2023 WSCIA CERTIFIED SEED Buying Guide

Spring Barley

Spring Wheat

Winter Wheat

Washington State University

Department of Crop and Soil Sciences

in cooperation with

Washington State Crop Improvement

Association

2575 NE Hopkins Ct. Pullman, WA 99163 509-334-0461 washingtoncrop.com

| | | | RELEASE | <12" | 12-16" | 16"-20" | >20" | Irrig. | TEST WEIGHT | % | PLANT |
|-------------|----------------|---------------------|---------------|--------|-------------|-----------|-----------|--------|----------------|---------|----------|
| | VARIETY | ORIGINATOR | DATE | | -Yield as a | % of 2-Yr | Trial Mea | an | (LBS/BU) | PROTEIN | HEIGHT |
| | AP Exceed | Agripro/Syngenta | | | | 103 | 102 | 110 | 61.4 | 10.5 | Medium |
| | AP Iliad | Agripro/Syngenta | 2020 | | | 96 | 101 | | 60.3 | 11.3 | Medium |
| | Curiosity CL+ | WSU | 2013 | 98 | 91 | | | | 60.3 | 11.2 | MedTall |
| | Devote | WSU | 2019 | 101 | 103 | | | | 61.7 | 10.8 | Medium |
| N. | LCS Artdeco | Limagrain Cereal | 2011 | | | | | 108 | 59.9 | 10.1 | MedShort |
| 111 | LCS Blackjack | Limagrain Cereal | 2019 | - | | 108 | 106 | | 58.5 | 11.2 | Medium |
| | LCS Hulk | Limagrain Cereal | 2017 | 97 | 101 | 102 | 98 | 105 | 60.9 | 11.4 | Medium |
| | LCS Hydra AX | Limagrain Cereal | 2022 | | | | | | | - | |
| I | LCS Kraken AX | Limagrain Cereal | 2022 | | | | | | | | |
| | LCS Shine | Limagrain Cereal | 2019 | 110 | 106 | 111 | 104 | 112 | 60.3 | 10.8 | Short |
| | Mela CL+ | WSU | 2013 | 99 | 88 | | | | 60.4 | 11.5 | MedTall |
| | Norwest Duet | OSU/LCS | 2015 | 102 | 107 | 99 | 103 | | 60.7 | 10.8 | Tall |
| | Norwest Tandem | OSU/LCS | 2016 | 107 | 109 | 103 | 101 | 97 | 59.9 | 10.9 | Short |
| | Otto | WSU | 2011 | 95 | 95 | | | | 59.7 | 11.3 | MedTall |
| | Piranha CL+ | WSU | 2020 | 108 | 107 | 104 | 107 | | 60.5 | 10.6 | MedTall |
| | Puma | WSU | 2013 | | | | | | | | MedTall |
| WINTER WHEA | Purl | WSU | 2017 | | | 104 | 96 | 94 | 60.7 | 11.1 | Medium |
| _ | Resilience CL+ | WSU | 2016 | | | 101 | 98 | | 60.9 | 11.3 | Medium |
| | Sockeye CL+ | WSU | 2020 | | | 107 | 105 | 91 | 60.6 | 10.5 | MedTall |
| | Stingray CL+ | WSU | 2018 | 100 | 104 | 101 | 104 | | 59.9 | 11.4 | Medium |
| | SY Assure | Agripro/Syngenta | 2016 | | | | | | | | Short |
| | SY Dayton | Agripro/Syngenta | 2017 | | | 104 | 102 | 104 | 60.9 | 11.0 | Medium |
| | TMC M-Pire | The McGregor Co. | 2022 | | | | | | | | Short |
| | TMC M-Press | The McGregor Co. | 2017 | 102 | 110 | 100 | 96 | 96 | 60.7 | 10.9 | Medium |
| | UI Magic CL+ | University of Idaho | 2014 | | 90 | 97 | 94 | | 61.1 | 11.1 | MedShort |
| | VI Presto CL+ | Varsity Idaho | 2020 | 92 | 96 | 94 | 91 | | 62.5 | 11.2 | Medium |
| | VI Voodoo CL+ | Varsity Idaho | 2020 | | 91 | 104 | 104 | | 59.9 | 11.0 | Short |
| | | Trial I | llean (BU/A) | 44 | 78 | 104 | 95 | 137 | 60.4 | 11.0 | |
| | SOFT WHIT | E CLUB WINT | ER WHE | AT | | | | | | | |
| | Castella | USDA-ARS/WSU | 2017 | 103 | 102 | | 90 | | 59.9 | 11.6 | Medium |
| | ARS-Crescent | USDA-ARS/WSU | 2012 | 95 | 99 | 89 | 92 | | 58.5 | 11.3 | Medium |
| | Pritchett | USDA-ARS/WSU | 2015 | | 104 | 93 | 98 | | 59.8 | 11.4 | Medium |
| | | Trial I | lean (BU/A) | 44 | 78 | 104 | 95 | 137 | 60.4 | 11.0 | |
| HARD RED |) | | Pi | RECIPI | TATION 2 | ZONE (IN | CHES) | | | WEIGHT | |

PRECIPITATION ZONE (INCHES)

COMPARABL

| HARD RE | | PRECIPITATION ZONE (INCHES) | | | | | | | | | |
|--------------|------------------|-----------------------------|-------|--------------|------------|--------|------|----------|------|--------------------|------------|
| | | RELEASE | <12" | 12-16" | >16" | Irrig. | <12" | 12-16" | >16" | WEIGHT (LBS/BU) | PLANT |
| VARIETY | ORIGINATOR | DATE | Yield | as a % of 2- | Yr Trial N | /lean | 9 | % Protei | n | | HEIGHT |
| Keldin | Bayer/WestBred | 2011 | 99 | 104 | 101 | 101 | 12.0 | 11.4 | 12.6 | 61.4 | Medium |
| LCS Helix AX | Limagrain Cereal | 2020 | | | | | | | | | Medium |
| LCS Jet | Limagrain Cereal | 2014 | 104 | 106 | 106 | 107 | 11.9 | 11.4 | 12.3 | 59.7 | Short |
| LCS Rocket | Limagrain Cereal | 2017 | | | 109 | 110 | | | 11.7 | 57.9 | Short-Med. |
| Scorpio | WSU | 2019 | 116 | 109 | 105 | | 11.8 | 11.4 | 13.1 | 59.1 | Medium |
| Sequoia | WSU | 2015 | | | | | | | | | Tall |
| WB4303 | Bayer/WestBred | 2016 | 100 | 102 | 105 | 106 | 12.0 | 11.5 | 12.4 | 58.9 | Medium |
| | | Trial Mean (BU/A) | 43 | 80 | 88 | 138 | 11.9 | 11.4 | 12.6 | 59.7 | |

KEY

- #: Winter Survival Index based on Variety Testing field observations and laboratory studies conducted by USDA-ARS, Pullman, WA.
- --: Information not available or variety was not common to data set.

SOFT WHITE COMMON

For Quality Rating key, see Spring Wheat page in this guide.

^{©:} Variety contains BASF-patented Clearfield trait for Beyond resistance. Clearfield® varieties were not treated with Beyond® herbicide since experiments were designed to compare each entry under uniform conditions. Applying Beyond® to Clearfield® varieties could create bias in the trials since all entries would not be managed the same.

| _ | CIERISI | | | RATINGS (| 1 = Best to 9 = P | oorest) [†] | | | | |
|------------|-----------|--------------------------|------------------------------|----------------------------|-------------------------------------|-----------------------------|------------------------|--|-------------------|----------------|
| MATURITY | AWN | EMERG- ENCE RATING | WINTER SURVIVAL INDEX* | STRIPE RUST RATING** | CEPH. STRIPE TOLERANCE RATING | STRAW- BREAKER RATING | SNOW MOLD RATING | FALLING NUMBER RATING ^F | QUALITY RATING | VARIETY |
| Early-Med. | Awned | 5 | 5 | 2 | | | 4 | 4 | MD | AP Exceed |
| Early-Med. | Awned | | 7 | 1 | 6 | 6 | | 3 | Α | AP Iliad |
| MedLate | Awned | 3 | 2 | 7 | 5 | 7 | 2 | 7 | Α | Curiosity CL+ |
| Medium | Awned | 2 | 4 | 2 | 6 | 4 | 3 | 6 | D | Devote |
| Early-Med. | Awned | | 7 | 5 | 4 | 9 | | 6 | Α | LCS Artdeco |
| Medium | Awnletted | | 4 | 1 | 5 | 1 | 7 | 6 | D | LCS Blackjack |
| Medium | Awned | 6 | 4 | 1 | 7 | 9 | 5 | 3 | Α | LCS Hulk |
| = | Awned | - | | | | | 7* | - | | LCS Hydra AX |
| | Awned | | | | | | 6* | | | LCS Kraken AX |
| Early-Med. | Awnletted | 8 | 6 | 1 | 4 | | 6 | 5 | MD | LCS Shine |
| MedLate | Awned | 2 | 4 | 7 | 5 | 7 | 1 | 7 | Α | Mela CL+ |
| Medium | Awned | 6 | 4 | 1 | 3 | 8 | 6 | 2 | D | Norwest Duet |
| Early-Med. | Awned | 5 | 4 | 1 | 4 | 3 | 7 | 3 | Α | Norwest Tandem |
| MedLate | Awned | 2 | 4 | 5 | 5 | 4 | 2 | 4 | D | Otto |
| Medium | Awned | 6 | 3 | 3 | 4 | 6 | 5* | 6 | D | Piranha CL+ |
| Medium | Awned | | 4 | 4 | 5 | 4 | 7 | 5 | MD | Puma |
| Early-Med. | Awned | | 4 | 1 | 8 | 6 | | 7 | Α | Purl |
| Medium | Awned | | 5 | 1 | 5 | 3 | | 3 | D | Resilience CL+ |
| Medium | Awned | 4 | 2 | 1 | 5 | 5 | 5* | 7 | MD | Sockeye CL+ |
| Medium | Awned | 7 | 7 | 1 | 4 | 5 | 7* | 1 | D | Stingray CL+ |
| Early-Med. | Awned | 5 | 7 | 1 | 5 | 9 | | 6 | D | SY Assure |
| Medium | Awned | 5 | 6 | 2 | 5 | 7 | | 7 | Α | SY Dayton |
| Early-Med. | Awned | 6 | | 2 | | | 7* | | | TMC M-Pire |
| Medium | Awned | 6 | 6 | 1 | 8 | 4 | 7 | 7 | D | TMC M-press |
| Early-Med. | Awned | 5 | 7 | 8 | 2 | 4 | 6 | 5 | D | UI Magic CL+ |
| Medium | Awned | 6 | 3 | 1 | 7 | 7 | 6* | 5 | D | VI Presto CL+ |
| Medium | Awned | | 9 | 5 | 6 | 6 | | 7 | D | VI Voodoo CL+ |
| | | | | | | | | | | |
| -COMPA | RABLE | CHARA | CTERIST | ICS | | | | | | |
| Medium | Awnletted | 6 | 4 | 1 | 5 | 5 | 7 | 4 | MD | Castella |
| MedLate | Awned | 7 | 3 | 4 | 6 | 6 | 7 | 2 | MD | ARS-Crescent |
| Medium | Awned | 5 | 4 | 3 | 4 | 4 | 5 | 8 | D | Pritchett |

| | RATINGS (1 = Best to 9 = Poorest)* | | | | | | | | | | |
|------------|------------------------------------|--------------------------|------------------------------|----------------------------|-------------------------------------|-----------------------------|------------------------|-----------------------------|-------------------|--------------|--|
| MATURITY | AWN | EMERG- ENCE RATING | WINTER SURVIVAL INDEX* | STRIPE RUST RATING** | CEPH. STRIPE TOLERANCE RATING | STRAW- BREAKER RATING | SNOW MOLD RATING | FALLING NUMBER RATING | QUALITY RATING | VARIETY | |
| Early-Med. | Awned | 5 | 3 | 6 | 7 | 8 | 6 | 4 | D | Keldin | |
| Early | Awned | 7 | 3 | 6 | | | 6* | | Α | LCS Helix AX | |
| Early-Med. | Awned | 5 | 5 | 7 | 6 | 1 | 6 | 4 | Α | LCS Jet | |
| Early-Med. | Awned | - | 8 | 1 | 6 | 6 | 8 | 5 | Α | LCS Rocket | |
| Medium | Awned | 6 | 6 | 5 | 4 | 7 | 6* | 5 | MD | Scorpio | |
| MedLate | Awned | 5 | 5 | 5 | 7 | 8 | 5 | 7 | D | Sequoia | |
| Early | Awned | 5 | 4 | 9 | 8 | 6 | 5 | 6 | Α | WB4303 | |

^{†:} Disease Scale Key: 1,2 = Resistant; 3,4 = Moderately Resistant; 5 = Moderate; 6,7 = Moderately Susceptible;

E CHARACTERISTICS-

^{8,9 =} Susceptible. Disease ratings are based on recently observed disease symptoms but data are limited in scope. Disease ratings can change and should be used as relative comparisons.

^{*:} Snow mold rating based on data from single year only (2023)

**: Stripe rust ratings are based on data from Dr. Xianming Chen at USDA-ARS, Pullman, WA.

F: Falling number rankings are based on all data collected 2015-2022, , though some varieties were not in WSU variety trials during all years. Environments with no falling numbers below 290 were eliminated as no-event. Falling number (FN) data above 330 was truncated, because variation above 330 is not associated with alpha amylase. Varieties more resistant to FN reduction due to preharvest sprouting or late-maturity alpha amylase are ranked 1-5.; varieties ranked 6-7 are intermediate, and varieties ranked 8+ will frequently have low FN in event environments. For more information about Falling Number events and data, visit steberlab.org.

WHAT CERTIFIED SEED?

There are three recognized classes of Certified Seed:

Certified Class (blue tag), is most widely available and is typically what a farmer will plant to produce a commercial crop. It is usually grown from

Registered Class (purple tag), which is available in moderate quantities but is not usually directly available to produce commercial crop. Registered seed is usually grown from

Foundation Class (white tag) is available in the lowest quantities, from the variety originator or their designated agent.

Certification is administered by designated authorities providing field and seed inspection services for seed growers and dealers. Nearly every state in the U.S. has an entity designated to certify seed, and they are part of a global organization to administer uniform seed standards. In Washington, there are two entities offering seed certification services:

Washington State Department of Agriculture (WSDA) certifies grass, vegetables, canola, corn, wildflowers, hemp, and many other crops. Learn more: https://agr.wa.gov/services/inspections-and-investigations/inspections/seed, or 509-249-6950.

Washington State Crop Improvement Association (WSCIA) certifies wheat, triticale, barley, oats, rye, peas, chickpeas, lentils, buckwheat, sorghum, and forest reproductive material. Learn more: washingtoncrop.com, or 509-334-0461.

Does all seed have to be certified?

No, not all seed has to be certified, but some varieties require it. Uncertified seed is often referred to as "common." All seed, certified or common, must be labeled with germination, purity, other required analysis results, and other information (see WAC 16-301-015).

How do I know if a variety must be certified?

Varieties with PVP Title V protection can only be sold as certified seed (not common). Certification may also be required as a contract term in agreements made with seed companies. If you are unsure if a variety must be certified or if you can save seed, it is best to check with your seed dealer and/or the variety owner.

Each class of seed is held to specific standards throughout the certification process.

All Washington certification standards can be found in Washington Administrative Code (WAC) 16-302.

FIELD

Each **field** producing certified seed is:

- Planted from an approved higher-class seed lot known to represent the variety
- Held to specific standards for past crop history
- Inspected by designated agency at least once prior to harvest

SEED

Seed from inspected fields is:

- Conditioned only at approved facilities
- Tested by WSDA Seed Program
- Evaluated by designated agency to confirm it meets standards for purity, germination, and other required analyses.

Seed is only "certified" when conditioning, sampling, testing, and labeling are complete.

Seed that has only been field inspected is not certified seed.

SPRING BARLEY

-COMPARABLE CHARACTERISTICS------

| VARIETY | ORIGINATOR | RELEASE DATE | <16" Yield as | 16"-20" a % of 3-Yr Tı | >20" rial Mean | TEST WEIGHT (LBS/BU) | PLANT HEIGHT INCHES | MATURITY | STRIPE RUST** | LODGING RATING |
|--------------------------|---------------------------|-----------------|------------------|---------------------------|-------------------|----------------------------|---------------------------|------------|------------------|-------------------|
| Altorado | Highland Specialty Grains | 2017 | 101 | 102 | 101 | 50.2 | Medium | Early-Med. | 5 | 3 |
| Claymore | Highland Specialty Grains | 2015 | 97 | 101 | 102 | 49.6 | MedTall | Medium | 7 | 1 |
| LCS Odyssey ^M | Limagrain Cereal Seeds | 2015 | 101 | 99 | 102 | 49.0 | Medium | Medium | 2 | 1 |
| LCS Opera ^M | Limagrain Cereal Seeds | 2019 | 98 | 100 | 101 | 48.5 | Medium | MedLate | 1 | 1 |
| Lenetah | UI | 2007 | 103 | 94 | 96 | 51.1 | Medium | Medium | 5 | 3 |
| Oreana | Highland Specialty Grains | 2015 | 103 | 105 | 106 | 50.7 | Medium | Medium | 6 | 1 |
| Palmer ^M | WSU | 2019 | 93 | 92 | 88 | 49.3 | MedTall | Medium | 6 | 4 |
| Survivor | WSU | 2017 | 94 | 84 | 88 | 50.8 | Medium | Medium | 4 | 3 |

| Trial mean (lb/ac) | 4280 | 4330 | 3240 | 49.9 |
|--------------------|------|------|------|------|

VARIETY PERFORMANCE RESULTS: The information provided in this buying guide is the result of a cooperative effort among WSCIA, WSU, USDA-ARS and private seed companies. Plant height and test weight are averages of all test sites. Unless otherwise noted, yield data displayed for wheat and barley is based on averages of 2020 through 2022 data from testing sites of WSU's Extension Cereal Variety Testing Program. The % protein (12% moisture basis) and yield performance are summarized within several precipitation zones including irrigated.

Yield values are listed as a percent of the trial mean. Actual average yield values are listed for the trial mean at the bottom of each market class section. Information on variety performance at specific locations in individual years can be found at:

http://smallgrains.wsu.edu/variety.

An additional method of comparing variety performance is the Variety Selection Tool, located on the wheat and small grains website: http://smallgrains.wsu.edu. The Variety Selection Tool lets you choose your precipitation zone and market class of grain, then populates an interactive table with a two-year average of agronomic data, as well as disease ratings and other variety characteristics. Columns of information are moveable, sortable, and can be filtered to display only varieties that meet your chosen criteria.

WHERE TO BUY CERTIFIED SEED

Most of the varieties included in this guide are available as Certified class seed to plant to produce a commercial crop. Newer releases (dated 2021 and 2022) may only be available as Foundation or Registered for the first couple of years, as seed dealers increase their supplies in order to commercialize the variety.

If you are interested in a particular variety, you can use the WSCIA Seed Source List to find out what dealers of certified seed may have it available this season. The lists from the 2022 production year, and prior years, can be accessed at



F: Food barley

M: Malting barley

^{**}Stripe rust ratings are based on data from Dr. Xianming Chen, USDA-ARS, Pullman, WA. Disease Scale Key: 1,2 = Resistant; , 4 = Moderately Resistant; 5 = Moderate; 6, 7 = Moderately Susceptible; 8, 9 = Susceptible.

^{--:} Information not available or not relevant to data set.

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| | | | PRECIPITATION ZONE (INCHES) | | | | | | | |
|----------------|------------------|------------|-----------------------------|----------|---------------|--------------|-----------|-------------------------|------|--|
| SOFT WHITE C | OMMON | RELEASE | <12" | 12"-16" | 16"-20" | >20" | IRRIGATED | FALL PLANT IRRIGATED | <12" | |
| VARIETY | ORIGINATOR | DATE | | Y | ield as a % o | of 2-Yr TRIA | L MEAN | | | |
| AP Coachman | Agripro/Syngenta | 2019 | 113 | 105 | 106 | 98 | | | 11.1 | |
| AP Mondovi CL2 | Agripro/Syngenta | 2019 | 103 | 103 | 97 | 93 | | | 13.6 | |
| Louise | WSU | 2004 | 105 | 103 | 97 | 95 | | | 11.9 | |
| Ryan | WSU | 2015 | 106 | 108 | 109 | 108 | | | 12.3 | |
| Seahawk | WSU | 2014 | 101 | 99 | 105 | 105 | | | 11.8 | |
| Tekoa | WSU | 2015 | 112 | 99 | 103 | 106 | 101 | | 12.4 | |
| WB6211CLP | WestBred/Bayer | 2021 | 96 | 93 | 92 | 96 | 96 | | 12.7 | |
| WB6121 | WestBred/Bayer | 2013 | 92 | 101 | 99 | 94 | 101 | | 13.0 | |
| | | | | | | | | | | |
| SOFT WHITE C | LUB | | | Y | ield as a % o | of 2-Yr TRIA | L MEAN | | | |
| Melba | WSU | 2015 | 104 | 96 | 97 | 98 | | | 11.7 | |
| Hedge CL+ | WSU | 2021 | 97 | 97 | 97 | 98 | | | 12.5 | |
| | TRIAL M | EAN | 20 | 33 | 45 | 61 | 132 | | 12.3 | |
| | | | | | | | | | | |
| HARD RED | | | | Yield as | a % of 3-Yr T | RIAL MEAN | l | 2-Yr Trial Mean | | |
| Alum | WSU | 2014 | 111 | 100 | 98 | 96 | 88 | | 13.8 | |
| AP Renegade | Agripro/Syngenta | 2018 | 101 | 104 | 104 | 100 | 102 | 99 | 14.5 | |
| AP Venom | Agripro/Syngenta | 2020 | | | | | 105 | 106 | | |
| Chet | WSU | 2014 | 110 | 97 | 95 | 97 | | | 14.5 | |
| Glee | WSU | 2012 | 101 | 104 | 106 | 103 | 97 | | 14.1 | |
| Kelse | WSU | 2008 | 104 | 100 | 99 | 91 | 99 | 93 | 14.8 | |
| Net CL+ | WSU | 2019 | 109 | 97 | 101 | 98 | | | 14.3 | |
| SY Gunsight | Agripro/Syngenta | 2017 | | | | | 107 | 109 | | |
| WB9303 | WestBred/Bayer | 2021 | 68 | 93 | 87 | 99 | | | 16.3 | |
| WB9662 | WestBred/Bayer | 2018 | | | | | 103 | 95 | | |
| WB9668 | WestBred/Bayer | 2014 | 84 | 95 | 94 | 99 | 99 | 86 | 16.9 | |
| | | TRIAL MEAN | 21 | 41 | 51 | 62 | 114 | 132 | 14.8 | |

KEY

- --: Information not available or variety was not common to data set.
- ©: Variety contains BASF-patented Clearfield trait for Beyond resistance. Clearfield® varieties were not treated with Beyond® herbicide since experiments were designed to compare each entry under uniform conditions. Applying Beyond® to Clearfield® varieties could create bias in the trials since all entries would not be managed the same.

^{*:} Disease Scale 1,2 = Resistant; 3,4 = Moderately Resistant; 5 = Moderate; 6,7 = Moderately Susceptible; 8,9 = Susceptible. Disease ratings are based on recently observed disease symptoms but data are limited in scope. Disease ratings can change and should be used as relative comparisons.

^{**:} Stripe rust ratings are based on data from Dr. Xianming Chen, USDA-ARS, Pullman, WA.

F: Falling number rankings are based on all data collected 2013-2019, excluding 2015, though some varieties were not in WSU variety trials during all years. Environments with no falling numbers below 290 were eliminated as no-event. Falling number (FN) data above 330 was truncated, because variation above 330 is not associated with alpha amylase. Varieties more resistant to FN reduction due to preharvest sprouting or late-maturity alpha amylase are ranked 1-5.; varieties ranked 6-7 are intermediate, and varieties ranked 8+ will frequently have low FN in event environments. For more information about Falling Number events and data, visit steberlab.org.

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---PRECIPITATION ZONE (INCHES)------

| | | (| _0, | DISEASE REACTIONS | | | | | | | | |
|--------|--------------------|------------|-----------|-------------------------|-----------------|------------|------------------|----------------|--|-------------------|----------------|--|
| 12-16" | 16"-20" % Prote | >20" in | IRRIGATED | TEST WEIGHT (LBS/BU) | PLANT HEIGHT | MATURITY | STRIPE RUST** | HESSIAN FLY | FALLING NUMBER RATING ^F | QUALITY RATING | VARIETY | |
| 11.3 | 11.3 | 10.9 | | 57.6 | MedTall | MedLate | 8 | 3 | | Α | AP Coachman | |
| 13.6 | 13.8 | 12.8 | | 58.7 | MedTall | Medium | 6 | 4 | | MD | AP Mondovi CL2 | |
| 12.0 | 12.1 | 11.3 | | 58.7 | MedTall | MedLate | 4 | 3 | 3 | MD | Louise | |
| 12.1 | 12.0 | 10.9 | | 59.6 | Medium | Early | 4 | 1 | 4 | MD | Ryan | |
| 12.3 | 12.2 | 11.7 | | 60.4 | Medium | MedLate | 1 | 1 | 5 | MD | Seahawk | |
| 12.6 | 12.3 | 11.5 | 12.4 | 60.4 | Medium | MedLate | 1 | 1 | 4 | MD | Tekoa | |
| 12.9 | 12.9 | 12.0 | 13.1 | 57.7 | Medium | Early-Med. | 2 | 1 | | | WB6211CLP | |
| 13.3 | 13.1 | 12.1 | 12.8 | 60.0 | Short-Med. | Early-Med. | 1 | 1 | 8 | D | WB6121 | |
| | | | | | | | | | | | | |
| | % Prote | in | | | | | | | | | | |
| 12.5 | 12.0 | 11.8 | | 59.5 | Short-Med. | MedLate | 2 | 9 | 5 | MD | Melba | |
| 12.6 | 12.6 | 11.9 | | 61.2 | MedTall | MedLate | 1 | 9 | 4 | MD | Hedge CL+ | |
| 12.4 | 12.4 | 11.6 | 12.3 | 59.9 | | | | | | | | |
| | | | | | | | | | | | | |
| | % Prote | in | | | | | | | | | | |
| 14.3 | 14.5 | 13.5 | 15.2 | 60.2 | Medium | Medium | 3 | 1 | 3 | MD | Alum | |
| 14.6 | 14.6 | 13.7 | 14.4 | 59.3 | Medium | Medium | 1 | 1 | 2 | D | AP Renegade | |
| | | | 14.4 | 57.5 | Medium | Medium | 1 | 9 | | | AP Venom | |
| 14.8 | 15.3 | 14.0 | | 61.1 | Tall | Medium | 3 | 1 | 9 | MD | Chet | |
| 14.1 | 14.2 | 13.0 | 14.5 | 60.4 | Medium | Early-Med. | 2 | 1 | 7 | MD | Glee | |
| 14.8 | 14.9 | 14.1 | 15.6 | 59.9 | MedTall | Medium | 7 | 2 | 3 | D | Kelse | |
| 14.7 | 14.7 | 13.8 | | 60.9 | Medium | Med-Late | 6 | 1 | 1 | MD | Net CL+ | |
| | | | 14.0 | 60.3 | Short-Med. | Medium | 2 | 9 | 3 | MD | SY Gunsight | |
| 15.7 | 16.0 | 14.3 | | 61.1 | Medium | Early | 1 | 1 | | | WB9303 | |
| | | | 15.1 | | Short-Med. | Medium | 1 | 8 | 8 | LD | WB9662 | |
| 15.9 | 16.3 | 15.0 | 15.7 | 60.4 | Short | Early | 1 | 1 | 1 | D | WB9668 | |
| 14.8 | 14.9 | 13.8 | 14.9 | 60.6 | | | | | | | | |

DISEASE REACTIONS *

Quality Ratings:

Most Desirable (MD)—These varieties generally have high test weights, appropriate protein content (kernel properties), and excellent milling and end-use properties.

Desirable (D)—The kernel, milling, and end-use qualities of these varieties range from good to very good. The quality attributes of these varieties are desirable in international trade.

Acceptable (A)—The kernel, milling, and end-use qualities of these varieties range from acceptable to good. Individual varieties may possess minor flaws. The quality attributes of these varieties are acceptable in international trade.

Least Desirable (LD)—One or more critical flaws in quality are present in these varieties. The intrinsic quality of PNW wheat will be improved if these varieties are not planted.

Unacceptable Except Customer-Specific Uses (UCS) --- One or more critical flaws in quality are present in these varieties and will not make suitable products for this class of wheat. Production of these varieties should be targeted to specific end-uses and kept stricly segregated from general commercial channels.

Washington Conditioners and Sellers of Certified Seed

OF FIELD PEA. LENTIL, CHICKPEA, and/or SMALL GRAIN

| ADAMS COUNTY | | SNOHOMISH COUNTY | |
|--|-------------------------|---|-----------------|
| CHS Bean Plant, Othello | | Marine View Farms, Stanwood | 360-303-3916 |
| Columbia Grain, Lind | | | |
| Homestead Family Grain, Co., Ritzville | | | |
| ProGene, Othello | | SPOKANE COUNTY | |
| Ritzville Warehouse, Ritzville | 509-659-0130 | Custom Seed Conditioning, Inc., Elk (Portable) | 509-292-2506 |
| | | Pacific Northwest Farmers Cooperative, Fairfield | |
| COLUMBIA COUNTY | | Spokane Seed Company, Spokane | |
| Bayer, Dayton | 500-202-0170 | | |
| Northwest Grain Growers, Dayton | | | |
| Northwest drain drowers, Dayton | | WALLA WALLA COUNTY | |
| | | Blue Mountain Seed, Inc., Walla Walla | 509-529-3366 |
| DOUGLAS COUNTY | | McGregor Seed, Clyde | |
| HighLine Grain Growers, Inc., Waterville | 509-745-8551 | Northwest Grain Growers, Inc., Walla Walla | |
| John L. McLean Seed Company, Coulee City | 509-632-5238 | Northwest Gram Growers, Inc., Walla Walla | 509-323-0310 |
| FRANKLIN COUNTY | | WHITMAN COUNTY | |
| CHS Sun Basin Growers800 | 1-572-5032/500-234-2641 | Columbia Grain, Pullman | 509-332-1000 |
| Frontier Seed, Inc., Basin City | | Hager Seed Processing, Inc., Oakesdale509- | |
| L & H Seeds, Connell | | Ardent Mills, Pullman | |
| Tri State Seed, Connell | | Ardent Mills, Steptoe | |
| | | Inland Empire Milling Co., St John | |
| | | McKay Seed Company, LLC, Rosalia | |
| GRANT COUNTY | | Northwest Grain Growers, Inc., Garfield | |
| CHS Sun Basin Growers, Quincy | | Pacific Northwest Farmers Cooperative, Chambers | |
| Golden West Bean & Grain, Royal City | | Pacific Northwest Farmers Cooperative, Criambers | |
| KAPA Seed Service, Quincy | | · · | |
| McKay Seed Company, Inc., Moses Lake | | Pacific Northwest Farmers Cooperative, Oakesdale | |
| McGregor Seed, Warden | | Pacific Northwest Farmers Cooperative, Rosalia | |
| The McGregor Co., Quincy | | Pacific Northwest Farmers Cooperative, Steptoe | |
| Wagner Seed Company, Warden | | RMK Farms, Inc., Oakesdale | |
| Wilson Creek Union Grain & Trading Co., Wilson Creek | 509-345-2551 | Spokane Seed Company, Colfax | |
| | | Stateline Processors, Inc., Tekoa | |
| | | Uniontown Cooperative Assn., Uniontown | |
| LINCOLN COUNTY | | Northwest Grain Growers Inc., St John | |
| HighLine Grain Growers, Inc., Harrington | | WSCIA Foundation Seed Service, WSU Seedhouse, Pullm | nan509-592-4515 |
| HighLine Grain Growers, Inc., Almira | | | |
| HighLine Grain Growers, Inc., Wilbur | | | |
| HighLine Grain Growers, Inc., Davenport | | | |
| HighLine Grain Growers, Inc., Reardan | | BUY CERTIFIED SEED O | CTUC |
| McKay Seed Company, Inc., Almira | | BUT CENTIFIED SEED O | LIUC |
| North Basin Seed, Odessa | | | |
| Ritzville Warehouse, Odessa | 509-982-2661 | VARIFTY AND BRAND PRI | FFFRRFD |

| SPOKANE COUNTY | |
|---|--------------|
| Custom Seed Conditioning, Inc., Elk (Portable) | 509-292-2506 |
| Pacific Northwest Farmers Cooperative, Fairfield | |
| Spokane Seed Company, Spokane | 509-535-3671 |
| | |
| | |
| WALLA WALLA COUNTY | |
| Blue Mountain Seed, Inc., Walla Walla | |
| McGregor Seed, Clyde | |
| Northwest Grain Growers, Inc., Walla Walla | 509-525-6510 |
| | |
| WHITMAN COUNTY | |
| Columbia Grain, Pullman | 500.222.1000 |
| Hager Seed Processing, Inc., Oakesdale509- | |
| Ardent Mills, Pullman | • |
| Ardent Mills, Steptoe | |
| Inland Empire Milling Co., St John | |
| McKay Seed Company, LLC, Rosalia | |
| Northwest Grain Growers, Inc., Garfield | |
| Pacific Northwest Farmers Cooperative, Chambers | |
| Pacific Northwest Farmers Cooperative, Garfield | |
| Pacific Northwest Farmers Cooperative, Oakesdale | |
| Pacific Northwest Farmers Cooperative, Rosalia | |
| Pacific Northwest Farmers Cooperative, Steptoe | |
| RMK Farms, Inc., Oakesdale | |
| Spokane Seed Company, Colfax | |
| Stateline Processors, Inc., Tekoa | |
| Uniontown Cooperative Assn., Uniontown | |
| Northwest Grain Growers Inc., St John | |
| WSCIA Foundation Seed Service, WSU Seedhouse, Pulln | |
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CERTIFIED SEED OF THE VARIETY AND BRAND PREFERRED FROM YOUR SEED DEALER

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