a soft white winter wheat that was released in 2016 by Oregon State University jointly with Limagrain Cereal Seeds, LLC. Norwest Tandem yields were at trial average in 2022-2024 combined irrigated data, similar to UI Sparrow and greater than Stephens (Table 14). Tandem has earlier to mid-maturity, is very short with stiff straw, and performs best under irrigation. Under dryland conditions, Norwest Tandem yields were similar to Otto and Eltan, with low test weight and earlier heading (5 days earlier) (Table 15). Tandem has acceptable end use quality, and is susceptible to dwarf bunt, but has good resistance to stripe rust.

Otto (WA008092) – a dry land (<12" rainfall production zone) soft white winter released September 2011 by Washington AES, Otto is similar agronomically to Eltan and both are 2-5 days later in heading than trial average (Table 15). Otto has similar or greater yield potential compared to UI Sparrow, with test weight a little less than Eltan. Otto has good emergence from deep plantings in dry land areas with good cold tolerance and straw strength. Otto has resistance to eyespot foot rot and will have similar snow mold tolerance as Eltan, better stripe rust resistance and also is moderately resistant to dwarf bunt. However, appropriate seed treatment is required in areas where dwarf bunt is endemic. End use quality was better than Eltan and has higher grain protein.

Perrine (WA8415) – a soft white winter wheat released in 2024 through Nutrien Ag for high rainfall and irrigated production conditions, Perrine has yielded similar to WB1621 and VI Shock under irrigation (Table 14) and below SY Ovation. Test weight was below trial averages and was 3 days later in heading date and 2 inches taller than trial averages with a little lodging. Perrine has acceptable end use quality and has resistance to stripe rust.

Piranha CL+ (WA8305CL+) – Piranha CL+ is a Clearfield soft white winter wheat released in 2020 by WSU AES and the USDA-ARS in Pullman. Clearfield wheats have 2-gene resistance to imazamox herbicides such as to Beyond® herbicide for hard-to-control grassy weeds in winter wheat production. Piranha CL+ was not tested under irrigation in 2024. In three years of testing (2021-23), Piranha CL+ did very well under irrigated and dryland conditions, with yields at 106% of average in 2022, and 114% of average in 2023,

performing very well in dryland testing (Table 15). Piranha CL+ emerges well after deep-planting in the dryland production areas and while it yielded very well under irrigation, Piranha CL+ may lodge under irrigated higher production conditions. Over the previous three years under dryland conditions, Piranha CL+ was a top yielding variety, yielding more than Otto the same as Eltan and heading two days earlier. Piranha CL+ is susceptible to dwarf bunt.

Rollie (WA8334) – is a semi-dwarf soft white winter wheat released in 2024 by the WSU AES. Rollie is targeted for the low rainfall summer fallow-winter wheat rotation and was grown in southern Idaho in the dryland winter wheat trials. Yield in 2024 was high in the dryland location, at 122% of trial average while in 2025, yields were at 100% of dryland yield. Rollie has good emergence when planted deep. Rollie has resistance to stripe rust and carries genes for resistance to eyespot foot rot. Test weight was greater than average and heading date was 1 day later than Otto and 2 days earliet than Eltan (Table 15). Rollie has good end-use quality and high falling numbers.

Sockeye CL+ (WA8306CL+) – another 2020 release from the Washington State University, Sockeye CL+ is a soft white winter wheat with 2-gene resistance to imazamox herbicide. Sockeye CL+ also has very high yield potential and broad adaptability across productions regions, yielding just below AP Exceed in 3-year irrigated testing from 2021 to 2023. While it is recommended for production in the intermediate and high rainfall areas of the PNW, in 2023-25 testing was only under dryland conditions. Sockeye CL+ has a taller plant height and may lodge under irrigation. Yields were greater than UI Sparrow and Otto (Table 15) and similar to Eltan, had average test weight and had a heading date 1-5 days earlier than Eltan and Otto. Sockeye CL+ is moderately susceptible to dwarf bunt and appropriate seed treatment is required in areas where dwarf bunt is endemic.

Stephens (OR65-116) – a 1977 soft white winter release from Oregon AES, Stephens is kept as a long-term check in Idaho EVTs. Yield under irrigation is below average (Tables 14, 15 and 16), yielding 94% of trial average in 2025 (Table 23, Chart 3). Stephens heading date and grain protein is at average and end use quality is poor. Stephens is moderately susceptible to moderately resistant dwarf bunt, and does not have good resistance to BYDV, snow mold or stripe rust.

SY Assure (SY96-2) – a soft white winter wheat released in 2016 by Syngenta Cereals, yield in 2023-2025 irrigated trials was 19 bu/A less than SY Ovation (Table 14), similar to Stephens with better low test weight. SY Assure is broadly adapted with earlier heading than the trial average by 3-5 days and is 3 inches shorter than average and well suited for irrigated production under wheel lines. In these trials, short, early varieties are at a disadvantage due to management practices that are targeted to the average. SY Assure yields were 98% of irrigated averages in 2025 (Table 23). SY Assure is moderately resistant to moderately susceptible to dwarf bunt, and resistant to stripe rust.

SY Ovation (03PN108#21) – a soft white winter wheat released by Syngenta Cereals in 2011 for higher rainfall and irrigated production. SY Ovation has had excellent yields over the past seven years generally with good test weight (Table 14). The three-year data places SY Ovation in the top yielding of SWW wheat varieties. Plant

height and grain protein were above average with average test weight. SY Ovation is resistant to soil-borne mosaic virus, moderately susceptible to current races of stripe rust and very susceptible to dwarf bunt. SY Ovation has good end use quality and good threshability.

SY Ovation was utilized in a seeding rate test within the variety trials and was tested at 0.75, 1, 1.25 and 1.5 and 1.75% of the typically recommended seeding rate of 1 million seeds per acre. The yields between the seeding rates were not significantly different, and were 160, 160, 158, 159, and 154 bu/A, respectively (Table 16). With SY Ovation, increasing seeding rates did not increase yield, and looking at percent of average yield (Table 23), SY Ovation at the standard seeding rate was 102% of average across all locations.

UI Sparrow (IDO1108) – a 2016 release from the University of Idaho, UI Sparrow is a soft white winter wheat with high yield potential in irrigated and dry land production. While adapted to both, UI Sparrow has a higher tendency to lodge under irrigated production. Three-year irrigated yield was below average (Table 14). In 2024, UI Sparrow yielded 104% of trial averages over all locations and in 2025, it was 93% (Table 23). UI Sparrow has low test weight (58 lbs/bu), is 3-4 days later in heading date than average and may lodge under irrigation. UI Sparrow is notable for low accumulation of cadmium in harvested grain in comparison to other soft white winter wheat produced in dryland environments. Under dry land conditions, UI Sparrow was at trial average for yield over the past 3 years (Table 15), similar to WB1783. UI Sparrow is very resistant to dwarf bunt, which is a huge benefit under organic production systems. It was susceptible to current 2019 races of stripe rust, which was a low disease pressure year.

VI Encore CL+ – a soft white winter Clearfield variety with improved stripe rust resistance over UI Magic CL+. VI Encore does well in intermediate to high rainfall production areas of the PNW with higher test weight and taller than UI Magic CL+. End-use quality of VI Encore CL+ is rate as "Desirable." Tested under dryland conditions, yields of VI Encore CL+ was above trial averages and similar to Otto and Devote but with lower test weight (Table 15). Heading date was 1 day earlier than Otto and it was 3 inches shorter.

VI Gem – VI Gem is a joint release between UI and LCS showing high yields under high production zones of southern Idaho and the PNW. It is a broadly adapted soft white winter wheat with excellent stripe rust resistance and low grain protein. VI Gem has excellent straw strength and excellent end-use quality, rated as "Most Desirable." Test weight is comparable to SY Ovation, was 2 days earlier in heading and 1 inch shorter than Ovation. Yield of VI Gem was similar to LCS Hulk and LCS Shine.

VI Shock (UIL15-72223DH) – a soft white winter wheat released in 2020 for irrigated production through the UI/LCS joint venture for irrigated conditions. VI Shock yields were similar to VI Shock and LCS Hulk (Table 14), and above trial averages. VI Shock also produces a lot of straw. In 2025, yield was at 105% of trial average (Table 23), doing well in Rupert, but suffering winter damage and reduced spring stands in Ririe in 2023. Test weight is slightly lower than average at 59.1 lbs/bu compared with 57.6 lbs/bu. VI Shock has medium to late maturity, plant height is 1 inch greater than

average (Table 14) and it may lodge under irrigation.

WB1529 (BZ6W07-436) – soft white winter wheat released in 2014 by WestBred (a unit of Bayer Crop Science). Yields of WB1529 under irrigation are similar to SY Assure over three years 2023-2025 (Table 14) with higher test weight. Spring stands were significantly reduced in irrigated trials at Ririe in 2023 due to winter kill. WB1529 is 2-4 inches shorter than average, with grain protein at nursery averages. WB1529 is 1-2 days earlier in heading date and 3 inches shorter than WB1783 but yields less than WB1783. WB1529 has good milling and baking quality. WB1529 is resistant to current races of stripe rust and moderately resistant to dwarf bunt.

WB1621 – a recently released awnless soft white winter from Westbred/Bayer Crop Sciences, WB1621 is a medium-late maturity variety with good winter hardiness and high test weight for irrigated production. Irrigated yield in 2025 was at 100% of trial averages (Table 23). Average yield was similar to WB1783 (Table 14) and greater than WB1529 by 7 bu/A. WB1621 is shorter and earlier than WB1783, with similar grain protein. WB1621 has moderate resistance to stripe rust and is susceptible to dwarf bunt. WB1621 can be used for both grain and forage production due to the awnless heads.

WB1783 (BZ6W09-471) – a very high yielding soft white winter wheat released in 2016 by WestBred (a unit of Bayer Crop Science). Irrigated yield of WB1783 similar to SY Ovation and less than LCS Hulk (Table 16), but with very good test weight and good straw strength. Irrigated yield in 2022 was the highest in the trials, but in 2024, irrigated yields were at 99% of trial averages. In 2025, yields were at 101% of trial averages (Table 23). WB1783 is very resistant to stripe rust and very susceptible to dwarf bunt. WB1783 tends to be a late variety and should be planted early in the fall to improve establishment and winter survival.

WINTER WHEAT– Hard Red and White

Hard White Winter Wheat

Irv (OR2110679) – a hard white winter wheat released from Oregon State University in 2018 for moderate rainfall production conditions, Irv had low yield averages when tested under irrigated and dryland conditions (Table 4). In 2025, Irv yields were 95% of trial averages, similar to Millie with lower test weight and grain protein. In Soda Springs, spring stands of Irv averaged 15% in 2023 and 55% in 2024. Irv is short with plant height 3 inches below trial average and was below average for test weight. Irv has good end use quality, higher than average protein and is moderately resistant to stripe rust. Irv is susceptible to dwarf bunt.

Millie (OR2130118H) (W) – a hard white winter released the fall of 2020, named 'Millie' after Millie Rouch, wife of Chris Rouch, a dry land wheat farm family in eastern Oregon who have been long time supporters of the OSU wheat breeding program. Millie yields were below average under irrigation and at average in dryland trials in southern Idaho with high test weight and yield similar to WB4422 and ArTek (Table 4). Grain protein over the past three years under irrigation was 12.2%. Millie has good stripe rust resistance and excellent yield potential across low rainfall zones. Millie is 1-3 inches taller than average, with acceptable to good quality which depends on hitting protein targets.

Hard Red Winter Wheat

ArTek (Apst-52) – Nutrien's newest hard red winter wheat release, Artek was tested in these trials for three years. Artek yields were below trial average for the irrigated nurseries (Table 4), typical for short early varieties where yields often don't reflect potential under commercial production. In 2025, Artek performed at 95% of trial averages for yield, and doing well at Kimberly. Artek is early to mid-maturity, shorter than Keldin by four inches, at trial average for test weight, and had 12.1% grain protein (Table 4).

CS Bridger CLP (MTCL19151) – developed through MSU and released in 2024, the hard red winter wheat CS Bridger CLP was licensed through Circle S Seeds in MT. Circle S Seeds sells the PVP variety as certified seed only (CSO). Bridger CLP is an early heading but medium maturity semi-dwarf with two-gene resistance to imazimox herbicide, used in conjunction with Beyond herbicide for control of grassy weeds. CS Bridger has moderate resistance to stripe rust. In the first year of testing in UI EVT, yields were similar to Keldin with excellent test weight and slightly higher grain protein. Plant height was at trial average and there was some lodging under the high input production.

Curlew (UT9325-55) – a medium maturity hard red winter wheat released in 2009 by the Utah AES for the dryland production areas of southern Idaho and northern Utah in 2009. Curlew yields are comparable to UI SRG and Utah 100 under dryland conditions and is agronomically similar to Utah 100, is an inch taller with better test weight and higher protein (Table 5). Curlew is very resistant to dwarf bunt, and is moderately resistant to stripe rust.

FourOsix (MT1462) – a hard red winter released in 2018 by Montana State University as a replacement to Yellowstone, well-known for its high yield, with improved milling and baking qualities over Yellowstone. FourOsix has shown high loaf volume, water absorption and mixing characteristics. In the three-year trial averages, FourOsix had similar yield and slightly lower grain protein than Yellowstone, with the similar test weight and was 2-4 in shorter (Table 4). FourOsix has better resistance to stripe rust than Yellowstone with less lodging. In the dryland trials, winter stands of FourOsix and the other Montana lines were much greater than average. FourOsix performed very similarly to Yellowstone in the dryland trials and was 2 inches shorter. FourOsix is very susceptible to dwarf bunt and should have appropriate seed treatment to prevent infection.

Juniper (IDO 575) – hard red winter wheat released in 2005 by the Idaho AES for dry land production areas. Juniper has moderate yield potential under dry land production, yielding 2-3 bu/A below the average for the trials (Table 5 and 7). Juniper is extremely tall and will lodge under irrigation. Juniper has good test weight and protein, yielding less than Yellowstone and Keldin, is very resistant to dwarf bunt and moderately resistant to stripe rust.

Kairos – a hard red winter wheat from Highland Specialty Grains in Washington released in 2021 having better resistance to stripe rust than LCS Jet and Keldin. Kairos is 4-6 inches shorter than the trial averages in the 3-yr summaries (Table 4), and 2-3 days earlier in heading. Yield averages over the previous three years have been 5-10 buA below average, similar to the hard white winter wheat Millie. Kairos yields in 2025 were 96% of irrigated average (Table 13).

Keldin (ACS55017) – a hard red winter wheat distributed by WestBred (a unit of Bayer Crop Science) for irrigated production, Keldin has consistently been a high yielding hard red winter wheat with high grain protein in these trials (Table 4). 2022 yields were at 166 bu/A, the highest in the irrigated trials, yielding 111% of trial average yield. In 2023, Keldin yields were 109% of irrigated averages, and in 2024, Keldin yields were 104% of average (Table 15). Keldin is a little shorter than average for height, has very high test weight, and is at average for grain protein (12.4%). Keldin is susceptible to dwarf bunt and in 2016 and 2018 was moderately susceptible to prevalent races of stripe rust.

Keldin + 11-52-0 – In-furrow fertilizer was added to one variety in the hard winter and soft winter group to test the effect of starter fertilizer on yield. Monoammonium phosphate or 11-52-0 at 20 lbs phosphate per acre was included in-furrow. In Table 4 (3-year irrigated averages), Keldin and Keldin +11-52-0 were within 2 bushels of each other indicating no effect of starter fertilizer on yield, stand or other agronomic traits. Under dry land conditions, Keldin + 11-52-0 yields were 2 bu/A greater than Keldin without the starter. In 2020, dry land yield was improved by 6 bu/A with the addition of starter fertilizer (11-52-0), resulting in yield at 108% of trial average, as compared to Keldin without starter which yielded 98% of trial average. Starter fertilizer has greater advantages under dryland conditions where soil fertility is lower than under high input irrigated production.

LCS Blackbird (LWH18-0122) – recently released (2022) by Limagrain Cereal Seeds, LCS Blackbird performed well in the first and second year of testing in southern Idaho

trials (Table 6), agronomically similar to Keldin in yield, heading 1 day earlier in heading, with higher grain protein and lower test weight. LCS Blackbird yields were 101% of irrigated averages, on par with Keldin but having significantly lower test weight. LCS Blackbird has resistance to crown rot, is moderately resistant to C-stripe and strawbreaker foot rot (eyespot) and is intermediate in reaction to stripe rust. End use quality of LCS Blackbird is acceptable.

LCS Jet (NSA 7208) – a hard red winter with released in 2015 by Limagrain Cereal Seeds. LCS Jet has good yield potential and average grain protein (Table 4) and has been a high yielding hard red winter for the previous eight years of irrigated testing, just below Keldin. In 2022, LCS Jet yielded 112% of irrigated mean, while in 2023, yields were 99% of irrigated averages. In 2024, yields were 106% of trial averages and in 2025, Jet was 103%. Test weight is below average, and LCS Jet is 3 inches shorter than Keldin with good straw strength. LCS Jet is very susceptible to dwarf bunt and showed sensitivity to winter kill in 2023 and 2024. In 2019, LCS Jet showed an increase stripe rust susceptibility with a susceptible infection type. LCS Jet is susceptible to SBMV, has good resistance to eyespot and crown rot, and moderately resistant to C-stripe. LCS Jet has good (desirable) end use quality.

LCS Missile (LWH19-0192) – recently released from the LCS breeding program in 2022, LCS Missile is a broadly adapted hard red winter wheat that yielded at 105% of all location averages in 2024 (irrigated and dryland locations). Over three years of testing, LCS Missile yields and plant height were similar to Keldin, with lower test weight, lower lodging (Table 4) and similar in heading date. Under dryland conditions, LCS Missile yielded similar to UI SRG with lower test weight, similar winter hardiness, and 5-6 inches shorter in plant height (Table 5). LCS Missile has good tolerance to crown rot and has intermediate resistance to stripe rust. End use quality is listed at “Desirable.”

MT Meadowlark (MT2068) – a hard red winter wheat released by MSU in 2024 having medium to late maturity with high test weight. MT Meadowlark is semi-solid stemmed showing reduced stem sawfly cutting. MT Meadowlark was in irrigated and dryland trials for 2025, with yields under irrigation similar to Yellowstone (Table 6) with higher test weight, similar grain protein and similar tendency to lodge under high input environments.

NuMont (MT1491) – NuMont hard red winter was recently released (2023) by the MSU breeding program for the dryland production areas in the intermountain West. In the 2023 Soda Springs trial where winter kill was an issue, winter stands of NuMont and the other Montana lines were much greater than average. In 2024, NuMont yields were low at Ririe, and greater than UI SRG in Soda Springs. In 2025, yileds in Rockland were similar to Sequia) but with very high test weight and higher than average grain protein (Table 11). It wasn’t included at Rockland, so average data for the year isn’t available. NuMont has similar test weight as Yellowstone but lower grain protein.

Promontory (UT1567-51) – a hard red winter wheat released by Utah AES in 1991. Promontory is a dry land variety with excellent test weight. Yield under irrigation has been above average, but it will lodge and was not included in the irrigated trials. Promontory has short coleoptiles and may have trouble emerging when planted deep in dry soils. Over the past three years of testing

(Table 5), Promontory yields were below average. In 2025, yields of Promontory were 99% of dryland average yield. Promontory is resistant to dwarf bunt and moderately susceptible to stripe rust. Promontory is taller than average with good grain protein.

Scorpio (WA8268) – a broadly adapted hard red winter wheat released in 2019 by Agricultural Research Center of Washington State University, Scorpio is mid- to late-maturity with short stiff straw well adapted across the >15″ rainfall zones of the Pacific Northwest. Scorpio has high yield potential similar to Yellowstone, however the most recent 3-year irrigated averages yields were affected by winter kill in higher elevation production trials. Average yield was 148 bu/A (Table 4) with no lodging, and Scorpio was 5 inches shorter than Yellowstone. Test weight was less than average. Scorpio should be well-adapted to no-till situations with low pH soils as it has aluminum tolerance. In dryland trials, Scorpio yields were below average, similar to Utah 100 with lower test weight. Scorpio had moderately susceptible reactions to stripe rust in 2019, is susceptible to dwarf bunt and has tolerance to Hessian fly. Scorpio has good end use quality.

Sequoia (WA8180) – a dryland hard red winter wheat developed and released in 2015 by the Agricultural Research Center of Washington State University. Sequoia has very good (desirable) end use quality and emerges quickly in deep-planted situations. Sequoia yields under dryland conditions were greater than Keldin and Juniper over the three previous years (Table 5) and were similar to Curlew and FourOsix. Test weight and grain protein were less than average, and heading was 3-4 days later than average. Sequoia has cold tolerance, adult plant resistance to stripe rust, and good straw strength. Sequoia is susceptible to dwarf bunt.

UI SRG (IDO656B) – a hard red winter wheat released in 2012 by the Idaho AES for the dry land conditions of southern Idaho and northern Utah. SRG will lodge under irrigation without the use of growth regulators. Yields have consistently been at or above dry land average, less than Yellowstone with similar test weight (Table 5). In the past three years UI SRG showed some susceptibility to winter kill. UI SRG is very resistant to dwarf bunt and resistant to stripe rust and is a good choice for dry land production in southern Idaho, especially in the Soda Springs area.

Utah 100 (UT1650-150) – a hard red winter wheat released in 1996 by the Utah AES. Utah 100 has consistently done well dry land conditions for yield, but recently due to poor winter hardiness, yields have been low. In 2024, dry land yields averaged 113% of trial averages. It is taller than average with lower grain protein (Table 5). As a dry land variety, Utah 100 will lodge under irrigated conditions. Utah 100 is very resistant to dwarf bunt and is susceptible to current races of stripe rust.

WB4303 – released in 2022 by WestBred / Bayer Crop Sciences, WB4303 is an early to medium maturity hard red winter with high yield potential, good lodging resistance and very good end-use quality. WB4303 yields were similar to LCS Jet over the previous three years of testing (Table 4), with higher test weight and similar grain protein, yielding 103% of irrigated averages (Table 13). WB4303 did poorly under dryland conditions due to winter kill. WB4303 has good milling and baking quality and is resistant to soil borne mosaic virus (SBMV).

WB4401 (XC4109) – an awned, hard red winter wheat developed by WestBred (Bayer Crop Science) for the central and southern plains, WB4401 can be used for forage and grain yield. Average 2023-25 yield were similar to LCS Jet with greater test weight, and similar grain protein. It is early to medium maturity with consistently high yields. WB4401 is similar in height to Keldin, 3-4 days earlier in heading and lower in grain protein. Under dryland conditions in 2023, winter kill reduced the spring stand and yield of WB4401. WB4401 is moderately resistant to resistant to stripe rust, powdery mildew and soil borne mosaic virus. WB4401 has higher levels of tolerance to Fusarium head blight (scab).

WB4422 – a hard red winter wheat from Westbred / Bayer Crop Sciences with excellent test weight and good grain protein. Tested over the previous three years (Table 4), yields were less than Keldin but with higher test weight and protein. WB4422 was 1-2 inches shorter than Keldin and one day earlier in heading. WB4422 has resistance to soil borne mosaic virus but is susceptible to stripe rust. Milling and baking quality is good.

WB4445CLP – released by Bayer Crop Science, WB4445CLP is a two-gene Clearfield hard red winter wheat bred for the Central Plains and tested in the 2025 UI EVT. WB4445 CLP is a medium maturity hard red with very good Wheat Streak Mosaic virus tolerance and good drought tolerance. With high test weight, excellent winter hardiness and good straw strength, WB4445CLP has excellent milling and baking quality. WB4445CLP has moderate resistance to stripe rust. In 2025, WB4445CLP had low grain protein content but was one of the highest in yield and test weight in Rockland dryland trial (Table 11).

WB4510CLP (XD4201) – a Clearfield Plus variety, WB4510CLP is a hard red winter wheat released by WestBred (a unit of Bayer Crop Science) in 2017. WB4510CLP is an imi-tolerant winter wheat containing two genes for tolerance to BASF's grass herbicide Beyond® (imazamox). In the 3-year irrigated averages from 2021-23, WB4510CLP yielded 153 bu/A, 4 bu/A less than Keldin. WB4510CLP had excellent test weight, with similar grain protein and heading date to Keldin. In 2024 and 2025, WB4510CLP was only entered into the dryland trials, where yields were similar to Utah 100 (Table 5) but with greater test weight. WB4510CLP has been sensitive to winter kill in Soda Springs. WB4510CLP is medium maturity, has good test weight and is about average for plant height. WB4510CLP has very good resistance to stripe rust and powdery mildew and acceptable end use quality.

WB4640 – a hard red winter wheat from Westbred / Bayer Crop Sciences that was tested for three years in irrigated trials (Table 4). WB4640 yields were similar to LCS Jet with excellent test weight and average grain protein. WB4640 had the same heading date as Keldin and was 1 inch shorter. WB4640 yields were at 108% of irrigated trial averages (Table 13). WB4640 is moderately resistant to moderately susceptible to stripe rust. End use quality of WB4640 is very good.

WB4733CLP – a Clearfield Plus variety, WB4733CLP is a hard red winter wheat released by WestBred (a unit of Bayer Crop Science) in 2024. Clearfield lines are imi-tolerant winter wheat containing two genes for tolerance to BASF's grass herbicide Beyond® (imazamox). In the three years of testing in the dryland trials, WB4733CLP yields were less than trial average and less

than Promontory (Table 5), with lower test weight and higher grain protein. Winter hardiness of WB4733CLP was less than WB4445CLP, and less than trial averages. WB4733CLP is solid-stemmed and resistant to wheat stem-sawfly and stripe rust and has good milling and baking quality.

WB4739AX – In areas where grassy weeds are problematic and herbicide carryover can be problematic after use of imazamox herbicide, wheat with tolerance to Aggressor® herbicides (Co-AXium® Wheat Production systems) are an alternative. WB4739AX is a Westbred / Bayer Crop Science hard red winter wheat with tolerance to the ACCase inhibiting herbicide. In dryland trial testing, yield was similar to WB4510CLP, with higher test weight and lower protein. Overall, yields were 98% of trial averages, yielding below irrigated averages but showing excellent test weight and grain protein (Table 6). It was medium maturity and 1 inch shorter than Keldin, 2 inches taller than trial average. WB4739AX is moderately resistant to resistant to stripe rust and bacterial leaf streak (as measured in the Central Plains). Milling and baking quality are good.

Yellowstone (MT00159) – a hard red winter wheat with excellent yield potential in both irrigated (Table 4) and dryland conditions (Table 5) of southeast Idaho. Yellowstone was released by Montana State University and the AES in 2005 and is taller than average, has good test weight and high grain protein. Yields were similar to or a little less than Keldin and LCS Jet, and in 2024 and 2025, yields were 103% of trial average. Yellowstone and the other Montana hard winter wheat have good to excellent winter hardiness as demonstrated in the dryland trial at Soda Springs in 2023 and 2024. End use quality is average, with good loaf volume. Under very high production inputs, Yellowstone will lodge under irrigation. It is moderately resistant to dwarf bunt and susceptible to stripe rust. Seed treatments are recommended to prevent dwarf bunt infection when produced in areas where dwarf bunt is endemic.

Table 3. Ten year averages of selected agronomic characteristics, 2015-2024 compared to 2025.

NOTE: "Average" values are for years 2015 to 2025

Winter Wheat (all market classes and locations)

YIELD			*TEST WEIGHT			PLANT HEIGHT			HEADING DATE				LODGING		
Year	# of Loc.	bu/A	Year	# of Loc.	lb/bu	Year	# of Loc.	in.	Year	# of Loc.	date	Days fr. Jan.1	Year	# of Loc.	%
2025	**5**	**134**	2017	6	60.8	2015	6	35	2022	6	6/13	165	2016	6	11
2022	6	115	**2025**	**5**	**60.5**	2022	6	35	2019	6	6/12	164	2021	6	11
2023	3	115	2018	6	60.3	2016	6	35	2023	3	6/12	164	**2025**	**5**	**7**
2018	7	104	2020	7	60.2	2023	3	34	2021	6	6/9	161	2022	6	5
Avg.	---	**104**	2019	6	60.0	2018	7	33	2024	6	6/9	161	2015	6	4
2015	6	103	2016	6	59.4	2019	6	33	2020	7	6/8	160	**Avg.**	---	**4**
2020	7	102	2024	6	59.3	**Avg.**	---	**33**	**Avg.**	---	**6/8**	**159**	2019	6	3
2019	6	99	**Avg.**	---	**58.9**	**2025**	**5**	**33**	2017	6	6/6	159	2018	7	1
2021	6	95	2015	6	58.1	2021	6	31	2018	7	6/4	157	2017	6	0
2016	6	94	2023	3	57.6	2024	6	31	**2025**	**5**	**6/3**	**153**	2020	7	0.4
2024	6	92	2021	6	56.4	2020	7	30	2016	6	5/31	152	2024	6	0.2
2017	6	91	2022	6	55.6	2017	6	29	2015	6	5/31	152	2023	3	0

Spring Wheat (all market classes and locations)

YIELD			*TEST WEIGHT			PLANT HEIGHT			HEADING DATE				LODGING		
Year	# of Loc.	bu/A	Year	# of Loc.	lb/bu	Year	# of Loc.	in.	Year	# of Loc.	date	Days fr. Jan.1	Year	# of Loc.	%
2023	5	107	2016	5	61.9	2020	5	34	2022	5	6/30	182	2021	5	5
2018	5	106	2020	5	61.6	2023	5	34	2024	5	6/30	182	2022	5	5
2020	5	101	2017	5	61.6	2019	5	34	2019	4	6/28	180	2019	5	4
2019	5	100	2015	5	61.0	2022	5	33	2023	5	6/27	179	2023	5	3
2017	5	98	2018	5	61.0	2024	5	33	2020	5	6/25	177	2016	5	3
2015	5	97	2019	5	60.8	**2025**	**5**	**32**	**Avg.**	---	**6/25**	**176**	**2025**	**5**	**3**
Avg.	---	**96**	2024	5	60.6	2018	5	31	2017	5	6/24	176	**Avg.**	---	**2**
2022	5	96	**Avg.**	---	**60.6**	**Avg.**	---	**31**	2016	5	6/21	173	2015	5	2
2016	5	91	2022	5	60.0	2021	5	31	2018	5	6/20	172	2017	5	1
2025	**5**	**90**	**2025**	**5**	**60.0**	2016	5	31	2021	5	6/20	172	2024	5	1
2021	5	89	2023	5	59.2	2015	5	30	**2025**	**5**	**6/20**	**171**	2018	5	0.3
2024	5	89	2021	5	58.4	2017	5	28	2015	5	6/18	170	2020	5	0.2

Spring Barley (all market classes and locations)

YIELD			*TEST WEIGHT			PLANT HEIGHT			HEADING DATE				LODGING		
Year	# of Loc.	bu/A	Year	# of Loc.	lb/bu	Year	# of Loc.	in.	Year	# of Loc.	date	Days fr. Jan.1	Year	# of Loc.	%
2016	5	129	2016	5	53.6	2019	5	35	2023	5	7/4	185	2019	5	31
2017	4	128	2020	5	53.5	2023	5	34	2024	5	7/3	185	2015	4	24
2015	4	124	2024	5	52.8	2018	5	34	2019	4	6/30	182	2021	5	18
2020	5	119	**Avg.**	---	**52.0**	**2025**	**5**	**33**	2022	5	6/30	182	2023	5	18
2018	5	117	2022	5	51.9	2020	5	33	2020	5	6/28	180	2017	4	17
2023	5	117	**2025**	**5**	**51.7**	2022	5	33	**Avg.**	---	**6/27**	**178**	**Avg.**	---	**13**
2025	**5**	**116**	2019	5	51.5	2024	5	33	2021	5	6/25	177	2016	5	11
Avg.	---	**115**	2017	4	51.4	**Avg.**	---	**33**	2017	4	6/24	176	2018	5	10
2019	5	111	2018	5	51.4	2015	4	33	2018	5	6/24	176	**2025**	**5**	**6**
2022	5	107	2015	4	50.6	2017	4	31	**2025**	**5**	**6/23**	**174**	2022	5	5
2021	5	100	2023	5	50.6	2021	5	31	2016	5	6/20	172	2024	5	3
2024	5	100	2021	5	50.1	2016	5	31	2015	4	6/16	168	2020	5	1

Table 4. Hard Winter Wheat Irrigated Nurseries, 3-Year Averages (2023-2025; 11 site-years).

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Falling Number
HSG 124	157	59.3	100	6/2	35	3	11.0	302
WB4640	156	62.1	100	6/1	37	2	11.8	392
LCS Jet	155	59.4	99	6/2	35	1	12.1	365
WB4401	155	62.1	99	5/30	38	3	11.2	361
WB4303	154	60.5	100	5/29	35	3	11.9	341
LCS Blackbird	153	59.4	100	6/1	35	1	12.1	350
LCS Rocket	153	58.9	98	5/31	34	0	11.5	352
FourOsix	153	61.2	99	6/2	38	1	12.0	356
Keldin	153	61.6	100	6/1	38	12	11.7	352
Yellowstone	153	60.4	99	6/3	40	7	11.9	383
Rubicon	153	60.0	100	6/3	34	3	11.6	320
Milestone	152	59.8	99	6/2	37	0	12.1	380
LCS Missile	152	59.6	100	6/3	37	0	12.0	365
Keldin + 11-52-0	151	61.6	100	6/1	37	16	11.7	364
UT11532-2	149	59.9	100	6/4	32	2	11.5	368
Scorpio	148	59.5	98	6/3	35	0	11.9	356
OR2190160R	148	60.9	100	6/2	36	1	12.1	353
WA8399	147	58.7	100	6/5	37	8	11.0	300
UT11307-3	147	60.0	100	6/2	34	5	11.8	390
UT11408-8	147	59.8	100	6/3	35	6	11.6	348
OR2190064R	147	60.1	98	6/4	35	1	12.2	354
WB4422	147	62.5	99	5/31	37	1	12.3	397
Millie	145	61.4	99	6/2	38	2	12.2	367
ArTek	144	60.4	99	5/29	32	1	12.1	338
Irv	144	60.3	100	6/2	37	8	11.9	359
Kairos	144	60.2	100	5/29	32	1	12.0	336
Greenville	144	59.8	100	6/2	34	0	12.1	398
WB4739AX	143	61.5	100	6/1	38	10	12.5	369
UT11412-2	143	60.2	100	6/3	33	8	12.0	404
DBDH18-36	133	59.2	100	5/29	35	4	11.6	360
Average	149	60.3	100	6/1	36	4	11.8	359
CV (%)	3.6	1.7	0.7	---	---	---	3.0	7

Table 5. Hard Winter Wheat Dryland Nurseries, 3-Year Averages (2023-2025; 6 site-years).

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Protein (%)
Keldin + 11-52-0	34	59.3	87	6/18	26	---
Keldin	32	59.5	90	6/18	26	---
Yellowstone	32	59.0	96	6/19	27	11.6
FourOsix	31	59.2	88	6/17	25	11.6
Curlew	30	59.9	85	6/19	30	11.8
UT11227-4	30	60.1	88	6/22	34	11.5
Sequoia	30	59.1	86	6/21	31	11.1
UT11319-9	30	60.9	89	6/19	29	11.9
LCS Missile	30	58.3	87	6/18	24	11.4
WA8399	29	58.2	96	6/20	23	11.0
WB4739AX	29	60.3	89	6/17	24	11.8
UI SRG	29	59.3	91	6/19	30	11.6
UT11417-6	29	61.0	87	6/19	29	11.6
WB4510CLP	29	61.6	87	6/17	25	11.5
Utah 100	28	59.1	85	6/20	27	11.5
Scorpio	28	58.4	70	6/20	23	11.4
UT11426-2	28	60.9	87	6/20	35	11.9
WB4445CLP	27	60.3	95	6/14	24	12.3
Juniper	27	60.3	86	6/18	31	11.6
OR2190064R	27	58.7	75	6/20	22	11.5
LCS Jet	27	57.0	77	6/19	21	11.7
Promontory	27	60.7	82	6/19	31	12.0
DBDH18-36	26	56.3	88	6/15	23	11.6
OR2190160R	26	59.0	93	6/18	22	11.7
WB4733CLP	25	59.3	83	6/17	21	11.8
Average	28	59.2	86.8	6/18	25	11.6
CV (%)	7.3	2.1	7.0	---	---	2.4

*No Lodging to report.

Table 6. Irrigated Hard Winter Wheat Data Combined from Aberdeen, Kimberly, Ririe and Rupert, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Falling Number
WB4640	170	63.0	5/28	38	10	11.9	364
HSG 124	169	60.0	5/28	35	10	11.2	278
WB4303	168	61.4	5/26	38	14	12.1	317
Keldin x 1.50	168	62.7	5/28	36	27	12.2	373
LCS Rocket	167	59.6	5/27	35	0	11.5	351
LCS Jet	167	60.3	5/28	36	4	12.6	359
WB4401	165	62.4	5/25	39	19	11.3	302
FourOsix	165	62.0	5/28	38	8	12.4	347
CS Bridger CLP	164	62.4	5/27	37	7	12.1	354
Keldin x 0.75	163	62.8	5/28	37	12	11.9	376
LCS Blackbird	163	59.9	5/27	36	7	12.5	340
OR2190160R	162	62.0	5/28	36	2	12.1	329
Keldin	162	62.3	5/28	39	17	12.0	340
LCS Missile	162	60.3	5/29	38	1	12.4	351
WB4422	162	63.6	5/27	39	8	12.3	395
Milestone	162	60.0	5/29	38	4	12.5	354
Keldin + 11-52-0	161	62.3	5/28	38	19	11.9	351
HSG 086	161	61.3	5/28	33	7	11.2	345
OR2190064R	161	60.8	5/29	37	6	12.6	351
Keldin x 1.25	160	62.1	5/28	37	37	12.4	370
Scorpio	160	60.2	5/30	36	5	12.2	391
UT11532-2	160	60.6	5/31	33	8	11.5	348
UT11408-8	159	60.1	5/28	37	20	11.7	352
MTV2164	158	61.2	5/28	41	19	12.3	376
Flathead	157	63.3	5/26	39	9	12.2	387
Yellowstone	157	61.1	5/30	42	31	12.5	368
Kairos	157	61.6	5/25	33	5	12.0	352
Millie	157	62.2	5/28	36	11	12.6	371
MT Meadowlark	157	61.7	5/31	42	23	12.8	360
Irv	155	61.1	5/28	38	14	12.3	352
UT11307-3	155	60.6	5/28	34	18	12.1	377
WA 8425	154	61.7	5/27	37	22	13.0	370
NAS-W25-02	154	62.1	5/27	37	3	12.0	389
Rubicon	154	60.7	5/29	34	11	11.9	291
Greenville	153	60.4	5/28	35	2	12.1	393
WB4739AX	152	62.0	5/27	39	33	12.7	371
UT11412-2	150	60.4	5/29	35	28	12.3	395
ArTek	150	61.3	5/25	33	3	12.5	345
WA8399	148	58.6	5/31	38	32	11.5	305
DBDH18-36	136	59.7	5/25	35	15	12.0	375
Average	159	61.3	5/28	37	13	12.1	355
Standard Error	5.3	0.3	1.3	0.9	6.9	0.4	40
CV	3.5	1.7	---	---	---	3.6	7.8

Table 7. Agronomic Data for Hard Winter Wheat at Kimberly, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	FN Average
CS Bridger CLP	184	61.6	5/23	39	24	11.5	364
Keldin + 11-52-0	184	61.5	5/23	38	52	10.8	334
ArTek	184	61.0	5/21	35	8	12.4	326
FourOsix	183	61.2	5/24	40	29	12.1	320
MTV2164	182	60.7	5/24	44	58	11.3	365
WB4640	181	62.0	5/24	38	13	11.0	390
Flathead	181	62.9	5/22	42	16	11.0	372
Keldin	180	61.6	5/24	39	45	10.7	316
HSG 124	180	59.0	5/24	37	39	11.0	270
LCS Rocket	179	58.5	5/23	36	0	11.7	348
WB4401	178	60.8	5/20	39	57	10.5	206
LCS Jet	177	59.6	5/24	36	16	12.8	349
WA 8425	177	61.6	5/21	39	34	12.3	341
Millie	177	61.5	5/23	37	37	11.7	376
WB4303	176	60.0	5/22	39	51	11.6	293
LCS Blackbird	174	59.0	5/21	37	19	12.0	336
Keldin x 0.75	174	62.2	5/23	38	28	10.8	338
UT11408-8	173	59.2	5/25	37	74	11.2	319
OR2190160R	173	61.0	5/25	38	8	12.2	336
UT11307-3	173	59.6	5/23	36	74	12.1	418
Keldin x 1.25	172	61.6	5/24	40	85	12.6	370
Kairos	172	59.9	5/21	35	2	11.7	356
HSG 086	170	60.1	5/24	35	24	11.1	322
Keldin x 1.50	170	62.0	5/24	39	75	11.8	336
UT11412-2	169	59.4	5/25	33	81	12.1	442
UT11532-2	169	60.7	5/27	33	23	10.8	370
OR2190064R	168	59.2	5/26	38	25	12.6	326
LCS Missile	167	58.8	5/24	39	5	12.1	362
Milestone	166	57.7	5/25	41	9	12.9	364
Greenville	166	60.2	5/24	34	7	10.8	418
WB4422	165	62.0	5/21	40	27	11.2	396
NAS-W25-02	164	60.9	5/22	40	7	11.7	370
Scorpio	164	59.3	5/25	38	10	11.6	370
Rubicon	164	59.2	5/25	35	45	12.0	288
MT Meadowlark	164	61.2	5/28	44	72	12.3	358
Yellowstone	161	60.6	5/25	43	73	11.6	395
Irv	160	60.3	5/24	38	66	11.6	348
DBDH18-36	158	58.4	5/20	37	62	12.6	343
WB4739AX	150	61.0	5/23	41	84	11.9	346
WA8399	147	56.1	5/28	38	92	11.8	274
Average	171	60.3	5/23	38	39	11.7	347
LSD (=0.05)	25	1.7	2	0	---	---	---
CV (%)	5.2	2.3	1.3	7.0	---	---	---

*Seeding rates of Keldin were tested at 0.75, 1, 1.25, 1.5 and 1.75% of the typically recommended seeding rate of 1 mil seeds/A.
**No winter kill - spring stands excellent

Table 8. Agronomic Data for Hard Winter Wheat at Rupert, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	FN Average
WB4640	190	63.1	6/2	38.7	9	11.1	422
WB4303	186	60.5	5/30	40.4	4	11.2	330
MTV2164	183	60.5	6/2	46.8	8	11.4	390
Keldin x 1.50	182	62.6	6/2	39.1	35	11.0	378
WB4401	182	61.9	5/28	42.4	10	9.9	376
Flathead	180	62.8	5/29	43.5	9	10.7	364
LCS Missile	180	60.1	6/2	41.6	0	11.1	394
Yellowstone	180	60.6	6/3	45.8	56	11.4	400
Keldin x 0.75	180	62.8	6/2	39.4	9	11.1	369
LCS Jet	179	60.2	6/2	37.7	0	11.1	362
Keldin	179	62.6	6/1	42.6	13	10.7	365
HSG 124	178	58.9	6/2	37.8	0	10.2	289
Rubicon	175	59.6	6/4	36.3	0	10.8	278
OR2190064R	174	60.3	6/4	39.6	0	11.1	357
Milestone	174	60.1	6/2	41.5	0	11.4	380
WB4422	173	63.7	5/31	43.3	0	10.9	423
LCS Rocket	172	57.8	6/1	36.5	0	11.3	358
CS Bridger CLP	172	61.9	6/1	40.6	0	11.0	397
Keldin x 1.25	171	62.8	6/2	39.3	67	11.2	372
MT Meadowlark	171	61.4	6/5	44.3	17	10.8	384
Millie	171	61.5	6/3	37.5	3	11.1	366
Keldin + 11-52-0	170	62.6	6/2	39.8	25	10.9	388
UT11532-2	169	59.6	6/5	34.2	0	10.8	384
Scorpio	168	59.2	6/3	37.5	0	10.9	385
OR2190160R	167	61.7	6/1	38	0	11.4	379
UT11408-8	167	60.1	6/3	37.9	0	11.1	329
FourOsix	166	61.5	6/2	40.7	0	11.0	384
LCS Blackbird	166	59.2	6/2	37.5	0	11.2	360
WA8399	163	57.7	6/4	40.6	0	10.5	263
Irv	163	60.8	6/2	41.5	0	10.8	368
HSG 086	161	60.8	6/2	34.6	0	10.8	348
WA 8425	159	61.9	5/31	40	38	11.1	379
WB4739AX	159	62.2	5/31	42.8	52	12.2	350
NAS-W25-02	159	61.3	6/1	39.7	0	10.7	380
UT11307-3	158	60.2	6/1	34.6	0	11.3	394
Kairos	157	60.7	5/29	33.5	0	11.2	363
ArTek	155	61.2	5/29	35.2	0	11.2	368
Greenville	149	60.0	6/2	34.8	0	11.0	425
UT11412-2	148	60.0	6/4	34.3	0	11.2	428
DBDH18-36	136	58.6	5/30	37	0	11.4	363
Average	169	60.9	6/1	39	9	11.0	370
LSD (=0.05)	13	0.9	0	1.8	---	---	---
CV (%)	6.7	2.4	1.2	8.4	---	---	---

*Seeding rates of Keldin were tested at 0.75, 1, 1.25, 1.5 and 1.75% of the typically recommended seeding rate of 1 mil seeds/A.

/inter kill - spring stands excellent

Table 9. Agronomic Data for Hard Winter Wheat at Aberdeen, Irrigated, 2025

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	FN Average
Milestone	161	61.1	5/26	36	0	12.1	384
Keldin x 1.50	158	62.9	5/26	29	0	12.3	368
LCS Rocket	157	60.5	5/24	35	0	11.0	336
HSG 124	153	59.9	5/25	30	0	11.2	252
Scorpio	152	60.3	5/26	36	0	12.5	353
WB4303	152	61.9	5/23	35	0	12.2	327
WB4422	151	63.1	5/25	36	0	12.7	412
WB4640	151	63.0	5/26	36	0	12.4	410
FourOsix	151	62.2	5/24	33	0	12.3	349
WB4739AX	151	62.1	5/25	34	0	12.5	422
LCS Missile	150	61.1	5/26	35	0	12.4	342
Yellowstone	150	61.8	5/24	35	0	12.3	402
Keldin x 1.25	149	62.0	5/25	33	0	12.2	389
WA8399	148	60.2	5/25	37	10	11.1	265
HSG 086	146	62.0	5/26	31	0	11.2	333
OR2190064R	146	61.5	5/25	34	0	12.8	336
Keldin + 11-52-0	145	62.5	5/25	35	0	12.5	372
MT Meadowlark	145	62.6	5/26	38	0	12.7	363
OR2190160R	145	62.2	5/25	34	0	12.0	330
LCS Jet	145	60.2	5/24	34	0	12.4	371
UT11532-2	144	60.5	5/25	34	0	12.0	357
CS Bridger CLP	144	62.3	5/23	32	0	12.7	356
WB4401	143	62.9	5/25	38	0	11.7	358
Keldin x 0.75	143	62.6	5/25	34	0	12.5	388
Keldin	141	62.4	5/24	36	0	12.5	360
MTV2164	141	61.0	5/24	34	8	12.8	388
LCS Blackbird	139	59.6	5/25	35	0	12.9	335
WA 8425	139	61.2	5/25	34	0	13.4	384
Rubicon	138	61.3	5/22	32	0	12.1	326
NAS-W25-02	138	62.4	5/24	35	0	12.7	345
Irv	137	61.3	5/23	35	0	12.5	357
UT11307-3	137	60.0	5/24	32	0	12.1	400
UT11412-2	137	60.5	5/25	38	35	12.6	406
Greenville	136	60.3	5/25	35	0	12.8	404
Flathead	136	63.1	5/23	34	0	13.5	448
Kairos	136	61.6	5/23	33	9	12.1	362
Millie	136	62.8	5/24	37	0	13.4	369
UT11408-8	134	60.5	5/23	35	0	12.2	373
ArTek	124	60.6	5/23	32	0	13.1	358
DBDH18-36	123	60.2	5/24	33	0	12.2	368
Average	144	61.5	5/24	34	2	12.4	364
LSD (=0.05)	28	2.0	2.0	---	---	---	---
CV (%)	5.8	1.7	0.7	5.9	---	---	---

*Seeding rates of Keldin were tested at 0.75, 1, 1.25, 1.5 and 1.75% of the typically recommended seeding rate of 1 mil seeds/A.

**No winter kill - spring stands excellent

Table 10. Agronomic Data for Hard Winter Wheat at Ririe, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	FN Average
HSG 124	174	61.4	6/2	34	0	11.4	312
LCS Rocket	168	61.1	5/31	35	0	11.7	368
LCS Blackbird	168	61.5	6/1	34	0	12.7	349
HSG 086	168	62.6	6/2	31	0	11.2	380
WB4640	168	63.4	6/2	37	0	12.3	293
Rubicon	166	62.2	6/3	32	0	11.5	259
LCS Jet	166	61.3	6/2	36	0	12.6	358
OR2190160R	163	62.7	6/2	36	0	12.2	320
OR2190064R	162	61.3	6/3	35	0	12.5	390
Keldin x 0.75	161	62.9	6/2	37	0	12.5	403
UT11532-2	161	61.0	6/6	31	0	11.7	316
Keldin x 1.50	161	62.6	6/2	36	1	12.6	416
WB4401	160	63.4	5/29	36	0	11.7	342
CS Bridger CLP	160	63.0	6/2	37	0	12.2	342
UT11307-3	159	61.5	6/2	31	0	12.2	313
Keldin	158	62.9	6/2	37	4	12.8	344
Scorpio	157	60.8	6/5	35	0	12.5	450
UT11408-8	157	60.7	6/2	36	3	11.8	363
UT11412-2	156	61.2	6/2	34	1	12.3	338
WA8425	156	62.2	6/1	36	11	13.2	386
Keldin + 11-52-0	155	62.9	6/2	37	0	12.5	347
Keldin x 1.25	155	62.9	6/2	38	3	12.3	350
Millie	155	62.7	6/3	34	0	12.6	369
NAS-W25-02	155	63.3	6/1	34	0	11.5	451
Greenville	154	60.0	6/2	36	0	12.8	358
FourOsix	154	62.6	6/2	38	0	12.9	373
Kairos	154	62.7	5/30	32	0	12.3	338
Milestone	152	60.9	6/3	35	0	12.4	313
WB4422	152	63.7	6/1	37	0	12.9	378
LCS Missile	151	60.3	6/4	36	0	12.8	348
Flathead	148	63.6	5/31	37	0	12.1	340
WB4739AX	148	62.6	6/1	37	1	13.6	346
Yellowstone	148	61.5	6/6	43	0	13.6	308
ArTek	148	62.8	5/30	32	0	12.1	350
WB4303	147	62.0	5/31	36	0	12.4	331
Irv	146	61.3	6/2	38	0	12.8	350
WA8399	145	60.3	6/6	37	8	11.5	375
MT Meadowlark	144	61.1	6/7	40	0	13.5	358
DBDH18-36	141	61.1	5/28	34	0	11.2	413
MTV2164	140	61.8	6/2	41	0	12.7	376
Average	156	62.0	6/2	36	0.8	12.4	
LSD (=0.05)	12	0.7	---	---	---	---	
CV (%)	5.2	1.6	---	---	---	---	

*Seeding rates of Keldin were tested at 0.75, 1, 1.25, 1.5 and 1.75% of the typically recommended seeding rate of 1 mil seeds/A.

**No winter kill - spring stands excellent

Table 11. Agronomic Data for Hard Winter Wheat at Rockland, Dryland, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Protein (%)	FN Average
MTV2164	46	61.5	100	5/30	24	11.4	406
WB4445CLP	45	61.3	100	5/31	28	9.9	344
Keldin + 11-52-0	45	61.1	100	5/31	24	11.1	375
FourOsix	45	61.5	100	5/30	30	11.1	352
Yellowstone	45	60.8	100	5/31	31	10.6	380
UT11319-9	45	62.3	100	5/27	28	10.6	401
Curlew	44	61.3	100	5/30	29	10.4	371
WB4739AX	43	62.8	100	6/1	33	10.2	428
UT11408-8	43	62.0	100	5/31	34	9.8	328
WB4510CLP	43	62.1	100	5/28	27	10.9	364
OR2190064R	42	60.6	100	6/1	24	10.6	406
WA8399	42	63.1	100	5/29	27	10.6	362
UT11417-6	42	59.9	100	6/1	26	12.0	331
Utah 100	42	60.3	99	6/1	24	10.1	354
DBDH18-36	41	62.2	100	6/2	33	10.6	377
UI SRG	41	60.3	100	6/1	33	11.3	357
Promontory	41	60.7	100	6/1	34	10.4	370
Scorpio	41	60.6	100	6/1	26	10.4	307
UT11412-2	41	60.0	100	5/31	23	11.0	405
Juniper	40	61.3	100	5/29	27	10.0	301
Keldin	40	60.8	100	5/30	24	9.2	392
CS Bridger CLP	40	61.7	100	6/1	38	10.3	325
WA 8425	40	62.9	100	5/31	31	11.0	354
UT11307-3	40	58.2	100	5/27	25	11.1	297
MT Meadowlark	40	59.6	100	5/31	26	9.8	341
OR3230010H AX	40	59.7	100	6/1	22	11.2	377
LCS Jet	39	59.7	100	5/30	25	9.8	403
OR3230026AX	39	59.9	100	5/31	22	10.6	339
UT11532-2	39	60.6	100	5/28	30	10.5	412
UT11426-2	39	60.7	100	6/2	28	10.7	355
NuMont	38	62.6	100	6/3	39	11.2	409
Sequoia	37	60.0	100	6/2	22	10.6	302
OR2190160R	36	61.1	100	6/1	29	10.6	417
UT11227-4	36	60.7	100	6/2	33	11.2	354
WB4733CLP	34	61.6	100	6/5	37	10.4	404
Average	41	61.0	100	5/31	28	10.6	365
LSD (=0.05)	4	1.2	1	1.4	2	---	---
CV (%)	7.0	1.8	0.2	1.2	16.4	---	---

*No lodging at this location.

Table 12. Agronomic Data for Hard Winter Wheat at Soda Springs, Dryland, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	FN Average
UT11227-4	11.3	---	78	6/24	29	---	---	---
Sequoia	9.6	---	73	6/22	27	---	---	---
UT11426-2	6.3	---	66	6/19	31	---	---	---
Curlew	6.0	---	64	6/19	28	---	---	---
OR2190064R	6.0	---	72	6/21	23	---	---	---
UT11417-6	5.6	---	69	6/21	27	---	---	---
UI SRG	5.5	---	75	6/18	26	---	---	---
OR2190160R	5.3	---	72	6/15	23	---	---	---
UT11319-9	5.3	---	83	6/17	27	---	---	---
Yellowstone	5.3	---	79	6/19	23	---	---	---
Utah 100	4.8	---	69	6/20	25	---	---	---
WB4739AX	4.6	---	86	6/15	22	---	---	---
MT Meadowlark	4.5	---	81	6/19	24	---	---	---
NuMont	4.2	---	82	6/19	23	---	---	---
Keldin + 11-52-0	4.1	---	65	6/17	27	---	---	---
Juniper	4.0	---	76	6/16	28	---	---	---
WB4733CLP	4.0	---	70	6/15	21	---	---	---
Keldin	3.8	---	52	6/19	24	---	---	---
FourOsix	3.6	---	72	6/16	25	---	---	---
Promontory	3.4	---	65	6/18	26	---	---	---
CS Bridger CLP	3.3	---	75	6/16	21	---	---	---
Scorpio	3.3	---	74	6/20	21	---	---	---
WB4510CLP	3.2	---	83	6/15	26	---	---	---
OR3230010H AX	3.1	---	79	6/14	26	---	---	---
WA8399	3.1	---	88	6/20	22	---	---	---
OR3230026AX	2.6	---	81	6/14	24	---	---	---
MTV2164	2.5	---	71	6/17	23	---	---	---
WA 8425	1.9	---	78	6/12	21	---	---	---
LCS Jet	1.7	---	82	6/15	21	---	---	---
DBDH18-36	1.6	---	78	6/11	22	---	---	---
WB4445CLP	1.1	---	78	6/11	23	---	---	---
Average	4	---	75	6/17	24	---	---	---
LSD (=0.05)	3	---	25	3.2	3	---	---	---

Table 13. Hard Winter Wheat Yield Percentage of Location Averages, 2025.

Variety or Selection	Aberdeen	Kimberly	Rupert	Ririe Irrigated	Ririe Dry	Rockland	Soda Springs	Variety Average
WB4445CLP	---	---	---	---	---	111	---	**111**
UT11319-9	---	---	---	---	---	110	---	**110**
Curlew	---	---	---	---	---	107	---	**107**
WB4510CLP	--	---	---	---	---	104	---	**104**
UT11417-6	---	---	---	---	---	101	---	**101**
Utah100	---	---	---	---	---	101	---	**101**
UI SRG	---	---	---	---	---	100	---	**100**
Juniper	---	---	---	---	---	99	---	**99**
Promontory	--	--	--	---	---	99	---	**99**
Sequoia	---	---	---	---	---	91	---	**91**
UT11227-4	---	---	---	---	---	89	---	**89**
WB4733CLP	--	--	--	---	---	81	---	**81**
WB4640	103	108	113	106	---	---	---	**108**
HSG124	107	105	106	111	---	---	---	**107**
LCS Rocket	106	106	102	107	---	---	---	**105**
Keldin	102	103	105	---	104	106	---	**104**
FourOsix	104	105	99	---	100	111	---	**104**
MTV2164	97	108	109	---	93	112	---	**104**
LCS Jet	101	103	106	---	109	97	---	**103**
WB4401	100	102	108	102	---	---	---	**103**
Yellowstone	106	93	107	---	97	111	---	**103**
WB4303	104	104	110	93	---	---	---	**103**
CS Bridger CLP	103	106	102	---	104	98	---	**103**
OR2190064R	101	98	103	---	106	103	---	**102**
LCS Missile	102	99	107	---	99	---	---	**102**
Milestone	110	98	103	96	---	---	---	**102**
HSG086	103	101	96	106	---	---	---	**102**
Scorpio	104	99	100	---	102	100	---	**101**
LCS Blackbird	97	101	98	107	---	---	---	**101**
Rubicon	97	96	104	105	---	---	---	**101**
Flathead	95	106	107	94	---	---	---	**101**
UT11408-8	97	102	99	98	---	105	---	**100**
Millie	96	105	101	98	---	---	---	**100**
UT11532-2	101	101	100	102	---	95	---	**100**
WB4422	102	97	103	95	---	---	---	**99**
WA8425	98	102	95	---	102	97	---	**99**
OR2190160R	100	100	99	---	106	88	---	**99**
MT Meadowlark	103	95	102	---	94	97	---	**98**
WB4739AX	104	90	94	---	96	106	---	**98**
OR3230026AX	---	---	---	---	---	98	---	**98**
UT11307-3	96	101	94	101	---	97	---	**98**
UT11412-2	97	101	88	99	---	100	---	**97**
OR3230010H AX	--	--	--	---	---	97	---	**97**
NAS-W25-02	99	95	94	98	---	---	---	**97**
WA8399	103	84	97	---	95	103	---	**96**
Kairos	97	97	93	98	---	---	---	**96**
UT11426-2	---	---	---	---	---	95	---	**95**
Artek	89	105	92	93	---	---	---	**95**
Greenville	94	98	89	98	---	---	---	**95**
Irv	96	93	96	93	---	---	---	**95**
NuMont	---	---	---	---	---	94	---	**94**
DBDH18-36	87	91	81	---	92	98	---	**90**
Location Average (bu/A)	**143**	**170**	**168**	**158**	**153**	**41**	**---**	

Chart 2. 2025 Hard Winter Wheat Yield Percentages Across Locations
(Average= 100%)

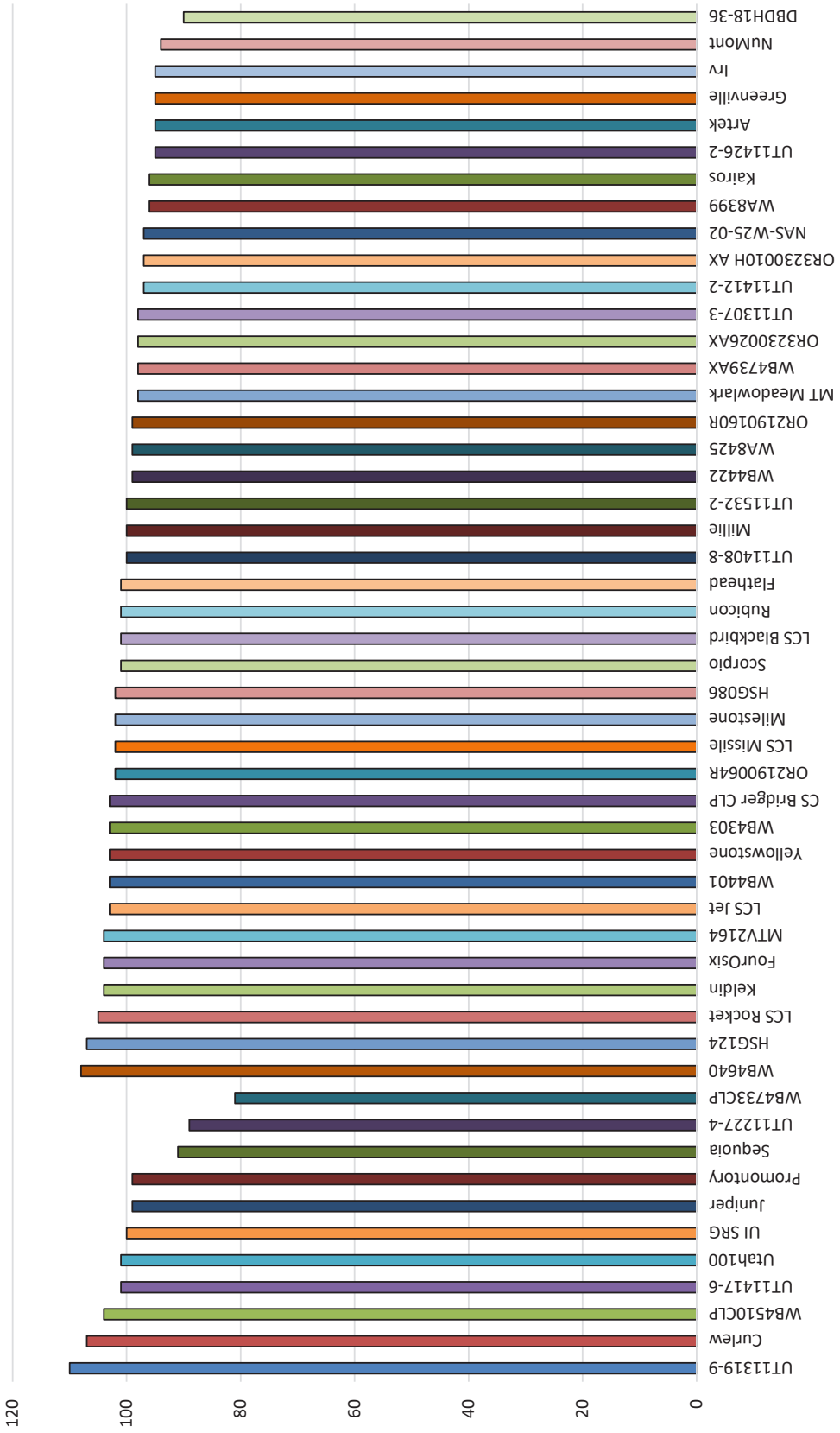

Table 14. Soft White Winter Wheat Irrigated Nurseries, 3-Year Averages (2023-2025; 11 site-years).

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Falling Number
SY Ovation	157	59.6	83	6/4	38	0	---	322
WBXH1055	154	61.0	100	6/3	41	7	10.6	---
AP Exceed	153	60.4	99	6/2	36	0	10.1	319
UIL17-995133B	153	60.2	98	6/3	36	2	9.8	323
LCS Blackjack	152	58.2	98	6/4	36	0	10.6	334
LCS Hulk	151	60.4	100	6/4	38	1	10.8	316
VI Gem	151	59.4	96	6/2	37	4	10.5	320
LCS Shine	148	59.4	100	6/2	32	3	9.8	326
UIL14-211120A	148	58.6	97	6/4	39	1	10.2	320
VI Shock	148	59.1	97	6/4	38	1	10.3	310
AP Olympia	146	59.8	100	6/4	36	1	10.7	308
WB1621	145	61.4	98	6/3	37	3	10.1	309
Perrine	145	59.1	98	6/6	40	1	10.5	339
WB1783	145	61.5	99	6/4	37	1	10.8	334
LCS Jefe	144	59.1	100	6/4	36	5	10.0	315
UI Sparrow	142	58.0	96	6/8	41	4	11.0	338
Nimbus	142	59.4	97	6/3	40	2	10.6	324
IDO1708	141	58.3	99	6/3	36	3	10.5	318
OR2160243	140	58.8	98	6/4	36	2	10.3	321
Norwest Tandem	139	59.2	99	6/2	34	2	10.5	313
Stephens	138	58.4	98	6/3	37	2	10.8	322
SY Assure	138	60.2	98	5/31	34	2	11.0	310
WB1529	138	61.1	97	6/3	34	1	10.8	316
Gale	138	57.8	100	6/5	36	0	10.2	326
OR2170559	132	58.4	99	6/4	35	0	10.7	311
Average	145	59.6	98.1	6/3	37	2.9	10.5	321
CV (%)	4.3	1.8	3.4	---	---	---	3.3	2.8

Table 15. Soft White Winter Wheat Dryland Nurseries, 3-Year Averages (2023-2025; 6 site-years).

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Protein (%)
Sockeye CL+	34	56.2	95	6/16	26	10.2
Eltan	34	57.5	96	6/22	25	12.8
Piranha CL+	34	56.8	95	6/16	26	10.4
Eltan 11-52-0	33	57.7	92	6/22	25	13.0
Norwest Tandem	32	56.4	98	6/15	23	10.9
Rollie	32	57.8	93	6/20	25	10.3
Devote	31	58.7	95	6/18	24	10.4
Otto	31	57.3	97	6/19	26	10.8
VI Encore CL+	31	56.0	79	6/18	23	10.8
WB1783	30	60.0	48	6/16	26	12.6
UIL14-211120A	30	56.3	97	6/16	25	10.3
Nimbus	30	57.1	95	6/14	24	10.5
UIL17-995133B	29	57.7	96	6/15	24	10.3
UI Sparrow	29	56.4	92	6/18	26	10.3
LCS Jefe	27	56.7	98	6/16	23	10.3
IDO1708	26	55.0	95	6/14	24	10.3
WB1621	25	59.6	50	6/13	23	12.0
SY Assure	25	58.1	92	6/14	23	10.7
LCS Shine	24	56.0	97	6/15	21	10.0
Appleby CL+	24	56.7	95	6/15	24	10.7
Stephens	24	56.0	96	6/15	24	10.5
Average	29	57.1	90	6/16	24	10.9
CV (%)	12.1	2.2	15.8	---	---	8.4

*No Lodging at these locations.

Table 16. Irrigated Soft White Winter Wheat Data Combined From Aberdeen, Kimberly, Ririe And Rupert, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)
LCS Scorpion AX	168	60.2	100	5/30	37	7	10.7
WBXH1055	167	61.6	100	5/31	42	11	11
LCS Blackjack	164	58.9	100	6/1	36	0	10.8
WA8450	162	61.2	100	6/1	36	10	10.9
LCS Hulk	162	60.8	100	6/1	39	7	11.2
UIL 17-995133B	162	60.8	100	5/31	38	11	10
AP Exceed	161	61.1	100	5/30	37	4	10.4
VI Shock	160	59.5	100	6/1	40	4	10.6
LCS Kamiak	160	60.7	100	5/29	36	0	10.8
SY Ovation	159	56.7	100	6/1	37	9	10.7
WA8426	159	60.2	100	6/2	35	9	10.6
LCS Hydra AX	159	61.3	100	6/1	39	17	11.1
SY Assure	158	61.1	100	5/29	36	12	11.3
VI Gem	158	59.6	100	5/30	39	14	10.8
UIL 17-355144A	158	60.8	100	5/31	34	4	10.6
SY Ovation x 1.50	157	60.3	100	5/31	39	0	10.8
UIL 14-211120A	157	59.3	100	6/1	40	5	10.6
WB1783	156	61.9	100	6/1	37	6	11.1
WB1621	156	62.4	100	5/31	38	16	10.4
SY Ovation x 1.25	156	60.4	100	6/1	38	0	10.5
Perrine	155	59.6	100	6/3	41	5	11.1
SY Ovation x 0.75	155	60.3	100	6/1	36	10	10.8
LCS Shine	155	60.3	100	5/30	33	11	10.4
XG1305	155	62.8	100	5/27	36	2	11
AP Olympia	154	60.3	100	6/1	36	3	10.9
SY Ovation x 1.75	154	60.3	100	5/31	38	17	10.9
WA8440	154	60.4	100	6/2	35	6	10.8
Nimbus	153	59.9	100	5/30	41	10	11.1
WA8420AX	153	59.7	100	5/30	39	11	10.9
LCS Jefe	153	59.7	100	6/1	36	20	10.2
Stephens	152	58.8	100	6/1	37	10	11.2
OR2180149	152	59	100	5/31	37	4	10.5
OR2160243	152	59.2	100	5/31	37	8	10.8
WA8447	151	58.9	100	6/4	36	13	10.8
OR2170559	150	59.4	100	6/1	36	0	10.9
Gale	148	58.4	100	6/2	37	0	10.4
IDO1708	147	58.5	100	5/31	37	17	10.8
UI Sparrow	147	57.9	100	6/4	42	18	11.5
WB1529	146	61.9	100	5/31	35	7	11.3
Norwest Tandem	143	59.4	100	5/30	34	9	11.1
Avg	**156**	**60.1**	**100**	**5/31**	**37**	**8**	**10.8**
CV (%)	**3**	**2.1**	**0**	**1**	**5**	**64**	**2.9**

Table 17. Agronomic Data for Soft Winter Wheat at Kimberly, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	FN Average
WBXH1055	201	61.1	5/25	44	21	9.6	291
AP Exceed	200	61.5	5/23	39	8	8.8	300
LCS Scorpion AX	200	59.7	5/22	40	25	9.6	362
AP Olympia	196	59.5	5/26	40	8	9.8	278
SY Assure	192	60.2	5/21	39	47	11.2	273
LCS Jefe	191	60.1	5/25	38	59	8.8	317
LCS Kamiak	191	60.1	5/22	38	1	9.8	278
LCS Blackjack	191	58.9	5/26	40	0	9.5	322
WA8450	189	60.5	5/26	39	41	10.9	306
XG1305	189	62.1	5/22	41	4	10.3	310
SY Ovation x 1.50	189	59.8	5/24	42	1	9.2	277
Nimbus	188	59.6	5/24	44	42	10.1	312
OR2180149	186	58.3	5/24	41	9	9.8	260
VI Shock	186	58.8	5/25	42	9	9.2	311
SY Ovation x 1.25	184	59.8	5/25	41	2	9.2	278
LCS Shine	183	60.4	5/23	35	50	9.7	336
LCS Hulk	183	60.7	5/27	41	29	10.3	301
SY Ovation x 1.75	183	59.5	5/24	41	69	10.5	280
WA8440	182	60.3	5/27	38	18	10	340
UIL14-211120A	182	59.3	5/25	42	17	9.6	308
WA8420AX	180	59.2	5/24	41	50	10.4	300
SY Ovation x 0.75	180	59.5	5/25	40	41	10	284
WB1783	180	60.8	5/26	41	10	10	323
LCS Hydra AX	179	61.4	5/26	43	36	9.8	302
VI Gem	179	58.9	5/24	41	51	9.9	316
Perrine	178	60	5/28	44	18	9.1	349
WA 8426	178	59.7	5/27	38	32	9.6	344
WA8447	178	58.2	5/28	40	60	9.7	316
SY Ovation	178	59.3	5/26	39	34	9.6	285
Norwest Tandem	177	59.7	5/24	38	36	10	302
OR2170559	177	59	5/25	40	0	10.1	310
UIL17-995133B	177	59.4	5/25	42	47	9.7	318
WB1621	175	62.1	5/25	40	45	9.6	292
UIL17-355144A	174	59.5	5/25	36	9	9.8	321
OR2160243	172	58.2	5/26	40	34	9.8	306
Gale	169	57.8	5/27	40	1	9.5	322
WB1529	167	61.7	5/25	37	25	10.4	328
Stephens	167	57.9	5/26	38	43	10.3	315
IDO1708	164	57.5	5/24	40	43	10	274
UI Sparrow	147	56.6	5/28	44	79	11.2	376
Average	180	59.1	5/25	40	29	9.9	308
LSD (=0.05)	22	7.5	1.5	2.3	---	---	---
CV (%)	5.8	2.1	1.2	5.2	---	---	---

*Seeding rates of SY Ovation were tested at 0.75, 1, 1.25, 1.5 and 1.75% of the typically recommended seeding rate of 1 mil seeds/A.

**No winter kill - spring stands excellent

Table 18. Agronomic Data for Soft Winter Wheat at Rupert, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	FN Average
UIL17-995133B	190	59.9	6/3	41	0	9.6	343
WBXH1055	184	60.8	6/2	44	11	10.9	323
LCS Scorpion AX	180	60.2	6/2	41	0	10	364
VI Shock	178	58.7	6/4	43	0	10.2	350
VI Gem	175	59.3	6/3	42	4	10.2	365
WA8450	174	60.8	6/3	41	0	9.6	322
SY Ovation x 1.50	173	59.9	6/3	41	0	10.6	337
AP Exceed	173	61.0	6/2	39	0	10.3	374
AP Olympia	171	59.7	6/4	39	0	10.7	342
WB1783	170	61.4	6/5	41	2	10	354
XG1305	170	62.4	5/31	39	0	10.9	346
WA 8426	169	59.8	6/4	39	0	10.7	398
SY Ovation x 1.25	169	59.5	6/5	40	0	10.1	341
LCS Shine	169	59.4	6/3	36	0	9.8	356
SY Ovation x 0.75	169	59.8	6/3	39	0	10.4	336
SY Ovation x 1.75	168	59.7	6/4	41	0	10.1	340
LCS Hydra AX	168	61.0	6/4	41	22	10.7	342
WA8420AX	168	59.1	6/3	42	0	10.1	312
UIL14-211120A	168	58.5	6/3	43	0	9.9	352
LCS Hulk	168	60.9	6/4	41	0	10.4	386
SY Ovation	168	59.8	6/4	38	0	9.8	340
LCS Blackjack	166	58.2	6/4	36	0	11	378
LCS Kamiak	166	60.2	6/2	40	0	10.3	335
WA8447	166	58.1	6/8	40	0	10	336
WB1621	166	61.7	6/4	41	11	10.4	326
UIL17-355144A	165	59.4	6/3	36	0	10.4	349
Perrine	164	59.2	6/6	46	0	10.3	368
OR2160243	164	58.4	6/2	40	0	10.6	348
IDO1708	163	57.3	6/2	40	24	10	352
SY Assure	162	60.6	6/1	39	0	10.7	354
Stephens	161	58.2	6/3	41	0	10.6	334
WA8440	158	59.6	6/5	38	0	10.6	374
WB1529	156	61.4	6/2	38	0	10.9	336
Gale	156	57.7	6/5	39	0	9.7	376
OR2180149	156	57.8	6/3	41	0	10.2	291
Nimbus	154	59.9	6/2	45	0	10.1	357
UI Sparrow	153	57.6	6/7	44	1	10.8	340
OR2170559	148	58.5	6/4	37	0	9.9	350
LCS Jefe	145	58.4	6/3	40	21	10.2	343
Norwest Tandem	131	58.2	6/2	37	0	11	340
Average	165	59.6	6/3	40	2	10.3	348
LSD (=0.05)	18	0.9	2.2	2	---	---	---
CV (%)	6.3	2.1	1.0	5.8	---	---	---

*Seeding rates of SY Ovation were tested at 0.75, 1, 1.25, 1.5 and 1.75% of the typically recommended seeding rate of 1 mil seeds/A.

**No winter kill - spring stands excellent

Table 19. Agronomic Data for Soft Winter Wheat at Aberdeen, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	FN Average
SY Ovation	145	60.6	5/26	37	0	11.8	313
WA8426	143	60.4	5/27	31	0	11.0	281
WA8450	143	61.5	5/26	34	0	11.4	327
SY Ovation x 0.75	142	60.7	5/26	36	0	11.4	288
LCS Blackjack	141	59.0	5/27	36	0	11.1	321
LCS Scorpion AX	140	60.2	5/25	35	2	11.1	310
LCS Hulk	140	60.8	5/27	38	0	11.6	311
WBXH1055	139	62.0	5/26	40	0	11.4	319
SY Ovation x 1.25	137	61.0	5/25	36	0	11.5	290
UIL17-995133B	134	61.6	5/25	35	0	10.4	301
UIL14-211120A	132	59.7	5/25	38	0	11.1	313
WA8440	132	60.9	5/27	31	0	11.4	336
Perrine	132	59.5	5/28	38	0	12.3	306
WA8447	131	59.5	5/28	34	0	11.7	340
SY Assure	131	61.3	5/23	32	0	11.6	282
OR2160243	131	59.7	5/26	36	0	11.3	303
LCS Hydra AX	131	61.6	5/24	35	0	11.9	308
SY Ovation x 1.50	131	60.8	5/25	36	0	11.7	301
WB1621	130	62.0	5/26	34	0	10.8	300
VI Gem	130	59.7	5/24	38	0	11.9	340
LCS Kamiak	129	60.7	5/22	35	0	11.6	302
LCS Shine	128	60.2	5/24	32	0	11.0	324
WB1783	127	62.5	5/26	34	0	12.3	348
UIL17-355144A	127	61.7	5/25	32	0	11.1	323
AP Exceed	127	60.4	5/24	36	0	11.5	316
VI Shock	126	59.8	5/26	38	0	11.5	316
UI Sparrow	125	58.2	5/28	39	2	12.0	312
Gale	125	59.4	5/26	35	0	11.2	326
Nimbus	124	59.0	5/24	40	0	12.1	306
LCS Jefe	124	59.0	5/26	33	0	11.2	297
WA8420AX	124	59.9	5/24	37	0	11.6	331
Stephens	123	59.7	5/26	36	0	11.9	324
IDO1708	121	59.5	5/25	34	0	11.5	298
OR2170559	120	59.3	5/26	34	0	11.7	247
WB1529	120	62.0	5/24	32	0	12.6	324
OR2180149	119	59.8	5/25	34	0	10.9	368
XG1305	119	62.8	5/20	33	0	11.4	313
SY Ovation x 1.75	118	60.9	5/26	34	0	12.2	298
Norwest Tandem	117	59.5	5/25	32	0	11.8	295
Norwest Tandem	116	59.5	5/25	32	0	11.8	301
AP Olympia	114	60.8	5/25	34	0	11.0	298
Average	129	60.4	5/25	35	0	11.5	311
LSD (=0.05)	30	1.1	1.7	3	---	---	---
CV (%)	6.3	1.8	1.1	6.7	---	---	---

*Seeding rates of SY Ovation were tested at 0.75, 1, 1.25, 1.5 and 1.75% of the typically recommended seeding rate of 1 mil seeds/A.

**No winter kill - spring stands excellent

Table 20. Agronomic Data for Soft Winter Wheat at Ririe, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	FN Average
UIL17-355144A	162	62.3	6/3	33	0	11.1	307
LCS Hydra AX	160	61.5	6/4	37	4	12.1	317
WB1621	157	63.5	6/3	37	0	10.7	292
OR2170559	154	60.8	6/4	35	0	12.1	313
VI Shock	154	60.5	6/3	38	0	11.7	310
UI Sparrow	153	59.2	6/8	40	0	11.9	315
Stephens	153	59.5	6/3	35	0	12.2	311
LCS Hulk	152	60.8	6/3	38	0	12.3	311
WA8440	150	61.2	6/5	34	0	11.3	335
Perrine	150	59.5	6/6	39	0	12.8	331
UIL17-995133B	150	62.2	6/2	36	0	10.4	285
Nimbus	150	61.0	6/2	38	0	11.9	340
LCS Scorpion AX	149	60.8	6/3	35	0	12.1	315
WA8450	149	62.2	6/5	34	0	11.6	314
SY Ovation x 0.75	148	61.2	6/5	34	0	11.6	312
LCS Blackjack	148	59.6	6/5	35	0	11.6	309
OR2160243	148	60.5	6/3	34	0	11.5	307
OR2180149	148	60.1	6/3	36	0	11.2	273
UIL14-211120A	148	59.6	6/5	39	0	11.7	327
WB1783	147	62.9	6/3	35	0	12.2	315
VI Gem	147	60.7	6/2	35	0	11.4	334
WA8420AX	147	60.6	6/2	37	0	11.4	337
WB1529	147	62.7	6/2	34	0	11.3	294
SY Ovation x 1.75	147	61.1	6/5	37	0	11.0	303
Gale	146	58.4	6/6	35	0	11.4	299
LCS Jefe	146	61.2	6/5	36	0	10.6	343
SY Ovation	146	60.9	6/4	35	0	11.5	284
SY Assure	146	62.6	6/1	36	0	11.6	307
WA 8426	146	61.1	6/6	33	0	11.1	281
IDO1708	145	59.7	6/3	36	0	11.9	315
LCS Shine	145	61.1	6/2	32	0	11.0	326
Norwest Tandem	145	60.6	6/2	34	0	11.4	315
XG1305	145	63.7	5/29	32	0	11.3	297
LCS Kamiak	145	61.4	6/3	33	0	11.7	326
SY Ovation x 1.50	143	60.9	6/5	38	0	11.5	313
SY Ovation x 1.25	143	61.0	6/6	37	0	11.2	329
AP Olympia	142	61.1	6/5	35	0	12.0	312
WBXH1055	139	62.4	6/3	40	0	12.2	288
WA8447	139	59.9	6/7	34	0	11.8	309
AP Exceed	136	62.1	6/2	35	0	11.0	328
Average	148	61.1	6/3	36	0	11.6	312
LSD (=0.05)	17	0.6	0	2.1	---	---	---
CV (%)	3.5	1.9	1.2	5.8	---	---	---

*Seeding rates of SY Ovation were tested at 0.75, 1, 1.25, 1.5 and 1.75% of the typically recommended seeding rate of 1 mil seeds/A.

**No winter kill - spring stands excellent

Table 21. Agronomic Data for Soft White Winter Wheat, Rockland, Dryland, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Protein (%)	FN Average
Sockeye CL+	49	57.6	100	6/2	29	10.2	308
UIL 19-713017B CL+	46	56.6	100	6/1	25	9.3	352
WA8447	45	57.6	100	6/3	26	9.3	335
Piranha CL+	45	58.1	100	6/2	29	9.3	323
WA8450	44	60.5	100	6/2	25	10.3	317
SY Ovation	44	59.9	100	6/1	28	9.9	320
WA8420AX	44	58.7	100	5/31	26	9.5	289
Devote	44	60.1	100	6/2	26	10.9	320
Jameson	44	58.3	100	6/2	28	10.2	350
Nimbus	43	59.3	100	5/31	28	10.5	347
UIL 16-478001A	43	57.8	100	6/1	28	10.7	357
VI Encore CL+	43	57.9	100	6/3	26	11.2	290
Perrine	42	57.2	100	6/3	29	10.0	346
UIL16-007057A	42	58.3	100	6/1	29	10.3	353
UIL14-211120A	42	57.9	100	6/1	27	9.8	290
Eltan	42	59.4	100	6/3	28	10.3	332
Otto	42	58.9	99	6/3	28	10.2	311
UIL17-995133B	41	60.4	100	6/1	29	10.3	313
Rollie	41	59.8	100	6/3	28	9.3	271
OR2170559	41	58.8	100	6/1	25	9.8	339
Eltan + 11-52-0	40	59.4	100	6/3	28	10.3	340
UIL17-355144A	40	60.2	100	6/1	24	10.8	320
UIL 19-713070A CL+	40	61.7	100	5/29	24	10.4	355
WA8440	39	57.6	100	6/2	24	9.6	351
IDO1708	39	56.4	99	5/30	27	9.8	322
UI Sparrow	38	58.1	100	6/4	28	10.5	328
SY Assure	38	60.3	100	5/28	26	10.3	336
UIL 19-714028A CL+	37	60.6	100	5/29	23	10.9	274
OR2180149	37	58.2	100	6/1	26	10.0	290
UIL17-273052A	36	60.5	100	5/31	27	12.0	342
Mallory CL+	35	58.5	100	5/29	24	9.6	325
Stephens	35	57.4	100	5/31	27	11.1	329
Appleby CL+	35	59.0	99	6/1	28	10.0	303
Gale	33	55.4	100	6/2	25	10.5	322
Average	41	58.7	100	6/1	27	10.2	323
LSD (=0.05)	4	1.8	1	1.1	2	---	---
CV (%)	9.1	2.4	---	---	---	---	---

*No lodging at this location.

Table 22. Agronomic Data for Soft Winter Wheat at Soda Springs, Dryland, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Protein (%)
Rollie	14	---	66	6/26	21	---
UIL 19-713017B CL+	14	---	74	6/20	22	---
Eltan + 11-52-0	13	---	76	6/26	25	---
Piranha CL+	12	---	76	6/21	25	---
Jameson	12	---	68	6/23	21	---
Devote	12	---	78	6/22	23	---
Eltan	11	---	70	6/23	23	---
VI Encore CL+	11	---	59	6/23	21	---
WA8447	11	---	72	6/22	22	---
Perrine	11	---	66	6/21	22	---
Gale	11	---	56	6/23	23	---
Sockeye CL+	11	---	68	6/22	24	---
Otto	10	---	79	6/24	26	---
UIL16-007057A	10	---	79	6/20	24	---
Appleby CL+	9	---	71	6/20	22	---
UI Sparrow	8	---	54	6/22	25	---
OR2170559	8	---	62	6/19	21	---
Nimbus	8	---	56	6/16	23	---
UIL 16-478001A	8	---	39	6/25	22	---
Mallory CL+	8	---	62	6/17	23	---
UIL17-355144A	8	---	85	6/18	20	---
UIL14-211120A	8	---	80	6/19	21	---
WA8450	8	---	77	6/18	21	---
OR2180149	7	---	67	6/18	21	---
WA8440	7	---	46	6/22	21	---
Stephens	7	---	69	6/19	24	---
SY Ovation	6	---	32	6/22	23	---
UIL 19-714028A CL+	6	---	49	6/15	20	---
IDO1708	6	---	66	6/18	23	---
UIL17-995133B	6	---	64	6/16	23	---
WA8420AX	5	---	79	6/14	21	---
SY Assure	5	---	71	6/12	21	---
UIL 19-713070A CL+	4	---	87	6/15	21	---
UIL17-273052A	3	---	86	6/17	23	---
Average	9	---	67	6/19	22	---
LSD (=0.05)	6	---	29	4.5	3	---
CV (%)	32	---	---	2.0	---	---

Variety or Selection	Aberdeen	Kimberly	Rupert	Ririe Irrigated	Rockland	Soda Springs	Variety Average
UIL 19-713017B (CL+)	---	---	---	---	113	157	**135**
Jameson	---	---	---	---	107	151	**129**
Piranha CL+	---	---	---	---	110	148	**129**
Eltan	---	---	---	---	99	156	**128**
Rollie	---	---	---	---	100	155	**128**
Devote	---	---	---	---	106	143	**124**
Sockeye CL+	---	---	---	---	120	127	**124**
VI Encore CL+	---	---	---	---	104	133	**118**
Otto	---	---	---	---	102	125	**114**
UIL16-007057A	---	---	---	---	104	117	**110**
WA8447	106	98	102	93	111	136	**108**
LCS Scorpion AX	106	107	108	102	---	---	**106**
WBXH1055	102	111	113	95	---	---	**105**
Perrine	103	101	99	101	104	116	**104**
VI Shock	101	104	107	103	---	---	**104**
LCS Blackjack	106	103	101	99	---	---	**102**
LCS Hulk	104	99	103	103	---	---	**102**
LCS Hydra AX	100	97	102	107	---	---	**102**
VI Gem	102	101	105	99	---	---	**102**
WA8426	107	99	102	99	---	---	**102**
WA8450	110	103	106	101	108	81	**102**
AP Exceed	94	110	106	92	---	---	**100**
AP Olympia	92	108	105	96	---	---	**100**
LCS Kamiak	101	102	99	100	---	---	**100**
LCS Shine	101	99	103	99	---	---	**100**
UIL 14-211120A	105	101	104	101	104	85	**100**
UIL16-478001A	---	---	---	---	106	93	**100**
WB1621	98	97	99	104	---	---	**100**
WB1783	100	101	102	99	---	---	**100**
XG1305	92	103	105	98	---	---	**100**
OR2160243	102	97	99	99	---	---	**99**
OR2170559	97	97	90	103	100	105	**99**
UIL 17-355144A	102	96	101	107	98	88	**99**
Gale	99	92	94	100	80	123	**98**
Nimbus	92	105	92	103	107	86	**98**
UIL 17-995133B	110	96	116	101	102	65	**98**
LCS Jefe	93	103	88	100	---	---	**96**
SY Ovation	101	102	101	99	108	62	**96**
WA8420AX	102	97	104	99	107	65	**96**
WA8440	104	100	95	103	97	75	**96**
WB1529	99	95	94	97	---	---	**96**
OR2180149	98	102	94	99	90	80	**94**
IDO1708	99	94	97	98	95	76	**93**
UI Sparrow	93	85	91	103	93	94	**93**
Norwest Tandem	90	97	80	98	---	---	**91**
Appleby CL+	---	---	---	---	84	96	**90**
SY Assure	96	107	97	97	93	48	**90**
Stephens	94	94	97	101	86	71	**90**
Mallory CL+	---	---	---	---	87	88	**88**
UIL 19-714028A (CL+)	---	---	---	---	91	68	**80**
UIL 19-713070A (CL+)	---	---	---	---	97	52	**74**
UIL 17-273052A	---	---	---	---	87	36	**62**
Location Average (bu/A	**130**	**181**	**164**	**148**	**41**	**8**	

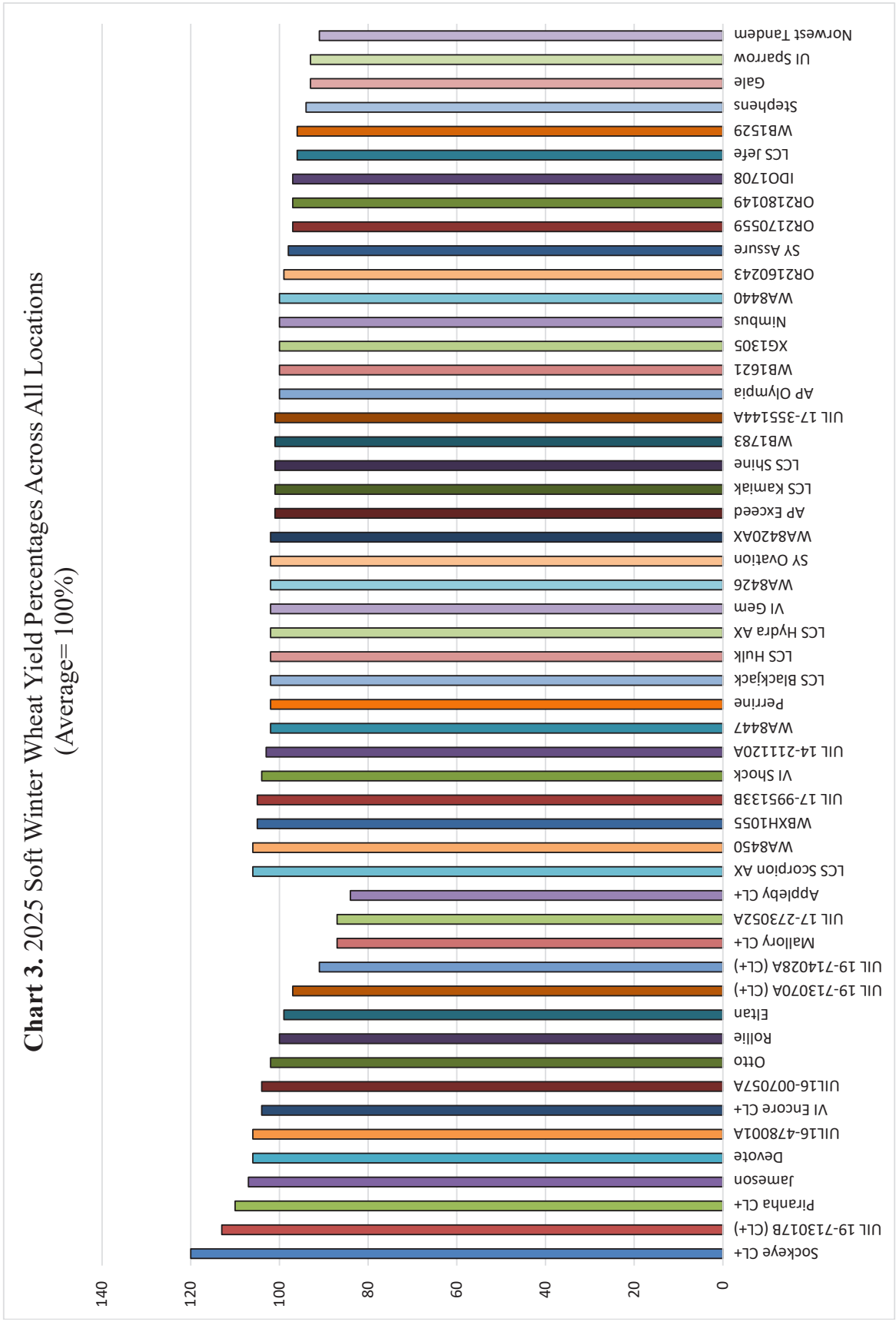
Chart 3. 2025 Soft Winter Wheat Yield Percentages Across All Locations
(Average= 100%)
140
120
100
80
60
40
20
0
Sockeye CL+
UIL 19-713017B (CL+)
Piranha CL+
Jameson
Devote
UIL16-478001A
VI Encore CL+
UIL16-007057A
Otto
Rollie
Ethan
UIL 19-713070A (CL+)
UIL 19-714028A (CL+)
Mallory CL+
UIL 17-273052A
Appleby CL+
LCS Scorpion AX
WA8450
WBXH1055
UIL 17-995133B
VI Shock
UIL 14-211120A
WA8447
Perrine
LCS Blackjack
LCS Hulk
LCS Hydra AX
VI Gem
WA8426
SY Ovation
WA8420AX
AP Exceed
LCS Kamiak
LCS Shine
WB1783
UIL 17-355144A
AP Olympia
WB1621
XG1305
Nimbus
WA8440
OR2160243
SY Assure
OR2170559
OR2180149
IDO1708
LCS Jefe
WB1529
Stephens
Gale
UI Sparrow
Norwest Tandem

Table 24. Winter Barley Irrigated Nuseries, 2-Year Averages (2023-2025; 4 site-years).

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	6/64 (%)	Plump 5 5/64 (%)	Thins (%)
UT11604-2	162	51.3	99	5/23	39	2	10.1	89.4	7.2	4.5
BC Clementine	144	51.8	100	5/22	36	0	10.9	91.8	4.0	4.4
UT11510-2	141	50.6	99	5/22	38	12	11.0	90.8	6.4	3.6
UTWB11135-1	137	48.9	99	5/23	34	5	10.2	79.0	13.9	7.9
Memento	134	51.7	99	5/23	36	6	11.6	90.2	5.6	5.1
UT10201	133	48.5	99	5/21	34	3	9.9	72.2	18.2	10.2
16ARS627-037	133	51.8	97	5/24	38	5	10.0	86.2	8.2	6.2
LCS Calypso	131	51.3	100	5/22	38	0	11.1	93.1	4.2	3.5
Thunder	128	51.4	98	5/23	36	7	11.3	93.4	3.8	3.3
DH171854	127	51.3	100	5/24	38	6	11.7	89.8	5.6	5.2
KWS Donau	127	51.0	99	5/23	38	2	10.4	94.0	4.1	2.7
DH141947	127	49.0	100	5/24	35	3	11.2	90.4	5.5	3.7
UTWB10406-9	127	49.6	100	5/24	37	3	10.1	77.1	13.7	9.9
DH190077	126	51.3	100	5/22	35	4	11.6	94.1	3.9	2.7
BC Fay	123	50.5	99	5/23	37	4	11.4	91.8	5.0	3.5
Wintmalt	120	50.6	99	5/25	36	4	10.8	90.4	5.9	4.3
Top Shelf	117	51.2	99	5/22	37	1	---	---	---	---
12ARS777-2	105	57.3	92	5/26	39	0	14.0	80.0	10.7	9.3
12ARS777-1	95	57.7	85	5/28	38	0	13.0	80.9	12.2	7.4
Upspring	88	59.8	58	5/30	37	6	12.7	79.8	14.8	6.1
Average	126	51.8	96	5/24	37	4	11.2	87.1	8.0	5.4
Standard error	7.0	0.3	1.3	0.4	1.0	---	---	---	---	---
CV	13.1	5.7	9.9	1.6	4.1	---	---	---	---	---

Table 25. Winter Barley Irrigated Nurseries, 2025 Combined from Rupert and Aberdeen.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	6/64 (%)	Plump 5 5/64 (%)	Thins (%)
KWS Antonis	218	52.8	99	5/22	47	7	11.1	97.0	2.6	1.4
KWS Tardis	200	52.5	100	5/25	41	2	11.8	97.2	2.5	1.2
UT11604-2	199	52.7	100	5/22	44	4	10.6	92.7	5.7	2.6
UTWB11135-1	198	50.2	100	5/23	42	9	11.1	81.8	13.6	5.5
BC Clementine	191	53.5	100	5/23	42	0	12.1	97.7	2.1	1.0
KWS Chillis	188	52.7	100	5/24	46	24	11.0	93.1	5.0	2.5
DH200620	187	52.7	88	5/22	41	10	12.8	97.6	1.9	1.4
UT10201	184	49.9	99	5/20	40	7	10.7	77.0	16.7	6.7
Memento	182	53.7	100	5/22	41	11	12.8	98.2	2.4	0.8
2WI15-8688	180	52.6	99	5/25	43	16	11.7	92.9	4.8	3.2
16ARS627-037	178	53.8	95	5/24	44	10	11.2	93.6	4.5	2.5
Thunder	174	52.6	99	5/22	43	15	12.7	97.0	2.4	1.8
DH171854	171	53.3	100	5/24	44	13	12.8	96.8	2.4	1.4
UT11510-2	171	51.7	100	5/22	44	21	11.5	92.3	5.9	2.6
LCS Calypso	170	52.9	99	5/22	43	0	12.5	98.8	1.3	1.1
16ARS622-248	168	51.0	100	5/28	41	20	11.1	92.1	4.9	3.7
15ARS607-1	166	51.6	99	5/27	45	32	11.4	95.4	3.6	1.9
BC Fay	165	52.3	100	5/23	43	8	12.4	95.7	2.6	2.4
KWS Donau	163	52.8	100	5/22	42	4	11.4	97.3	2.0	1.8
16ARS634-2	162	51.0	94	5/23	44	44	10.4	92.2	5.3	3.3
DH190077	160	52.7	100	5/23	39	9	12.6	97.2	2.2	1.4
Top Shelf	159	53.1	99	5/23	43	2	13.2	98.1	1.6	1.0
DH141947	158	51.2	100	5/26	40	5	11.8	93.5	3.3	2.1
UTWB10406-9	155	50.7	100	5/24	41	6	10.0	79.1	13.7	7.6
Wintmalt	155	51.6	99	5/25	41	8	11.9	93.8	4.3	3.0
ABI Magic	152	51.9	99	5/23	44	13	12.0	96.0	2.7	1.8
Upspring	138	59.0	87	5/29	43	12	13.4	84.6	11.4	5.4
12ARS777-2	135	58.8	95	5/26	43	0	14.3	87.0	8.5	4.1
12ARS777-1	127	57.6	90	5/27	43	0	13.5	87.7	8.2	4.6
MLW319-740	125	49.2	100	5/23	50	38	12.3	90.3	6.6	3.7
Average	169	52.7	98	5/24	43	12	11.9	92.8	5.1	2.8
Standard error	8.2	0.4	---	1.1	1.2	---	---	---	---	---
CV	13.8	4.3	3.8	1.4	5.1	---	---	---	---	---

Table 26. Agronomic Data for Winter Barley at Rupert, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Plump 6/64 (%)	Plump 5 5/64 (%)	Thins (%)
KWS Antonis	222	53.2	99	5/24	47	11	11.0	99.0	1.4	1.0
KWS Tardis	219	52.6	100	5/25	42	2	12.2	99.2	1.4	0.8
UT11604-2	207	52.9	100	5/25	45	1	10.1	94.5	5.0	2.3
UTWB11135-1	206	51.0	100	5/26	44	2	10.7	89.8	8.1	3.4
BC Clementine	202	53.5	100	5/26	44	0	12.6	99.8	1.1	0.8
KWS Chillis	192	53.1	100	5/25	45	51	10.8	96.6	2.7	1.5
UT11510-2	191	51.9	100	5/25	45	42	10.5	93.9	4.5	2.7
Memento	191	54.0	100	5/23	45	19	12.2	99.6	1.7	0.6
DH200620	186	52.5	99	5/22	42	12	12.8	99.1	0.9	1.3
UT10201	182	50.6	98	5/21	42	0	10.6	83.0	12.0	5.1
KWS Donau	181	52.8	100	5/22	43	7	11.5	99.2	1.3	1.1
BC Fay	179	52.0	100	5/24	43	10	12.0	95.9	2.7	2.6
2WI15-8688	178	52.8	99	5/27	44	29	11.5	92.5	5.0	3.7
Thunder	177	52.3	99	5/25	45	23	13.0	96.9	2.5	2.2
16ARS627-037	175	53.6	95	5/25	45	17	11.6	93.1	4.7	3.1
LCS Calypso	173	53.3	99	5/25	45	0	12.2	99.8	0.9	1.1
DH171854	168	53.5	100	5/25	46	16	12.9	97.8	1.7	1.4
DH141947	167	51.6	100	5/29	41	6	11.7	91.3	3.8	2.4
16ARS622-248	167	51.1	100	5/29	43	36	11.2	92.0	4.7	4.0
UTWB10406-9	166	50.8	100	5/26	42	6	9.5	81.4	11.1	8.1
Wintmalt	166	51.8	99	5/25	45	12	11.2	94.8	3.7	3.2
DH190077	165	52.9	100	5/26	41	9	12.5	98.6	1.4	1.0
ABI Magic	160	51.8	99	5/24	44	22	11.7	96.8	2.5	1.6
Top Shelf	158	53.2	99	5/27	45	3	14.4	99.4	0.9	0.6
15ARS607-1	157	51.2	99	5/29	46	62	11.2	94.9	3.6	2.2
16ARS634-2	155	51.0	92	5/23	43	72	10.0	94.0	4.0	2.7
Upspring	141	60.9	81	5/31	44	13	13.2	89.3	8.2	4.2
12ARS777-2	129	59.3	91	5/28	43	0	13.1	83.7	10.0	4.7
12ARS777-1	119	59.0	82	5/29	44	0	13.4	91.2	5.6	3.7
MLW319-740	116	48.4	100	5/23	51	68	13.0	91.2	6.1	3.4
Average	173	53.0	98	5/25	44	18	11.8	94.3	4.1	2.6
LSD (=0.05)	23	7.9	7	2	3	---	---	---	---	---
CV (%)	14.9	4.9	5.0	1.6	4.7	---	---	---	---	---

Table 27. Agronomic Data for Winter Barley at Aberdeen, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Plump 6/64 (%)	Plump 5 5/64 (%)	Thins (%)
KWS Antonis	212	52.5	100	5/22	45	0	11.2	94.9	3.8	1.7
UTWB11135-1	195	49.3	100	5/22	39	8	11.4	73.8	19.0	7.6
UT11604-2	193	52.3	100	5/20	42	3	11.1	90.8	6.4	2.8
KWS Chillis	192	52.2	100	5/22	47	0	11.2	89.6	7.3	3.4
DH200620	187	53.0	87	5/22	39	2	12.8	96.1	2.9	1.4
UT10201	184	49.2	100	5/20	39	6	10.8	70.9	21.4	8.2
2WI15-8688	184	52.4	100	5/24	42	0	11.8	93.2	4.5	2.6
KWS Tardis	184	52.3	100	5/25	39	0	11.4	95.2	3.6	1.6
BC Clementine	180	53.4	100	5/20	40	0	11.5	95.5	3.0	1.2
UT11510-2	179	51.5	100	5/20	42	0	12.5	90.7	7.2	2.4
16ARS627-037	179	54.0	99	5/24	40	0	10.8	94.1	4.3	1.9
Memento	175	53.4	100	5/22	39	0	13.4	96.8	3.0	0.9
DH171854	174	53.1	100	5/24	43	2	12.7	95.8	3.1	1.4
15ARS607-1	173	52.0	99	5/26	41	1	11.5	95.9	3.5	1.6
16ARS622-248	170	50.7	100	5/29	38	0	11.0	92.1	5.1	3.4
16ARS634-2	169	51.1	100	5/23	44	23	10.7	90.3	6.5	3.8
LCS Calypso	168	52.5	100	5/21	42	0	12.8	97.8	1.7	1.1
Thunder	167	52.8	100	5/21	40	0	12.3	97.0	2.2	1.3
Top Shelf	158	52.9	100	5/21	40	0	12.0	96.8	2.3	1.3
DH190077	157	52.5	100	5/20	38	0	12.6	95.8	3.0	1.7
BC Fay	155	52.7	100	5/23	42	1	12.7	95.5	2.5	2.2
DH141947	149	51.8	100	5/22	39	0	11.9	95.7	2.7	1.7
ABI Magic	146	52.1	100	5/22	44	0	12.2	95.1	2.9	2.0
Wintmalt	145	51.4	100	5/26	40	0	12.6	92.7	4.8	2.8
KWS Donau	144	52.8	100	5/23	41	0	11.2	95.3	2.6	2.4
UTWB10406-9	143	50.6	100	5/23	40	0	10.5	76.7	16.3	7.1
12ARS777-2	140	58.5	99	5/24	42	0	15.4	90.2	6.9	3.5
MLW319-740	137	49.9	100	5/24	47	6	11.5	89.4	7.0	4.0
12ARS777-1	133	56.2	97	5/25	41	0	13.6	84.1	10.8	5.5
Upspring	129	57.2	97	5/28	44	0	13.5	79.8	14.5	6.6
Average	167	52.5	99	5/22	41	2	12.0	91.3	6.2	3.0
LSD (=0.05)	37	2.6	3.3	12	4.8	---	---	---	---	---
CV (%)	12.7	3.8	2.5	1.6	5.8	---	---	---	---	---

Table 28. Winter Barley Yield Percentage of Location Averages, 2025.

Variety or Selection	Aberdeen	Rupert	Variety Average
KWS Antonis	127	127	**127**
KWS Tardis	110	127	**118**
UT11135-1	117	120	**118**
UT11604-2	116	118	**117**
BC Clementine	108	118	**113**
KWS Chillis	115	111	**113**
DH200620	112	107	**110**
UT11510-2	108	110	**109**
Memento	105	110	**108**
UT10201	111	105	**108**
2W15-8688	110	104	**107**
16ARS627-037	108	102	**105**
Thunder	100	103	**102**
DH171854	105	97	**101**
LCS Calypso	101	101	**101**
16ARS622-248	102	95	**98**
BC Fay	93	104	**98**
15ARS607-1	104	88	**96**
16ARS634-2	101	90	**96**
KWS Donau	87	106	**96**
DH190077	94	95	**94**
Top Shelf	95	92	**94**
DH141947	89	96	**92**
UT10406-9	86	97	**92**
WintMalt	87	96	**92**
ABI Magic	88	94	**91**
12ARS777-2	84	72	**78**
Upspring	77	80	**78**
MLW319-740	82	68	**75**
12ARS777-1	80	68	**74**
Location Average (bu/A	**167**	**173**	

Chart 4. 2025 Winter Barley Yield Percentages Across All Locations (Average= 100%)

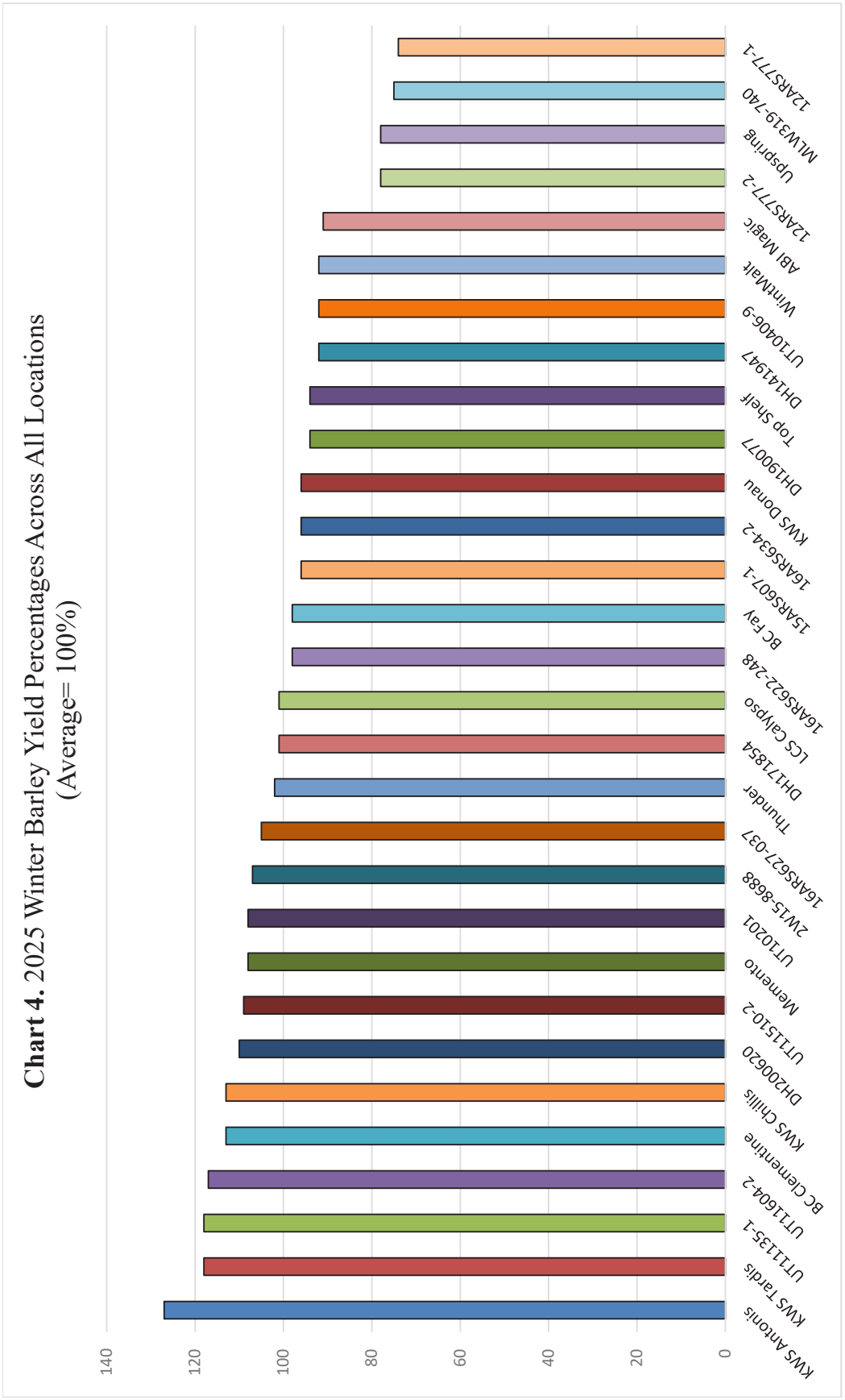

Table 29. Hard Spring Wheat Irrigated Nurseries, 3-Year Average (2023-2025; 12 site-years).

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Falling Number
Dayn	118	60.2	100	6/19	35	0	13.0	294
Jefferson HF	114	60.8	100	6/19	34	0	12.9	341
LCS Hammer AX	113	60.4	99	6/21	36	0	13.5	362
UI Gold	112	59.6	100	6/22	35	0	13.1	301
IDO2105S	112	60.6	100	6/20	34	0	13.1	345
WB9707	112	61.7	100	6/19	34	0	14.0	287
SY Teton	110	58.8	100	6/20	33	0	13.2	296
WB7313	109	60.4	100	6/18	31	0	13.9	249
WB7747	108	60.9	100	6/20	31	0	13.5	322
MT Carlson	107	59.8	100	6/21	35	0	13.7	327
Alzada	106	60.2	100	6/21	35	0	13.4	353
Alum	106	60.7	100	6/22	37	1	13.7	336
MT Ubet	106	59.9	100	6/21	36	0	13.8	314
WA8406	105	60.3	100	6/20	35	0	13.8	329
WB8148	104	60.4	100	6/22	30	0	12.8	353
Dagmar	104	60.4	100	6/19	37	3	14.3	330
Holmes	104	61.3	100	6/19	33	0	13.8	367
Hale	103	60.9	100	6/21	37	1	13.9	347
WB7696	102	59.5	100	6/20	32	0	13.3	246
LCS Boom	102	61.6	100	6/19	35	0	13.9	318
WB9749	102	61.1	100	6/19	33	0	13.6	327
WB7589	101	59.9	100	6/20	29	0	13.5	275
WB9668	101	60.6	100	6/19	31	0	14.8	355
Tiburon	101	60.5	100	6/20	33	1	13.1	352
Expresso	101	60.2	100	6/22	34	0	14.1	325
UI Platinum	100	59.8	100	6/18	31	0	13.3	262
Glee	99	60.6	100	6/19	35	1	13.6	333
Average	105	60.5	100.0	6/20	34	0	13.6	322
CV (%)	4.7	1.1	0.2	---	---	---	---	---

Table 30. Hard Spring Wheat Dryland Nurseries, 3-Year Averages (2023-2025; 3 site-years).

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Protein (%)
Alum	35	61.5	100	7/9	27	10.3
Hale	34	61.3	100	7/8	27	10.4
Dayn	34	60.3	100	7/7	27	9.8
MT Ubet	33	60.1	100	7/8	25	10.3
Alzada	32	59.4	100	7/9	25	10.7
SY Teton	32	59.1	100	7/8	25	10.0
MT Carlson	32	60.2	100	7/9	26	10.1
Jefferson HF	30	60.5	100	7/7	26	10.3
UI Gold	30	60.1	100	7/8	26	10.3
Dagmar	30	61.0	100	7/7	27	10.8
Glee	30	61.1	100	7/8	28	10.5
WB9879CLP	29	60.4	100	7/10	26	10.6
LCS Hammer AX	29	60.7	100	7/8	26	10.4
WB9724CLP	28	61.2	100	7/7	24	10.8
Holmes	28	61.4	100	7/7	23	10.7
IDO2105S	27	60.7	100	7/7	26	10.0
Choteau	27	61.3	100	7/8	26	11.1
UI Platinum	27	60.6	100	7/7	23	10.3
WB7202CLP	25	60.1	100	7/7	22	10.4
Expresso	25	59.9	99	7/10	25	11.4
Tiburon	25	59.0	100	7/9	24	10.7
Average	30	60.6	100	7/8	26	10.5
CV (%)	9.8	1.2	0.2	---	---	3.6

*No Lodging at these locations.

Table 31. Hard Spring Wheat Irrigated Data Combined from Rupert, Idaho Falls, Tetonia and Aberdeen, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Falling Number
Jefferson HF	108	61.3	100	6/8	32	0	13.1	374
UI Gold x 1.50	106	60.1	100	6/10	32	0	12.7	334
CP3555	105	59.1	100	6/11	36	0	12.9	338
UI Gold	104	60.7	100	6/9	32	0	13.4	369
IDO2105S	103	60.8	100	6/9	33	0	13.6	355
WB9707	103	61.9	100	6/8	32	0	14.4	358
LCS Hammer AX	99	60.7	100	6/10	35	4	13.7	378
MT Carlson	99	59.6	100	6/10	32	3	13.9	347
XH9033	98	60.8	100	6/7	29	0	14.0	371
Dayn	98	60.4	100	6/9	30	2	12.8	371
WA8406	97	58.9	100	6/8	30	3	13.2	361
Holmes	97	61.4	100	6/8	32	0	13.8	396
CP3530	96	60.3	100	6/11	37	6	13.6	376
BZ920-142W	96	62.1	100	6/8	31	0	14.2	315
WA8431	95	59.6	100	6/10	33	0	13.6	365
WB7747	95	61.5	100	6/7	34	0	13.6	318
UI Platinum	94	60.3	100	6/8	34	0	13.2	348
WA8436 CL+	94	60.7	100	6/8	31	0	14.1	368
WB7589	94	60.9	100	6/8	32	0	13.9	340
Alum	94	61.2	100	6/10	35	3	13.7	341
WB9749	94	61.6	100	6/7	31	0	13.5	334
SY Teton	94	60.8	100	6/9	29	4	13.4	350
WB8148	93	60.2	100	6/10	29	4	12.7	386
MT Ubet	93	59.9	100	6/10	33	0	13.9	339
WB7313	92	60.7	100	6/8	33	0	13.4	335
WB9668	91	60.7	100	6/8	30	0	15.2	360
LCS Boom	91	61.7	100	6/8	33	1	14.2	351
LCS Sentry	90	61.1	100	6/10	35	5	13.7	374
Net CL+	89	61.0	100	6/11	33	7	13.5	354
BZ9P22-029W	89	59.6	100	6/8	32	0	14.3	317
Dagmar	88	60.6	100	6/8	34	11	14.7	386
Hale	87	60.9	100	6/9	34	10	14.3	343
Alzada	86	60.4	100	6/8	32	0	13.5	431
HSG Timberline	86	58.5	100	6/11	32	4	14.1	350
WB7696	86	60.2	100	6/7	32	1	13.7	341
CP3915	86	61.5	100	6/11	34	4	14.4	387
XH9037	86	60.4	100	6/8	28	0	14.2	321
Tiburon	85	60.3	100	6/9	32	4	13.1	428
Glee	85	61.1	100	6/8	33	3	13.6	358
Expresso	83	60.2	100	6/10	31	0	14.4	353
Average	94	60.6	100	6/9	32	2	13.7	358
CV	6.9	1.3	0.1	0.7	---	---	---	7.3

Table 32. Agronomic Data for Hard Spring Wheat at Rupert, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	FN Average
LCS Hammer AX	143	58.6	6/11	39	6	12.8	360
WB9707	137	60.7	6/9	35	0	13.3	182
Dayn	136	58.6	6/9	38	0	11.8	320
Jefferson HF	135	59.5	6/9	37	0	12.0	332
WB7313	133	59.4	6/7	34	0	12.8	266
IDO2105S	130	58.9	6/9	36	0	12.6	352
MT Carlson	129	58.3	6/10	38	4	12.8	303
SY Teton	128	56.8	6/8	35	4	12.4	245
WB7747	127	58.6	6/9	33	6	13.3	313
BZ920-142W	124	61.9	6/9	36	0	13.1	338
CP3555	124	57.5	6/12	41	1	11.9	321
CP3530	124	60.1	6/13	42	11	12.3	346
Holmes	122	60.8	6/8	35	0	13.0	392
WA8406	122	58.5	6/10	37	0	13.5	332
MT Ubet	121	58.3	6/10	36	1	11.3	252
WB7696	121	58.5	6/9	34	3	12.4	138
Tiburon	118	59.4	6/9	36	6	11.4	396
LCS Boom	118	60.5	6/8	40	1	13.3	300
Alzada	117	59.9	6/8	36	0	11.7	398
XH9037	117	60.2	6/6	38	0	13.5	263
WB9749	116	59.9	6/9	34	0	12.5	326
WB8148	115	59.5	6/12	32	6	11.4	399
UI Platinum	115	58.1	6/8	34	0	12.4	215
Hale	115	59.6	6/9	39	27	13.4	336
CP3915	114	61.8	6/11	36	6	13.4	372
Dagmar	114	58.7	6/9	40	36	13.8	300
HSG Timberline	113	57.4	6/13	36	6	13.0	312
XH9033	113	58.5	6/7	35	1	13.2	240
WA8436 CL+	112	60.1	6/9	39	0	14.2	359
WB9668	112	59.6	6/8	34	0	14.4	358
WB7589	112	57.6	6/9	30	0	12.9	252
Net CL+	111	59.6	6/13	39	19	12.9	338
LCS Sentry	111	59.4	6/9	40	11	12.6	344
Alum	110	59.3	6/11	39	4	13.0	319
WA8431	109	59.3	6/8	38	0	12.9	332
BZ9P22-029W	109	58.1	6/8	35	0	13.8	303
Expresso	106	59.1	6/10	33	0	13.3	295
Glee	106	59.6	6/8	39	9	13.2	338
UI Gold x 1.50	136	59.2	6/10	36	0	12.2	264
UI Gold	134	59.5	6/9	38	0	12.6	268
Average	120	59.2	6/9	36	4	12.8	310.5
LSD (=0.05)	22.9	0.6	1.5		3.0	---	---
CV (%)	8.0	1.8	1.0	7.2	182.1	---	---

Table 33. Agronomic Data for Hard Spring Wheat at Aberdeen, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Protein (%)	FN Average
UI Gold x 1.50	112	62.3	6/6	32	14.2	331
CP3555	108	61.2	6/5	34	13.8	303
IDO2105S	106	62.7	6/6	33	14.3	330
Jefferson HF	104	63.5	6/6	31	14.8	361
Net CL+	103	62.8	6/5	29	14.4	330
CP3530	102	62.1	6/6	34	14.9	350
SY Teton	101	61.6	6/7	30	15.4	382
WB7313	100	62.8	6/6	26	15.4	331
Dayn	100	62.9	6/6	29	13.6	414
UI Gold	98	62.1	6/7	31	14.1	402
UI Platinum	97	63.2	6/6	31	15.5	350
XH9037	97	62.4	6/6	32	15.8	333
MT Carlson	97	61.9	6/6	30	14.6	363
Alum	97	63.2	6/6	36	15.3	343
WB7696	97	63.0	6/6	29	16.2	357
LCS Hammer AX	93	62.9	6/7	35	15.7	377
MT Ubet	93	61.9	6/8	32	16.1	392
WB8148	92	62.0	6/5	30	13.6	425
BZ920-142W	92	63.2	6/5	30	14.6	361
WA8436 CL+	91	62.6	6/6	26	13.6	393
Holmes	91	62.9	6/6	32	15.1	426
Glee	91	63.3	6/7	32	14.9	367
LCS Boom	90	63.4	6/7	32	15.4	368
WB9707	90	63.4	6/6	31	16.0	421
LCS Sentry	89	62.7	6/7	34	15.1	373
HSG Timberline	89	61.2	6/6	33	15.6	377
XH9033	89	62.4	6/5	32	15.9	331
WB7747	89	63.1	6/6	29	15.1	397
WA8431	89	63.3	6/6	34	14.6	370
WB9668	88	62.6	6/6	31	15.8	379
CP3915	88	62.3	6/7	34	15.0	336
WB7589	88	63.1	6/5	29	15.8	329
BZ9P22-029W	87	61.9	6/6	37	15.1	314
WB9749	87	63.5	6/4	31	14.5	334
Expresso	86	62.2	6/5	31	15.7	357
Dagmar	86	62.2	6/5	31	15.9	402
WA8406	86	62.8	6/5	35	14.0	353
Tiburon	85	62.5	6/8	32	14.8	451
Hale	84	63.0	6/8	29	16.9	392
Alzada	80	62.2	6/6	34	15.1	492
Average	93	62.6	6/6	31	15.1	370
LSD (=0.05)	21	1.3	2.5	6	---	---
CV (%)	7.7	1.0	0.6	7.7	---	---

*No Lodging at this location.

Table 34. Agronomic Data for Hard Spring Wheat at Idaho Falls, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	FN Average
CP3555	71	58.4	99	6/17	33	0	13.0	387
MT Ubet	71	59.7	100	6/14	28	0	14.5	341
UI Gold x 1.50	69	58.8	100	6/16	29	0	11.8	340
IDO2105S	69	61.5	100	6/11	29	0	13.6	369
Jefferson HF	68	60.2	100	6/12	28	0	12.9	410
Dayn	68	60.1	100	6/13	30	0	12.5	412
WB9707	65	61.4	100	6/10	28	0	13.6	472
XH9037	65	61.8	100	6/11	30	0	13.8	379
CP3530	65	59.9	100	6/16	33	0	13.7	466
Holmes	64	60.2	100	6/12	27	0	13.3	375
MT Carlson	63	59.2	100	6/16	29	0	14.5	370
WA8406	63	60.2	100	6/11	30	0	13.8	424
Dagmar	63	60.7	100	6/12	30	0	14.5	411
WB7313	62	59.7	99	6/10	25	0	14.4	412
WB7589	62	59.5	100	6/12	26	1	13.8	377
Hale	62	60.7	100	6/12	32	0	13.4	273
LCS Sentry	62	60.5	100	6/15	32	0	13.8	398
BZ9P22-029W	61	59.2	100	6/12	27	0	13.6	307
WB9749	61	60.7	100	6/11	28	0	13.2	276
LCS Hammer AX	60	59.8	100	6/15	31	0	13.0	386
WA8431	60	59.4	100	6/10	28	0	14.8	414
WB9668	60	60.4	100	6/12	25	0	15.5	371
Alum	60	60.4	100	6/14	31	0	13.2	336
Expresso	59	59.4	100	6/15	29	0	14.5	353
WB7747	59	61.4	99	6/12	25	0	13.3	389
WA8436 CL+	59	59.8	100	6/11	31	0	13.6	394
LCS Boom	59	61.1	100	6/12	29	0	14.4	390
UI Platinum	58	59.8	100	6/11	28	0	12.6	394
WB7696	58	58.8	100	6/13	26	0	12.8	389
BZ920-142W	58	61.4	100	6/10	27	0	12.7	385
CP3915	57	60.3	100	6/15	30	0	14.8	370
UI Gold	57	57.3	100	6/14	30	0	13.3	402
SY Teton	56	58.4	100	6/11	25	0	13.1	378
Net CL+	54	60.1	100	6/16	30	0	13.5	395
WB8148	53	59.2	100	6/16	26	0	13.9	422
Tiburon	53	58.7	100	6/12	28	0	14.1	451
XH9033	52	59.1	100	6/11	28	0	14.6	374
Alzada	51	59.6	100	6/11	27	0	14.4	478
HSG Timberline	50	56.4	100	6/14	26	0	14.1	379
Glee	48	59.1	100	6/10	29	0	12.8	385
Average	60	59.8	100	6/12	29	0	13.7	386
LSD (=0.05)	15	1.8	1	1.4	3	---	---	---
CV (%)	9.3	1.9	0.3	1.3	7.9	---	---	---

Table 35. Agronomic Data for Hard Spring Wheat at Tetonia, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Protein (%)	FN Average
SY Teton	128	59.5	100	7/2	34	12.5	336
Dayn	127	59.7	100	6/30	37	13.3	396
WB7313	125	60.8	100	6/28	33	13.1	407
WB7589	125	61.3	100	7/2	30	12.3	352
UI Platinum	124	61.1	100	6/28	33	13.0	320
IDO2105S	123	60.6	100	7/1	35	12.3	381
Jefferson HF	123	60.7	100	6/29	36	12.5	393
LCS Hammer AX	123	60.8	100	7/2	36	13.2	388
Alum	120	62.1	100	7/4	39	13.1	394
UI Gold x 1.50	120	61.4	100	7/3	36	12.5	402
WB7747	118	62.1	100	7/1	32	12.5	368
WB8148	115	61.3	100	7/5	30	11.8	401
WB7696	113	59.9	100	7/3	31	12.8	323
UI Gold	112	61.0	100	7/4	36	12.9	358
Hale	111	61.8	100	7/2	39	13.5	300
CP3555	110	59.0	100	7/3	38	12.9	387
Glee	110	60.6	100	7/1	38	13.5	343
CP3530	109	60.6	100	7/5	40	13.3	341
Net CL+	108	61.7	100	7/6	38	13.1	342
Tiburon	108	61.4	100	7/3	31	12.2	371
BZ9P22-029W	106	60.2	100	7/2	35	14.2	416
LCS Boom	106	61.7	100	6/30	36	13.5	351
Holmes	105	62.2	100	6/30	34	13.9	336
LCS Sentry	105	61.3	100	7/3	37	13.3	295
XH9037	105	61.1	100	6/28	37	14.0	349
MT Ubet	104	60.3	100	7/2	37	13.7	381
BZ920-142W	103	63.1	100	7/3	35	13.0	392
WA8431	103	60.9	100	6/30	36	14.0	393
Expresso	102	60.9	100	7/5	35	14.1	371
HSG Timberline	102	59.3	100	7/5	34	13.8	335
CP3915	101	62.4	100	7/2	35	14.4	357
MT Carlson	100	60.1	100	7/1	36	13.8	409
WA8436 CL+	100	62.2	100	7/2	42	14.4	471
WA8406	99	60.6	100	7/2	34	12.9	340
WB9707	98	61.6	100	7/1	34	14.6	354
WB9668	96	61.2	100	6/30	31	15.2	352
XH9033	96	60.3	100	6/30	34	13.2	359
Dagmar	95	60.3	100	6/30	38	14.4	339
WB9749	92	60.6	100	6/30	32	13.6	333
Alzada	92	61.3	100	7/2	33	12.7	430
Average	109	61.0	100	7/1	35	13.3	366
LSD (=0.05)	30	0.9	0	2.0	3	---	---
CV (%)	9.6	1.4	0	1.1	7.7	---	---

*No Lodging at this location.

Table 36. Agronomic Data for Hard Spring Wheat at Soda Springs, Dryland, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Protein (%)	FN Average
Alum	45	60.5	7/3	26	10.5	376
Net CL+	44	61.4	7/3	28	10.4	355
WA8431	44	59.0	7/4	25	9.9	275
MT Ubet	44	58.9	7/2	24	10.0	330
Jefferson HF	43	59.1	7/1	26	10.3	289
WA8406	43	59.7	7/2	24	10.3	338
MT Carlson	42	58.5	7/2	27	10.0	324
Dayn	41	58.7	7/1	27	9.8	374
SY Teton	41	58.6	7/2	24	9.8	320
CP3530	41	60.2	7/3	27	10.8	354
CP3915	40	61.5	7/2	26	10.6	360
UI Gold	39	59.3	7/1	26	10.1	271
WB9879CLP	39	58.7	7/4	25	10.7	390
LCS Hammer AX	38	59.5	7/3	26	10.5	391
Dagmar	38	60.2	7/2	27	11.0	318
IDO2105S	38	59.0	7/1	26	10.1	279
CP3555	37	58.4	7/2	24	11.0	392
Glee	36	60.2	7/4	26	10.7	324
Hale	36	60.3	7/2	27	11.1	225
LCS Boom	36	60.0	7/1	26	10.8	372
Expresso	36	59.0	7/4	25	11.7	317
LCS Sentry	35	60.1	7/3	26	10.2	322
WA8436 CL+	35	60.5	7/2	26	11.3	300
WB9724CLP	33	60.3	7/2	24	11.2	411
HSG Timberline	32	56.5	7/2	22	11.3	244
UI Platinum	31	59.4	7/2	23	10.8	342
Alzada	31	58.7	7/5	24	11.3	397
Tiburon	31	57.8	7/3	24	11.0	390
WB7202CLP	31	59.1	7/3	21	10.1	301
WB8148	30	58.8	7/4	21	11.4	317
Choteau	28	60.5	7/4	25	11.9	366
Average	37	59.4	7/2	25	10.7	334
LSD (=0.05)	7	1.1	---	1.6	---	---
CV (%)	12.8	1.8	0.6	7.1	---	---

*No Lodging at this location.

Table 37. Hard Spring Wheat Yield Percentage of Location Averages, 2025.

Variety or Selection	Aberdeen	Rupert	Idaho Falls	Tetonia	Soda Springs	Variety Average
Dayn	106	118	111	117	111	**113**
Jefferson HF	113	110	111	111	115	**112**
IDO2105S	113	108	115	112	102	**110**
WB7313	107	113	103	115	---	**110**
UI Gold	111	110	102	112	104	**108**
CP3530	108	104	110	102	109	**107**
CP3555	116	103	117	101	100	**107**
LCS Hammer AX	99	120	99	112	104	**107**
SY-Teton	111	103	96	117	109	**107**
Alum	104	93	100	110	119	**105**
MT Ubet	99	100	117	94	117	**105**
MT Carlson	103	105	104	92	111	**103**
WB9879CLP	---	---	---	---	103	**103**
Holmes	98	104	108	96	---	**102**
WB7589	97	95	103	115	---	**102**
WB7696	104	100	98	104	---	**102**
WB7747	95	104	98	109	---	**102**
WB9707	97	114	107	89	---	**102**
XH9037	105	98	107	98	---	**102**
NetCL+	110	93	89	98	117	**101**
WA8406	96	100	106	90	113	**101**
Hale	94	98	103	101	98	**99**
UI Platinum	104	97	98	113	84	**99**
WA8431	96	89	99	93	117	**99**
BZ920-142W	96	102	95	95	---	**97**
CP3915	94	98	93	92	106	**97**
Dagmar	93	98	103	87	102	**97**
LCS Boom	98	98	96	97	97	**97**
LCS Sentry	99	90	102	97	93	**96**
WA8436CL+	101	92	98	92	94	**95**
BZ9P22-029W	90	89	101	98	---	**94**
Expresso	92	90	96	93	97	**94**
WB8148	98	96	90	106	82	**94**
WB9668	93	93	100	88	---	**94**
WB9749	92	97	100	86	---	**94**
Glee	101	90	77	101	98	**93**
XH9033	97	96	87	89	---	**92**
HSG Timberline	95	96	87	93	84	**91**
Tiburon	90	98	87	99	82	**91**
WB9724CLP	---	---	---	---	91	**91**
Alzada	87	97	86	84	83	**87**
WB7202CLP	---	---	---	---	83	**83**
Choteau	---	---	---	---	74	**74**
Location Average (bu/A)	**97**	**119**	**61**	**111**	**37**	

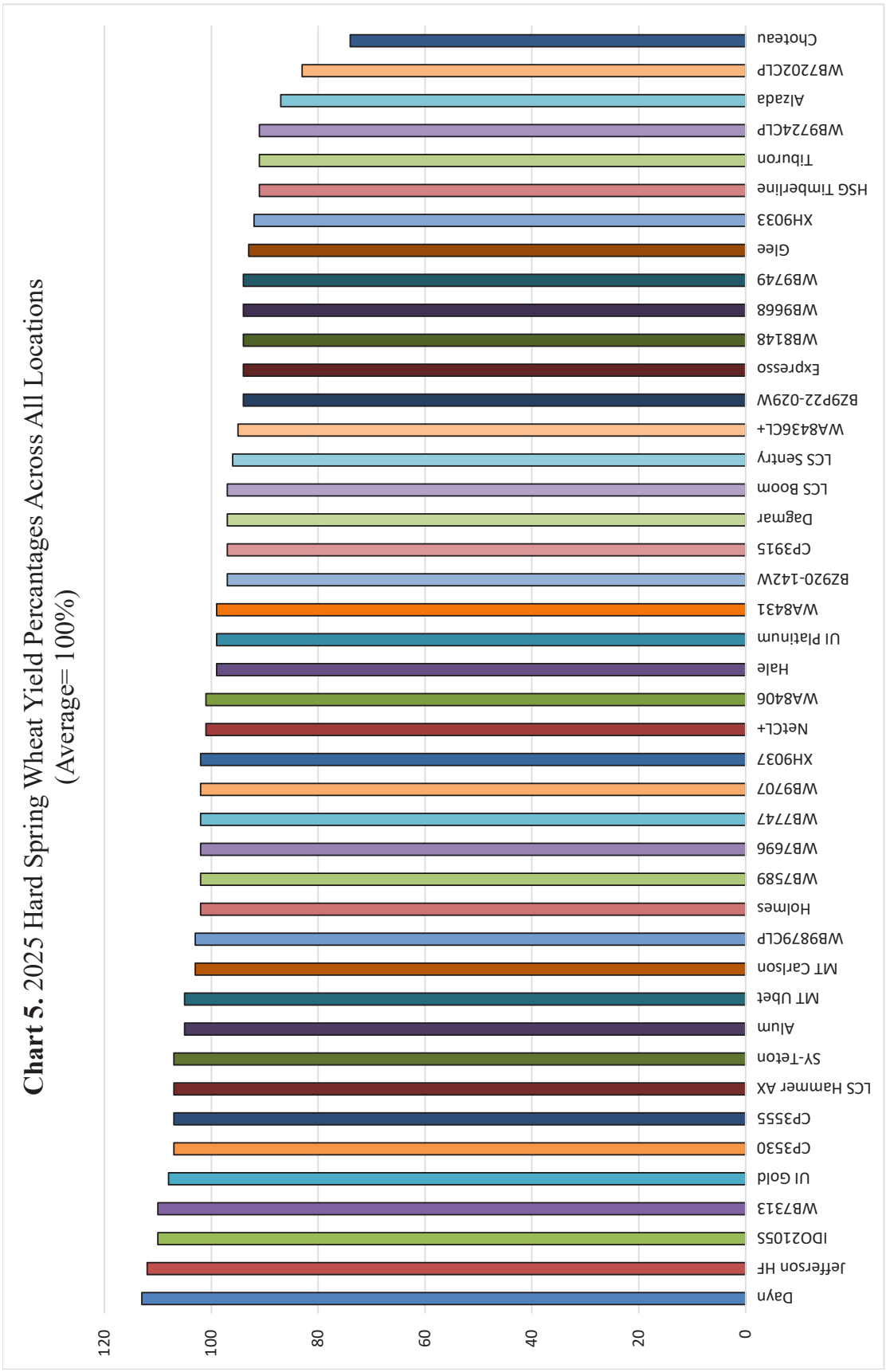

Chart 5. 2025 Hard Spring Wheat Yield Percantages Across All Locations (Average= 100%)

Table 38. Soft White Spring Wheat Irrigated Nurseries, 3-Year Averages (2023-2025; 11 site-years).

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)
Soda	121	60.5	100	6/24	37	2	10.2
WB6430	120	59.7	100	6/22	33	1	10.1
Alturas	119	59.7	100	6/25	38	0	10.0
UI Warrior	118	60.8	100	6/23	35	0	10.2
UI Stone	118	59.8	100	6/22	36	1	10.1
Seahawk	112	60.2	99	6/26	38	1	10.0
Ryan	111	59.2	100	6/21	35	5	10.5
UI Cookie	111	58.8	100	6/22	36	0	10.5
Tekoa	111	60.8	100	6/26	37	1	10.0
Butch CL+	110	59.7	100	6/22	33	1	10.6
Louise	106	59.8	100	6/25	39	19	10.3
WB6211CLP	103	57.8	100	6/22	34	1	9.6
Roger	101	60.0	100	6/23	36	6	10.1
Average	112	59.8	100	6/23	36	3	10.2
CV (%)	5.8	1.4	0.3	---	---	---	2.6

Table 39. Soft White Spring Wheat Dryland Nurseries, 3-Year Averages (2023-2025; 11 site-years).

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Protein (%)
Alturas	48	58.8	99	7/9	25	8.4
Soda	47	59.1	100	7/10	28	8.0
Louise	46	59.8	100	7/10	30	8.6
Tekoa	45	60.5	100	7/10	27	8.7
WB6430	44	59.5	100	7/8	24	8.6
IDO2301S	44	58.7	100	7/10	27	8.3
UI Stone	44	59.5	100	7/9	26	8.7
Roger	44	58.8	100	7/8	26	8.5
Seahawk	43	58.6	100	7/10	25	8.8
UI Warrior	43	59.6	99	7/9	26	8.9
IDO2201S	43	58.9	100	7/10	26	8.5
WB6211CLP	42	58.6	100	7/9	26	9.0
Ryan	41	58.2	100	7/8	26	8.8
Butch CL+	41	58.5	100	7/9	24	9.2
UI Cookie	37	57.6	100	7/8	26	9.3
Average	44	59.0	100	7/9	26	8.7
CV (%)	5.9	1.2	0.4	---	---	---

*No Lodging at this location.

Table 40. Soft White Spring Wheat Irrigated Data Combined from Rupert, Idaho Falls, Tetonia and Aberdeen, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Falling Number
Soda	111	60.4	6/11	36	8	10.2	344
WB6430	109	60.2	6/9	31	7	10.1	289
IDO2201S	107	59.5	6/11	34	0	10.7	283
Alturas	107	59.4	6/11	35	0	9.8	277
WA8433	106	59.8	6/11	39	18	10.7	288
WA8408	106	59.5	6/10	33	7	10.2	283
UI Stone	106	60.0	6/9	35	7	9.7	302
Tekoa	105	60.7	6/12	36	2	9.9	294
Seahawk	104	60.2	6/12	36	0	9.8	301
Bush	104	61.1	6/10	35	11	9.9	322
WA8434	103	60.9	6/9	39	9	11.0	307
UI Warrior	101	60.5	6/10	32	1	10.4	302
Ryan	101	58.9	6/8	35	3	10.4	307
Butch CL+	101	59.7	6/9	31	1	10.9	329
WA8384	100	59.5	6/9	36	6	10.4	307
Roger	95	60.4	6/9	34	11	10.0	319
UI Cookie	94	58.9	6/8	34	0	10.7	293
IDO2301S	94	60.0	6/11	35	0	10.2	283
Louise	90	59.5	6/11	36	27	10.5	310
Average	102	60.0	6/10	35	6	10.3	302
Standard error	9.6	0.9	1.2	1.3	5.9	---	---
CV	5.4	1.0	0.8	5.9	---	3.7	5.8

Table 41. Agronomic Data for Soft White Spring at Rupert, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	FN Average
IDO2201S	137	56.2	6/11	40	0	10.4	269
Tekoa	136	58.1	6/13	40	7	9.4	285
Soda	134	58.0	6/11	40	15	9.3	340
WA8408	131	56.3	6/9	39	20	9.3	262
WB6430	131	56.9	6/8	35	13	9.7	297
UI Warrior	128	57.2	6/11	37	1	9.6	321
Seahawk	126	57.2	6/14	42	0	9.4	280
UI Cookie	126	55.6	6/7	38	0	9.6	262
WA8433	126	56.3	6/9	42	52	10.9	263
WA8434	125	58.2	6/9	43	20	10.6	307
Ryan	125	55.1	6/9	41	6	10.3	250
Roger	125	57.0	6/9	38	24	10.0	296
WA8384	124	56.8	6/9	40	10	10.2	247
Butch CL+	114	56.3	6/9	35	2	10.7	311
UI Stone	113	56.7	6/8	39	14	9.2	280
Bush	107	57.8	6/9	37	24	9.9	260
Alturas	105	56.3	6/11	40	1	9.5	278
Louise	102	57.0	6/10	40	84	10.4	293
IDO2301S	101	56.4	6/12	41	1	10.0	260
Average	122	56.8	6/9	39	15	9.9	282
LSD (=0.05)	31	0.6	1.3	2	---	---	---
CV (%)	9.4	1.5	1.1	5.7	---	---	---

Table 42. Agronomic Data for Soft White Spring at Aberdeen, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Protein (%)	FN Average
UI Stone	122	62.2	6/5	34	10.7	313
Alturas	121	61.6	6/9	34	9.9	272
WB6430	118	62.4	6/6	30	11.3	299
IDO2201S	117	62.3	6/8	31	11.8	287
Soda	117	62.8	6/7	35	11.5	352
WA8408	114	62.4	6/8	31	11.6	282
Tekoa	113	62.8	6/9	35	11.0	293
Bush	113	63.7	6/9	32	11.2	332
WA8433	112	62.0	6/8	38	10.9	298
Louise	111	62.2	6/7	34	11.2	310
Seahawk	110	62.7	6/9	35	11.2	319
Butch CL+	110	62.6	6/6	28	12.2	343
WA8384	110	62.8	6/6	36	11.7	335
UI Warrior	109	62.8	6/6	31	12.0	306
IDO2301S	108	62.3	6/8	33	12.2	287
Ryan	106	62.2	6/4	32	11.4	344
WA8434	106	63.1	6/6	38	11.8	302
UI Cookie	99	61.8	6/5	33	13.1	298
Roger	83	62.7	6/6	33	10.7	341
Average	110	62.5	6/6	33	11.4	311
LSD (=0.05)	21	1.2	0	2.3	---	---
CV (%)	7.9	0.8	0	7.5	---	---

*No Lodging at this location.

Table 43. Agronomic Data for Soft White Spring at Idaho Falls, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	FN Average
UI Stone	86	61.3	6/14	30	0	10.6	309
Bush	85	61.6	6/15	34	1	10.4	365
Alturas	85	60.3	6/15	31	0	10.6	287
Soda	82	60.5	6/16	32	0	10.5	354
IDO2301S	81	60.7	6/16	33	0	10.5	296
WA8434	77	61.5	6/14	35	0	11.0	310
Tekoa	76	61.3	6/17	32	0	10.6	329
WA8433	76	61.2	6/16	36	0	10.7	302
WA8384	75	59.3	6/14	32	0	10.7	313
WA8408	74	60.2	6/14	30	0	10.6	296
WB6430	74	61.1	6/13	28	0	10.4	297
UI Warrior	73	61.6	6/15	30	0	11.0	320
Seahawk	73	60.4	6/16	31	0	10.7	316
Ryan	72	59.4	6/13	31	1	11.3	323
Louise	71	59.6	6/16	34	0	10.6	312
UI Cookie	70	59.1	6/13	32	0	11.6	312
IDO2201S	70	60.1	6/16	30	0	11.3	308
Roger	70	61.3	6/14	31	2	10.3	328
Butch CL+	68	59.7	6/13	30	0	10.9	328
Average	76	60.5	6/14	32	0	10.8	316
LSD (=0.05)	20	1.4	0.9	3	---	---	---
CV (%)	7.3	1.4	0.8	6.3	---	---	---

Table 44. Agronomic Data for Soft White Spring at Tetonia, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Protein (%)	FN Average
Soda	135	60.8	7/4	38	9.3	330
WA8408	123	59.8	7/4	36	9.4	295
WA8384	122	60.6	7/1	40	9.0	332
UI Warrior	121	60.1	7/2	37	9.1	260
WB6430	121	59.6	7/2	34	9.1	265
Alturas	120	59.6	7/5	40	9.3	272
UI Stone	120	59.5	7/2	36	8.2	307
Bush	119	60.2	7/4	37	8.1	332
Roger	119	59.1	7/3	39	9.0	312
Butch CL+	119	59.3	7/3	34	9.7	336
IDO2201S	116	58.4	7/5	37	9.4	270
Ryan	116	59.1	7/1	37	8.7	313
Louise	115	61.0	7/5	42	9.7	328
Tekoa	115	60.8	7/6	35	8.7	272
Seahawk	112	59.4	7/6	39	7.8	291
WA8433	111	60.4	7/3	41	10.4	290
UI Cookie	109	57.5	7/1	37	8.3	302
IDO2301S	108	58.7	7/6	39	8.1	282
WA8434	104	62.0	7/1	42	10.4	309
Average	117	59.8	7/3	38	9.0	
LSD (=0.05)	20	1.6	1.8	2	---	---
CV (%)	5.6	1.7	1.0	6.2	---	---

*No Lodging at this location.

Table 45. Agronomic Data for Soft White Spring at Soda Springs, Dryland, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Heading Date	Height (in.)	Protein (%)	FN Average
Bush	55	59.1	7/2	26	8.0	384
Tekoa	53	59.4	7/4	26	8.5	393
Soda	53	57.9	7/3	29	7.7	372
WA8408	50	57.5	7/2	25	8.4	341
Louise	49	58.7	7/2	29	8.6	330
WA8433	49	59.0	7/2	26	8.4	271
IDO2301S	49	57.4	7/3	26	8.0	281
Alturas	48	57.4	7/2	24	8.3	287
WA8434	46	59.9	7/2	28	9.1	322
Seahawk	46	57.1	7/3	24	8.7	314
WB6211CLP	45	57.6	7/3	25	9.2	319
UI Stone	45	58.4	7/2	25	8.4	332
IDO2201S	45	57.6	7/3	26	8.4	332
Roger	44	57.7	6/30	25	8.6	333
WA8384	44	57.9	7/1	27	8.4	351
WB6430	43	58.3	7/1	23	8.3	334
Butch CL+	42	57.0	7/2	22	9.0	345
Ryan	42	56.8	7/2	26	8.9	345
UI Warrior	42	58.5	7/2	25	8.6	341
UI Cookie	38	55.9	6/30	24	9.8	348
Average	46	58.0	7/2	26	8.6	333
LSD (=0.05)	8	0.5	1.5	2	---	---
CV (%)	9.1	1.7	0.5	6.6	---	---

Table 46. Soft White Spring Wheat Yield Percentage of Location Averages, 2025.

Variety or Selection	Aberdeen	Rupert	Idaho Falls	Tetonia	Soda Springs	Variety Average
Soda	105	111	111	114	113	**111**
Bush	103	87	119	101	118	**106**
Tekoa	103	112	99	99	114	**105**
WA8408	102	107	97	105	107	**104**
Alturas	109	86	113	102	104	**103**
UI Stone	111	93	111	103	96	**103**
WA8433	102	103	102	95	107	**102**
WB6430	107	108	97	104	94	**102**
IDO2201S	106	113	91	100	96	**101**
UI Warrior	99	106	97	104	90	**99**
WA8384	100	101	99	103	93	**99**
Seahawk	99	104	96	94	99	**98**
WB6211CLP	---	---	---	---	98	**98**
IDO2301S	98	83	108	93	104	**97**
Louise	102	83	92	99	107	**97**
Ryan	96	103	98	99	91	**97**
WA8434	95	102	100	88	100	**97**
Butch CL+	99	94	90	101	92	**95**
Roger	74	102	90	102	96	**93**
UI Cookie	90	103	91	94	81	**92**
Location Average (bu/A)	**111**	**122**	**74**	**118**	**47**	

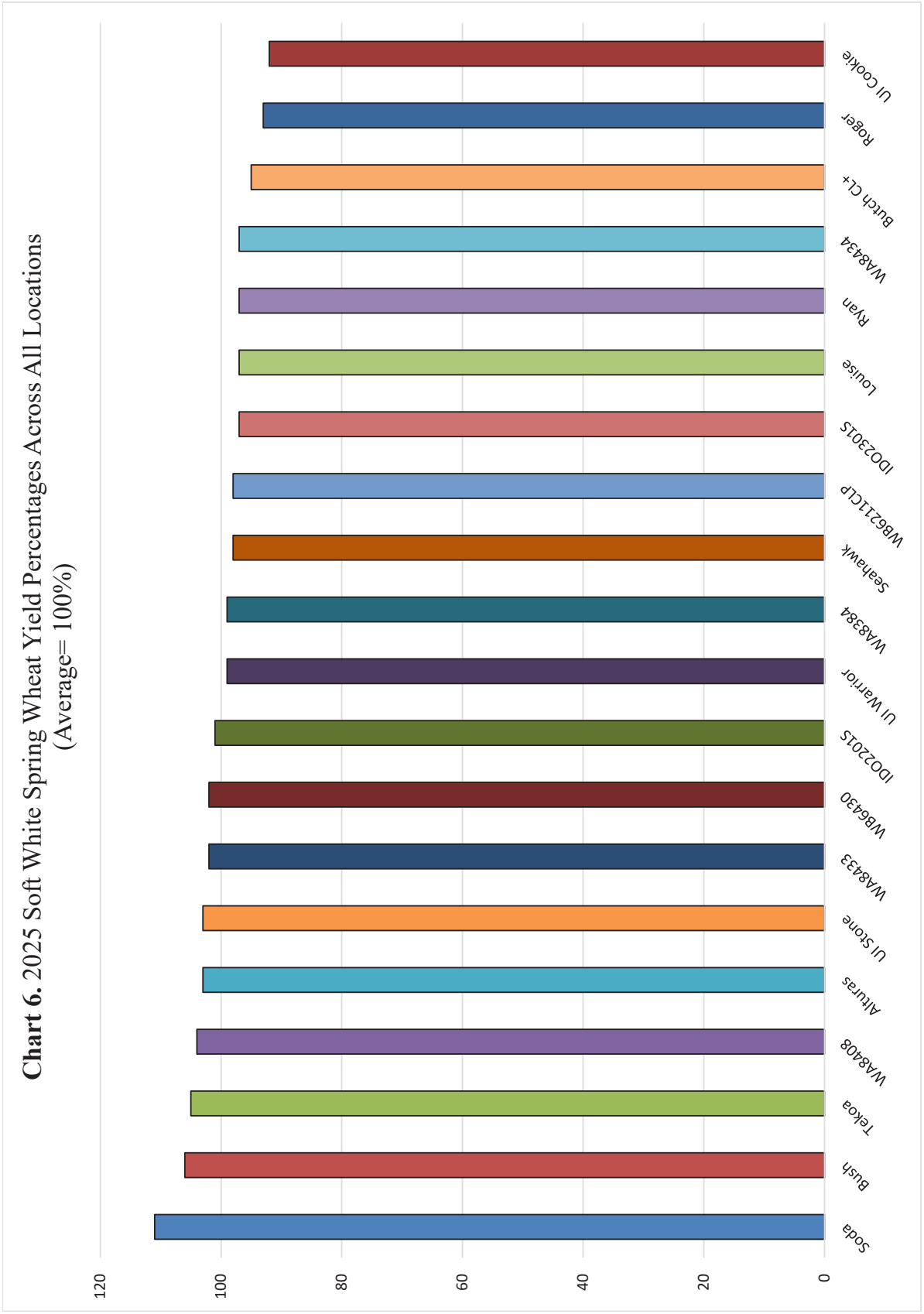

Chart 6. 2025 Soft White Spring Wheat Yield Percentages Across All Locations (Average= 100%)

Table 47. Spring Malt Barley Irrigated Nurseries, 3-Year Averages (2023-2025; 12 site-years).

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	6/64 (%)	Plump 5 5/64 (%)	Thins (%)
Esma	153	50.9	100	6/25	33	7	10.7	97.1	1.9	1.2
GemCraft	143	50.3	100	6/26	36	12	10.4	94.7	3.3	2.0
LCS Odyssey	142	49.5	100	6/27	32	7	10.3	95.6	3.0	1.7
17ARS072-5	141	50.6	100	6/27	35	6	10.4	94.9	3.3	2.2
Moravian 179	137	50.8	100	6/28	32	1	11.2	97.3	1.7	1.2
17ARS069-1	137	51.6	100	6/25	38	5	11.8	96.6	2.1	1.6
2IM17-2221	137	50.5	100	6/26	36	3	10.8	96.9	1.8	1.3
ABI Raptor	137	49.5	100	6/24	36	6	10.7	96.2	2.1	1.7
Moravian 69	134	50.2	100	6/28	33	6	10.7	94.5	3.4	2.5
LCS Genie	133	51.0	100	6/28	33	4	10.4	95.3	3.1	1.8
CDC Copeland	133	51.2	100	6/27	41	9	10.8	96.0	2.3	1.6
ABI Eagle	130	50.3	99	6/26	35	6	11.0	94.7	3.3	1.7
ABI Voyager	125	50.9	99	6/25	38	7	11.1	97.5	1.3	1.1
Average	137	50.7	99	6/26	35	6	10.8	95.9	2.5	1.7
CV	5.1	1.2	0.4	---	---	---	---	---	---	---

Table 48. Spring Malt Barley Dryland Nurseries, 3-Year Averages (2023-2025; 3 site-years).

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Protein (%)	Plump 6/64 (%)	Plump 5 5/64 (%)	Thins (%)
17ARS072-5	51	48.0	100	7/18	23	9.4	81.0	10.1	8.2
GemCraft	51	47.9	100	7/14	23	9.2	79.4	12.2	7.9
Esma	49	49.4	100	7/13	24	9.3	91.0	4.5	4.1
17ARS069-1	46	49.3	99	7/13	25	9.9	77.1	13.7	9.2
CDC Copeland	46	48.3	100	7/16	28	9.9	88.2	6.6	4.6
Moravian 69	43	47.9	100	7/17	24	10.0	77.3	12.7	9.5
ABI Voyager	41	48.4	99	7/15	25	10.6	90.7	3.6	3.5
Moravian 179	39	48.4	100	7/17	23	10.7	86.6	7.7	5.4
Average	46	48.5	100	7/15	25	9.9	83.9	8.9	6.6
CV	9.9	1.2	0.46	---	---	---	---	---	---

*No Lodging at this location.

Table 49. Spring Malt Barley Irrigated Data Combined from Rupert, Idaho Falls, Tetonia and Aberdeen, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	6/64 (%)	Plump 5 5/64 (%)	Thins (%)
Esma	163	50.7	100	6/17	34	9	10.7	97.1	1.8	1.3
KWS Acantis	156	50.1	100	6/17	31	5	10.1	97.5	1.4	1.2
LGBU17-1320A	152	48.3	100	6/20	31	0	9.5	96.0	2.8	1.7
KWS Kayas	151	48.8	100	6/18	32	7	9.7	96.2	2.4	1.7
BC Lexy	146	54.4	98	6/19	33	5	9.5	96.5	2.4	1.6
KWS Enduris	145	49.1	99	6/19	34	5	9.7	98.3	0.9	0.9
Moravian 179	145	50.8	100	6/19	32	2	11.0	97.1	1.9	1.5
GemCraft	143	50.4	100	6/18	35	8	9.7	96.1	2.4	1.8
2IM17-2221	143	50.4	100	6/18	35	7	10.3	97.4	1.7	1.4
C15-314-181-001	142	51.0	96	6/19	32	4	11.4	96.9	1.8	1.5
ABI Raptor	142	49.0	100	6/17	36	4	10.3	97.1	1.8	1.5
ABI Eagle	140	50.5	99	6/19	34	4	10.8	95.0	3.2	1.6
18ARS117-16	140	51.0	100	6/17	34	1	10.4	96.4	2.4	1.4
LG Slovan	139	50.5	100	6/19	33	6	10.6	95.3	2.8	2.4
C19-047-022	138	48.6	100	6/18	32	0	10.2	95.9	2.9	2.0
CDC Fraser	136	49.3	100	6/18	35	18	10.8	96.6	1.8	1.7
17ARS069-1	136	51.4	99	6/17	37	5	11.1	96.5	2.1	1.8
LCS Genie	134	50.6	98	6/20	34	7	9.9	94.8	3.4	2.3
ABI Voyager	133	50.7	94	6/16	38	6	10.5	98.1	1.1	0.9
18ARS117-46	133	51.8	97	6/19	32	1	9.7	93.9	3.8	2.5
LCS Odyssey	133	48.4	100	6/20	32	20	10.0	94.3	3.7	2.5
CDC Copeland	131	50.8	100	6/19	38	6	10.9	96.0	2.5	1.6
17ARS072-5	131	50.7	95	6/20	32	3	10.2	94.8	3.8	2.1
Moravian 69	121	49.7	100	6/20	32	2	10.5	92.5	3.8	4.3
CDC Clear	91	56.8	72	6/22	37	7	10.9	83.9	10.6	6.2
Average	139	50.6	98	6/19	34	6	10.3	95.6	2.7	2.0
Standard Error	8	1.4	---	3	1	---	---	---	---	---
CV	9.6	3.6	5.7	0.8	---	---	---	---	---	---

Table 50. Agronomic Data for 2-Row Malt Barley at Rupert, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Plump 6/64 (%)	Plump 5 5/64 (%)	Thins (%)
LGBU17-1320A	162	46.4	100	6/12	34	0	8.8	97.5	2.1	1.0
KWS Acantis	161	48.2	100	6/13	33	3	8.7	98.7	0.5	0.7
Esma	161	49.8	100	6/12	36	8	9.3	98.4	1.0	1.3
KWS Enduris	158	47.6	98	6/13	36	9	9.0	98.4	0.8	0.9
KWS Kayas	152	46.2	100	6/14	33	3	8.6	97.5	1.2	1.1
LG Slovan	150	49.5	100	6/14	36	14	9.0	97.8	1.6	1.2
BC Lexy	149	47.6	95	6/14	35	11	8.7	98.7	1.2	1.7
Moravian 179	147	48.9	100	6/13	33	0	9.1	98.3	0.9	1.1
2IM17-2221	146	49.1	100	6/14	37	2	9.5	98.7	1.1	0.7
C19-047-022	144	45.6	100	6/13	34	0	9.8	99.0	1.2	0.9
C15-314-181-001	144	49.2	96	6/14	37	2	9.6	98.5	0.9	0.9
17ARS072-5	144	49.6	100	6/14	35	5	9.9	95.3	3.5	2.3
GemCraft	143	49.0	100	6/14	35	5	9.3	97.1	2.4	1.1
ABI Raptor	141	46.9	99	6/13	36	0	9.2	98.1	1.1	1.1
ABI Voyager	140	50.0	89	6/11	36	1	9.4	99.1	0.7	0.5
LCS Genie	137	48.8	100	6/13	37	8	9.1	97.4	1.8	1.3
18ARS117-16	137	50.2	100	6/14	36	0	8.7	99.0	0.5	0.5
CDC Copeland	135	49.9	100	6/13	32	4	9.8	97.7	1.7	1.1
Moravian 69	132	48.7	100	6/12	33	4	10.0	97.8	1.7	1.4
CDC Fraser	131	47.8	100	6/13	36	39	10.2	97.2	1.7	1.6
ABI Eagle	129	48.5	99	6/14	34	0	9.8	97.0	2.0	1.5
LCS Odyssey	129	46.6	100	6/14	35	68	9.1	97.7	2.0	1.2
17ARS069-1	129	50.1	100	6/12	34	0	9.0	98.6	1.0	0.8
18ARS117-46	124	50.8	100	6/14	34	0	9.5	97.9	1.8	0.9
CDC Clear	82	59.9	97	6/14	36	0	8.9	88.5	8.5	3.8
Average	140	49.0	99	6/13	35	7	9.3	97.6	1.7	1.2
LSD (=0.05)	31	0.9	16	2.9	7	---	---	---	---	---
CV (%)	11.6	5.4	2.5	0.5	4.4	---	---	---	---	---

Table 51. Agronomic Data for 2-Row Malt Barley at Aberdeen, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Plump 6/64 (%)	Plump 5 5/64 (%)	Thins (%)
CDC Fraser	168	50.8	100	6/9	38	18	12.5	94.3	2.9	3.1
Esma	160	52.5	100	6/8	35	19	12.4	97.1	1.7	1.7
18ARS117-16	153	52.4	100	6/7	36	1	11.5	94.7	3.5	1.8
BC Lexy	150	50.3	100	6/11	33	0	10.8	94.8	3.5	1.6
ABI Eagle	146	52.6	100	6/8	36	10	13.3	91.6	5.7	2.9
ABI Raptor	145	50.6	100	6/7	36	7	12.9	94.8	3.2	2.4
17ARS069-1	143	52.1	100	6/7	39	16	13.9	91.1	4.5	4.3
CDC Clear	140	61.7	60	6/13	44	0	12.3	80.2	12.4	8.6
C15-314-181-001	139	52.5	100	6/10	30	1	13.1	95.3	2.6	2.0
Moravian 179	137	52.3	100	6/10	33	7	13.0	93.1	4.3	3.0
KWS Kayas	135	51.3	100	6/8	34	4	11.7	92.0	4.9	3.4
GemCraft	132	51.2	100	6/8	37	10	10.7	94.5	2.4	3.5
LGBU17-1320A	131	50.9	100	6/12	30	1	11.3	91.7	5.6	3.7
C19-047-022	129	51.6	100	6/8	32	0	10.5	92.8	4.5	3.0
KWS Acantis	128	51.4	100	6/7	32	9	11.7	95.8	2.5	1.6
KWS Enduris	128	50.9	100	6/10	36	1	10.0	98.0	1.2	0.9
2IM17-2221	127	51.8	100	6/8	35	19	13.6	93.7	3.3	3.3
18ARS117-46	127	53.2	94	6/9	36	0	10.2	90.7	5.7	3.4
17ARS072-5	122	52.3	100	6/12	36	0	10.5	91.8	5.4	2.8
LCS Odyssey	122	49.9	100	6/10	33	11	12.0	87.9	7.3	5.7
ABI Voyager	118	52.2	100	6/7	41	14	11.5	97.3	1.4	1.2
CDC Copeland	117	51.8	100	6/10	43	8	12.5	93.8	3.4	2.6
LG Slovan	117	51.4	100	6/10	35	0	12.1	89.1	5.6	5.4
LCS Genie	111	52.7	100	6/10	35	11	11.2	91.3	4.9	4.2
Moravian 69	96	50.4	100	6/10	35	0	11.8	79.2	8.7	12.3
Average	133	52.0	98	6/9	36	7	11.9	92.3	4.4	3.5
LSD (=0.05)	50	4.2	10	1.6	4	---	---	---	---	---
CV (%)	12.0	4.2	8.2	1.1	9.8	---	---	---	---	---

Table 52. Agronomic Data for 2-Row Malt Barley at Idaho Falls, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Plump 6/64 (%)	Plump 5 5/64 (%)	Thins (%)
GemCraft	149	50.9	100	6/17	32	5	9.8	94.6	3.6	2.1
LGBU17-1320A	147	48.6	100	6/20	30	0	10.1	96.2	2.5	1.4
KWS Kayas	143	49.3	100	6/17	29	9	9.9	95.9	2.8	1.6
2IM17-2221	142	51.6	100	6/17	34	0	10.1	97.8	1.6	1.0
17ARS072-5	141	51.2	100	6/20	28	0	10.9	93.1	5.2	2.6
CDC Copeland	140	50.7	100	6/20	40	2	11.3	94.0	4.2	2.2
LCS Odyssey	137	49.9	100	6/19	29	0	10.7	94.4	3.7	1.9
Esma	137	50.7	100	6/17	29	1	11.3	94.7	3.6	1.6
17ARS069-1	136	52.8	99	6/16	35	1	11.5	97.1	2.0	1.4
ABI Voyager	135	51.0	100	6/17	34	5	11.0	96.5	1.9	1.1
ABI Raptor	133	49.8	100	6/16	34	0	10.2	96.4	2.2	1.6
KWS Acantis	133	50.7	100	6/16	27	0	10.3	97.0	1.5	1.6
ABI Eagle	133	50.6	100	6/18	32	0	11.1	93.0	4.1	1.1
LG Slovan	132	51.4	100	6/18	29	1	11.9	95.5	3.1	1.9
BC Lexy	131	49.4	100	6/18	28	0	9.8	93.7	3.7	2.6
CDC Fraser	128	50.0	100	6/18	35	2	11.1	96.4	1.8	1.6
LCS Genie	127	51.1	100	6/18	29	0	10.4	92.7	4.9	2.5
Moravian 69	127	50.8	100	6/19	29	0	11.6	95.6	2.8	2.1
Moravian 179	125	51.4	100	6/19	29	0	11.5	97.5	1.7	1.3
KWS Enduris	122	50.0	100	6/17	30	1	11.5	98.2	1.0	1.1
18ARS117-16	121	50.8	100	6/16	32	1	11.5	92.3	4.9	2.6
18ARS117-46	118	52.0	100	6/17	28	1	10.0	88.4	6.7	5.0
CDC Clear	69	61.4	95	6/23	38	0	12.8	77.9	13.4	9.2
Average	131	51.1	100	6/17	31	1	10.9	94.3	3.6	2.2
LSD (=0.05)	21	9.2	2	1.6	7	---	---	---	---	---
CV (%)	11.9	4.7	1.1	1.0	11.3	---	---	---	---	---

Table 53. Agronomic Data for 2-Row Malt Barley at Tetonia, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Protein (%)	Plump 6/64 (%)	Plump 5 5/64 (%)	Thins (%)
KWS Acantis	180	49.5	100	7/3	30	9.6	98.4	1.0	0.7
LGBU17-1320A	179	47.3	100	7/8	33	7.9	98.7	1.1	0.6
BC Lexy	176	48.1	100	7/7	33	8.6	98.9	1.1	0.4
Esma	174	49.9	100	7/5	34	9.7	98.2	0.8	0.4
KWS Kayas	172	48.2	100	7/4	30	8.7	99.4	0.7	0.6
GemCraft	171	50.3	100	7/5	35	8.9	98.3	1.1	0.5
LG Slovan	169	50.0	100	7/6	32	9.3	98.6	0.8	0.9
KWS Enduris	165	48.1	100	7/6	35	8.3	98.5	0.7	0.8
2IM17-2221	155	48.9	100	7/4	34	8.1	99.2	0.7	0.4
18ARS117-16	154	50.7	100	7/4	32	9.8	99.4	0.5	0.7
ABI Raptor	148	48.4	100	7/3	38	9.0	99.0	0.5	0.7
18ARS117-46	148	50.9	100	7/6	33	9.2	98.6	1.0	0.7
LCS Odyssey	146	47.5	100	7/7	31	8.1	97.2	1.7	1.0
Moravian 179	144	49.8	100	7/8	30	10.3	99.3	0.5	0.6
17ARS069-1	143	50.7	100	7/4	39	9.9	99.2	0.7	0.6
LCS Genie	142	49.4	97	7/8	32	8.8	97.8	1.8	1.0
ABI Voyager	142	49.4	100	7/2	38	10.0	99.3	0.4	0.7
ABI Eagle	142	49.2	100	7/6	37	8.8	98.4	0.9	0.8
CDC Copeland	142	50.3	100	7/5	39	9.8	98.6	0.8	0.4
17ARS072-5	138	49.9	91	7/7	32	9.5	99.0	0.9	0.6
CDC Fraser	136	48.1	100	7/4	33	9.5	98.5	0.6	0.6
Moravian 69	132	48.6	100	7/8	33	8.7	97.3	1.9	1.4
CDC Clear	93	59.3	59	7/9	39	9.4	89.1	7.9	3.1
Average	152	49.7	98	7/5	34	9.1	98.2	1.2	0.8
LSD (=0.05)	31	1.1	13	15.1	5	---	---	---	---
CV (%)	13.1	4.7	8.9	1.0	8.9	---	---	---	---

*No Lodging to report.

Table 54. Agronomic Data for 2-Row Malt Barley at Soda Springs, Dryland, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Protein (%)	Plump 6/64 (%)	Plump 5 5/64 (%)	Thins (%)
KWS Acantis	52	48.5	100	7/4	23	8.7	88.4	2.8	9.3
17ARS069-1	51	47.9	100	7/4	24	9.0	76.7	15.6	8.3
KWS Kayas	51	48.0	100	7/7	22	8.4	86.6	5.2	9.0
ABI Raptor	49	48.1	100	7/5	24	8.9	85.4	5.7	10.0
ABI Voyager	49	47.6	100	7/5	25	9.4	90.6	4.3	5.8
GemCraft	49	46.8	100	7/6	22	8.2	86.6	9.4	4.7
LGBU17-1320A	49	46.9	100	7/12	23	8.5	82.5	5.8	12.5
Esma	48	48.4	100	7/5	23	8.8	90.8	4.5	5.4
17ARS072-5	47	46.9	100	7/12	23	9.2	84.6	7.9	7.8
CDC Copeland	46	47.3	100	7/11	27	8.9	86.0	8.0	6.9
ABI Montana	46	47.9	100	7/5	23	8.6	86.5	7.0	7.1
18ARS117-46	46	48.9	100	7/8	22	10.0	91.1	5.1	4.1
LCS Odyssey	46	47.3	100	7/9	23	8.6	85.4	7.1	8.1
KWS Enduris	45	47.6	100	7/5	23	9.2	86.7	3.5	18.2
18ARS117-16	42	48.1	100	7/7	24	10.3	87.5	7.7	5.6
Moravian 179	41	47.6	100	7/9	22	9.5	86.3	7.4	7.0
CDC Fraser	41	46.7	100	7/5	24	9.7	85.3	6.9	8.7
Moravian 69	36	46.3	100	7/11	23	9.0	76.3	13.4	10.7
Successor	34	49.8	100	7/2	21	10.1	83.9	8.2	8.1
Average	46	47.7	100	7/6	23	9.1	85.6	7.1	8.3
LSD (=0.05)	9	1.5	0	2.7	1	---	---	---	---
CV (%)	10.8	1.8	0	1.6	5.7	---	---	---	---

*No Lodging to report.

Table 55. 2-Row Spring Malt Barley Yield Percentage of Location Averages, 2025.

Variety or Selection	Aberdeen	Rupert	Idaho Falls	Tetonia	Soda Springs	Variety Average
Esma	121	113	105	115	103	**111**
BC Lexy	114	107	101	116	---	**110**
KWS Kayas	101	111	109	113	109	**109**
LGBU17-1320A	98	114	113	117	105	**109**
KWS Acantis	95	114	102	119	112	**108**
GemCraft	99	104	114	113	105	**107**
C15-314-181-001	105	102	---	---	---	**104**
2IM17-2221	96	105	109	102	---	**103**
ABI Raptor	111	99	102	98	107	**103**
KWS Enduris	97	115	93	108	98	**102**
LG Slovan	87	110	101	111	---	**102**
17ARS069-1	107	91	104	94	111	**101**
17ARS072-5	93	105	108	91	102	**100**
18ARS117-16	114	97	92	101	91	**99**
ABI Eagle	110	92	101	93	---	**99**
ABI Montana	---	---	---	---	99	**99**
ABI Voyager	90	101	104	94	106	**99**
CDC Fraser	128	95	97	89	88	**99**
C19-047-022	95	101	---	---	---	**98**
CDC Copeland	87	98	107	94	100	**97**
Moravian 179	102	102	96	95	89	**97**
LCS Odyssey	90	90	105	96	98	**96**
18ARS117-46	96	87	90	98	98	**94**
LCS Genie	84	97	98	94	---	**93**
Moravian 69	72	92	97	87	78	**85**
CDC Clear	106	56	53	61	---	**69**
Location Average (bu/A)	**132**	**140**	**131**	**153**	**46**	

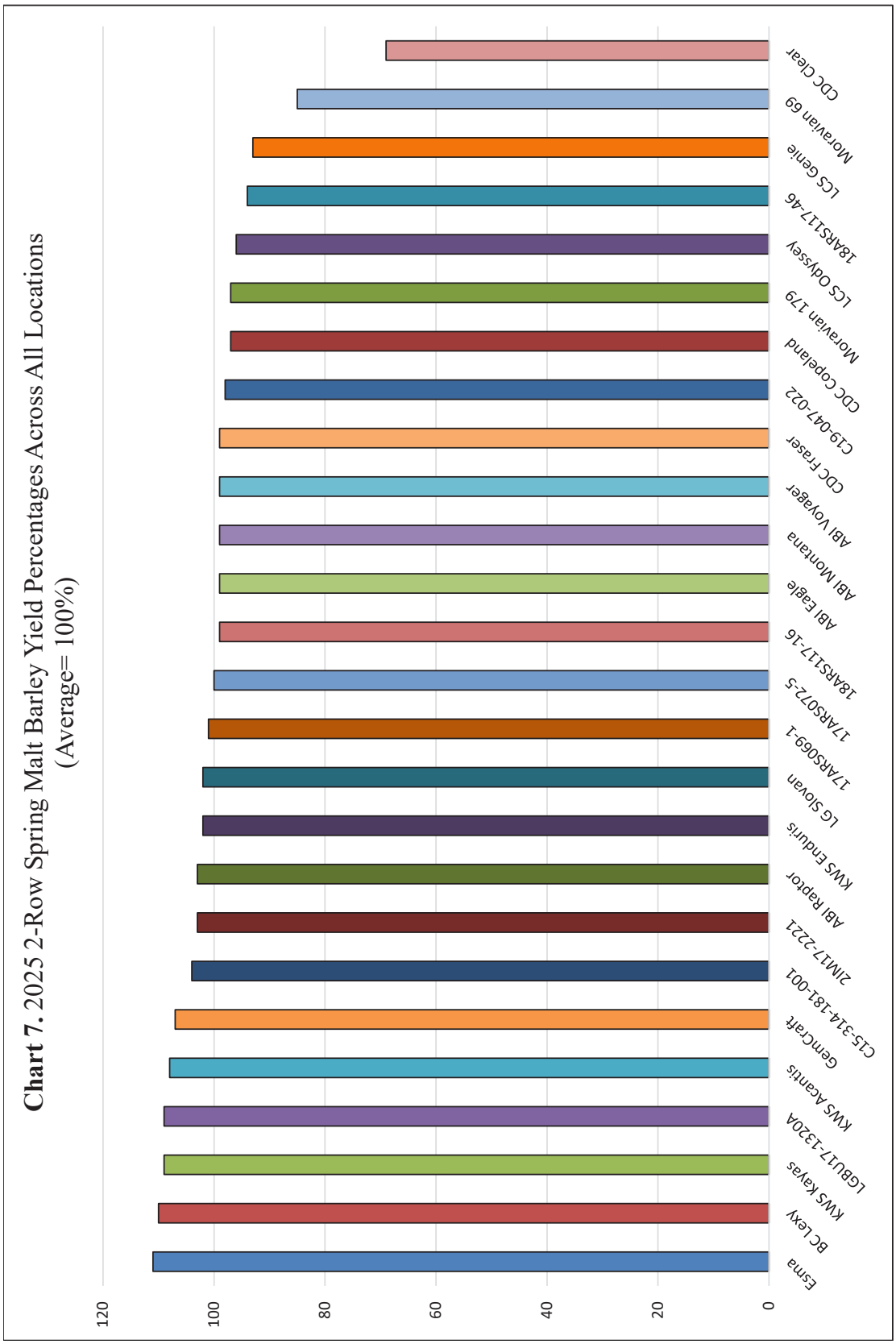
Chart 7. 2025 2-Row Spring Malt Barley Yield Percentages Across All Locations
(Average= 100%)
120
100
80
60
40
20
0
Esma
BC Lexy
KWS Kayas
LGBU17-1320A
KWS Acantis
GemCraft
C15-314-181-001
21M17-2221
ABI Raptor
KWS Enduris
LG Siovan
17ARS069-1
17ARS072-5
18ARS117-16
ABI Eagle
ABI Montana
ABI Voyager
CDC Fraser
C19-047-022
CDC Copeland
Moravian 179
LCS Odyssey
18ARS117-46
LCS Genie
Moravian 69
CDC Clear

Table 56. Spring Feed Barley Irrigated Data, (2023-2025; 12 site-years).

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Plump 6/64 (%)	Plump 5 5/64 (%)	Thins (%)
Ascent	148	51.9	100	6/25	40	8	11.2	92.0	4.7	4.0
Altorado	146	52.3	100	6/25	37	6	10.9	77.8	14.0	7.8
Carleton	141	51.0	100	6/24	35	6	10.0	71.8	15.0	13.3
Claymore	138	53.6	100	6/26	38	10	11.4	---	---	---
Champion	136	52.2	100	6/25	38	9	11.3	82.4	10.7	6.5
Kardia	134	50.4	100	6/28	38	15	11.5	88.0	8.2	3.8
HO517-126	116	59.7	100	6/26	35	2	10.7	33.2	37.2	29.8
Goldenhart	93	59.1	94	6/28	37	9	13.0	58.6	21.7	19.4
Average	131	53.8	99	6/25	37	8	11.3	72.0	15.9	12.1
CV	14.0	6.7	2.1	---	---	---	7.6	---	---	---

Table 57. Spring Feed Dryland Irrigated Nurseries, 3-Year Averages (2023-2025; 12 site-years).

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Protein (%)	Plump 6/64 (%)	Plump 5 5/64 (%)	Thins (%)
Altorado	51	50.2	100	7/12	25	9.5	77.8	14.0	7.8
Champion	50	49.8	100	7/13	27	10.4	82.4	10.7	6.5
Ascent	48	49.9	100	7/10	27	10.7	92.0	4.7	4.0
Carleton	45	48.3	99	7/11	23	10.0	71.8	15.0	13.3
Claymore	43	52.9	99	7/14	26	10.6	63.5	21.6	14.3
HO517-126	42	56.3	98	7/14	24	9.9	33.2	37.2	29.8
Kardia	42	48.6	99	7/15	26	11.6	88.0	8.2	3.8
Goldenhart	25	57.2	89	7/15	23	13.4	58.6	21.7	19.4
Average	41	51.4	98.2	7/12	25	10.8	70.9	16.6	12.4
CV	18.7	6.7	3.8	---	---	---	---	---	

Table 58. Spring Feed Barley Irrigated Data Combined from Rupert, Idaho Falls, Tetonia and Aberdeen, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	6/64 (%)	Plump 5 5/64 (%)	Thins (%)
YU522-536	152	51.2	100	6/20	30	0	10.0	89.9	7.0	3.5
Altorado	149	51.9	100	6/18	36	14	11.0	93.3	4.4	3.0
Carleton	145	50.9	100	6/16	34	2	10.0	94.1	3.9	2.1
19ARS232-3	143	50.8	98	6/17	37	9	10.2	94.7	3.3	2.2
Ascent	142	52.7	99	6/16	40	1	11.5	97.3	1.6	1.3
Champion	133	52.3	100	6/17	37	11	11.4	80.4	3.2	1.8
Kardia	132	50.8	95	6/21	38	21	12.1	92.6	4.9	2.8
Rulon	131	48.7	100	6/12	38	12	11.0	96.0	2.6	1.5
Successor	129	52.4	100	6/14	32	13	11.7	96.7	1.7	1.7
Claymore	120	59.7	100	6/21	36	12	12.6	87.2	8.6	4.3
18ARS205-2	117	57.3	98	6/20	40	18	11.5	89.6	6.5	4.0
HO517-126	117	59.9	98	6/19	34	0	10.5	82.8	12.9	4.7
Goldenhart	99	59.2	93	6/21	35	11	13.5	88.9	6.9	4.4
Transit	92	56.5	90	6/21	40	1	14.1	84.2	10.7	3.4
Average	129	53.9	98	6/18	36	9	11.5	90.5	5.6	2.9
standard error	6	0.4	1.9	3	1.1	5	2.6	---	---	---

Table 59. Agronomic Data for Feed and Food Barley at Rupert, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Plump 6/64 (%)	Plump 5 5/64 (%)	Thins (%)
Altorado	149	51.3	100	6/12	37	18	10.3	93.8	3.4	2.8
19ARS232-3	148	49.8	100	6/10	41	11	9.3	96.9	2.5	1.2
YU522-536	147	49.8	100	6/15	32	0	9.0	92.5	6.4	2.0
Ascent	141	51.4	100	6/9	43	0	10.4	97.9	1.2	1.0
Carleton	136	49.5	100	6/11	37	4	8.9	94.6	4.1	1.8
Kardia	133	49.4	100	6/15	38	59	10.5	92.3	5.1	3.7
Successor	132	52.0	100	6/6	35	42	10.6	97.4	1.4	1.7
Champion	121	51.1	100	6/11	39	26	10.6	96.7	2.2	1.5
Rulon	120	47.7	100	6/5	43	46	9.9	96.0	2.4	1.7
Claymore	120	58.0	100	6/14	36	15	11.4	88.8	8.4	3.0
HO517-126	119	58.3	100	6/14	37	0	10.1	82.8	14.1	3.8
18ARS205-2	114	53.7	100	6/14	41	72	9.6	86.2	9.6	4.5
Transit	98	55.6	98	6/14	41	2	11.8	86.4	12.0	2.0
Goldenhart	93	56.6	99	6/15	38	34	12.7	88.8	8.0	3.4
Average	126	52.4	100	6/11	38	24	10.4	92.2	5.8	2.4
LSD (=0.05)	30	10.2	1	1.6	5	---	---	---	---	---
CV (%)	13.9	6.5	0.6	2.0	8.3	---	---	---	---	---

Table 60. Agronomic Data for Feed and Food Barley at Aberdeen, Irrigated, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	6/64 (%)	Plump 5 5/64 (%)	Thins (%)
19ARS232-3	162	53.0	97	6/10	37	12	12.2	90.5	5.5	3.9
Carleton	160	52.4	100	6/8	35	0	11.7	92.6	4.4	2.8
Altorado	158	53.2	100	6/9	38	35	13.1	89.8	5.7	4.7
Successor	157	53.9	100	6/5	31	6	13.9	94.7	2.2	2.9
Champion	156	53.8	100	6/8	37	11	13.5	92.1	4.9	3.1
YU522-536	155	53.1	100	6/12	36	1	11.3	85.3	9.2	5.4
Ascent	154	54.2	100	6/7	41	2	13.5	95.8	2.4	1.8
Rulon	152	51.6	100	6/4	39	2	13.6	95.6	2.5	1.6
18ARS205-2	134	59.8	92	6/11	40	6	14.7	86.1	6.7	7.0
Claymore	129	60.5	99	6/10	36	31	14.9	83.0	9.2	7.9
HO517-126	125	61.1	98	6/10	34	0	14.3	81.7	11.5	6.9
Kardia	125	52.6	91	6/12	38	23	15.7	90.8	5.5	3.4
Goldenhart	119	61.0	82	6/12	40	2	15.4	85.1	6.1	8.9
Transit	101	56.6	76	6/10	40	2	16.1	78.0	19.7	7.4
Average	142	55.5	95	6/9	37	10	13.9	88.7	6.8	4.8
LSD (=0.05)	27	3.1	19	2.3	8	---	---	---	---	---
CV (%)	13.5	6.4	8.0	1.6	7.5	---	---	---	---	---

Table 61. Agronomic Data for Feed and Food Barley at Idaho Falls, Irrigated, 2025

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Lodging (%)	Protein (%)	Plump 6/64 (%)	Plump 5 5/64 (%)	Thins (%)
YU522-536	134	51.3	100	6/18	28	0	10.9	85.0	10.1	5.1
Altorado	132	52.2	100	6/16	32	0	11.2	92.0	7.0	3.3
Rulon	129	48.8	100	6/13	30	0	10.9	94.1	4.2	1.9
19ARS232-3	128	51.0	100	6/17	35	0	9.6	92.9	4.2	3.1
Carleton	128	51.2	100	6/16	30	0	10.1	91.2	5.7	2.9
Kardia	120	50.9	100	6/22	34	1	12.2	90.2	6.9	3.0
Ascent	119	53.3	100	6/16	36	0	11.3	96.9	1.8	1.4
Champion	115	52.8	100	6/17	33	0	10.9	34.8	3.9	1.5
18ARS205-2	107	57.5	100	6/20	36	0	12.1	90.5	6.1	3.0
Successor	102	51.8	100	6/14	29	0	11.6	96.2	2.4	1.6
Claymore	102	59.4	100	6/23	32	0	13.4	88.2	7.4	4.4
HO517-126	99	60.1	100	6/18	31	0	9.5	80.6	14.8	4.9
Goldenhart	75	60.8	96	6/20	32	1	13.9	89.5	7.3	3.5
Transit	67	57.4	94	6/23	36	0	14.7	79.6	5.6	2.4
Average	111	54.2	99	6/18	32	0	11.6	85.8	6.2	3.0
LSD (=0.05)	19	1.3	3	1.7	3	---	---	---	---	---
CV (%)	18.7	7.4	1.9	1.9	8.4	---	---	---	---	---

Table 62. Agronomic Data for Feed and Food Barley at Tetonia, Irrigated, 2025

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Protein (%)	Plump 6/64 (%)	Plump 5 5/64 (%)	Thins (%)
YU522-536	175	50.7	100	7/6	29	8.7	96.9	2.2	1.3
Carleton	166	50.6	100	7/2	35	9.2	98.1	1.3	0.9
Altorado	156	51.2	100	7/3	36	9.5	97.5	1.4	1.1
Kardia	153	50.7	100	7/6	39	9.9	97.0	1.9	1.0
Ascent	149	51.8	99	7/2	40	10.7	98.5	0.9	0.8
19ARS232-3	149	49.9	100	7/4	37	9.7	98.4	1.1	0.7
Rulon	145	47.2	100	6/30	40	9.6	98.3	1.3	0.7
Champion	137	51.2	100	7/3	38	10.4	98.0	1.6	0.9
18ARS205-2	132	57.8	100	7/6	40	9.5	95.4	3.6	1.4
Claymore	128	59.9	100	7/7	38	10.7	88.9	9.5	1.8
Successor	125	51.8	100	7/1	31	10.5	98.6	0.8	0.5
HO517-126	122	59.8	99	7/5	33	8.2	86.1	11.2	3.1
Goldenhart	107	58.7	96	7/8	36	11.8	92.1	6.2	1.7
Transit	106	56.5	96	7/7	43	13.9	92.7	5.6	1.9
Average	139	53.4	99	7/4	37	10.2	95.5	3.5	1.3
LSD (=0.05)	29	0.9	2	---	---	---	---	---	---
CV (%)	15	8	1	1	10	---	---	---	---

*No lodging to report.

Table 63. Agronomic Data for Feed and Food Barley at Soda Springs, Dryland, 2025.

Variety or Selection	Yield (bu/A)	Test Wt. (lb/bu)	Spring Stand (%)	Heading Date	Height (in.)	Protein (%)	Plump 6/64 (%)	Plump 5 5/64 (%)	Thins (%)
Champion	54	49.0	100	7/8	26	9.1	80.6	11.4	8.2
Altorado	53	49.5	100	7/4	24	8.6	74.8	16.0	9.4
19ARS232-3	50	48.9	100	7/6	25	9.2	84.8	10.5	6.1
YU522-536	49	49.0	100	7/8	23	9.2	77.8	15.6	8.3
Ascent	46	50.6	100	7/4	26	9.9	88.7	6.4	5.4
Claymore	41	59.0	98	7/12	24	10.3	41.0	42.0	16.6
18ARS205-2	40	57.5	99	7/8	25	10.0	61.4	22.0	17.1
Carleton	40	48.9	100	7/6	21	9.3	75.6	13.9	11.0
Kardia	40	48.0	100	7/9	24	9.9	88.1	8.3	4.1
HO517-126	38	57.5	99	7/8	21	9.3	33.5	42.8	24.9
Rulon	34	46.1	100	7/8	23	11.1	88.9	6.4	4.3
Successor	34	49.8	100	7/2	21	10.1	83.9	8.2	8.1
Goldenhart	27	58.1	93	7/8	23	11.1	58.3	26.9	15.2
Transit	26	53.1	89	7/12	26	13.2	47.5	36.7	16.0
Average	41	51.8	98	7/7	24	10.0	70.4	19.1	11.1
LSD (=0.05)	8	1.4	4	---	1.9	---	---	---	---
CV (%)	22	8	3	1	8	---	---	---	---

*No Lodging to report.

Table 64. 2-Row Spring Feed and Food Barley Yield Percentage of Location Averages, 2025.

Variety or Selection	Aberdeen	Rupert	Idaho Falls	Tetonia	Soda Springs	Variety Average
Altorado	112	117	119	113	129	**118**
YU522-536	109	116	120	125	122	**118**
19ARS232-3	114	118	115	106	123	**115**
Carleton	113	106	115	119	99	**110**
Ascent	108	111	107	108	113	**109**
Champion	110	98	103	101	132	**109**
Kardia	88	105	108	110	97	**102**
Rulon	107	94	116	102	82	**100**
Successor	110	107	92	89	81	**96**
18ARS205-2	95	88	97	94	98	**94**
Claymore	91	96	91	92	102	**94**
HO517-126	88	93	89	89	93	**90**
Goldenhart	84	73	67	77	67	**74**
Transit	71	78	60	75	62	**69**
Location Average (bu/A)	**142**	**125**	**111**	**139**	**40**	

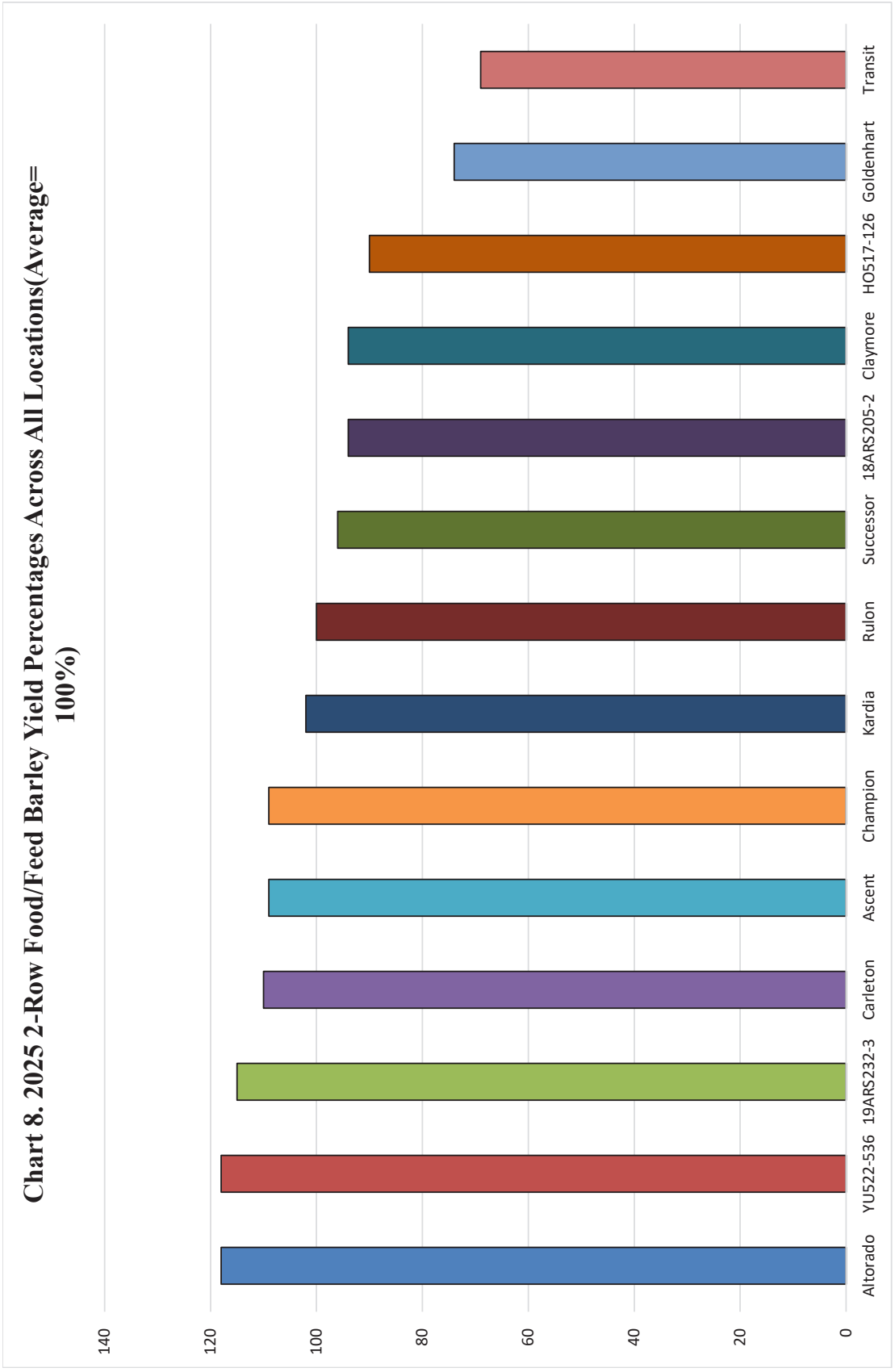
Chart 8. 2025 2-Row Food/Feed Barley Yield Percentages Across All Locations(Average= 100%)
140
120
100
80
60
40
20
0
Altorado
YU522-536
19ARS232-3
Carleton
Ascent
Champion
Kardia
Rulon
Successor
18ARS205-2
Claymore
HO517-126
Goldenhart
Transit

Table 65. Grain Protein & Kernel Hardness of Hard Winter Wheat Varieties and Selections Grown in Southeast Idaho, 2024.

	----------Grain Protein %----------							----------Kernel Hardness 0-100----------						
Variety or Selection	**Aberdeen**	**Kimberly**	**Ririe Irrig**	**Rupert**	**Ririe Dry**	**Soda Springs**	**Average**	**Aberdeen**	**Kimberly**	**Ririe Irrig**	**Rupert**	**Ririe Dry**	**Soda Springs**	**Average**
Rubicon (Apst-132)	13.9	12.9	13.4	13.9	10.6	13.8	**13.1**	90.4	109.4	103.8	97.7	61.0	70.7	**89**
Artek	13.9	12.7	13.6	15.2	11.6	13.9	**13.5**	69.4	88.4	86.1	80.7	55.0	68.2	**75**
Curlew	---	---	---	---	13.4	13.6	**13.5**	---	---	---	---	66.8	81.7	**74**
Balance	14.3	13.4	15.3	13.9	---	---	**14.2**	97.4	90.8	100.4	99.8	---	---	**97**
Flathead	13.4	12.7	14.1	13.4	10.8	14.6	**13.2**	87.6	103.7	109.8	95.7	71.3	81.8	**92**
FourOsix	13.9	12.5	13.7	13.3	12.0	13.8	**13.2**	76.5	80.8	83.2	86.6	63.1	82.8	**79**
Juniper	---	---	---	---	11.6	15.5	**13.5**	---	---	---	---	78.7	81.6	**80**
Greenville	14.1	12.7	14.8	13.3	---	---	**13.7**	81.1	96.0	99.9	99.7	---	---	**94**
HSG108	13.5	11.5	13.0	11.9	---	---	**12.5**	80.0	80.9	80.4	68.3	---	---	**77**
HSG110	13.4	11.9	13.0	13.2	---	---	**12.9**	76.8	92.2	92.9	89.0	---	---	**88**
HSG124	12.8	10.8	12.9	12.5	---	---	**12.3**	74.5	62.5	86.8	69.8	---	---	**73**
HSG132	14.0	11.6	13.2	---	---	---	**12.9**	82.8	101.2	104.6	---	---	---	**96**
Kairos	13.8	12.6	13.9	14.3	---	---	**13.7**	67.4	90.9	99.0	72.9	---	---	**83**
Keldin	14.2	12.8	13.9	13.2	10.7	15.3	**13.4**	81.0	93.0	92.5	94.0	63.6	66.5	**82**
Keldin + 11-52-0	14.6	11.8	13.8	14.5	11.6	14.5	**13.5**	68.5	91.3	89.4	77.2	70.4	75.5	**79**
LCS Blackbird	13.8	12.5	14.5	13.1	---	---	**13.5**	82.4	89.3	100.3	90.7	---	---	**91**
LCS Jet	14.6	12.9	14.6	12.3	11.0	14.1	**13.3**	85.3	91.3	95.7	91.5	76.7	66.9	**85**
LCS Missile	14.0	12.5	14.2	12.8	11.3	12.8	**12.9**	82.2	78.5	85.9	96.9	57.3	73.8	**79**
Milestone	14.2	12.5	13.9	13.9	12.1	14.5	**13.5**	84.0	88.3	100.8	89.2	69.2	73.1	**84**
MT1745	14.3	13.2	13.8	14.3	11.4	13.9	**13.5**	87.2	89.4	102.3	87.4	61.6	79.8	**85**
OR2190064R	13.5	13.0	14.4	13.5	11.7	13.8	**13.3**	78.8	93.0	83.1	107.7	70.8	62.5	**83**
OR2190160R	14.2	13.2	13.9	14.0	12.0	14.5	**13.6**	88.8	88.7	91.2	79.7	71.8	92.1	**85**
OR2190165R	14.9	13.1	13.8	---	11.4	14.2	**13.5**	85.1	99.9	102.7	---	77.2	64.8	**86**
Promontory	---	---	---	---	13.2	14.4	**13.8**	---	---	---	---	83.4	85.3	**84**
Scorpio	14.7	12.6	13.9	13.5	11.0	12.4	**13.0**	73.7	89.3	88.3	94.8	65.1	72.0	**81**
Sequoia	---	---	---	---	11.1	14.0	**12.6**	---	---	---	---	74.7	79.0	**77**
UI SRG	---	---	---	---	10.5	15.9	**13.2**	---	---	---	---	71.6	95.1	**83**
Utah-100	---	---	---	---	11.9	16.3	**14.1**	---	---	---	---	82.4	83.6	**83**
UT11307-3	13.3	12.3	14.8	14.6	---	---	**13.8**	88.6	83.5	95.5	96.8	---	---	**91**
UT11408-8	13.5	11.8	13.4	14.9	---	---	**13.4**	80.8	83.2	91.6	106.5	---	---	**91**
UT11532-2	13.3	11.6	14.0	14.9	---	---	**13.4**	82.8	97.5	79.2	82.3	---	---	**85**
WA8399	12.1	11.1	12.8	12.8	10.6	11.4	**11.8**	75.7	72.1	79.1	107.9	50.8	69.1	**76**
WA8401	11.7	11.1	12.7	12.0	10.5	11.7	**11.6**	73.9	79.7	80.4	85.3	59.8	53.2	**72**
WB4303	14.2	12.8	14.5	12.9	---	---	**13.6**	88.0	104.0	101.8	88.3	---	---	**96**
WB4401	12.8	12.4	13.7	13.8	---	---	**13.2**	89.3	92.7	114.1	114.4	---	---	**103**
WB4422	15.0	13.5	14.7	15.2	---	---	**14.6**	89.7	106.1	96.9	94.8	---	---	**97**
WB4445CLP	---	---	---	---	12.3	16.4	**14.3**	---	---	---	---	72.4	76.0	**74**
WB4510CLP	---	---	---	---	11.5	13.8	**12.7**	---	---	---	---	62.7	74.4	**69**
WB4640	14.3	12.6	13.7	14.2	---	---	**13.7**	71.6	90.9	81.9	84.7	---	---	**82**
WB4733CLP	---	---	---	---	12.3	15.1	**13.7**	---	---	---	---	70.8	83.7	**77**
WB4739AX	15.8	13.2	15.0	14.1	10.2	16.2	**14.1**	87.7	92.9	92.0	88.7	67.9	76.3	**84**
Yellowstone	14.0	12.9	14.0	13.0	10.6	14.1	**13.1**	81.7	88.9	97.7	100.6	49.8	92.7	**85**
	----------Grain Protein %----------							----------Kernel Hardness 0-100----------						
Variety or Selection	**Aberdeen**	**Kimberly**	**Ririe Irrig**	**Rupert**	**Ririe Dry**	**Soda Springs**	**Average**	**Aberdeen**	**Kimberly**	**Ririe Irrig**	**Rupert**	**Ririe Dry**	**Soda Springs**	**Average**
DBDH18-17 (W)	14.2	13.2	14.0	13.9	10.5	14.5	**13.4**	85.1	86.8	101.0	80.0	56.7	69.5	**80**
DBDH18-36 (W)	12.8	11.7	13.5	12.9	11.1	14.3	**12.7**	72.6	91.0	90.9	85.1	54.2	67.2	**77**
Golden Spike (W)	---	---	---	---	11.8	14.1	**12.9**	---	---	---	---	67.8	72.4	**70**
Irv (W)	---	---	---	---	---	14.1	**14.1**	---	---	---	---	---	77.7	**78**
Millie (W)	14.6	12.8	14.5	14.4	12.1	14.4	**13.8**	78.2	90.4	78.8	108.4	68.9	74.0	**83**
UI Silver (W)	---	---	---	---	12.2	14.0	**13.1**	---	---	---	---	83.7	83.1	**83**
UT11227-4 (W)	---	---	---	---	---	14.0	**14.0**	---	---	---	---	---	78.4	**78**
UT11319-9 (W)	---	---	---	---	12.2	14.5	**13.4**	---	---	---	---	71.9	91.5	**82**
UT11412-2 (W)	13.7	12.8	14.7	13.0	---	---	**13.5**	93.1	81.5	85.9	101.5	---	---	**90**
UT11417-6 (W)	---	---	---	---	11.8	15.9	**13.8**	---	---	---	---	73.2	77.6	**75**
UT11426-2 (W)	---	---	---	---	12.2	16.7	**14.5**	---	---	---	---	84.1	92.7	**88**
Location Average	**13.9**	**12.5**	**13.9**	**13.6**	**11.5**	**14.4**	**13.4**	**82**	**90**	**93**	**91**	**68**	**77**	**83**

(W) – Hard White Winter

Table 66. Percent Flour Protein and Flour Yield of Hard Winter Wheat Varieties and Selections Grown in Southeast Idaho, 2024.

	Flour Protein (14% mb)							Flour Yield (%)						
Variety or Selection	**Aberdeen**	**Kimberly**	**Ririe Irrig**	**Rupert**	**Ririe Dry**	**Soda Springs**	**Average**	**Aberdeen**	**Kimberly**	**Ririe Irrig**	**Rupert**	**Ririe Dry**	**Soda Springs**	**Average**
Hard Red Winter Wheat														
Rubicon (Apst-132)	10.3	10.4	10.6	10.9	8.5	10.8	**10.3**	71.8	72.4	71.2	69.2	71.3	70.9	**71**
Artek	10.5	10.1	11.0	12.5	8.9	11.9	**10.8**	72.7	71.9	71.2	63.1	70.1	71.1	**70**
Balance	13.2	11.9	12.2	11.6	11.2	10.9	**11.8**	71.3	71.3	70.3	67.7	71.4	73.2	**71**
Flathead	10.9	10.3	12.1	11.3	8.7	12.4	**10.9**	75.7	75.4	74.9	70.8	70.5	73.1	**73**
FourOsix	11.5	10.5	11.3	11.2	9.2	11.8	**10.9**	75.6	76.1	75.4	71.5	70.8	73.3	**74**
Greenville	11.1	9.6	10.9	11.3	---	---	**10.7**	68.8	69.9	67.0	65.3	---	---	**68**
Juniper	---	---	---	---	8.6	12.2	**10.4**	---	---	---	---	70.3	70.0	**70**
HSG108	9.8	9.1	11.6	9.9	---	---	**10.1**	75.8	74.4	68.8	72.3	---	---	**73**
HSG110	10.5	9.3	10.5	10.5	---	---	**10.2**	75.5	72.6	72.3	68.6	---	---	**72**
HSG124	10.6	8.8	10.5	10.1	---	---	**10.0**	76.0	74.9	72.6	72.7	---	---	**74**
HSG132	11.3	9.3	10.1	10.6	---	---	**10.3**	73.7	72.0	71.2	67.0	---	---	**71**
Kairos	11.0	9.8	11.6	11.9	---	---	**11.1**	74.3	73.2	73.7	68.8	---	---	**73**
Keldin	11.3	10.7	11.4	11.3	8.4	13.4	**11.1**	74.0	73.7	72.5	71.3	69.6	71.4	**72**
Keldin + 11-52-0	11.3	9.4	11.7	12.1	9.3	11.9	**10.9**	73.3	73.3	73.8	70.5	71.0	71.3	**72**
LCS Blackbird	10.6	10.8	11.1	10.6	---	---	**10.8**	72.6	72.3	71.8	69.5	---	---	**72**
LCS Jet	11.0	9.8	12.3	10.1	8.2	11.7	**10.5**	74.3	74.1	74.3	69.9	69.0	70.9	**72**
LCS Missile	11.1	10.5	10.4	10.1	8.8	10.5	**10.2**	74.5	75.7	74.7	72.8	70.8	71.5	**73**
Milestone	10.6	10.2	11.4	11.1	9.3	12.3	**10.8**	72.7	73.7	72.1	70.6	70.0	70.2	**72**
MT1745	10.9	10.4	11.2	11.8	9.0	10.9	**10.7**	73.3	73.6	72.9	70.5	70.0	71.6	**72**
OR2190064R	11.1	10.1	11.6	11.5	9.6	10.5	**10.7**	73.8	73.5	71.7	69.7	71.4	73.0	**72**
OR2190160R	12.6	10.4	11.3	12.1	9.2	12.5	**11.4**	72.1	72.3	70.2	62.5	68.7	69.3	**69**
OR2190165R	11.9	11.6	11.0	12.5	9.3	11.0	**11.2**	69.2	70.1	72.4	61.2	67.8	70.2	**68**
Promontory	---	---	---	---	10.1	13.0	**11.5**	---	---	---	---	71.8	69.7	**71**
Scorpio	11.3	10.0	11.2	10.8	8.5	9.9	**10.3**	71.8	73.2	71.9	70.0	70.0	70.4	**71**
Sequoia	---	---	---	---	8.5	10.5	**9.5**	---	---	---	---	72.9	73.3	**73**
UI SRG	---	---	---	---	8.3	12.0	**10.2**	---	---	---	---	71.1	71.0	**71**
Utah-100	---	---	---	---	9.3	11.9	**10.6**	---	---	---	---	69.7	69.8	**70**
UT11307-3	10.3	10.6	11.5	10.4	---	---	**10.7**	69.0	70.8	66.4	64.6	---	---	**68**
UT11408-8	11.1	10.7	10.1	11.3	---	---	**10.8**	70.2	70.8	68.7	64.1	---	---	**68**
UT11532-2	11.8	10.7	10.3	10.5	---	---	**10.8**	68.2	70.4	71.8	64.6	---	---	**69**
WA8399	9.5	10.3	10.5	10.1	8.0	9.3	**9.6**	71.8	74.0	71.2	72.9	71.5	71.3	**72**
WA8401	9.2	10.0	9.9	9.7	8.2	8.8	**9.3**	72.8	73.3	71.6	72.6	70.9	71.5	**72**
WB4445CLP	---	---	---	---	10.0	13.3	**11.6**	---	---	---	---	72.0	70.9	**71**
WB4510CLP	---	---	---	---	8.6	10.5	**9.6**	---	---	---	---	71.7	71.5	**72**
WB4733CLP	---	---	---	---	10.0	12.6	**11.3**	---	---	---	---	71.2	71.6	**71**
WB4303	11.9	10.5	12.2	10.5	---	---	**11.3**	71.3	70.8	70.1	61.4	---	---	**68**
WB4401	10.0	9.9	10.3	11.2	---	---	**10.3**	67.8	69.3	74.2	64.7	---	---	**69**
WB4422	11.7	10.7	12.1	12.7	---	---	**11.8**	71.6	71.4	70.5	65.8	---	---	**70**
WB4640	11.4	10.3	11.1	11.6	---	---	**11.1**	74.5	73.6	72.9	67.2	---	---	**72**
WB4739AX	11.9	10.4	12.2	11.6	7.8	11.4	**10.9**	70.7	71.5	69.0	67.8	67.0	67.2	**69**
Yellowstone	12.3	10.2	11.3	11.3	8.2	12.4	**10.9**	73.9	73.4	72.0	71.5	69.1	70.3	**72**
Location Average	**11.1**	**10.2**	**11.2**	**11.1**	**9.0**	**11.5**	**10.7**	**72.6**	**72.7**	**71.7**	**68.3**	**70.4**	**71.1**	**71.1**
Hard White Winter Wheat														
DBDH18-17 (W)	11.2	10.6	11.3	11.2	8.1	11.6	**10.7**	74.1	74.7	71.4	72.7	71.4	74.0	**73**
DBDH18-36 (W)	10.8	9.5	10.9	11.0	8.5	12.0	**10.5**	77.3	75.6	73.9	74.7	72.3	74.8	**75**
Golden Spike (W)	---	---	---	---	8.9	11.8	**10.3**	---	---	---	---	71.3	73.7	**73**
Irv (W)	---	---	---	---	9.2	11.5	**10.3**	---	---	---	---	71.1	72.2	**72**
Millie (W)	11.1	10.2	11.5	11.2	9.3	11.4	**10.8**	73.2	71.8	71.8	67.5	69.2	70.1	**71**
UI Silver (W)	---	---	---	---	8.6	11.3	**10.0**	---	---	---	---	71.5	71.9	**72**
UT11227-4 (W)	---	---	---	---	9.7	11.0	**10.3**	---	---	---	---	72.0	72.3	**72**
UT11319-9 (W)	---	---	---	---	9.6	12.5	**11.0**	---	---	---	---	71.3	70.7	**71**
UT11412-2 (W)	10.1	11.0	11.9	10.9	---	---	**11.0**	67.9	68.9	65.7	65.3	---	---	**67**
UT11417-6 (W)	---	---	---	---	9.7	12.6	**11.1**	---	---	---	---	69.6	70.7	**70**
UT11426-2 (W)	---	---	---	---	9.4	13.0	**11.2**	---	---	---	---	69.9	69.7	**70**
Location Average	**10.8**	**10.3**	**11.4**	**11.1**	**9.1**	**11.9**	**10.7**	**73.1**	**72.7**	**70.7**	**70.0**	**71.0**	**72.0**	**71.3**

mb = moisture basis

Table 67. Bake Volume of Hard Winter Wheat Varieties and Selections Grown in Southeast Idaho, 2024.

	Bake Volume (cc)						
Variety or Selection	**Aberdeen**	**Kimberly**	**Ririe Irrig**	**Rupert**	**Ririe Dry**	**Soda Springs**	**Average**
Hard Red Winter Wheat							
Rubicon (Apst-132)	600	<400	675	<400	<400	725	**667**
Artek	850	675	825	<400	700	875	**785**
Balance	900	700	975	750	---	---	**831**
Curlew	---	---	---	---	925	750	**838**
Flathead	825	750	950	700	650	975	**808**
FourOsix	900	850	875	700	675	950	**825**
Greenville	825	<400	750	<400	---	---	**788**
HSG108	650	<400	650	<400	---	---	**650**
HSG110	725	<400	650	600	---	---	**658**
HSG124	725	<400	600	650	---	---	**658**
HSG132	725	<400	675	---	---	---	**700**
Juniper	---	---	---	---	<600	825	**825**
Kairos	825	650	800	650	---	---	**731**
Keldin	825	675	675	600	<400	950	**745**
Keldin + 11-52-0	800	<400	775	675	600	1000	**770**
LCS Blackbird	675	<400	800	<400	---	---	**738**
LCS Jet	775	<400	725	<400	<400	875	**792**
LCS Missile	800	<400	750	<400	<400	850	**800**
Milestone	825	<400	850	600	625	800	**740**
MT1745	875	675	850	725	650	825	**767**
OR2190064R	700	650	700	<400	650	750	**690**
OR2190160R	775	<400	750	600	<400	750	**719**
OR2190165R	775	600	800	---	<400	700	**719**
Promontory	---	---	---	---	725	825	**775**
Scorpio	875	<400	750	600	<400	700	**731**
UT11307-3	750	650	775	<400	---	---	**725**
UT11408-8	675	<400	<400	<400	---	---	**675**
UT11532-2	700	<400	700	<400	---	---	**700**
Sequoia	---	---	---	---	<600	800	**800**
UI SRG	---	---	---	---	<600	825	**825**
Utah-100	---	---	---	---	600	900	**750**
WA8399	725	<400	800	<400	600	650	**694**
WA8401	700	600	800	675	<400	675	**690**
WA8405	---	---	---	600	---	---	**600**
WB4303	875	<400	850	<400	---	---	**863**
WB4401	<600	<400	775	<400	---	---	**775**
WB4422	900	<400	750	600	---	---	**750**
WB4445CLP	---	---	---	---	725	1000	**863**
WB4510CLP	---	---	---	---	650	825	**738**
WB4640	900	600	700	<400	---	---	**733**
WB4733CLP	---	---	---	---	700	900	**800**
WB4739AX	875	400	725	<400	<400	900	**725**
Yellowstone	975	725	850	<400	<400	900	**863**
Location Average	**791**	**657**	**768**	**648**	**677**	**833**	**752**
Hard White Winter Wheat							
DBDH18-17 (W)	850	725	850	675	<400	850	**790**
DBDH18-36 (W)	825	650	825	825	600	900	**771**
Golden Spike (W)	---	---	---	---	650	800	**725**
Irv (W)	---	---	---	---	650	850	**750**
Millie (W)	875	<400	750	<400	<400	850	**825**
UI Silver (W)	---	---	---	---	625	800	**713**
UT11227-4 (W)	---	---	---	---	700	825	**763**
UT11319-9 (W)	---	---	---	---	725	1000	**863**
UT11412-2 (W)	775	600	725	<400	---	---	**700**
UT11417-6 (W)	---	---	---	---	<600	825	**825**
UT11426-2 (W)	---	---	---	---	<600	875	**875**
Location Average	**831**	**658**	**788**	**750**	**658**	**858**	**782**

Table 68. Grain Protein & Kernel Hardness of Soft White Winter Wheat Vareties and Selections Grown in Southeast Idaho, 2024.

	Grain Protein (%)							Kernal Hardness 0 - 100						
Variety or Selection	**Aberdeen**	**Kimberly**	**Ririe Irrig**	**Rupert**	**Ririe Dry**	**Soda Springs**	**Average**	**Aberdeen**	**Kimberly**	**Ririe Irrig**	**Rupert**	**Ririe Dry**	**Soda Springs**	**Average**
AP Exceed	10.0	10.5	11.7	12.1	---	---	**11.1**	38	43	46	36	---	---	**41**
AP Olympia	12.1	10.9	12.7	12.2	---	---	**12.0**	36	41	51	46	---	---	**44**
Appleby CL+	---	---	---	---	11.1	13.0	**12.1**	---	---	---	---	26	30	**28**
Devote	---	---	---	---	10.4	11.4	**10.9**	---	---	---	---	18	31	**24**
Eltan	---	---	---	---	11.0	12.1	**11.5**	---	---	---	---	21	32	**26**
Eltan 11-52-0	---	---	---	---	10.3	11.8	**11.0**	---	---	---	---	12	33	**22**
Gale	10.8	11.2	12.4	10.8	---	---	**11.3**	29	31	50	35	---	---	**36**
HSG132	---	---	---	11.7	---	---	**11.7**	---	---	---	40	---	---	**40**
IDO1708	11.0	11.0	12.4	12.1	9.9	13.0	**11.6**	43	31	54	33	24	47	**39**
LCS Blackjack	10.6	11.4	12.4	11.7	---	---	**11.5**	39	30	48	32	---	---	**37**
LCS Drive	11.8	10.7	12.6	11.6	---	---	**11.7**	36	40	49	39	---	---	**41**
LCS Hulk	11.2	11.8	13.1	11.4	---	---	**11.9**	44	39	44	36	---	---	**41**
LCS Jefe	10.3	10.5	11.8	10.8	10.4	11.5	**10.9**	46	42	56	49	33	50	**46**
LCS Shine	9.8	10.2	11.6	10.4	---	11.4	**10.7**	35	31	52	32	---	41	**38**
Nimbus	11.8	10.9	12.9	10.9	11.0	11.9	**11.6**	36	38	39	37	26	45	**37**
Norwest Duet	---	---	---	---	11.3	11.8	**11.5**	---	---	---	---	35	32	**33**
Norwest Tandem	11.0	11.3	12.1	10.7	11.8	12.7	**11.6**	47	47	55	40	26	43	**43**
OR2160243	11.0	10.6	12.6	11.3	---	---	**11.4**	26	38	34	37	---	---	**34**
OR2170559	11.9	11.6	13.1	12.5	---	---	**12.2**	43	43	39	31	---	---	**39**
Mallory CL+	---	---	---	---	11.5	11.9	**11.7**	---	---	---	---	22	32	**27**
OR2190165R	---	---	---	12.4	---	---	**12.4**	---	---	---	32	---	---	**32**
Otto	---	---	---	---	11.2	13.0	**12.1**	---	---	---	---	27	33	**30**
Perrine	11.4	10.4	13.4	10.9	11.0	11.3	**11.4**	41	29	46	35	30	41	**37**
Piranha CL+	---	---	---	---	11.3	11.7	**11.5**	---	---	---	---	22	40	**31**
Rollie	---	---	---	---	11.1	11.9	**11.5**	---	---	---	---	34	39	**37**
Sockeye CL+	---	---	---	---	10.7	11.4	**11.0**	---	---	---	---	16	39	**27**
Stephens	12.0	11.3	12.7	11.8	10.3	11.9	**11.6**	47	45	59	30	25	47	**42**
SY Assure	12.2	11.6	12.7	12.4	---	---	**12.2**	30	49	48	42	---	---	**42**
SY Ovation	11.9	10.5	12.4	11.7	11.8	13.0	**11.9**	34	40	42	41	29	40	**38**
SY Ovation / WB1529	11.7	10.7	12.3	12.1	---	---	**11.7**	34	39	37	43	---	---	**38**
SY Ovation x 0.75	12.0	10.5	12.6	10.5	---	---	**11.4**	51	40	52	39	---	---	**46**
SY Ovation x 1.25	12.4	10.6	12.4	11.6	---	---	**11.7**	39	33	54	33	---	---	**40**
SY Ovation x 1.50	11.8	10.4	12.3	10.7	---	---	**11.3**	49	33	49	44	---	---	**44**
SY Ovation x 1.75	12.8	10.5	12.2	10.9	---	---	**11.6**	35	33	53	30	---	---	**38**
UI Magic CL+	12.2	11.4	12.7	12.4	11.0	13.5	**12.2**	45	45	44	38	32	55	**43**
UI Sparrow	12.2	11.6	12.6	12.0	10.5	11.5	**11.7**	39	49	54	49	27	40	**43**
UIL 14-211120A	11.0	10.3	12.5	11.7	10.9	12.0	**11.4**	42	37	31	36	21	40	**34**
UIL 17-7706 CL+	---	---	---	---	12.0	12.7	**12.3**	---	---	---	---	32	36	**34**
UIL 17-995133B	12.0	10.5	11.3	9.9	10.0	12.2	**11.0**	34	43	49	37	24	45	**39**
UIL15-028024 A	---	---	---	---	11.0	12.6	**11.8**	---	---	---	---	22	45	**34**
UIL16-007057A	11.9	11.7	13.2	11.1	10.1	12.6	**11.7**	34	35	38	43	21	35	**34**
UIL16-478001A	---	---	---	---	10.9	12.5	**11.7**	---	---	---	---	29	39	**34**
UIL17-550099A	12.0	11.3	13.1	11.8	10.1	12.4	**11.8**	45	34	55	31	24	49	**40**
VI Gem	10.7	10.4	12.3	10.7	---	---	**11.0**	47	51	53	34	---	---	**46**
VI Presto CL+	12.3	11.9	13.0	12.3	11.4	12.2	**12.2**	44	35	47	32	38	45	**40**
VI Shock	11.3	10.2	12.0	11.0	---	---	**11.1**	29	27	45	37	---	---	**35**
WA8397	10.9	11.6	13.3	11.6	10.2	12.2	**11.6**	31	33	32	36	20	29	**30**
WA8398	12.4	10.5	13.7	12.4	11.3	12.5	**12.1**	42	33	50	30	21	33	**35**
WA8404	11.0	11.2	13.4	12.1	10.2	12.5	**11.8**	32	32	48	42	23	39	**36**
WA8405	11.6	10.4	13.0	12.2	10.6	12.5	**11.7**	36	33	49	27	17	32	**32**
WB 456	12.4	11.1	13.4	13.0	11.2	13.6	**12.5**	49	54	64	42	27	45	**47**
WB1529	12.0	11.7	12.6	12.3	---	---	**12.1**	31	40	48	41	---	---	**40**
WB1545	10.6	11.1	12.5	12.3	---	---	**11.6**	38	32	47	33	---	---	**38**
WB1621	11.4	11.1	12.1	10.2	---	---	**11.2**	35	38	34	36	---	---	**35**
WB1783	11.6	11.8	12.3	12.7	---	---	**12.1**	54	59	64	51	---	---	**57**
Average	**11.5**	**11.0**	**12.6**	**11.6**	**10.9**	**12.2**	**11.6**	**39**	**39**	**48**	**37**	**25**	**39**	**37**

Table 69. Percent Flour Protein and Flour Yield of Soft White Winter Wheat Varieties and Selections Grown in Southeast Idaho, 2024.

	Flour Protein (14% mb)							Flour Yield (%)						
Variety or Selection	**Aberdeen**	**Kimberly**	**Ririe Irrig**	**Rupert**	**Ririe Dry**	**Soda Springs**	**Average**	**Aberdeen**	**Kimberly**	**Ririe Irrig**	**Rupert**	**Ririe Dry**	**Soda Springs**	**Average**
AP Exceed	8.0	8.3	9.8	9.1	---	---	**8.8**	72.7	73.4	77.0	71.2	---	---	**73.6**
AP Olympia	9.1	8.5	10.5	9.1	---	---	**9.3**	72.6	74.0	77.6	70.5	---	---	**73.7**
Appleby CL+	---	---	---	---	8.0	10.1	**9.0**	---	---	---	---	71.7	73.4	**72.6**
Devote	---	---	---	---	7.7	9.9	**8.8**	---	---	---	---	70.4	71.9	**71.2**
Eltan	---	---	---	---	8.1	9.1	**8.6**	---	---	---	---	70.5	72.3	**71.4**
Eltan 11-52-0	---	---	---	---	8.0	9.6	**8.8**	---	---	---	---	70.6	72.3	**71.5**
Gale	8.4	8.5	9.8	8.6	---	---	**8.8**	76.0	75.7	74.3	75.1	---	---	**75.3**
IDO1708	8.5	8.3	10.0	9.5	8.1	11.1	**9.3**	73.2	74.2	72.7	70.5	70.6	71.1	**72.1**
LCS Blackjack	8.3	9.0	10.0	8.7	---	---	**9.0**	75.2	76.0	78.3	75.1	---	---	**76.2**
LCS Drive	8.6	8.4	10.3	8.6	---	---	**9.0**	71.6	72.8	76.9	71.5	---	---	**73.2**
LCS Hulk	9.2	9.2	10.6	8.4	---	---	**9.3**	73.8	73.3	76.2	73.3	---	---	**74.1**
LCS Jefe	7.9	8.2	10.0	8.3	8.5	9.7	**8.8**	73.0	74.4	76.7	71.6	71.0	71.9	**73.1**
LCS Shine	7.7	8.0	9.8	7.6	8.2	9.1	**8.4**	74.6	74.6	78.1	74.5	72.0	72.7	**74.4**
Mallory CL+	---	---	---	---	8.8	10.0	**9.4**	---	---	---	---	73.2	74.3	**73.8**
Nimbus	8.9	8.4	10.0	8.5	8.6	9.7	**9.0**	73.7	73.6	77.7	73.3	71.8	73.6	**74.0**
Norwest Duet	---	---	---	---	8.4	9.5	**9.0**	---	---	---	---	72.2	74.1	**73.1**
Norwest Tandem	8.5	8.6	9.8	7.9	9.1	9.8	**9.0**	72.6	73.3	76.0	73.3	70.3	70.7	**72.7**
OR2160243	8.3	8.3	9.7	8.9	---	---	**8.8**	75.6	74.8	74.4	72.5	---	---	**74.3**
OR2170559	9.4	8.9	10.3	9.5	---	---	**9.5**	74.0	76.7	74.5	71.0	---	---	**74.1**
Otto	---	---	---	---	8.8	10.2	**9.5**	---	---	---	---	69.5	71.8	**70.6**
Perrine	9.2	7.9	10.7	9.1	8.8	9.5	**9.2**	76.5	75.0	74.4	78.2	71.9	74.9	**75.1**
Piranha CL+	---	---	---	---	8.7	8.8	**8.7**	---	---	---	---	70.1	73.0	**71.6**
Rollie	---	---	---	---	8.6	9.5	**9.1**	---	---	---	---	69.3	70.4	**69.9**
Sockeye CL+	---	---	---	---	8.3	8.9	**8.6**	---	---	---	---	70.8	73.4	**72.1**
Stephens	9.7	8.8	10.1	9.1	8.2	9.7	**9.3**	74.4	74.3	74.2	73.5	73.0	73.6	**73.8**
SY Assure	9.6	9.0	10.3	9.8	---	---	**9.6**	74.4	72.4	74.2	62.9	---	---	**71.0**
SY Ovation	9.1	7.7	9.8	8.9	9.0	10.3	**9.2**	74.9	73.5	74.6	72.1	71.5	72.4	**73.2**
SY Ovation / WB1529	9.4	8.1	9.6	9.8	---	---	**9.2**	73.1	72.3	73.2	69.3	---	---	**72.0**
SY Ovation x 0.75	9.4	7.7	9.7	9.5	---	---	**9.0**	76.1	73.4	75.0	76.6	---	---	**75.3**
SY Ovation x 1.25	9.9	7.8	9.8	9.2	---	---	**9.2**	76.0	73.8	75.6	76.0	---	---	**75.3**
SY Ovation x 1.50	9.6	7.9	9.6	9.4	---	---	**9.1**	75.7	73.4	75.5	75.5	---	---	**75.0**
SY Ovation x 1.75	9.8	7.8	9.7	9.0	---	---	**9.1**	76.0	74.1	75.9	75.4	---	---	**75.4**
UI Magic CL+	9.5	9.0	9.8	9.5	9.4	11.2	**9.7**	73.6	74.3	72.3	71.7	70.8	71.2	**72.3**
UI Sparrow	9.5	9.0	10.1	9.7	8.1	8.6	**9.2**	73.3	73.1	72.8	73.8	71.2	71.8	**72.7**
UIL 14-211120A	8.6	8.0	9.7	8.8	8.5	9.4	**8.8**	72.7	73.9	72.0	71.6	70.7	71.8	**72.1**
UIL 17-7706 CL+	---	---	---	---	9.3	10.0	**9.6**	---	---	---	---	70.4	71.8	**71.1**
UIL 17-995133B	9.4	7.8	8.8	7.7	8.2	10.1	**8.7**	74.1	74.2	74.2	72.2	71.4	71.3	**72.9**
UIL15-028024 A	---	---	---	---	8.0	9.9	**9.0**	---	---	---	---	70.7	71.9	**71.3**
UIL16-007057A	9.5	8.8	10.5	8.4	7.6	10.1	**9.1**	74.2	74.6	73.7	72.4	71.4	73.2	**73.3**
UIL16-478001A	---	---	---	---	8.5	10.4	**9.4**	---	---	---	---	71.1	73.1	**72.1**
UIL17-550099A	9.4	8.6	10.2	9.4	8.1	10.4	**9.3**	76.4	75.9	74.8	74.9	75.5	75.4	**75.5**
VI Gem	8.4	7.6	9.4	8.4	---	---	**8.5**	72.5	73.1	71.6	70.7	---	---	**72.0**
VI Presto CL+	9.8	9.5	10.1	9.3	9.0	10.3	**9.7**	74.1	74.3	72.6	72.6	70.9	72.2	**72.8**
VI Shock	8.8	8.0	9.6	8.6	---	---	**8.7**	75.5	75.0	73.3	73.5	---	---	**74.3**
WA8397	8.5	8.7	10.7	9.5	7.6	9.3	**9.1**	74.0	75.4	73.7	72.8	73.1	72.8	**73.6**
WA8398	9.9	9.4	10.5	9.4	8.8	9.7	**9.6**	76.9	75.7	73.9	71.3	71.4	72.5	**73.6**
WA8404	8.1	8.5	10.5	9.1	8.4	10.3	**9.1**	75.3	76.2	74.8	72.3	73.4	73.0	**74.2**
WA8405	9.8	7.9	10.2	9.5	8.1	10.2	**9.3**	75.3	76.0	74.5	71.6	72.8	74.3	**74.1**
WB 456	9.9	8.5	10.4	9.9	8.4	10.7	**9.6**	74.2	75.8	75.1	70.5	71.2	71.1	**73.0**
WB1529	9.2	8.8	10.1	9.4	---	---	**9.4**	74.1	72.2	71.9	66.2	---	---	**71.1**
WB1545	8.9	8.5	9.6	9.3	---	---	**9.1**	71.0	75.0	74.3	67.1	---	---	**71.8**
WB1621	8.9	8.3	9.7	8.1	---	---	**8.7**	75.2	74.8	74.8	72.0	---	---	**74.2**
WB1783	9.4	8.9	9.5	9.5	---	---	**9.3**	74.1	73.8	72.7	70.8	---	---	**72.9**
Location Average	**9.0**	**8.4**	**10.0**	**9.0**	**8.4**	**9.9**	**9.1**	**74.3**	**74.3**	**74.6**	**72.3**	**71.4**	**72.6**	**73.1**

mb = moisture basis

Table 70. Percent Break Flour Yield and Cookie Diameter of Soft White Winter Varieties and Selections Grown in Southeast Idaho, 2024.

	Break Flour Yield (%)							Cookie Diameter (cm)						
Variety or Selection	**Aberdeen**	**Kimberly**	**Ririe Irrig**	**Rupert**	**Ririe Dry**	**Soda Springs**	**Average**	**Aberdeen**	**Kimberly**	**Ririe Irrig**	**Rupert**	**Ririe Dry**	**Soda Springs**	**Average**
AP Exceed	42.6	42.2	43.0	39.8	---	---	**41.9**	9.0	9.0	9.0	8.8	---	---	**8.9**
AP Olympia	39.3	42.4	44.4	38.6	---	---	**41.1**	9.1	9.2	9.0	9.1	---	---	**9.1**
Appleby CL+	---	---	---	---	42.0	39.9	**41.0**	---	---	---	---	8.9	8.7	**8.8**
Devote	---	---	---	---	47.0	42.2	**44.6**	---	---	---	---	8.8	8.6	**8.7**
Eltan	---	---	---	---	46.4	42.2	**44.3**	---	---	---	---	8.9	8.8	**8.8**
Eltan 11-52-0	---	---	---	---	47.3	42.2	**44.8**	---	---	---	---	9.2	8.9	**9.1**
Gale	46.2	43.9	45.5	44.7	---	---	**45.1**	9.0	9.0	8.8	8.9	---	---	**8.9**
IDO1708	40.8	43.2	40.8	38.9	45.1	39.4	**41.4**	9.0	9.0	8.8	8.8	9.3	8.8	**9.0**
LCS Blackjack	42.6	42.6	43.0	42.1	---	---	**42.6**	9.2	9.1	9.0	8.8	---	---	**9.0**
LCS Drive	40.5	39.9	42.1	39.8	---	---	**40.6**	8.9	9.0	8.9	9.0	---	---	**8.9**
LCS Hulk	39.4	40.2	43.5	39.4	---	---	**40.7**	8.7	9.0	8.8	8.9	---	---	**8.9**
LCS Jefe	39.0	42.5	45.9	39.0	44.6	39.2	**41.7**	8.8	9.0	9.0	8.8	9.1	8.8	**8.9**
LCS Shine	45.2	44.2	45.1	44.9	48.9	44.9	**45.5**	9.1	9.1	9.0	8.8	9.3	9.2	**9.1**
Mallory CL+	---	---	---	---	42.6	40.9	**41.7**	---	---	---	---	8.6	8.7	**8.6**
Nimbus	41.3	43.1	44.6	40.7	47.4	43.9	**43.5**	8.9	8.9	8.7	9.0	9.1	8.8	**8.9**
Norwest Duet	---	---	---	---	45.5	40.4	**43.0**	---	---	---	---	8.9	8.8	**8.9**
Norwest Tandem	38.8	39.8	42.3	39.4	41.4	40.2	**40.3**	8.4	8.5	8.8	8.7	8.7	8.5	**8.6**
OR2160243	45.8	45.1	46.7	42.7	---	---	**45.1**	9.0	8.9	8.9	8.9	---	---	**9.0**
OR2170559	40.1	40.6	42.8	36.8	---	---	**40.1**	8.7	8.6	8.5	8.7	---	---	**8.6**
Otto	---	---	---	---	45.2	40.8	**43.0**	---	---	---	---	8.9	8.7	**8.8**
Perrine	41.3	41.8	45.6	42.3	45.6	42.6	**43.2**	8.6	8.9	8.6	8.7	8.9	8.8	**8.8**
Piranha CL+	---	---	---	---	44.5	41.3	**42.9**	---	---	---	---	9.1	9.1	**9.1**
Rollie	---	---	---	---	43.8	37.9	**40.8**	---	---	---	---	8.7	8.7	**8.7**
Sockeye CL+	---	---	---	---	46.4	42.0	**44.2**	---	---	---	---	9.2	9.0	**9.1**
Stephens	37.2	38.8	40.6	38.6	43.5	39.8	**39.8**	8.8	9.0	8.9	9.1	9.2	9.0	**9.0**
SY Assure	41.5	39.9	41.6	34.0	---	---	**39.2**	8.6	9.0	9.1	8.9	---	---	**8.9**
SY Ovation	40.7	41.9	42.6	38.6	42.5	39.6	**41.0**	8.9	9.0	8.9	8.9	9.1	8.8	**8.9**
SY Ovation / WB1529	40.5	42.0	41.2	36.5	---	---	**40.1**	8.8	9.1	8.8	8.9	---	---	**8.9**
SY Ovation x 0.75	40.7	41.1	41.8	41.7	---	---	**41.3**	8.5	8.7	8.7	8.6	---	---	**8.6**
SY Ovation x 1.25	40.6	41.5	41.3	41.3	---	---	**41.2**	8.8	8.9	8.9	8.9	---	---	**8.9**
SY Ovation x 1.50	40.7	41.2	41.5	41.1	---	---	**41.1**	8.6	9.3	8.8	9.0	---	---	**8.9**
SY Ovation x 1.75	40.1	41.3	41.5	41.0	---	---	**41.0**	8.6	8.9	8.9	8.8	---	---	**8.8**
UI Magic CL+	40.5	41.0	41.7	38.5	44.0	39.6	**40.9**	8.6	8.7	8.6	8.6	8.9	8.8	**8.7**
UI Sparrow	39.3	39.5	40.5	38.1	45.0	42.1	**40.7**	8.6	8.9	8.8	8.8	9.1	9.1	**8.9**
UIL 14-211120A	39.9	40.9	42.6	37.4	44.5	42.0	**41.2**	8.7	8.9	8.8	8.8	9.2	8.9	**8.9**
UIL 17-7706 CL+	---	---	---	---	43.4	39.6	**41.5**	---	---	---	---	8.9	8.9	**8.9**
UIL 17-995133B	42.8	42.8	46.1	40.5	47.9	40.7	**43.5**	8.6	8.6	8.8	8.8	8.9	8.8	**8.8**
UIL15-028024 A	---	---	---	---	45.7	38.2	**42.0**	---	---	---	---	9.2	8.8	**9.0**
UIL16-007057A	41.5	42.7	44.2	41.3	49.4	42.2	**43.5**	9.0	9.0	8.7	9.1	9.3	9.0	**9.0**
UIL16-478001A	---	---	---	---	45.5	39.7	**42.6**	---	---	---	---	8.9	8.9	**8.9**
UIL17-550099A	42.4	43.9	46.2	42.0	49.5	41.6	**44.3**	9.1	9.1	9.0	8.8	9.3	9.1	**9.1**
VI Gem	40.0	41.1	44.1	41.3	---	---	**41.6**	8.9	9.0	8.7	8.9	---	---	**8.8**
VI Presto CL+	38.3	39.2	39.8	37.3	39.7	38.2	**38.7**	8.7	9.1	8.8	9.0	8.7	8.6	**8.8**
VI Shock	43.0	44.7	41.8	43.1	---	---	**43.1**	8.7	9.0	8.7	8.9	---	---	**8.8**
WA8397	44.8	44.3	46.9	41.6	49.8	45.0	**45.4**	9.1	9.1	8.7	9.2	9.0	9.0	**9.0**
WA8398	42.7	43.4	47.0	40.3	48.3	42.5	**44.0**	9.0	9.1	8.6	8.9	9.0	8.6	**8.9**
WA8404	45.4	44.9	47.9	42.2	50.4	44.7	**45.9**	9.2	9.1	8.8	8.8	9.1	9.0	**9.0**
WA8405	46.6	45.0	46.6	41.6	50.6	46.4	**46.1**	9.0	9.2	8.8	9.2	9.2	8.8	**9.0**
WB 456	38.1	42.2	40.4	36.0	44.0	39.1	**40.0**	8.7	8.8	8.7	8.9	9.0	8.8	**8.8**
WB1529	41.8	41.8	40.0	36.7	---	---	**40.1**	8.8	8.9	8.7	9.0	---	---	**8.8**
WB1545	41.4	45.0	42.6	35.6	---	---	**41.2**	8.9	9.0	8.9	8.6	---	---	**8.8**
WB1621	41.9	44.8	43.6	43.2	---	---	**43.4**	8.8	8.9	8.7	8.9	---	---	**8.8**
WB1783	37.2	39.0	39.2	33.8	---	---	**37.3**	8.3	8.4	8.4	8.2	---	---	**8.**
Location average	**41.3**	**42.1**	**43.2**	**39.8**	**45.7**	**41.3**	**42.2**	**8.8**	**8.9**	**8.8**	**8.9**	**9.0**	**8.8**	**8**

Table 71. Solvent Retention Capacity data for Soft White Winter Wheat Varieties and Selections Grown in Southeast Idaho, 2024.

	Aberdeen				Kimberly				Ririe Irrigated				Ririe Dryland				Soda Springs				Rupert			
Variety or Selection	Water	Sucrose	Na2CO3	Lactic Acid	Water	Sucrose	Na2CO3	Lactic Acid	Water	Sucrose	Na2CO3	Lactic Acid	Water	Sucrose	Na2CO3	Lactic Acid	Water	Sucrose	Na2CO3	Lactic Acid	Water	Sucrose	Na2CO3	Lactic Acid
AP Exceed	49.9	80.8	64.4	59.8	50.4	79.8	61.7	57.4	51.6	83.9	71.6	55.8	---	---	---	---	---	---	---	---	49.3	82.9	61.3	54.4
AP Olympia	48.4	83.3	62.1	75.5	48.3	81.5	61.2	63.6	50.0	84.8	70.2	62.5	---	---	---	---	---	---	---	---	48.4	84.4	59.2	63.1
Appleby CL+	---	---	---	---	---	---	---	---	---	---	---	---	48.5	82.0	63.1	76.6	49.2	86.5	64.8	67.8	---	---	---	---
Devote	---	---	---	---	---	---	---	---	---	---	---	---	49.4	96.6	66.1	93.1	49.4	90.9	69.6	81.4	---	---	---	---
Eltan	---	---	---	---	---	---	---	---	---	---	---	---	48.0	95.5	65.3	107.4	50.4	88.9	69.5	93.7	---	---	---	---
Eltan 11-52-0	---	---	---	---	---	---	---	---	---	---	---	---	47.9	95.7	65.9	99.4	49.9	88.3	67.5	96.3	---	---	---	---
Gale	49.8	83.3	65.9	76.6	50.5	84.8	64.9	74.0	48.4	84.7	62.8	71.2	---	---	---	---	---	---	---	---	50.3	85.5	63.5	70.0
HSG132	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	49.7	87.9	64.3	75.1
IDO1708	50.1	87.9	65.3	76.6	50.0	86.3	65.5	66.3	49.4	86.2	64.4	77.7	47.7	80.7	62.2	84.6	50.2	89.9	65.5	86.5	49.1	88.8	60.7	68.5
LCS Blackjack	49.9	81.5	65.3	65.5	49.4	81.7	61.3	69.3	50.9	82.1	70.7	61.0	---	---	---	---	---	---	---	---	49.7	84.5	63.8	66.3
LCS Drive	50.7	86.5	68.0	96.2	49.9	84.0	64.8	86.9	52.5	87.4	72.7	88.6	---	---	---	---	---	---	---	---	50.2	87.3	65.1	87.5
LCS Hulk	51.4	91.3	67.6	79.2	49.5	83.5	61.3	78.6	51.1	87.5	73.1	77.3	---	---	---	---	---	---	---	---	51.4	86.2	64.6	70.6
LCS Jefe	52.3	85.1	69.2	78.7	49.9	81.7	63.4	82.2	50.7	85.6	72.1	83.5	46.8	82.1	65.7	88.0	50.3	88.4	70.9	88.0	50.4	86.7	70.0	76.7
LCS Shine	50.0	80.0	68.3	65.2	49.2	78.7	61.9	64.0	49.8	83.6	65.9	62.0	46.6	79.5	63.3	79.8	49.2	85.1	68.4	77.8	50.4	84.6	64.7	62.5
Mallory CL+	---	---	---	---	---	---	---	---	---	---	---	---	51.0	92.9	68.4	96.3	51.1	91.0	69.5	92.5	---	---	---	---
Nimbus	50.0	84.6	69.4	74.7	48.2	80.6	60.8	70.5	51.4	83.7	74.2	58.8	45.7	81.7	63.8	88.7	50.1	89.4	71.3	76.1	48.2	84.9	64.7	66.2
Norwest Duet	---	---	---	---	---	---	---	---	---	---	---	---	48.8	89.3	68.0	91.7	50.8	88.5	69.3	79.5	---	---	---	---
Norwest Tandem	52.6	86.8	69.3	81.4	50.8	83.6	64.3	78.6	52.4	86.0	74.8	69.7	48.4	84.8	61.0	92.8	50.2	90.4	72.2	81.0	52.0	86.3	70.4	63.9
OR2160243	50.0	85.3	67.1	69.5	49.9	84.5	64.3	71.4	47.8	81.9	61.5	63.7	---	---	---	---	---	---	---	---	48.6	84.8	62.1	73.1
OR2170559	48.6	86.9	65.6	71.4	50.5	85.7	67.3	69.9	48.9	85.7	61.6	68.6	---	---	---	---	---	---	---	---	48.4	84.2	60.3	62.0
OR2190165R	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	48.2	85.3	62.2	65.0
Otto	---	---	---	---	---	---	---	---	---	---	---	---	48.6	96.3	65.9	114.7	51.1	90.4	69.4	99.5	---	---	---	---
Perrine	54.6	89.7	69.6	70.5	50.6	85.6	64.4	68.9	50.4	89.9	72.6	75.4	48.3	84.0	66.6	85.7	50.2	84.7	67.1	62.7	52.8	87.3	75.5	60.8
Piranha CL+	---	---	---	---	---	---	---	---	---	---	---	---	47.5	91.6	63.9	92.6	48.5	84.7	66.7	72.2	---	---	---	---
Rollie	---	---	---	---	---	---	---	---	---	---	---	---	50.0	98.8	67.4	115.5	50.7	89.8	71.3	99.9	---	---	---	---
Sockeye CL+	---	---	---	---	---	---	---	---	---	---	---	---	48.0	89.5	63.0	89.2	47.6	85.3	64.5	82.9	---	---	---	---
Stephens	51.7	85.7	65.4	58.1	49.4	83.3	61.8	59.4	49.1	83.2	63.1	58.3	47.7	80.0	61.7	75.6	50.0	85.2	64.6	67.9	48.1	82.7	62.0	54.8
SY Assure	50.3	87.6	66.8	70.2	50.4	84.9	63.2	69.3	50.6	87.2	64.0	55.7	---	---	---	---	---	---	---	---	49.6	87.7	56.9	56.7
SY Ovation	50.9	82.9	66.1	62.7	49.4	81.0	62.2	58.2	48.1	80.3	61.8	57.6	48.0	79.5	59.6	79.1	49.8	86.5	66.7	69.8	48.8	81.9	62.2	56.5
SY Ovation / WB1529	49.8	86.7	64.6	73.7	50.6	86.3	65.5	68.5	48.4	83.4	63.0	66.1	---	---	---	---	---	---	---	---	49.9	85.9	61.1	63.6
SY Ovation x 0.75	52.6	85.6	65.8	67.4	49.8	82.5	62.1	59.4	49.8	83.4	64.4	60.0	---	---	---	---	---	---	---	---	51.0	85.8	71.0	55.0
SY Ovation x 1.25	52.1	84.4	65.1	66.9	50.5	82.9	62.2	60.1	49.3	82.8	64.8	56.3	---	---	---	---	---	---	---	---	51.0	85.6	66.6	57.7
SY Ovation x 1.50	50.5	83.9	65.3	63.0	50.1	82.6	63.3	59.5	49.6	82.7	62.6	57.7	---	---	---	---	---	---	---	---	51.3	84.6	71.9	54.8
SY Ovation x 1.75	51.3	85.8	64.8	64.7	50.1	82.5	62.0	60.5	49.6	82.3	64.1	57.0	---	---	---	---	---	---	---	---	51.0	85.2	68.0	56.5
UI Magic CL+	50.8	85.9	65.4	84.0	50.3	82.3	62.3	74.7	48.4	84.5	59.1	89.2	48.0	81.8	60.4	92.6	50.8	88.8	66.4	89.4	49.6	84.1	61.3	68.5
UI Sparrow	52.2	85.7	69.8	88.8	50.7	82.2	63.2	87.2	47.9	82.7	62.7	68.6	50.0	80.9	65.1	91.7	52.1	86.2	70.7	87.2	52.9	85.0	66.0	80.6
UIL 14-211120A	49.9	86.0	64.6	73.1	50.9	84.8	64.2	60.6	46.8	81.2	58.7	64.4	47.2	81.6	62.5	89.2	48.1	84.1	64.3	73.5	49.6	84.0	61.7	63.5
UIL 17-7706 CL+	---	---	---	---	---	---	---	---	---	---	---	---	48.6	93.4	62.5	99.8	49.4	85.7	67.2	82.5	---	---	---	---
UIL 17-995133B	52.0	90.2	67.1	81.7	54.6	89.8	70.4	70.0	49.9	84.5	64.3	63.8	48.9	85.9	66.5	84.5	50.8	88.9	67.6	71.5	52.2	88.2	65.3	65.0
UIL15-028024 A	---	---	---	---	---	---	---	---	---	---	---	---	49.8	86.2	64.4	92.3	50.6	86.3	64.1	87.0	---	---	---	---
UIL16-007057A	52.0	83.7	62.8	86.9	50.7	82.7	65.1	74.2	46.1	78.4	60.0	73.1	48.3	80.0	62.2	89.3	50.8	83.4	66.0	78.5	49.9	81.2	61.0	70.6
UIL16-478001A	---	---	---	---	---	---	---	---	---	---	---	---	49.6	90.9	65.7	90.0	51.1	84.9	67.2	67.0	---	---	---	---
UIL17-550099A	47.5	83.9	58.7	90.0	47.1	80.7	59.6	77.4	46.6	81.9	58.5	76.9	46.4	78.1	61.8	85.7	47.3	80.2	61.3	80.2	47.7	81.6	58.4	82.8
VI Gem	51.9	87.8	66.3	77.8	52.8	87.1	69.6	65.8	49.0	85.1	64.5	79.4	---	---	---	---	---	---	---	---	51.3	86.7	65.0	65.4
VI Presto CL+	48.0	82.5	62.1	60.2	46.5	78.8	57.9	56.6	47.7	82.5	62.9	77.4	46.2	79.7	58.4	77.6	47.9	83.3	62.4	51.0	47.8	80.5	59.5	58.5
VI Shock	50.2	85.8	66.0	81.0	48.6	80.8	61.7	71.4	47.1	86.6	61.4	80.0	---	---	---	---	---	---	---	---	49.4	84.8	60.8	76.6
WA8397	48.7	84.4	64.3	73.0	48.5	82.3	61.7	73.1	49.2	89.6	68.0	79.9	49.2	83.5	68.2	81.3	49.6	85.1	65.9	76.9	47.3	84.2	61.7	65.7
WA8398	51.0	83.8	65.4	65.9	49.3	83.4	62.4	70.7	49.2	88.8	67.7	78.1	48.3	88.3	64.6	90.7	49.9	86.6	68.8	73.9	48.5	84.6	61.2	69.6
WA8404	50.6	82.2	63.7	69.6	48.9	82.2	63.5	71.9	49.1	88.9	69.8	78.7	47.5	82.4	69.0	86.5	50.0	86.5	68.3	78.6	48.1	84.7	61.8	66.1
WA8405	50.7	89.3	70.0	76.6	48.0	81.8	64.4	69.0	48.7	86.9	67.4	72.1	47.4	81.6	67.6	85.8	49.7	86.6	69.2	78.8	48.1	84.5	61.1	66.8
WB 456	50.3	83.9	65.1	68.8	50.9	83.2	66.0	60.6	49.0	82.2	61.4	58.0	47.6	80.9	61.0	80.1	49.6	84.0	63.8	59.5	49.7	83.9	60.8	57.7
WB1529	48.8	86.2	62.0	78.5	50.5	84.9	66.3	78.7	48.8	86.0	64.5	76.2	---	---	---	---	---	---	---	---	50.2	89.4	63.8	80.7
WB1545	50.8	88.9	66.3	87.2	49.0	83.1	61.9	64.7	47.7	82.2	60.8	62.0	---	---	---	---	---	---	---	---	59.3	82.3	49.0	62.5
WB1621	49.9	85.8	64.7	77.6	49.8	82.9	63.1	69.8	47.5	82.0	61.9	61.6	---	---	---	---	---	---	---	---	48.6	82.0	61.5	72.2
WB1783	54.7	95.4	71.6	77.0	56.3	96.0	73.4	76.2	50.9	88.3	67.6	61.4	---	---	---	---	---	---	---	---	55.6	98.1	70.2	79.2
Location average	**50.7**	**85.7**	**65.9**	**74.1**	**50.0**	**83.4**	**63.6**	**69.2**	**49.2**	**84.5**	**65.4**	**68.6**	**48.2**	**85.9**	**64.3**	**89.9**	**49.9**	**86.8**	**67.3**	**79.1**	**50.1**	**85.3**	**63.4**	**66.5**

Table 72. Grain Protein & Kernel Hardness of Hard Spring Wheat Varieties and Selections Grown in Southeast Idaho, 2024.

	----------Grain Protein %----------						----------Kernel Hardness 0-100----------					
Variety or Selection	**Aberdeen**	**Rupert**	**Idaho Falls**	**Tetonia**	**Soda Springs**	**Average**	**Aberdeen**	**Rupert**	**Idaho Falls**	**Tetonia**	**Soda Springs**	**Average**
Hard Red Spring												
Alum	16.1	15.9	15.1	14.5	11.5	**14.6**	69	89	67	84	91	**80**
CP3055	15.2	13.9	13.7	13.2	11.9	**13.6**	90	95	81	87	89	**88**
CP3119A	15.1	13.5	14.2	13.6	11.6	**13.6**	59	82	77	91	90	**80**
CP3201AX	16.0	16.0	15.3	15.5	13.3	**15.2**	72	84	72	83	85	**79**
CP3322	15.7	13.8	13.9	12.8	11.2	**13.5**	72	114	93	96	104	**96**
Dagmar	17.5	15.8	16.2	16.0	12.4	**15.6**	88	96	92	103	103	**96**
Expresso	16.9	15.7	15.7	15.5	13.5	**15.5**	72	94	89	90	92	**88**
Glee	15.8	15.3	14.9	14.9	12.1	**14.6**	74	88	81	92	96.9	**86**
Hale	16.4	15.5	14.7	14.1	11.6	**14.5**	69	89	81	94	87.5	**84**
Holmes	16.7	14.8	15.7	14.9	12.6	**14.9**	82	87	91	91	107	**91**
Jefferson HF	15.3	14.3	14.5	13.3	11.7	**13.8**	75	98	80	97	92	**89**
LCS Ascent	15.4	---	---	---	---	**15.4**	89	---	---	---	---	**89**
LCS Boom	16.6	---	---	---	---	**16.6**	124	---	---	---	---	**124**
LCS Buster	14.1	---	---	---	---	**14.1**	94	---	---	---	---	**94**
LCS Hammer AX	16.6	15.1	15.6	13.8	11.8	**14.6**	97	96	85	97	96	**94**
MT Carlson	16.5	15.6	15.3	14.8	11.9	**14.8**	101	85	78	93	94	**90**
MT Ubet	16.5	15.5	16.0	14.6	11.6	**14.8**	97	88	86	98	90	**92**
WB9668	17.7	16.6	16.0	16.7	---	**16.7**	105	96	81	91	---	**93**
WB9707	16.7	15.7	15.5	15.8	---	**15.9**	96	84	81	90	---	**88**
WB9749	17.2	15.2	15.8	15.2	---	**15.8**	106	91	87	90	---	**94**
WB9929	17.2	15.6	15.3	14.7	12.0	**14.9**	107	100	83	100	101.7	**99**
Alzada	16.0	---	---	---	---	**16.0**	92	---	---	---	---	**92**
WB Heartline	---	14.8	---	13.8	12.0	**13.5**	---	73	---	80	88	**80**
WB8148	16.9	12.9	14.2	13.8	12.0	**13.9**	132	138	122	142	135	**134**
IDO2105S	15.6	14.1	14.1	14.4	12.1	**14.1**	105	104	90	97	96	**98**
IDO2202CL2	15.6	14.2	14.5	14.0	11.5	**13.9**	101	97	80	100	88	**93**
BZ920-136	16.8	14.8	15.0	15.3	12.9	**15.0**	91	83	78	89	88	**86**
MT21074	16.5	15.1	15.8	14.8	12.9	**15.0**	108	111	96	110	102	**105**
WA8393	15.6	13.3	13.8	14.1	11.4	**13.6**	106	93	88	96	102	**97**
WA8406	16.6	14.9	15.3	15.3	11.7	**14.8**	82	86	74	79	89	**82**
WA8407	17.6	15.8	15.5	15.2	12.3	**15.3**	108	95	85	94	98.7	**96**
Dayn (W)	16.0	14.2	14.6	14.0	11.4	**14.1**	95	98	85	95	104.5	**95**
SY-Teton (W)	15.5	14.4	14.2	14.2	11.2	**13.9**	87	88	78	90	86.4	**86**
UI Gold (W)	16.0	14.2	14.6	14.1	12.2	**14.2**	100	101	92	97	98	**98**
UI Platinum (W)	15.6	14.7	14.6	13.7	11.9	**14.1**	85	81	76	87	82	**82**
WB7313 (W)	17.1	15.7	15.5	14.7	---	**15.8**	96	93	84	90	---	**91**
WB7589 (W)	15.7	15.1	15.3	14.8	---	**15.2**	92	83	86	89	---	**88**
WB7696 (W)	14.5	14.4	14.2	15.0	---	**14.5**	83	85	77	88	---	**83**
WB7747	16.6	15.2	15.6	13.8	---	**15.3**	94	103	86	105	---	**97**
BZ920-142W	16.8	14.7	15.5	14.6	11.5	**14.6**	87	86	80	88	93.5	**87**
IDO2104HF (W)	15.8	14.6	14.8	15.1	11.9	**14.4**	98	107	97	88	92.0	**96**
MT Dutton	---	15.9	16.1	14.8	---	**15.6**	---	110	98	105	---	**104**
SY Gunsight	---	14.9	15.2	13.2	---	**14.4**	---	72	81	87	---	**80**
Choteau	---	---	---	---	13.3	**13.3**	---	---	---	---	104	**104**
Rocker	---	---	---	---	12.5	**12.5**	---	---	---	---	112	**112**
WB7202CLP (W)	---	---	---	---	11.6	**11.6**	---	---	---	---	77	**77**
WB9724CLP	---	---	---	---	12.9	**12.9**	---	---	---	---	102	**102**
WB9879CLP	---	---	---	---	11.9	**11.9**	---	---	---	---	95	**95**
Location Average	**16.2**	**14.9**	**15.0**	**14.5**	**12.1**	**14.5**	**92**	**93**	**85**	**94**	**96**	**93**

(W) = White

Table 73. Percent Flour Protein and Flour Yield of Hard Spring Wheat Varieties and Selections Grown in Southeast Idaho, 2024.

	Flour Protein (14% mb)						Flour Yield (%)					
Variety or Selection	**Aberdeen**	**Rupert**	**Idaho Falls**	**Tetonia**	**Soda Springs**	**Average**	**Aberdeen**	**Rupert**	**Idaho Falls**	**Tetonia**	**Soda Springs**	**Average**
Hard Red Spring												
Alum	13.7	12.5	11.9	12.5	9.2	**12.0**	71	74	74	70	70	**72**
CP3055	12.7	10.6	11.7	10.9	8.9	**10.9**	67	72	71	68	66	**69**
CP3119A	11.5	10.5	12.5	10.9	9.4	**10.9**	66	70	68	67	64	**67**
CP3201AX	13.5	13.1	12.8	13.1	10.5	**12.6**	69	70	70	67	66	**68**
CP3322	12.2	10.8	11.4	9.9	8.8	**10.6**	66	70	69	67	64	**67**
Dagmar	14.5	12.9	13.7	12.5	10.1	**12.7**	69	70	71	68	64	**68**
Expresso	14.3	13.2	13.4	13.1	11.2	**13.0**	70	71	70	66	68	**69**
Glee	12.6	12.1	12.5	12.9	8.9	**11.8**	69	74	75	72	70.4	**72**
Hale	13.0	11.9	12.4	12.1	9.2	**11.7**	70	73	74	73	71.7	**72**
Holmes	13.6	12.5	13.0	12.7	9.7	**12.3**	68	68	71	70	65	**68**
Jefferson HF	12.4	12.0	12.4	11.0	9.5	**11.5**	72	73	73	74	69	**72**
LCS Ascent	13.4	---	---	---	---	**13.4**	74	---	---	---	---	**74**
LCS Boom	14.7	---	---	---	---	**14.7**	74	---	---	---	---	**74**
LCS Buster	11.2	---	---	---	---	**11.2**	73	---	---	---	---	**73**
LCS Hammer AX	14.0	12.8	12.6	11.0	9.0	**11.9**	71	71	73	71	66	**70**
MT Carlson	14.5	13.6	14.0	14.7	9.3	**13.2**	70	68	71	69	65	**69**
MT Ubet	14.7	12.9	12.1	13.8	8.9	**12.5**	73	72	74	72	68	**72**
WB9668	14.6	13.8	12.7	14.8	---	**14.0**	71	70	71	72	---	**71**
WB9707	15.2	12.0	11.8	15.2	---	**13.6**	72	72	74	72	---	**72**
WB9749	14.9	12.2	12.4	13.5	---	**13.3**	72	71	72	72	---	**72**
WB9929	14.2	11.4	12.1	12.6	8.9	**11.8**	71	71	73	72	68.0	**71**
WB Hartline	---	12.5	---	---	---	**12.5**		71.0	---	---	---	**71**
IDO2105S	13.2	11.3	12.1	11.8	9.7	**11.6**	72	72	74	74	68	**72**
IDO2202CL2	13.4	11.6	12.6	12.4	8.6	**11.7**	71	71	74	73	68	**72**
BZ920-136	14.9	12.1	13.8	13.5	10.6	**13.0**	72	72	74	73	71	**72**
MT21074	12.9	12.9	12.9	12.8	9.9	**12.3**	67	68	70	68	65	**68**
WA8393	13.1	10.5	10.9	12.3	8.8	**11.1**	71	70	72	72	67	**70**
WA8406	14.1	11.7	12.6	13.9	9.3	**12.3**	71	73	74	73	70	**72**
WA8407	15.4	12.6	12.4	13.1	9.7	**12.6**	71	71	74	71	69	**71**
MT Dutton	---	13.3	11.9	11.8	---	**12.3**	---	68	70	68	---	**69**
SY Gunsight	---	12.7	13.2	11.9	---	**12.6**	---	72	72	72	---	**72**
Rocker	---	---	---	---	9.4	**9.4**	---	---	---	---	64	**64**
WB9724CLP	---	---	---	---	9.6	**9.6**	---	---	---	---	68	**68**
WB9879CLP					9.7	**9.7**					67	**67**
Location Average	**13.7**	**12.2**	**12.5**	**12.6**	**9.5**	**12.1**	**70**	**71**	**72**	**71**	**67**	**70**
Hard White Spring												
Hartline	13.8	---	---	10.7	---	**12.3**	72	---	---	72	---	72
Dayn (W)	13.4	11.5	12.9	12.6	8.9	**11.9**	75	72	74	71	68	72
SY-Teton (W)	12.4	10.8	10.7	12.9	8.6	**11.1**	73	71	73	72	67	71
UI Gold (W)	12.8	11.2	12.3	13.1	8.5	**11.6**	72	70	72	71	67.4	71
UI Platinum (W)	11.7	12.2	13.3	11.5	9.8	**11.7**	74	72	73	73	68.2	72
WB7313 (W)	14.7	13.1	13.6	12.8	---	**13.5**	72	72	71	70	---	71
WB7589 (W)	12.4	13.8	13.6	12.6	---	**13.1**	74	72	71	71	---	72
WB7696 (W)	12.1	12.3	11.8	13.0	---	**12.3**	74	74	72	73	---	73
WB7747	13.7	13.6	12.2	12.3	---	**12.9**	74	72	73	72	---	73
BZ920-142W	14.3	12.9	13.2	12.7	8.7	**12.3**	75	74	75	74	69	73
IDO2104HF (W)	12.2	11.2	13.2	13.1	9.5	**11.8**	73	72	73	72	68	72
Choteau	---	---	---	---	10.7	**10.7**	---	---	---	---	66	66
WB7202CLP (W)	---	---	---	---	8.6	**8.6**	---	---	---	---	64	64
WB-Hartline	---	---	---	---	9.8	**9.8**	---	---	---	---	68.9	69
Alzada	---	---	---	---	---	**---**	---	---	---	---	---	---
Location Average	**13.0**	**12.3**	**12.7**	**12.5**	**9.2**	**11.7**	**73**	**72**	**73**	**72**	**67**	**71**

mb = moisture basis

Table 74. Bake Volume of Hard Spring Wheat Varieties and Selections Grown in Southeast Idaho, 2024.

	Bake Volume (cc)					
Variety or Selection	**Aberdeen**	**Rupert**	**Idaho Falls**	**Tetonia**	**Soda Springs**	**Average**
Hard Red Spring Wheat						
Alum	1075	975	925	750	675	**880**
CP3055	925	800	825	700	600	**770**
CP3119A	750	650	750	<600	<600	**717**
CP3201AX	1175	1050	950	1000	900	**1015**
CP3322	850	750	850	600	<600	**763**
Dagmar	950	975	975	1025	750	**935**
Expresso	1100	975	925	850	800	**930**
Glee	1000	1000	1000	925	<600	**981**
Hale	1000	1000	950	850	700	**900**
Holmes	1000	900	850	850	<600	**900**
Jefferson HF	775	925	850	675	675	**780**
LCS Ascent	925	---	---	---	---	**925**
LCS Boom	1050	---	---	---	---	**1050**
LCS Buster	750	---	---	---	---	**750**
LCS Hammer AX	1000	875	800	700	<600	**844**
MT Carlson	1075	950	975	900	<600	**975**
MT Ubet	1075	900	950	925	<600	**963**
WB9668	1225	1125	1000	1000	---	**1088**
WB9707	975	925	975	---	---	**958**
WB9749	1225	1000	950	---	---	**1058**
WB9929	1000	875	875	---	600	**838**
Alzada	1000	950	<400	---	---	**975**
WB8148	800	<600	925	---	<600	**863**
IDO2105S	1050	975	925	---	725	**919**
IDO2202CL2	1125	825	1050	---	650	**913**
BZ920-136	1075	950	925	---	750	**925**
MT21074	925	875	875	---	675	**838**
WA8393	950	750	900	---	<600	**867**
WA8406	975	900	1050	---	<600	**975**
WA8407	1200	1000	875	---	<600	**1025**
Location Average	**1000**	**918**	**919**	**839**	**708**	**911**
Hard White Spring Wheat						
Dayn (W)	950	875	875	---	<600	**900**
SY-Teton (W)	950	875	900	---	<600	**908**
UI Gold (W)	900	850	1000	---	600	**838**
UI Platinum (W)	975	875	1050	---	600	**875**
WB7313 (W)	1100	975	1025	---	---	**1033**
WB7589 (W)	1000	1050	925	---	---	**992**
WB7696 (W)	1050	950	975	---	---	**992**
WB7747	1000	950	950	---	---	**967**
BZ920-142W	925	975	900	---	600	**850**
IDO2104HF (W)	1175	1000	950	---	600	**931**
MT Dutton	---	950	875	---	---	**913**
SY Gunsight	---	975	---	---	---	**975**
Choteau	---	---	---	---	750	**750**
Rocker	---	---	---	---	<600	**<600**
WB7202CLP (W)	---	---	---	---	<600	**<600**
WB9724CLP	---	---	---	---	675	**675**
WB9879CLP	---	---	---	---	<600	**<600**
WB-Hartline	---	---	---	---	650	**650**
Location Average	**1003**	**942**	**948**	**0**	**639**	**883**

(W) = White

Table 75. Grain Protein & Kernel Hardness of Soft White Spring Wheat Varieties and Selections Grown in Southeast Idaho, 2024.

	--------Grain Protein %--------						--------Kernel Hardness 0-100--------					
Variety or Selection	**Aberdeen**	**Rupert**	**Idaho Falls**	**Tetonia**	**Soda Springs**	**Average**	**Aberdeen**	**Rupert**	**Idaho Falls**	**Tetonia**	**Soda Springs**	**Average**
Alturas	11.9	11.8	12.5	11.0	10.3	**11.5**	32	43	35	48	39	**40**
Butch CL+	12.2	12.8	12.4	12.0	11.2	**12.1**	22.3	42.6	22.4	36.5	41	**33**
Louise	12.1	11.5	11.9	10.7	10.2	**11.3**	28	51	30	44	44	**39**
Melba (club)	12.1	10.9	11.8	10.4	10.2	**11.1**	35	49	33	38	44	**40**
Roger (club)	11.8	11.8	12.0	10.3	10.2	**11.2**	22	49	41	48	37	**39**
Ryan	12.6	12.1	12.6	11.9	10.2	**11.9**	21	44	36	37	42	**36**
Seahawk	13.1	11.6	11.8	10.4	10.7	**11.5**	15	49	39.8	32.6	40	**35**
Tekoa	12.8	11.8	12.1	10.4	10.4	**11.5**	30	40	24	39	38	**34**
UI Cookie	12.6	11.8	11.8	11.9	11.0	**11.8**	12	35	34	36	34	**30**
UI Stone	12.8	12.1	11.8	11.4	10.6	**11.8**	27	46	36	42	42	**38**
WB6211CLP	---	---	---	---	10.7	**10.7**	---	---	---	---	41	**41**
WB6430	12.5	11.7	11.4	11.3	10.0	**11.4**	24	41	23	28	32	**30**
UI Warrior	12.0	12.0	12.7	10.8	11.0	**11.7**	24	42	23	36	36	**32**
WA8327	12.5	11.7	11.7	11.2	10.0	**11.4**	30	40	31	41	43	**37**
WA8384	12.5	11.6	12.1	10.6	10.3	**11.4**	22	37	30	45	38	**34**
Location Average	**12.4**	**11.8**	**12.0**	**11.0**	**10.5**	**11.5**	**24.7**	**43.5**	**31.3**	**39.4**	**39.3**	**36.0**

Table 76. Percent Flour Protein and Flour Yield of Soft White Spring Wheat Varieties and Selections Grown in Southeast Idaho, 2024.

	Flour Protein (14% mb)						Flour Yield (%)					
Variety or Selection	**Aberdeen**	**Rupert**	**Idaho Falls**	**Tetonia**	**Soda Springs**	**Average**	**Aberdeen**	**Rupert**	**Idaho Falls**	**Tetonia**	**Soda Springs**	**Average**
Alturas	9.6	9.5	10.0	8.4	8.1	**9.1**	73.9	73.7	73.7	74.1	71.7	**73.4**
Butch CL+	9.6	9.8	9.8	9.0	8.8	**9.4**	70.6	71.7	71.6	71.5	69.7	**71.0**
Louise	9.7	9.5	9.2	8.3	8.0	**8.9**	72.9	73.6	74.2	73.9	71.4	**73.2**
Melba (club)	9.0	8.7	8.6	7.9	7.6	**8.4**	73.8	75.6	73.8	74.0	71.7	**73.8**
Roger (club)	9.7	9.2	9.6	7.9	7.6	**8.8**	70.8	73.8	72.1	74.4	70.7	**72.4**
Ryan	9.9	9.9	9.7	8.7	7.8	**9.2**	72.2	73.5	71.8	72.9	71.0	**72.3**
Seahawk	10.1	8.7	9.6	7.6	8.2	**8.8**	71.1	74.4	73.6	72.2	71.8	**72.6**
Tekoa	9.1	9.2	9.1	8.1	7.7	**8.6**	73.3	75.3	75.2	74.7	72.5	**74.2**
UI Cookie	9.8	9.2	9.9	8.9	8.4	**9.2**	69.7	72.4	71.3	71.4	68.7	**70.7**
UI Stone	10.0	9.5	9.2	9.1	8.0	**9.1**	72.7	73.6	72.8	74.1	70.8	**72.8**
WB6211CLP	---	---	---	---	8.0	**8.0**	---	---	---	---	65.5	**65.5**
WB6430	9.6	9.1	9.3	8.2	7.9	**8.8**	72.4	73.1	73.9	72.5	70.1	**72.4**
UI Warrior	9.3	9.2	9.1	8.3	7.7	**8.7**	73.5	75.7	74.2	72.7	70.9	**73.4**
WA8327	9.3	9.1	8.9	7.7	7.5	**8.5**	72.3	75.6	73.8	71.4	70.6	**72.7**
WA8384	9.5	9.0	9.3	8.4	7.8	**8.8**	75.1	77.5	75.9	74.7	73.0	**75.2**
Location Average	**9.6**	**9.2**	**9.4**	**8.3**	**7.9**	**8.8**	**72.4**	**74.3**	**73.4**	**73.2**	**70.7**	**72.4**

mb = Moisture basis

Table 77. Percent Break Flour and Cookie Diameter of Soft White Spring Wheat Varieties and Selections Grown in Southeast Idaho, 2024.

	Break Flour (%)						Cookie Diameter (cm)					
Variety or Selection	**Aberdeen**	**Rupert**	**Idaho Falls**	**Tetonia**	**Soda Springs**	**Average**	**Aberdeen**	**Rupert**	**Idaho Falls**	**Tetonia**	**Soda Springs**	**Average**
Alturas	40.0	38.9	41.2	39.8	38.8	**40**	9.1	8.9	8.8	8.8	9.0	**8.9**
Butch CL+	43.8	45.3	45.4	43.2	40.6	**44**	8.8	8.8	8.9	8.9	9.3	**8.9**
Louise	40.3	40.8	41.5	41.1	40.5	**41**	9.4	9.3	9.4	9.2	9.3	**9.3**
Melba (club)	41.8	41.8	44.4	42.2	44.0	**43**	9.2	9.2	9.0	9.2	9.2	**9.2**
Roger (club)	40.1	41.1	42.3	43.1	41.6	**42**	9.1	8.9	9.2	9.3	9.3	**9.2**
Ryan	38.9	40.7	41.0	39.2	39.5	**40**	8.7	8.7	8.9	8.7	9.1	**8.8**
Seahawk	39.9	41.3	42.0	42.6	39.8	**41**	8.8	9.0	8.9	9.0	9.0	**9.0**
Tekoa	43.8	42.6	43.7	40.2	40.9	**42**	9.0	9.0	9.0	9.2	9.1	**9.1**
UI Cookie	39.7	41.9	40.5	38.1	38.7	**40**	9.2	8.8	8.8	9.0	8.8	**8.9**
UI Stone	37.4	38.1	41.2	40.2	39.5	**39**	8.8	8.8	8.8	8.6	8.9	**8.8**
WB6211CLP	---	---	---	---	38.6	**39**	---	---	---	---	9.1	**9.1**
WB6430	41.4	41.9	43.7	41.0	41.3	**42**	9.0	9.3	9.4	9.2	9.4	**9.2**
UI Warrior	41.4	44.2	43.4	42.9	41.4	**43**	9.0	8.8	9.2	9.0	9.1	**9.0**
WA8327	43.2	46.1	46.3	42.8	40.1	**44**	9.1	8.9	9.0	8.9	9.3	**9.0**
WA8384	40.4	43.9	43.0	41.6	41.9	**42**	8.8	8.9	9.2	9.1	9.4	**9.1**
Location Average	**41**	**42**	**43**	**41**	**40**	**41**	**9.0**	**9.0**	**9.0**	**9.0**	**9.2**	**9.0**

Table 78. Solvent Retention Capacity data for Soft White Spring Wheat Varieties and Selections Grown in Southeast Idaho, 2024.

	Aberdeen				Rupert				Idaho Falls			
Variety or Selection	Water	Sucrose	Na2CO3	Lactic Acid	Water	Sucrose	Na2CO3	Lactic Acid	Water	Sucrose	Na2CO3	Lactic Acid
Alturas	49.2	87.7	61.8	94.1	50.3	87.7	62.9	93.0	49.2	86.3	62.4	101.1
Butch CL+	48.0	88.3	63.4	98.2	51.4	90.0	69.6	91.5	48.5	86.6	67.6	85.2
Louise	49.2	86.0	62.1	100.9	51.3	84.0	65.5	91.3	48.6	82.1	62.0	84.8
Melba (club)	48.8	79.6	59.9	61.7	50.4	76.8	63.6	59.0	49.9	78.1	61.6	61.6
Roger (club)	47.8	82.4	60.5	73.3	50.8	80.1	63.2	67.8	50.1	81.3	65.2	75.8
Ryan	49.3	87.4	59.8	83.8	51.8	85.7	63.9	75.2	49.2	84.8	60.5	83.4
Seahawk	49.1	87.6	62.9	80.6	51.7	83.7	65.6	65.4	50.8	83.6	64.3	69.9
Tekoa	46.6	85.2	59.6	93.0	49.0	82.5	63.2	88.0	49.0	81.3	60.6	77.7
UI Cookie	47.0	87.6	60.1	101.3	49.2	85.6	64.7	85.7	47.4	84.1	63.9	88.0
UI Stone	51.0	87.7	61.1	107.8	53.5	86.7	62.3	96.1	49.4	83.9	59.8	88.6
WB6211CLP	---	---	---	---	---	---	---	---	---	---	---	---
WB6430	47.5	83.7	59.0	69.2	49.8	82.5	63.9	68.2	49.3	81.6	63.0	60.4
UI Warrior	48.6	86.0	60.4	98.1	53.7	86.3	65.8	91.3	50.3	83.1	62.6	79.1
WA8327	49.8	85.4	60.9	97.3	52.9	85.1	67.8	85.1	51.8	84.1	64.6	83.4
WA8384	48.9	81.7	59.4	86.6	51.4	80.6	63.6	72.5	50.4	80.4	61.0	71.9
Location average	**48.6**	**85.5**	**60.8**	**89.0**	**51.2**	**84.1**	**64.7**	**80.7**	**49.6**	**82.9**	**62.8**	**79.3**

	Tetonia				Soda Springs			
Variety or Selection	Water	Sucrose	Na2CO3	Lactic Acid	Water	Sucrose	Na2CO3	Lactic Acid
Alturas	49.7	88.4	66.6	81.3	49.3	88.5	65.8	77.4
Butch CL+	50.9	92.5	72.2	94.5	49.0	87.9	69.0	76.2
Louise	50.2	86.0	67.2	89.1	50.1	83.4	67.4	79.5
Melba (club)	50.8	81.3	65.6	59.9	49.1	79.2	64.3	58.0
Roger (club)	50.1	83.0	67.0	63.7	49.5	80.1	67.5	66.3
Ryan	52.1	89.1	65.1	75.3	51.1	86.0	65.2	68.2
Seahawk	50.7	85.9	67.5	64.0	49.6	83.7	66.7	63.0
Tekoa	48.7	84.4	64.4	72.7	48.3	82.5	62.8	69.3
UI Cookie	48.7	88.4	64.2	84.6	49.0	86.5	66.1	83.2
UI Stone	52.7	88.1	65.2	92.7	50.0	87.0	63.9	90.0
WB6211CLP	---	---	---	---	48.8	90.9	68.3	67.2
WB6430	48.5	85.2	64.6	63.0	48.1	82.7	63.4	63.9
UI Warrior	50.7	86.7	63.5	89.9	49.0	84.7	63.6	83.5
WA8327	52.3	87.5	67.6	87.6	51.8	83.1	66.6	77.4
WA8384	51.4	82.3	63.2	69.0	49.8	80.3	63.3	61.6
Location average	**50.5**	**86.3**	**66.0**	**77.7**	**49.5**	**84.4**	**65.6**	**72.3**