

# Bred to Dominate the Field



WASHINGTON STATE  UNIVERSITY

# BARLEY

WSU CEREAL VARIETIES





# HAVENER

## SPRING BARLEY

**Havener** is a two-row, hulless, spring food barley developed by the Agricultural Research Center of Washington State University. Havener is named in honor of Robert and Elizabeth Havener, long-time champions in the effort to eradicate hunger and malnutrition worldwide.

Havener, developed specifically for human consumption, contains 50 to 75% higher  $\beta$ -glucan (a heart-healthy soluble dietary fiber) than common Washington-grown varieties Lyon, Muir, Champion, Bob and Baronesse. Havener has higher yields and test weights across all eastern Washington rainfall zones than the hulless variety Meresse.

### AGRONOMICS FOR HULLESS FOOD MARKET CLASS

Yield Potential.....	Excellent
Test Weight .....	Excellent
Protein .....	Average
Height.....	Medium
Maturity .....	Medium

### DISEASE RESISTANCE

Leaf Rust.....	Moderately Susceptible, similar to Meresse
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# HAVENER SPRING BARLEY

## Three-Year WSU Variety Testing Data 2017–2019

VARIETY	16"–20"				>20"			
	BETA GLUCAN* (%)	YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	BETA GLUCAN** (%)	YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
<b>Havener</b>	<b>6.3</b>	<b>3664</b>	<b>60.4</b>	<b>12.1</b>	<b>6.3</b>	<b>4063</b>	<b>59.7</b>	<b>11.2</b>
Lyon	4.7	4503	52.8	11.6	4.3	4898	52.0	10.1
Lenetah	4.2	4596	54.0	11.0	4.2	5006	53.2	9.9
Muir	4.1	4337	52.5	11.4	3.9	4952	52.5	10.0
LCS Vespa	3.9	4541	52.7	11.5	4.2	4760	51.6	10.4
CDC Copeland	3.9	4598	54.6	11.1	3.6	4352	50.4	10.4
Champion	3.7	3987	50.6	11.3	3.7	4763	53.6	9.9
LCS Genie	3.4	4421	52.9	11.0	3.8	4846	52.2	10.2
LCS Odyssey	3.3	4396	51.8	11.1	3.9	4885	51.0	10.0
C.V. %	na	8	1.3	4.9	na	10	2.0	5.6
LSD (0.05)	na	174	0.3	0.2	na	228	0.5	0.3

16"–20" Precip Zone (Dayton, Mayview, St. John, Walla Walla) 2017–2018, 6 loc/years

>20" Precip Zone (Fairfield, Farmington, Palouse, Pullman) 2017–2018, 8 loc/years

\*Beta glucan (Dayton, Mayview) 2017–2018, 4 loc/years

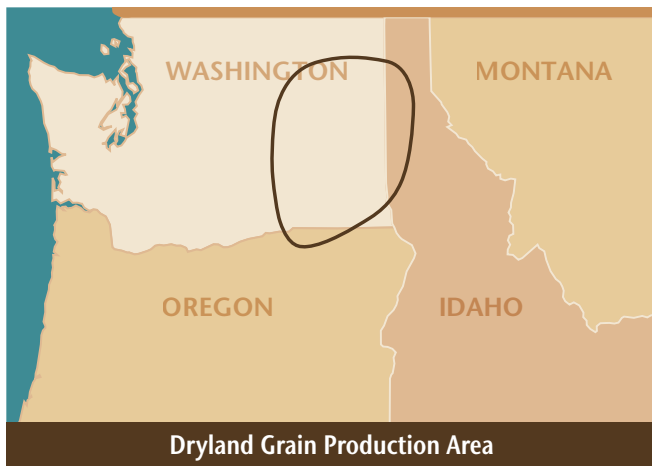
\*\*Beta glucan (Fairfield, Farmington, Palouse) 2017–2018, 6 loc/years

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020 or  
contact your local  
seed dealer.

Signed grower  
agreements are  
required.





# LYON

## SPRING BARLEY

**Lyon** is a two-row dual-purpose malt and feed barley developed by the Agricultural Research Center of Washington State University. Lyon is named in honor of Steven R. Lyon, a farmer and long-time wheat researcher at Washington State University.

Lyon is a high yielding, broadly adapted variety particularly well suited to intermediate and high rainfall zones of the Palouse where Bob, Baronesse, Lenetah, and Champion are currently being grown. Lyon has excellent stem rust resistance, high protein, and plump kernels across a wide range of environments.

### AGRONOMICS

Yield Potential.....	Excellent
Protein .....	Very Good
Test Weight .....	Average
Maturity .....	Medium
Height.....	Medium
Plump Kernels.....	Excellent

### DISEASE RESISTANCE

Leaf Rust.....	Excellent
Stripe Rust .....	Moderately Susceptible

# LYON SPRING BARLEY

## Six-Year WSU Variety Testing Data 2014–2019

VARIETY	16–20"			>20"		
	YIELD (LBS/A)	TEST WT (LBS/BU)	PROTEIN (%)	YIELD (LBS/A)	TEST WT (LBS/BU)	PROTEIN (%)
Lenetah	4327	53.4	11.8	5113	52.8	10.8
LCS Vespa	4301	52.2	12.2	4908	51.4	11.2
LCS Odyssey	4228	51.4	11.9	4978	50.9	10.7
<b>Lyon</b>	<b>4207</b>	<b>52.4</b>	<b>12.5</b>	<b>4959</b>	<b>51.9</b>	<b>10.9</b>
Champion	4171	53.8	11.9	4984	53.5	10.9
LCS Genie	4137	52.4	11.9	5003	51.9	10.8
Muir	4051	52.0	12.4	4955	52.2	11.1
CDC Copeland	3707	50.0	12.3	4577	50.5	11.0
C.V. %	8	1.4	5.1	10	2.1	5.7
LSD (0.05)	117	0.3	0.0	173	0.4	0.2

16–20" Precip Zone (Dayton, Mayview, St. John, Walla Walla) 2014–2019, 21 loc/years

>20" Precip Zone (Fairfield, Farmington, Palouse, Pullman) 2014–2019, 19 loc/years

### AVAILABILITY

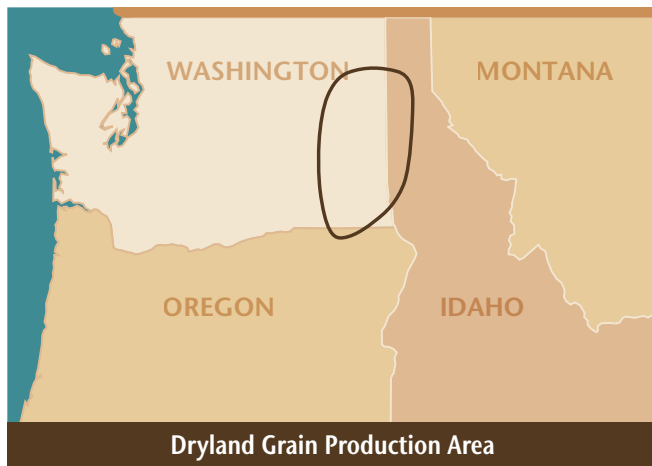
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# MEG'S SONG

## SPRING BARLEY

**Meg's Song** is a two-row, hulless, spring food barley developed by the Agricultural Research Center of Washington State University. Meg's Song is named in honor of Meg Gollnick for her dedication to and work in agricultural research, and for her love of cooking and baking with flavorful and nutritious grains.

Meg's Song, developed specifically for human consumption, contains 70 to 100% higher  $\beta$ -glucan (a heart-healthy dietary fiber) than common Washington grown varieties. Meg's Song is a high-yielding waxy barley, with excellent tolerance to lodging, high test weight and protein, and unique culinary characteristics.

### AGRONOMICS AND QUALITY FOR HULLESS FOOD MARKET CLASS

Yield Potential.....	Excellent
Test Weight .....	Excellent
Protein .....	High
Height.....	Medium
Maturity .....	Medium
Standability .....	Strong
Starch .....	Waxy

# MEG'S SONG SPRING BARLEY

## Two-Year WSU Variety Testing Data 2018–2019

VARIETY	16–20"				>20"			
	BETA GLUCAN* (%)	YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	BETA GLUCAN* (%)	YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
<b>Meg's Song</b>	<b>7.0</b>	<b>3913</b>	<b>58.6</b>	<b>13.4</b>	<b>7.3</b>	<b>4373</b>	<b>57.6</b>	<b>12.4</b>
Havener	6.0	3918	60.2	12.0	6.5	4308	58.4	11.3
Lyon	5.0	4873	53.3	11.4	4.5	5228	51.7	10.0
Survivor	4.6	4360	53.6	11.8	4.0	4841	52.4	10.7
Lenetah	4.3	4920	54.3	10.8	4.2	5311	52.7	9.8
LCS Vespa	4.3	4850	53.0	11.4	4.2	4995	50.8	10.4
Muir	4.3	4730	53.5	11.0	4.0	5293	52.5	9.9
CDC Copeland	4.0	4452	51.0	11.0	3.9	4897	50.3	10.3
Champion	3.9	4932	55.1	11.0	3.6	5110	53.3	10.0
C.V. %	na	8	1.2	4.8	na	9	2.0	5.1
LSD (0.05)	na	205	0.4	0.3	na	265	0.6	0.3

16–20" Precip Zone (Dayton, Mayview, St. John, Walla Walla) 2018–2019, 8 loc/years

>20" Precip Zone (Fairfield, Farmington, Palouse, Pullman) 2014–2019, 8 loc/years

Betaglucan Data–16–20" Precip Zone (Dayton, Mayview, St. John, Walla Walla)

>20" Precip Zone (Fairfield, Farmington, Palouse, Pullman)

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# MUIR

## SPRING BARLEY

**Muir** is a two-row spring feed barley developed by the Agricultural Research Center of Washington State University. Muir is named in honor of Carl Muir, a former graduate student of Orville Vogel and a long-time field supervisor with the WSU Barley Breeding Program.

Muir is a high yielding variety adapted to low to intermediate rainfall zones of the Palouse. Muir provides an excellent multi-disease resistance package, has reliably plump kernels and high protein, and performs well in low-input and organic systems.

### AGRONOMICS

Yield Potential.....	Excellent in All Rainfall Zones
Test Weight .....	Average
Protein .....	Above Average
Plump Kernels.....	Excellent
Height.....	Shorter than Average
Maturity .....	Medium-Early

### DISEASE RESISTANCE

Leaf Rust.....	Excellent
Stripe Rust.....	Excellent High-Temperature, Adult-Plant Resistance
Powdery Mildew .....	Resistant

# MUIR SPRING BARLEY

## Six-Year WSU Variety Testing Data 2014–2019

VARIETY	16–20"			>20"		
	YIELD (LBS/A)	TEST WT (LBS/BU)	PROTEIN (%)	YIELD (LBS/A)	TEST WT (LBS/BU)	PROTEIN (%)
Lenetah	4327	53.4	11.8	5113	52.8	10.8
LCS Vespa	4301	52.2	12.2	4908	51.4	11.1
LCS Odyssey	4228	51.4	11.9	4978	50.9	10.7
Lyon	4207	52.4	12.5	4959	51.9	10.9
Champion	4171	53.8	11.9	4984	53.5	10.9
LCS Genie	4137	52.4	11.9	5003	51.9	10.8
<b>Muir</b>	<b>4051</b>	<b>52.0</b>	<b>12.4</b>	<b>4955</b>	<b>52.2</b>	<b>11.1</b>
CDC Copeland	3707	50.0	12.3	4577	50.5	11.0
C.V. %	8	1.4	5.1	10	2.1	5.7
LSD (0.05)	117	0.3	0.0	173	0.4	0.2

16–20" Precip Zone (Dayton, Mayview, St. John, Walla Walla) 2014–2019, 21 loc/years

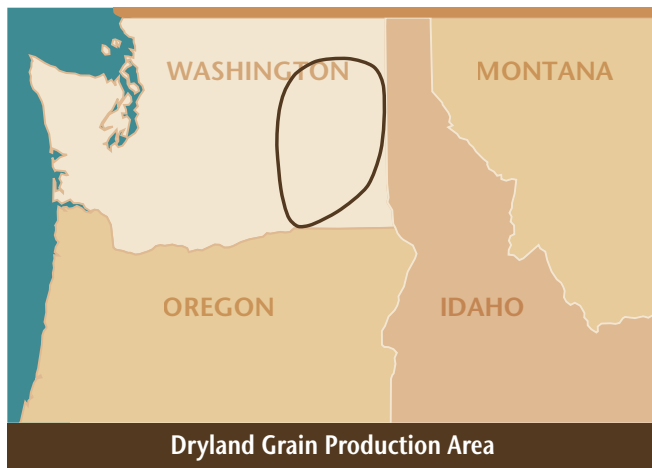
>20" Precip Zone (Fairfield, Farmington, Palouse, Pullman) 2014–2019, 19 loc/years

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# SURVIVOR

## SPRING BARLEY

**Survivor** is a two-row, hulled, spring feed barley developed by the Agricultural Research Center of Washington State University. Survivor is the first barley variety in the U.S. that possesses tolerance to IMI-herbicides in a high yielding genetic background. Survivor is adapted across all rainfall zones in dryland farming systems in eastern Washington. It is moderately resistant to stripe rust and has high protein and test weight in the feed barley market class.

*Survivor is not intended to be sprayed with IMI herbicides; rather it was developed to withstand residual herbicides in the soil.*

### AGRONOMICS FOR THE HULLESS, FEED BARLEY MARKET CLASS

Yield Potential.....	Average
Test Weight .....	Excellent
Protein .....	High
Height.....	Medium
Maturity .....	Medium

### DISEASE RESISTANCE

Stripe Rust.....	Moderately Resistant
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# SURVIVOR SPRING BARLEY

## Four-Year WSU Variety Testing Data 2016–2019

VARIETY	16–20"			>20"		
	YIELD (LBS/A)	TEST WT (LBS/BU)	PROTEIN (%)	YIELD (LBS/A)	TEST WT (LBS/BU)	PROTEIN (%)
Lyon	4545	52.8	11.9	5047	52.0	10.6
Muir	4372	52.7	11.8	5082	52.6	10.6
<b>Survivor</b>	<b>4150</b>	<b>53.2</b>	<b>12.2</b>	<b>4803</b>	<b>53.0</b>	<b>11.0</b>
CDC Copeland	4078	50.9	11.5	4640	50.6	10.7
Havener	3703	60.6	12.4	4221	59.7	11.7
C.V. %	8.3	1.2	5.0	10	1.9	5.4
LSD (0.05)	148	0.3	0.3	202	0.4	0.2

16–20" Precip Zone (Dayton, Mayview, St. John, Walla Walla) 2016–2019, 14 loc/years

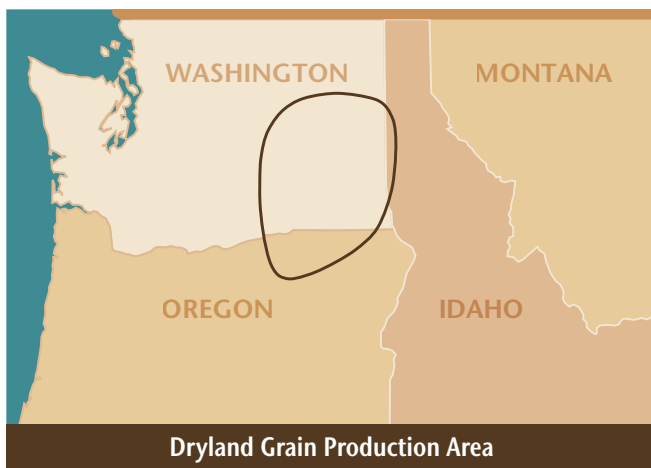
>20" Precip Zone (Fairfield, Farmington, Palouse, Pullman) 2016–2019, 15 loc/years

### AVAILABILITY

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# WHEAT

WSU CEREAL VARIETIES







*Support for the development of all wheat varieties was provided by Washington State University, the USDA, and the Washington Grain Commission. For more information visit [\*\*smallgrains.wsu.edu/variety\*\*](http://smallgrains.wsu.edu/variety).*





# ALUM

## HARD RED SPRING WHEAT

**Alum**, a newly released hard red spring wheat from Washington State University, is intended to provide growers with low soil pH and aluminum toxicity a very solid and broadly adapted hard red spring wheat variety.

Alum has very good adult plant stripe rust resistance, Hessian fly resistance, above average test weight, very good aluminum tolerance, medium plant height with good straw strength, and very good-to-excellent yield potential across the PNW. Alum should be of particular interest to growers in Spokane, eastern Whitman, Columbia, and Walla Walla counties in Washington, and in northern Idaho.

### AGRONOMICS

Yield Potential.....	Very Good–Excellent
Test Weight .....	Very Good
Protein .....	Average
Maturity .....	Medium-Later
Height.....	Medium
Quality .....	Most Desirable
Straw Strength .....	Very Good

### DISEASE RESISTANCE

Stripe Rust.....	Very Good Adult Resistance <sup>1</sup>
Hessian Fly .....	Resistant
Aluminum Tolerance.....	Excellent

<sup>1</sup> Early season application of fungicides should be considered to limit seedling infection.

# ALUM HARD RED SPRING WHEAT

## Three-Year WSU Variety Testing Data

VARIETY	16–20" YIELD (BU/A)	12–16" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
AP Renegade	66	44	60.7	12.6
<b>Alum</b>	<b>65</b>	<b>44</b>	<b>61.3</b>	<b>13.1</b>
Net CL+	65	44	61.8	13.0
Glee	65	44	61.8	12.6
LCS Luna	64	45	60.9	12.7
LCS Iron	63	45	60.2	12.1
SY Selway	63	43	60.4	12.9
Kelse	62	42	61.4	13.5
Chet	61	44	61.6	13.5
SY Gunsight	61	43	60.7	12.4
LCS Buck Pronto	58	40	60.5	14.1
WB9668	54	37	61.3	14.9
WB9662	53	36	60.1	14.6
C.V. %	7	10	1.4	5.0
LSD (0.05)	2	2	0.2	0.2

16–20" Precip Zone (Dayton, Mayview, Plaza, St. John, Walla Walla), 2017–2019, 13 loc/years

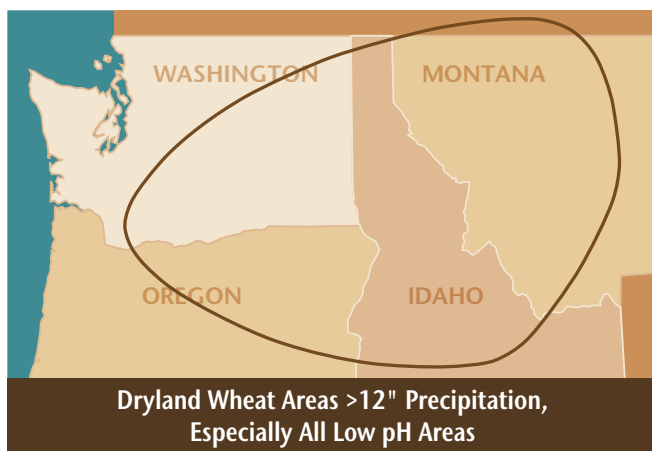
12–20" Precip Zone (Almira, Endicott, Lamont, Reardan), 2017–2019, 10 loc/years

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
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U.S. Plant Variety  
Protection status  
for this cultivar is  
approved. Signed  
grower agreements  
are required.





# ARS CRESCENT

## WINTER CLUB WHEAT

**ARS Crescent** is an intermediate to tall, awned, white kernel club wheat with competitive yield potential and good adult plant resistance to stripe rust and strawbreaker foot rot. ARS Crescent has excellent club wheat quality, high test weight and resistance to low falling numbers. ARS Crescent is competitive in the intermediate and higher rainfall regions of Washington.

### AGRONOMICS

Yield Potential.....	Excellent
Protein .....	Good
Test Weight .....	Excellent
Maturity .....	Intermediate
Height.....	Intermediate
Quality .....	Excellent

### DISEASE AND STRESS RESISTANCE

Stripe Rust.....	Adult plant resistance
Strawbreaker Foot Rot .....	Intermediate
Snow Mold .....	Susceptible
Cephalosporium Stripe .....	Intermediate
Falling Numbers.....	Resistant



# ARS CRESCENT WINTER CLUB WHEAT

## Four-Year Variety Testing Data from 2016–2019

VARIETY *Club type	<12" YIELD (BU/A)	12–16" YIELD (BU/A)	16–20" YIELD (BU/A)	>20" YIELD (BU/A)	TEST WT (LB/BU)	PROTEIN (%)
<b>ARS Crescent*</b>	<b>61</b>	<b>103</b>	<b>111</b>	<b>123</b>	<b>58.7</b>	<b>10.4</b>
Castella *	65	96	111	119	58.6	10.1
Pritchett *	65	96	115	118	58.8	10.2
Bruehl *	61	101	112	126	58.2	10.8
Coda *	61	102	106	121	60.5	11.3
M-press	68	107	98	112	59.9	9.9
Norwest Duet	65	93	117	125	59.5	10.6
Otto	61	107	112	120	59.7	11.0
Puma	61	106	110	115	59.8	10.8
LSD (0.05)	3	6	9	9	0.3	0.1

<12" Precip Zone (Connell, Harrington, Horse Heaven, Lind, Ritzville, St. Andrews), 2016-2019

12–16" Precip Zone (Almira, Anatone, Creston, Dusty, Lamont, Reardan), 2016-2019

16–20" Precip Zone (Dayton, Mayview, St. John, Walla Walla), 2016-2019

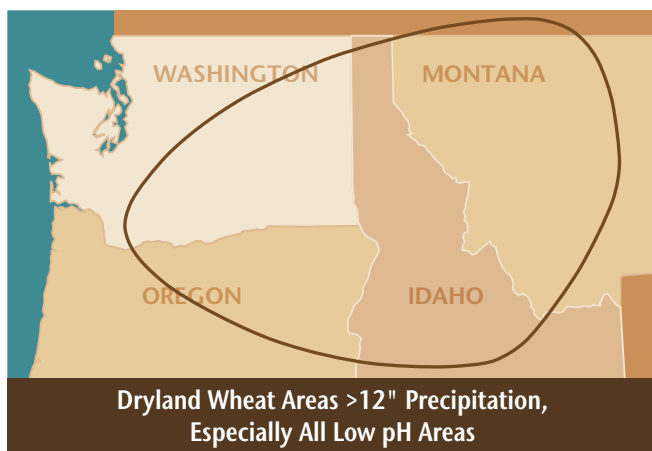
>20" Precip Zone (Colton, Fairfield, Farmington, Pullman), 2016-2019

### AVAILABILITY

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U.S. Plant Variety  
Protection status  
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# CASTELLA

## SOFT WHITE CLUB WHEAT

**Castella**, is a tall, awnless soft white club wheat, developed by the USDA-ARS and WSU from a diverse pedigree. Castella combines better stripe rust resistance than ARS Crescent with better test weight and higher grain yields than Bruehl. Castella has good club wheat quality, high test weight and good resistance to low falling numbers, similar to ARS Crescent. Castella is earlier maturing than other current club wheat cultivars and combines unique resistance to Hessian Fly with aluminum tolerance. Castella is competitive in central WA where early maturity is an advantage.

### AGRONOMICS

Yield Potential.....	Excellent
Protein .....	Good
Test Weight .....	Medium
Maturity .....	Moderately early
Height.....	Tall for Semi-dwarf
Quality .....	Excellent

### DISEASE RESISTANCE

Stripe Rust.....	Resistant
Strawbreaker Foot Rot .....	Susceptible
Snow Mold .....	Susceptible
Cephalosporium Stripe .....	Moderate Resistance
Hessian Fly .....	Resistant
Aluminum .....	Resistant
Falling Numbers.....	Resistant

# CASTELLA SOFT WHITE CLUB WHEAT

## Four-Year Variety Testing Data from 2016–2019

VARIETY *Club type	<12" YIELD (BU/A)	12–16" YIELD (BU/A)	16–20" YIELD (BU/A)	>20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
<b>Castella*</b>	<b>65</b>	<b>96</b>	<b>111</b>	<b>119</b>	<b>58.6</b>	<b>10.1</b>
Pritchett*	65	96	115	118	58.8	10.2
ARS Crescent*	61	103	111	123	58.7	10.4
Bruehl*	61	101	112	126	58.2	10.8
Coda*	61	102	106	121	60.5	11.3
M-press	68	107	98	112	59.9	9.9
Norwest Duet	65	93	117	125	59.5	10.6
Otto	61	107	112	120	59.7	11.0
Puma	61	106	110	115	59.8	10.8
LSD (0.05)	3	6	9	9	0.3	0.1

<12" Precip Zone (Connell, Harrington, Horse Heaven, Lind, Ritzville, St. Andrews), 2016-2019

12-16" Precip Zone (Almira, Anatone, Creston, Dusty, Lamont, Reardan), 2016-2019

16-20" Precip Zone (Dayton, Mayview, St. John, Walla Walla), 2016-2019

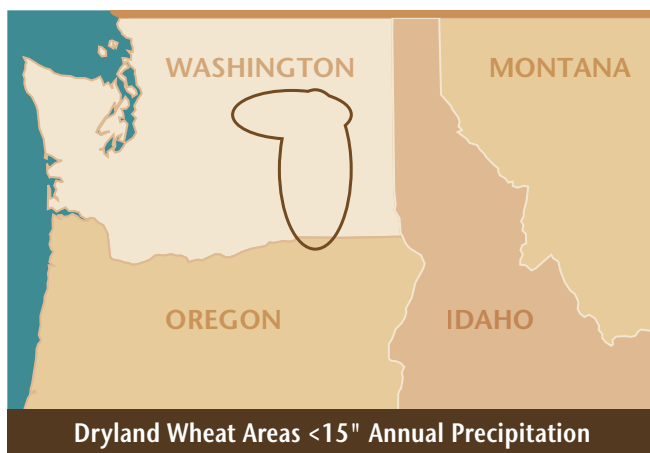
>20" Precip Zone (Colton, Fairfield, Farmington, Pullman), 2016-2019

### AVAILABILITY

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U.S. Plant Variety  
Protection status  
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# CHET

## HARD RED SPRING WHEAT

**Chet**, a tall hard red spring wheat from Washington State University, is our best variety option for low-rainfall areas of eastern Washington and Oregon.

Chet has very good adult plant stripe rust resistance, Hessian fly resistance, excellent test weight, very good aluminum tolerance, tall plant height with good straw strength, and very good-to-excellent yield potential across low rainfall areas of the PNW. Chet should replace Hollis and Kelse acres in low rainfall areas due to superior yield, test weight, protein content, and stripe rust resistance.

### AGRONOMICS

Yield Potential.....	Very Good–Excellent
Test Weight .....	Excellent
Protein .....	Excellent
Maturity .....	Medium–Later
Height.....	Tall
Quality .....	Most Desirable
Straw Strength .....	Very Good

### DISEASE RESISTANCE

Stripe Rust.....	Very Good Adult Resistance <sup>1</sup>
Hessian Fly .....	Resistant
Aluminum Tolerance.....	Excellent

<sup>1</sup> Early season application of fungicides should be considered to limit seedling infection.

# CHET HARD RED SPRING WHEAT

## Three-Year WSU Variety Testing Data

VARIETY	12–16" YIELD (BU/A)	<12" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
LCS Luna	45	31	60.9	13.4
LCS Iron	45	33	60.0	13.0
Glee	44	31	62.0	13.4
Alum	44	32	61.5	13.7
Net CL+	44	33	62.1	13.8
<b>Chet</b>	<b>44</b>	<b>31</b>	<b>61.6</b>	<b>14.2</b>
AP Renegade	44	31	60.7	13.2
SY Selway	43	30	60.1	13.6
SY Gunsight	43	32	60.9	13.2
Kelse	42	29	61.8	14.2
LCS Buck Pronto	40	27	60.5	14.7
WB9668	37	27	61.1	15.7
WB9662	36	26	60.2	15.2
C.V. %	10	9	1.6	4.6
LSD (0.05)	2	1	0.3	0.2

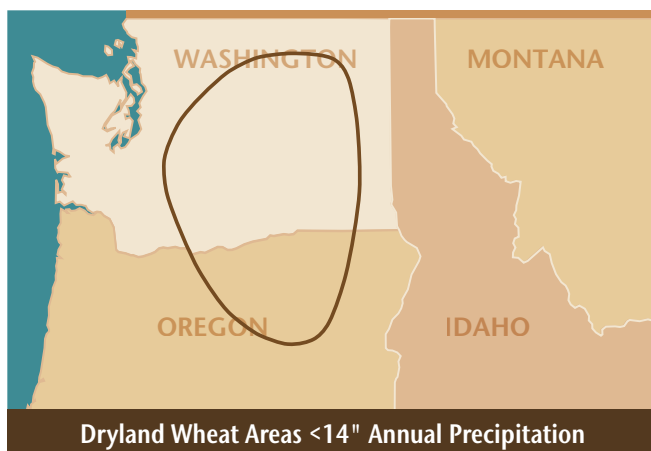
12–20" Precip Zone (Almira, Endicott, Lamont, Reardan), 2017–2019, 10 loc/years  
 <12" Precip Zone (Bickleton, Horse Heaven, Lind), 2017–2019, 8 loc/years

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# CURIOSITY CL+

## SOFT WHITE WINTER TWO-GENE IMI WHEAT

**Curiosity CL+** is a soft white winter two-gene Imidazolinone tolerant (Clearfield) wheat variety developed and released in 2013 by the Agricultural Research Center of Washington State University. It's the first two-gene Clearfield (CL+) wheat variety released by WSU. Compared to the single-gene, the two-gene technology provides significantly better tolerance to Imidazolinone group of herbicide imazamox. Curiosity CL+ was developed using marker-assisted background selection approach. Compared to popular wheat varieties including those with Clearfield technology, Curiosity CL+ has higher yield potential, excellent snow mold resistance, and better stripe rust resistance. Curiosity CL+ is ideal for Pacific Northwest areas where ORCF102, ORCF103, Eltan and Xerpha are currently grown.

### AGRONOMICS

Imidazolinone Tolerance .....	Two-gene
Yield Potential.....	Excellent
Test Weight .....	High
Grain Protein .....	Good
Cookie Diameter.....	Very Good
Sponge Cake Performance.....	Superior
Quality .....	Acceptable

### DISEASE RESISTANCE

Stripe Rust.....	Moderately Resistant/Susceptible
Snow Mold .....	Better than Eltan
Winter Hardiness.....	Similar to Eltan
Cephalosporium Stripe .....	Similar to Eltan
Strawbreaker Foot Rot .....	Similar to Eltan



# CURIOSITY CL+ SOFT WHITE WINTER WHEAT

## Three-Year Variety Testing Data from 2017–2019

VARIETY	<12" YIELD (BU/A)	TEST WT (LB/BU)	PROTEIN (%)
<b>Curiosity CL+</b>	<b>64</b>	<b>60.5</b>	<b>9.7</b>
Mela CL+	64	60.3	10.0
Otto	62	60.1	10.7
ORCF102	61	60.6	10.6
Eltan	60	60.3	9.9
UI Magic CL+	58	60.7	10.7
WB1376CLP	55	61.8	11.8
C.V. %	9	1.9	6.0
LSD (0.05)	2	0.4	0.2

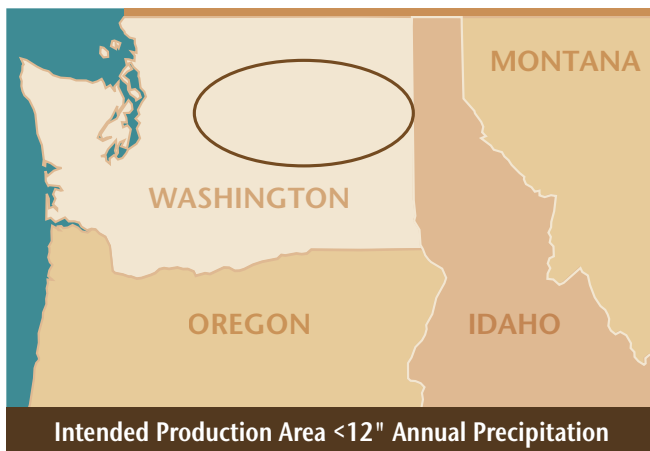
<12" Precip Zone (Bickleton, Connell, Harrington, Horse Heaven, Lind, Ritzville and St. Andrews), 2017–2019, 17 loc/years. Data was not available for (Bickleton), 2017 and 2019, (Harrington and Horse Heaven), 2019 for the analysis.

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

U.S. Plant Variety  
Protection status for this  
cultivar is approved.  
Signed grower  
agreements are required.





# DEVOTE

## SOFT WHITE WINTER WHEAT

**Devote** is a soft white winter wheat developed and released in 2019 by the Agricultural Research Center of Washington State University. Devote was named in honor of all the past winter wheat breeders of WSU who devoted so much effort into developing germplasm for the low rainfall regions of the state. It is best adapted to the <15" annual rainfall production regions of Washington and Idaho. Devote has excellent yield potential under these dry conditions, and can take advantage of excess moisture during the growing season when it comes. It has excellent emergence from deep planting and very good cold tolerance. Devote also has an excellent disease package, combining stripe rust resistance, strawbreaker foot rot resistance, snow mold tolerance, and Fusarium crown rot tolerance.

### AGRONOMICS

Yield Potential.....	Excellent
Protein .....	Good
Test Weight .....	High
Maturity.....	Medium-Late
Height.....	Medium
Quality .....	Desirable

### DISEASE RESISTANCE

Stripe Rust.....	Excellent Adult Resistance
Strawbreaker Foot Rot .....	Excellent
Snow Mold .....	Similar to Otto
Fusarium Crown Rot .....	Tolerant

# DEVOTE SOFT WHITE WINTER WHEAT

## Three-Year Variety Testing Data from 2017–2019

VARIETY	<12" YIELD (BU/A)	12–16" YIELD (BU/A)	TEST WT (LB/BU)	PROTEIN (%)
<b>Devote</b>	<b>65</b>	<b>99</b>	<b>61.3</b>	<b>10.3</b>
Otto	62	98	60.1	10.4
Xerpha	67	109	59.8	9.8
Curiosity CL+	63	99	60.5	9.7
Norwest Duet	65	109	60.2	10.1
Bruehl	60	97	58.3	10.4
C.V. %	9	9	1.6	6.5
LSD (0.05)	2	4	0.3	0.2

<12" Precip Zone (Connell, Harrington, Lind, Ritzville, St. Andrews) 2017–2019, (Horse Heaven), 2017–2018, 17 loc/years  
 12–16" Precip Zone (Almira, Anatone, Creston, Reardan), 2017–2019, (Lamont), 2018–2019, 14 loc/years

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
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seed dealer.

U.S. Plant Variety  
Protection status for  
this cultivar is approved.  
Signed grower  
agreements are required.





# GLEE

## HARD RED SPRING WHEAT

**Glee** is a hard red spring wheat developed by the Agricultural Research Center of Washington State University. Glee was named in honor of Virginia Gale Lee, an inspiring graduate student in the WSU Spring Wheat Breeding program who died from a rare, aggressive form of cancer in 2010.

Glee provides a combination of high yield potential and excellent disease resistance in dryland spring wheat production areas of the inland Pacific Northwest. Glee's five-year yield average is significantly higher than all comparison hard red spring varieties in WSU Variety Testing Trials from 12 to >20 inches of annual precipitation. Year after year, Glee performs.

### AGRONOMICS

Yield Potential.....	Excellent
Protein .....	Average
Test Weight .....	Very Good
Maturity .....	Medium–Early
Height.....	Medium
Quality .....	Most Desirable

### DISEASE RESISTANCE

Stripe Rust.....	Excellent Adult Resistance <sup>1</sup>
Hessian Fly .....	Resistant

<sup>1</sup> Early season application of fungicides should be considered to limit seedling infection.

# GLEE HARD RED SPRING WHEAT

## Three-Year WSU Variety Testing Data

VARIETY	>20" YIELD (BU/A)	16–20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
AP Renegade	76	66	60.3	12.1
Alum	71	65	61.0	12.4
Net CL+	70	65	61.5	12.5
<b>Glee</b>	<b>75</b>	<b>65</b>	<b>61.3</b>	<b>12.1</b>
LCS Luna	72	64	60.8	12.4
LCS Iron	73	63	59.8	11.6
SY Selway	69	63	60.2	12.3
Kelse	67	62	60.8	13.0
Chet	71	61	61.6	12.8
SY Gunsight	72	61	61.6	13.0
LCS Buck Pronto	67	58	60.1	13.5
WB9668	63	54	61.0	14.0
WB9662	59	53	59.9	13.8
C.V. %	7	7	1.2	4.5
LSD (0.05)	2	2	0.2	0.2

>20" Precip Zone (Fairfield, Farmington, Palouse, Pullman), 2017–2019, 9 loc/years

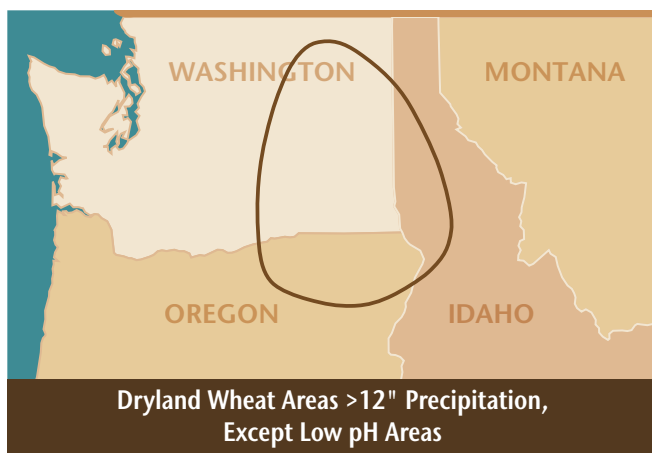
16–20" Precip Zone (Dayton, Mayview, Plaza, St. John, Walla Walla), 2017–2019, 13 loc/years

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

U.S. Plant Variety  
Protection status  
for this cultivar is  
approved. Signed  
grower agreements  
are required.







# HEDGE CL+

## CLEARFIELD SPRING CLUB WHEAT

**Hedge CL+** is a JD spring club wheat replacement with two-gene tolerance to Beyond™ herbicide for use in rotation in Clearfield™ production systems in dryland production zones of the Pacific Northwest. It has a yield record superior to JD, with excellent resistance to stripe rust, excellent test weight, high falling numbers and most desirable end-use quality. Tolerance to Group II herbicide soil carry-over in Pacific Northwest production is of broad importance in Eastern Washington and Northern Idaho. Hedge CL+ provides an alternative to WB-1035CL+ and other soft spring wheat varieties and is particularly well-suited to low rainfall production areas where JD is also grown.

### AGRONOMICS

Yield Potential.....	Very Good
Test Weight .....	Excellent
Protein .....	Same as JD
Maturity .....	Medium-Later
Height.....	Same as JD
Quality .....	Most Desirable
Straw Strength .....	Same as JD

### DISEASE RESISTANCE

Stripe Rust.....	Excellent
Hessian Fly .....	Susceptible
Aluminum Tolerance.....	Intermediate

# HEDGE CL+ CLEARFIELD SPRING CLUB WHEAT

## Two-year WSU Variety Testing Data

VARIETY	16–20" YIELD (BU/A)	<12" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
AP Mondovi CL2	68	29	60.3	12.0
Melba (club)	74	37	60.6	10.3
Louise	78	35	60.3	10.4
Tekoa	78	34	61.6	10.3
<b>Hedge CL+ (club)</b>	<b>71</b>	<b>34</b>	<b>61.5</b>	<b>11.3</b>
JD (club)	69	33	61.4	11.0
WB-1035CL+	66	32	59.7	11.8
WB6121	69	32	61.4	11.7
C.V. %	7	8	1.4	5.9
LSD (0.05)	2	1	0.3	0.2

16–20" Precip Zone (Dayton, Mayview, Plaza, St. John, Walla Walla), 2018–2019, 10 loc/years

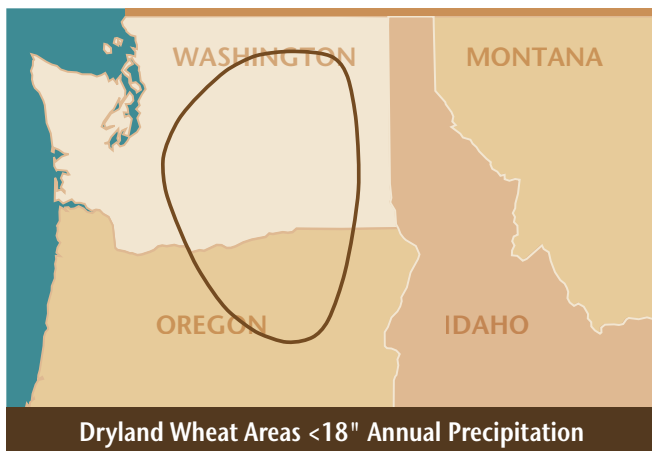
12–16" Precip Zone (Almira, Endicott, Lamont, Reardan), 2018–2019, 8 loc/years

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

U.S. Plant Variety  
Protection status  
for this cultivar is  
pending. Signed  
grower agreements  
are required.





# JASPER

## SOFT WHITE WINTER WHEAT

**Jasper** is a soft white winter wheat developed and released in 2014 by the Agricultural Research Center of Washington State University. Jasper is named after the first wheat breeder at WSU, William Jasper Spillman, and is the 100<sup>th</sup> release from WSU. Jasper provides a combination of excellent yield potential, great end-use quality, and good disease resistance for many production regions of the inland Pacific Northwest. Jasper is broadly adapted to many dryland and irrigated areas in the states of Washington and Idaho, and has maintained high yield potential across locations and years.

### AGRONOMICS

Yield Potential.....	Excellent
Protein .....	Good
Test Weight .....	Low
Maturity .....	Average
Height.....	Medium
Quality .....	Most Desirable

### DISEASE RESISTANCE

Stripe Rust.....	Adult Plant Resistance
Strawbreaker Foot Rot .....	Tolerant
Snow Mold .....	Moderately Susceptible
Cephalosporium Stripe .....	Moderately Tolerant

# JASPER SOFT WHITE WINTER WHEAT

## Three-Year Variety Testing Data from 2017–2019

VARIETY	16–20" YIELD (BU/A)	>20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
<b>Jasper</b>	<b>104</b>	<b>121</b>	<b>60.0</b>	<b>10.2</b>
SY Ovation	103	112	60.9	10.1
Purl	102	115	61.7	10.1
Rosalyn	113	126	59.9	9.3
Norwest Tandem	106	117	61.1	10.2
LCS Drive	98	106	59.8	10.3
Puma	102	112	61.2	10.2
C.V. %	7	7	0.9	4.8
LSD (0.05)	3	4	0.2	0.2

16–20" Precip Zone (Dayton, Eureka, Mayview, St. John, Walla Walla), 2017–2019, 15 loc/years

>20" Precip Zone (Colton, Fairfield, Pullman), 2017–2019, (Farmington), 2018–2019, 11 loc/years

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

U.S. Plant Variety  
Protection status  
with the Title 5 option.  
Signed grower  
agreements are required.





# MELA CL+

## SOFT WHITE WINTER TWO-GENE IMI WHEAT

**Mela CL+** is a soft white winter two-gene Imidazolinone tolerant (Clearfield™) wheat variety developed and released in 2013 by the Agricultural Research Center of Washington State University. It's the second two-gene Clearfield (CL+) wheat variety released by WSU. Compared to the single-gene Clearfield™, the two-gene technology provides significantly better tolerance to Imidazolinone group of herbicide imazamox. Mela CL+ was developed using marker-assisted background selection approach. Compared to popular wheat varieties including those with Clearfield™ technology, Mela CL+ has higher yield potential, excellent snow mold resistance, and better stripe rust resistance. Mela CL+ is ideal for Pacific Northwest areas where ORCF103, Eltan and Xerpha are currently grown.

### AGRONOMICS

Imidazolinone Tolerance .....	Two-gene
Yield Potential.....	Excellent
Test Weight .....	High
Grain Protein .....	Good
Cookie Diameter.....	Very Good
Sponge Cake Performance.....	Superior
Quality .....	Acceptable

### DISEASE RESISTANCE

Stripe Rust.....	Moderately Resistant
Snow Mold .....	Better than Eltan
Winter Hardiness.....	Similar to Eltan
Cephalosporium Stripe .....	Equal to Eltan
Strawbreaker Foot Rot .....	Moderately Resistant



# MELA CL+ SOFT WHITE WINTER WHEAT

## Three Year Variety Testing Data from 2017–2019

VARIETY	<12" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
<b>Mela CL+</b>	<b>64</b>	<b>60.3</b>	<b>10.0</b>
Curiosity CL+	64	60.5	9.7
Otto	62	60.1	10.7
ORCF102	61	60.6	10.6
Eltan	60	60.3	9.9
UI Magic CL+	58	60.7	10.7
WB1376CLP	55	61.8	11.8
C.V. %	9	1.9	6.0
LSD (0.05)	2	0.4	0.2

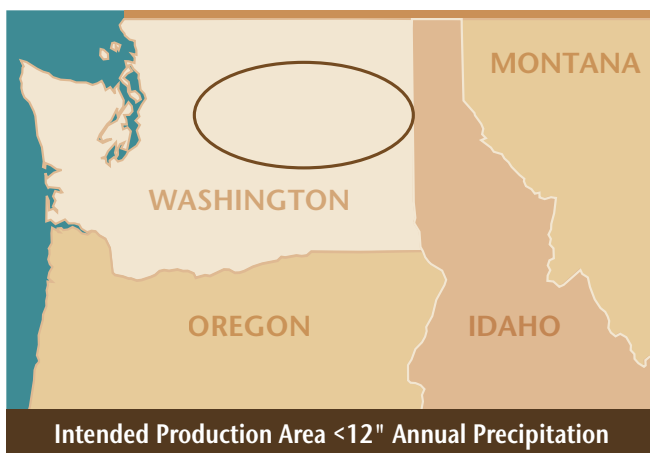
<12" Precip Zone (Bickleton, Connell, Harrington, Horse Heaven, Lind, Ritzville and St. Andrews), 2017–2019, 17 loc/years. Data was not available for (Bickleton), 2017 and 2019, (Harrington and Horse Heaven), 2019 for the analysis.

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

U.S. Plant Variety  
Protection status  
for this cultivar is  
approved. Signed  
grower agreements  
are required.





# MELBA

## CLUB SPRING WHEAT

**Melba** is intended as a replacement for JD club spring wheat in intermediate, high rainfall, and irrigated production areas of the Pacific Northwest. Melba has similar maturity as JD, with shorter plant height, lower protein content, excellent resistance to stripe rust, very good test weight, and superior yield potential in intermediate, high rainfall, and irrigated production areas. Like JD, Melba is susceptible to Hessian fly. Melba is broadly adapted and has performed well in all production regions in the PNW.

### AGRONOMICS

Yield Potential.....	Excellent
Test Weight .....	Very Good
Maturity .....	Medium-Late
Height.....	Short
Quality .....	Most Desirable
Straw Strength .....	Excellent

### DISEASE RESISTANCE

Stripe Rust.....	Excellent
Hessian Fly .....	Susceptible
Aluminum Tolerance.....	Not Tolerant

# MELBA CLUB SPRING WHEAT

## Three-Year WSU Variety Testing Data

VARIETY	>20" YIELD (BU/A)	16–20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
Ryan	79	72	60.2	9.8
Tekoa	78	71	61.6	9.7
Seahawk	78	70	60.8	10.0
Whit	75	69	60.2	9.9
WB6341	74	70	60.2	9.3
<b>Melba (club)</b>	<b>72</b>	<b>67</b>	<b>60.2</b>	<b>9.6</b>
Louise	72	71	59.9	9.8
Diva	71	70	60.2	9.9
WB6121	69	63	61.3	10.9
JD (club)	69	63	61.2	10.4
C.V. %	6	7	1.1	5.0
LSD (0.05)	2	2	0.2	0.1

>20" Precip Zone (Fairfield, Farmington, Palouse, Pullman), 2017–2019, 12 loc/years

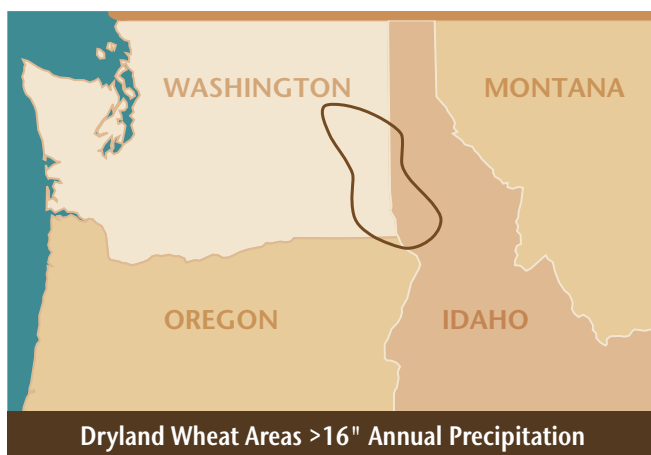
16–20" Precip Zone (Dayton, Mayview, Plaza, St. John, Walla Walla), 2017–2019, 13 loc/years

### AVAILABILITY

For seed inquiries  
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Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

U.S. Plant Variety  
Protection status for  
this cultivar is  
approved. Signed  
grower agreements  
are required.





# NET CL+

## CLEARFIELD™ HARD RED SPRING WHEAT

**Net CL+** is a broadly-adapted hard red spring wheat with two-gene tolerance to Beyond™ herbicide for use in rotation in Clearfield™ production systems in all production zones of the Pacific Northwest. It has an excellent yield record, with above average grain protein, good adult resistance to stripe rust, medium height with very good straw strength, very good test weight, and Hessian fly resistance in low, intermediate, high rainfall production areas. Net CL+ combines top-end yield potential, high test weight, and above average grain protein compared to most hard red spring wheat varieties including Alum, Glee, Kelse, SY Selway, and comparison Clearfield™ varieties including SY605 CL and WB9879 CL+. Tolerance to Group II herbicide soil carryover in Pacific Northwest production is of broad importance in Eastern Washington and Northern Idaho.

### AGRONOMICS

Yield Potential.....	Excellent
Protein .....	Very Good
Test Weight .....	Very Good
Maturity .....	Medium–Later
Height.....	Medium
Quality .....	Most Desirable
Straw Strength .....	Good

### DISEASE RESISTANCE

Stripe Rust .....	Good Adult Resistance
Hessian Fly .....	Resistant
Aluminum Tolerance.....	Not tolerant

# NET CL+ HARD RED SPRING WHEAT

## Three-year WSU Variety Testing Data

VARIETY	16–20" YIELD (BU/A)	<12" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
LCS Iron	63	33	60.5	12.4
<b>Net CL+</b>	<b>65</b>	<b>33</b>	<b>62.1</b>	<b>13.4</b>
SY Gunsight	61	32	61.2	12.7
Alum	65	32	61.7	13.2
LCS Luna	64	31	61.2	13.0
SY Coho	58	31	59.1	13.2
AP Renegade	66	31	61.1	12.9
Glee	65	31	62.0	12.9
Chet	61	31	61.8	13.7
SY605 CL	56	28	61.8	14.0
LCS Buck Pronto	58	27	60.6	14.2
WB9668	54	27	61.3	15.1
WB9662	53	26	60.7	14.6
C.V. %	7	9	1.4	4.1
LSD (0.05)	2	1	0.2	0.2

16–20" Precip Zone (Dayton, Mayview, Plaza, St. John, Walla Walla), 2017–2019, 13 loc/years,  
 <12" Precip Zone (Bickleton, Horse Heaven, Lind), 2017–2019, 8 loc/years

### AVAILABILITY

For seed inquiries  
 please call:

Washington Genetics  
 509-659-4020, or  
 contact your local  
 seed dealer.

U.S. Plant Variety  
 Protection status for  
 this cultivar is pending.







# OTTO

## SOFT WHITE WINTER WHEAT

**Otto** is a soft white winter wheat developed and released in 2011 by the Agricultural Research Center of Washington State University. Otto was named in honor of Otto Amen, a former state representative, WSU alumnus, and wheat producer who established an endowment to fund dryland wheat research in Washington.

Otto provides a combination of excellent yield potential and excellent disease resistance in dryland winter wheat production areas of the inland Pacific Northwest. Otto is best adapted to regions of Washington, Idaho, and Oregon where Eltan, Bruehl, and Xerpha are currently grown.

### AGRONOMICS

Yield Potential.....	Excellent
Protein .....	Good
Test Weight .....	Similar to Eltan
Maturity .....	Equal to Eltan
Height.....	Equal to Eltan
Quality .....	Desirable

### DISEASE RESISTANCE

Stripe Rust.....	Excellent
Strawbreaker Foot Rot .....	Similar to Madsen
Snow Mold .....	Equal to Eltan

# OTTO SOFT WHITE WINTER WHEAT

## Four-Year Variety Testing Data from 2016–2019

VARIETY	<12" YIELD (BU/A)	12–16" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
<b>Otto</b>	<b>60</b>	<b>97</b>	<b>60.2</b>	<b>10.5</b>
Puma	59	103	60.2	10.4
Xerpha	66	108	59.9	9.9
Mela CL+	61	93	60.5	10.1
Curiosity CL+	61	97	60.6	9.9
Bruehl	60	98	58.5	10.3
Norwest Duet	64	107	60.3	10.2
LCS Sonic	64	110	59.6	10.2
C.V. %	9	9	1.5	6.9
LSD (0.05)	2	3	0.2	0.2

<12" Precip Zone (Connell, Harrington, Horse Heaven, Lind, Ritzville, St. Andrews), 23 loc/years,

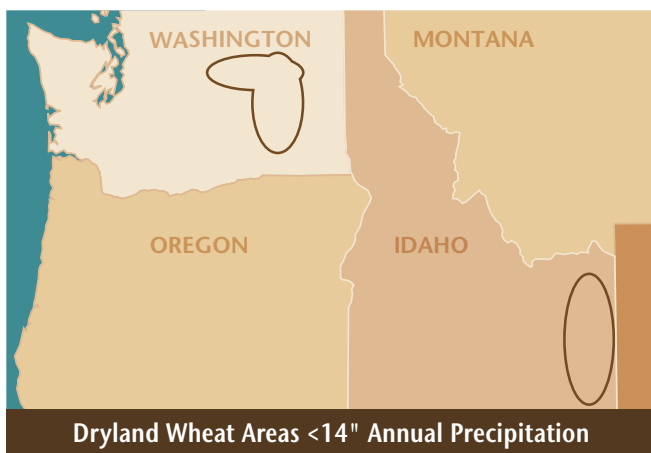
12–16" Precip Zone (Almira, Anatone, Creston, Lamont, Reardan), 20 loc/years

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

U.S. Plant Variety  
Protection status  
for this cultivar is  
approved. Signed  
grower agreements  
are required.





# PRITCHETT

## CLUB WINTER WHEAT

**Pritchett**, a winter club wheat developed by Washington State University and the USDA-ARS, is targeted to the traditional low-intermediate rainfall club wheat growing region. Pritchett was named in honor of John Pritchett, who served the USDA-ARS wheat breeding program from 1957–2000.

Pritchett has excellent emergence from deep sowing, excellent club wheat quality, and excellent resistance to stripe rust and Cephalosporium stripe disease. Pritchett should replace Bruehl in low rainfall areas due to superior yield, test weight, milling quality, eyespot tolerance, earlier maturity, similar winter survival and moderate snow mold resistance. Pritchett has been intermediate to Bruehl and ARS Crescent for tolerance to low falling numbers. Grain of Pritchett grades as club wheat more consistently than Bruehl.

### AGRONOMICS

Emergence .....	Excellent
Yield Potential.....	Very Good
Test Weight .....	Very Good
Maturity .....	Similar to Xerpha
Quality .....	Excellent
Straw Strength .....	Very Good
Protein .....	Good

### DISEASE RESISTANCE

Stripe Rust .....	Excellent Adult Resistance
Eyespot .....	Good
Cephalosporium Stripe .....	Very Good

# PRITCHETT CLUB WINTER WHEAT

## Four-Year Variety Testing Data from 2016–2019

VARIETY *Club type	<12" YIELD (BU/A)	12–16" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
<b>Pritchett*</b>	<b>65</b>	<b>106</b>	<b>59.1</b>	<b>9.9</b>
Bruehl*	61	100	58.4	10.2
ARS Crescent*	61	103	59.5	9.9
Castella*	65	95	59.8	9.7
LCS-Hulk	65	107	60.7	10.4
Norwest Duet	65	105	60.1	10.2
Curiosity CL+	62	96	60.2	9.8
Otto	61	96	60.1	10.6
Xerpha	66	104	59.8	9.9
UI Magic CL+	57	95	60.9	10.7
LSD (0.05)	3	6	0.3	0.1

<12" Precip Zone (Connell, Harrington, Horse Heaven, Lind, Ritzville, St. Andrews), 2016–2019

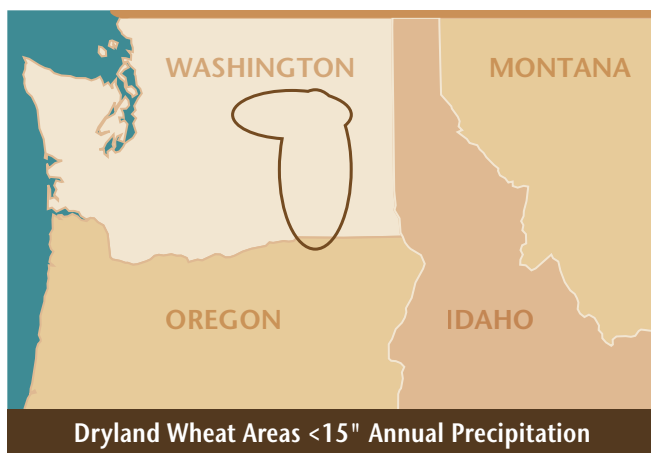
12–16" Precip Zone (Almira, Anatone, Creston, Dusty, Lamont, Reardan), 2016–2019

### AVAILABILITY

For seed inquiries  
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Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

U.S. Plant Variety  
Protection status  
for this cultivar is  
pending. Signed  
grower agreements  
are required.





# PUMA

## SOFT WHITE WINTER WHEAT

**Puma** is a soft white winter wheat developed and released in 2013 by the Agricultural Research Center of Washington State University. Puma provides a combination of excellent yield potential, test weight, end-use quality, and disease resistance for intermediate to high rainfall dryland winter wheat production areas of the inland Pacific Northwest. Puma is best adapted to regions of Washington, Idaho, and Oregon where Madsen, WB-528, WB-1529, and SY Ovation are currently under production. Puma has a unique disease resistant package for areas where low pH, Cephalosporium stripe, strawbreaker foot rot, and stripe rust are of concern.

### AGRONOMICS

Yield Potential.....	Excellent
Test Weight .....	High
Grain Protein .....	Good
Maturity .....	Average
Height.....	Medium
Quality .....	Most Desirable

### DISEASE RESISTANCE

Stripe Rust.....	Excellent Adult Resistance
Strawbreaker Foot Rot .....	Excellent
Cephalosporium Stripe .....	Moderately Tolerant
Aluminum Tolerance.....	Moderately Tolerant



# PUMA SOFT WHITE WINTER WHEAT

## Four-Year Variety Testing Data from 2016–2019

VARIETY	16–20" YIELD (BU/A)	>20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
<b>Puma</b>	<b>104</b>	<b>119</b>	<b>61.2</b>	<b>10.3</b>
SY Ovation	107	118	61.2	10.2
Purl	106	123	61.9	10.2
Rosalyn	118	135	60.2	9.4
SY Assure	104	118	62.0	10.7
LCS Artdeco	111	120	60.3	9.8
SY Dayton	110	121	61.3	10.1
C.V. %	6	6	0.9	4.7
LSD (0.05)	3	3	0.2	0.1

16–20" Precip Zone (Dayton, Mayview, St. John, Walla Walla), 2016–2019, (Eureka), 2017–2019, 19 loc/years  
 >20" Precip Zone (Colton, Pullman, Fairfield), 2016–2019, (Farmington), 2016, 2018–2019, 15 loc/years

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

U.S. Plant Variety  
Protection status  
for this cultivar is  
approved. Signed  
grower agreements  
are required.





# PURL

## SOFT WHITE WINTER WHEAT

**Purl** is a soft white winter wheat developed and released in 2018 by the Agricultural Research Center of Washington State University. Purl provides a combination of excellent yield potential, high test weight, good end-use quality, and disease resistance. Purl is best adapted to the intermediate to high rainfall dryland production regions of the inland Pacific Northwest. The unique disease resistance package and high yield potential of Purl makes it an ideal cultivar for growers looking to minimize risk and maximize profit on their farms.

### AGRONOMICS

Yield Potential.....	Excellent
Test Weight .....	High
Grain Protein .....	Good
Maturity .....	Average
Height.....	Medium
Quality .....	Acceptable

### DISEASE RESISTANCE

Stripe Rust.....	Excellent Adult Resistance
Strawbreaker Foot Rot .....	Excellent
Nematodes .....	Resistant to <i>Heterodera avenae</i>
Aluminum Tolerance.....	Moderately Tolerant

# PURL SOFT WHITE WINTER WHEAT

## Three-Year Variety Testing Data from 2017–2019

VARIETY	16–20" YIELD (BU/A)	>20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
<b>Purl</b>	<b>99</b>	<b>115</b>	<b>61.6</b>	<b>10.1</b>
SY Ovation	99	112	60.9	10.1
Rosalyn	110	126	59.9	9.3
Norwest Duet	100	118	61.1	10.1
Norwest Tandem	104	117	61.1	10.1
LCS Drive	95	106	59.7	10.2
C.V. %	7	7	0.9	4.8
LSD (0.05)	3	4	0.2	0.1

16–20" Precip Zone (Dayton, Eureka, Mayview, St. John, Walla Walla), 2017–2019, (Dusty), 2018–2019, 17 loc/years  
>20" Precip Zone (Colton, Fairfield, Pullman), 2017–2019, (Farmington), 2018–2019, 11 loc/years

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

U.S. Plant Variety  
Protection status  
for this cultivar is  
pending. Signed  
grower agreements  
are required.





# RESILIENCE CL+

## SOFT WHITE WINTER TWO-GENE IMI WHEAT

**Resilience CL+** is a soft white winter two-gene Imidazolinone tolerant (Clearfield) wheat variety developed and released in 2016 by the Agricultural Research Center of Washington State University. Compared to the single-gene, the two-gene technology provides significantly better tolerance to Imidazolinone group of herbicide imazamox. Resilience CL+ was developed using marker-assisted background selection approach. Compared to popular wheat varieties including that with Clearfield technology, Resilience CL+ has high yield potential, excellent stripe rust resistance, and strawbreaker foot rot resistance. Resilience CL+ is an ideal variety for high rain fall region of Pacific Northwest areas where ORCF102 and SY Ovation are currently grown.

### AGRONOMICS

Imidazolinone Tolerance .....	Two-gene
Yield Potential.....	Very Good-Excellent
Test Weight .....	High
Maturity .....	Medium
Height.....	Medium
Quality .....	Desirable

### DISEASE RESISTANCE

Stripe Rust .....	Highly Resistant
Winter Hardiness.....	Similar to Madsen
Cephalosporium Stripe .....	Equal to Madsen
Strawbreaker Foot Rot .....	Similar to Madsen

# RESILIENCE CL+ SOFT WHITE WINTER WHEAT

## Three Year Variety Testing Data from 2017–2019\*

VARIETY	>20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
<b>Resilience CL+</b>	<b>110</b>	<b>60.7</b>	<b>10.2</b>
ORCF102	110	60.9	10.2
SY Ovation	112	60.0	9.8
Puma	112	60.3	9.8
UI Magic CL+	113	61.3	10.2
Madsen	107	60.4	10.3
OR2X2 CL+	101	60.4	10.8
WB1376CLP	100	62.6	11.2
C.V. %	7	1.1	4.3
LSD (0.05)	3	0.3	0.2

>20" Precip Zone (Colton, Fairfield, Farmington and Pullman), 2017–2019, 11 loc/years

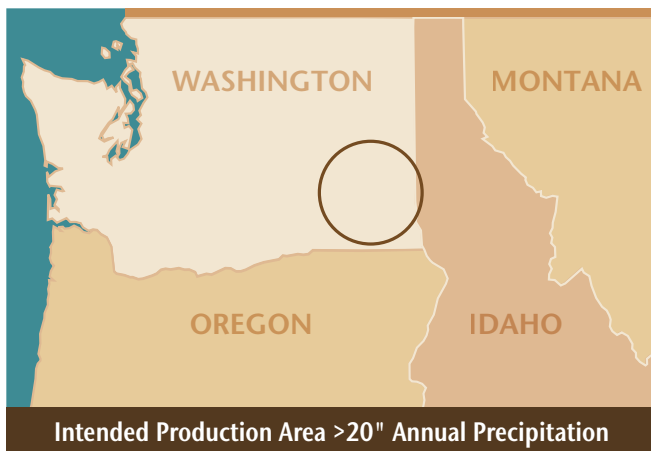
\*Data was not available for Farmington, 2017 for the analysis

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

U.S. Plant Variety  
Protection status for this  
cultivar is approved.  
Signed grower  
agreements are required.







# RYAN

## SOFT WHITE SPRING WHEAT

**Ryan** is a broadly-adapted soft white spring wheat released in 2016 by Washington State University that may be grown in all production zones of the Pacific Northwest. It has early maturity, very good adult resistance to stripe rust, shorter height with very good straw strength, good test weight, Hessian fly resistance, aluminum tolerance, and excellent yield potential in low, intermediate, high rainfall, and irrigated production areas. Ryan uniquely packages early maturity, top-end yield potential, and yield protection traits compared to soft white spring wheat varieties including Whit, Babe, Diva, Louise, and others.

### AGRONOMICS

Yield Potential.....	Excellent
Test Weight .....	Good
Maturity .....	Early
Height.....	Medium Short
Quality .....	Most Desirable
Straw Strength .....	Very Good

### DISEASE RESISTANCE

Stripe Rust.....	Very Good Adult Resistance
Hessian Fly .....	Resistant
Aluminum Tolerance.....	Excellent

# RYAN SOFT WHITE SPRING WHEAT

## Three-Year WSU Variety Testing Data

VARIETY	>20" YIELD (BU/A)	16–20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
<b>Ryan</b>	<b>79</b>	<b>72</b>	<b>60.2</b>	<b>9.8</b>
Tekoa	78	71	61.6	9.7
Seahawk	78	70	60.8	10.0
Whit	75	69	60.2	9.9
WB6341	74	70	60.2	9.3
Louise	72	71	59.9	9.8
Diva	71	70	60.2	9.9
WB6121	69	63	61.3	10.9
SY Saltese	65	65	60.6	9.8
WB-1035CL+	64	61	59.6	11.1
C.V. %	6	7	1.1	5.0
LSD (0.05)	2	2	0.2	0.1

>20" Precip Zone (Fairfield, Farmington, Palouse, Pullman), 2017–2019, 12 loc/years

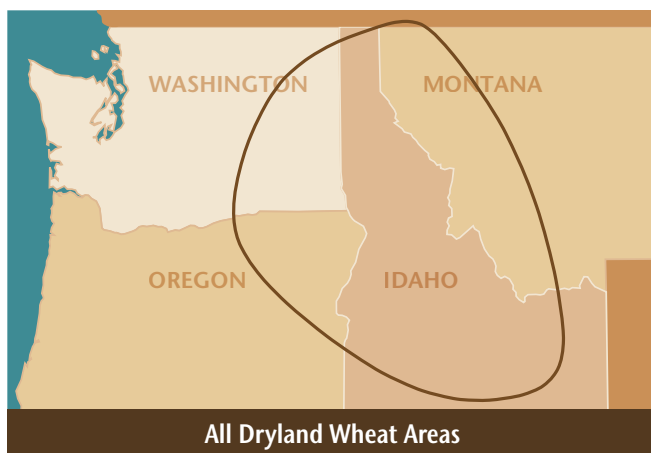
16–20" Precip Zone (Dayton, Mayview, Plaza, St. John, Walla Walla), 2017–2019, 13 loc/years

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

U.S. Plant Variety  
Protection status for  
this cultivar is  
approved. Signed  
grower agreements  
are required.





# SCORPIO

## HARD RED WINTER WHEAT

**Scorpio** is a hard red winter wheat developed and released in 2019 by the Agricultural Research Center of Washington State University. Scorpio is well adapted across the >15" rainfall zones of the Pacific Northwest. It has very high yield potential, high test weight, and very good protein content. Scorpio has excellent adult plant resistance to stripe rust, is tolerant of low pH soils, and has Hessian fly resistance. The end-use quality of Scorpio is also very good, meeting the standards of both domestic and export markets.

### AGRONOMICS

Yield Potential.....	Excellent
Protein .....	Very Good
Test Weight .....	High
Maturity .....	Medium
Height.....	Short
Quality .....	Desirable

### DISEASE RESISTANCE

Stripe Rust.....	Excellent Adult Resistance
Strawbreaker Foot Rot .....	Susceptible
Aluminum Tolerance.....	Excellent
Winter Hardiness.....	Very Good
Hessian Fly .....	Resistant

# SCORPIO HARD RED WINTER WHEAT

## Three-Year Variety Testing Data from 2017–2019

VARIETY	>16" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	PLANT HEIGHT (INCHES)
<b>Scorpio</b>	<b>111</b>	<b>61.8</b>	<b>11.4</b>	<b>34</b>
LCS Jet	115	62.4	11.2	35
SY Touchstone	107	63.4	11.6	34
Keldin	108	63.2	11.2	37
LCS Rocket	117	61.2	10.6	34
C.V. %	6	1.0	4.0	4
LSD (0.05)	3	0.3	0.2	1

>16" Precip Zone (Dayton, Walla Walla, Pullman), 2017–2019, (Eureka), 2018–2019, 11 loc/years

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

U.S. Plant Variety  
Protection status for this  
cultivar is pending.  
Signed grower  
agreements are required.





# SEAHAWK

## SOFT WHITE SPRING WHEAT

**Seahawk** uniquely packages outstanding defense traits and very good yield potential—a winning combination.

Seahawk is nearly immune to stripe rust based on a combination of seedling and adult plant resistance genes and holds-up without fungicide application under the most severe epidemics. Seahawk genetics are mainly based on Whit and Alpowa backgrounds—proven across the PNW over the past 20 years. Hessian fly resistance, superior test weight, very good aluminum tolerance, Fusarium head scab tolerance, shorter plant height with good straw strength, and very good-to-excellent yield potential in intermediate, high rainfall, and irrigated production areas of the PNW round-out Seahawk's complete package. Seahawk should be of particular interest to growers in Spokane, eastern Whitman, Columbia, and Walla Walla counties, northern and southern Idaho, and the Willamete Valley of Oregon.

### AGRONOMICS

Yield Potential.....	Very Good–Excellent
Test Weight .....	Excellent
Maturity .....	Medium-Later
Height.....	Medium
Quality .....	Most Desirable
Straw Strength .....	Very Good

### DISEASE RESISTANCE

Stripe Rust.....	Excellent
Hessian Fly .....	Resistant
Aluminum Tolerance.....	Excellent

# SEAHAWK SOFT WHITE SPRING WHEAT

## Three-Year WSU Variety Testing Data

VARIETY	>20" YIELD (BU/A)	16–20" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
Ryan	79	72	60.2	9.8
Tekoa	78	71	61.6	9.7
<b>Seahawk</b>	<b>78</b>	<b>70</b>	<b>60.8</b>	<b>10.0</b>
Whit	75	69	60.2	9.9
WB6341	74	70	60.2	9.3
Louise	72	71	59.9	9.8
Diva	71	70	60.2	9.9
WB6121	69	63	61.3	10.9
SY Saltese	65	65	60.6	9.8
WB-1035CL+	64	61	59.6	11.1
C.V. %	6	7	1.1	5.0
LSD (0.05)	2	2	0.2	0.1

>20" Precip Zone (Fairfield, Farmington, Palouse, Pullman), 2017–2019, 12 loc/years

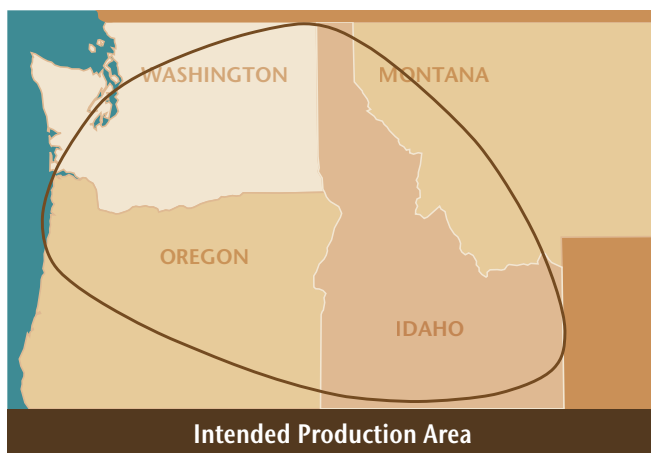
16–20" Precip Zone (Dayton, Mayview, Plaza, St. John, Walla Walla), 2017–2019, 13 loc/years

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

U.S. Plant Variety  
Protection status  
for this cultivar is  
approved. Signed  
grower agreements  
are required.







# SEQUOIA

## HARD RED WINTER WHEAT

**Sequoia** is a hard red winter wheat developed and released in 2015 by the Agricultural Research Center of Washington State University. Sequoia provides a combination of superior emergence, excellent yield potential, and desirable end-use quality for dryland winter wheat production areas in the Inland Pacific Northwest. Data indicate Sequoia emerges faster than comparison varieties such as Finley and Farnum. Sequoia is best adapted for regions in Washington and Oregon receiving less than 12 inches average annual precipitation in a deep-furrow planting system, where the varieties Farnum, Finley and Bauermeister have historically been grown, and is an excellent choice where emergence and high yield potential are desired.

### AGRONOMICS

Yield Potential.....	Excellent
Emergence .....	Excellent
Protein .....	Average
Test Weight .....	High
Height.....	Tall
Straw Strength .....	Very Good
Cold Tolerance .....	Very Good
Quality .....	Desirable

### DISEASE RESISTANCE

Stripe Rust.....	Adult Plant Resistance
Strawbreaker Foot Rot .....	Susceptible
Snow Mold .....	Susceptible

# SEQUOIA HARD RED WINTER WHEAT

## Four-Year Variety Testing Data from 2016–2019

VARIETY	<12" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	PLANT HEIGHT (inches)
<b>Sequoia</b>	<b>55</b>	<b>60.9</b>	<b>11.0</b>	<b>42</b>
Farnum	47	59.2	11.9	40
Whetstone	51	61.4	11.9	33
SY Touchstone	51	61.6	12.0	30
Keldin	57	61.7	11.1	34
C.V. %	10	2.0	6.0	4.9
LSD (0.05)	2	0.3	0.3	0.6

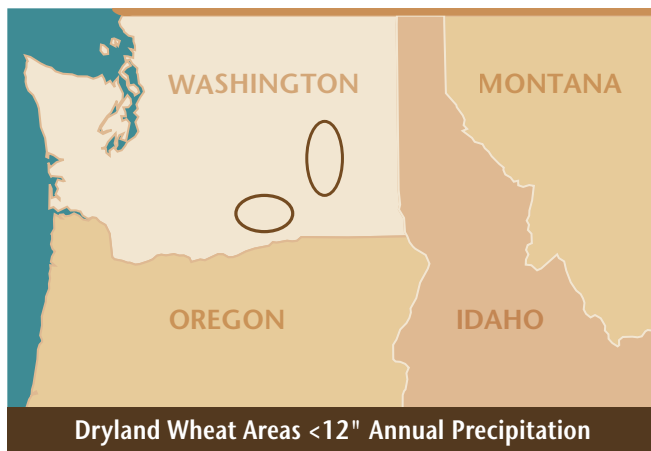
<12" Precip Zone (Connell, Horse Heaven, Lind, Ritzville, St. Andrews), 19 loc/years

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

Signed grower  
agreements are required.





# STINGRAY CL+

## SOFT WHITE WINTER TWO-GENE IMI WHEAT

**Stingray CL+** is a soft white winter two-gene Imidazolinone tolerant (Clearfield) wheat, developed and released in 2019 by the Agricultural Research Center of Washington State University. Stingray CL+ has excellent resistance to Imazamox herbicide applications under recommended label rates. This cultivar provides a combination of broad adaptability, excellent grain yield potential, high test weight, good end-use quality, and disease resistance. Stingray CL+ is adapted to the broad dryland production regions of Washington and Northern Oregon. The excellent agronomic and disease package of Stingray CL+, along with resistance to Imazamox, makes it an ideal cultivar for growers looking to control weeds and maximize profits on their farms.

### AGRONOMICS

Yield Potential.....	Excellent
Protein .....	Good
Test Weight .....	High
Maturity .....	Average
Height.....	Medium
Quality .....	Desirable

### DISEASE RESISTANCE

Stripe Rust.....	Excellent Adult Resistance
Strawbreaker Foot Rot .....	Very Good
Snow Mold .....	Moderately Susceptible

# STINGRAY CL+ SOFT WHITE WINTER WHEAT

## Three-Year Variety Testing Data from 2017–2019

VARIETY	>16" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	PLANT HEIGHT (INCHES)
<b>Stingray CL+</b>	<b>103</b>	<b>61.2</b>	<b>10.6</b>	<b>35</b>
UI Castle CL+	99	61.7	10.9	36
UI Magic CL+	101	62.1	10.6	33
ORCF 102	100	61.6	10.6	37
Resilience CL+	98	61.7	10.6	34
C.V. %	6	0.9	4.2	4
LSD (0.05)	2	0.2	0.2	1

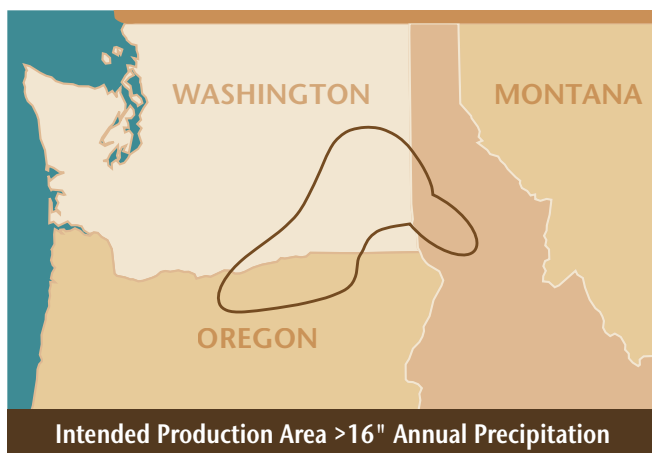
>16" Precip Zone (Eureka, Walla Walla), 2017–2019, (Dayton), 2017–2018, (Dusty, Mayview, St. John, Colton, Fairfield, Farmington, Pullman), 2018–2019, 22 loc/years

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

U.S. Plant Variety  
Protection status for  
this cultivar is pending.  
Signed grower  
agreements are required.





# TEKOA

## SOFT WHITE SPRING WHEAT

**Tekoa** has top-end yield potential, combined with desirable yield protection traits, and excellent quality. Tekoa is a soft white spring wheat variety released by Washington State University that may be grown in all production zones of the Pacific Northwest. It has later maturity, very good resistance to stripe rust, medium height with very good straw strength, very good test weight, Hessian fly resistance, aluminum tolerance, and excellent yield potential in low, intermediate, high rainfall, and irrigated production areas. As a later maturity variety with high test weight, it may provide a valuable option to mitigate risks and take advantage of years with above average moisture in all production regions.

### AGRONOMICS

Yield Potential.....	Excellent
Test Weight .....	Very Good
Maturity .....	Medium–Late
Height.....	Medium
Quality .....	Most Desirable
Straw Strength .....	Excellent

### DISEASE RESISTANCE

Stripe Rust.....	Very Good to Excellent
Hessian Fly .....	Resistant
Aluminum Tolerance.....	Excellent

# TEKOA SOFT WHITE SPRING WHEAT

## Three-Year WSU Variety Testing Data

VARIETY	>20" YIELD (BU/A)	<12" YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)
Ryan	79	34	60.1	10.3
<b>Tekoa</b>	<b>78</b>	<b>34</b>	<b>61.4</b>	<b>10.2</b>
Seahawk	78	33	60.7	10.6
Whit	75	34	60.0	10.4
WB6341	74	35	59.9	9.7
Louise	72	35	59.9	10.2
Diva	71	34	60.1	10.5
WB6121	69	32	61.1	11.3
SY Saltese	65	33	60.7	10.3
WB-1035CL+	64	32	59.5	11.5
C.V. %	6	8	1.3	4.2
LSD (0.05)	2	1	0.2	0.1

>20" Precip Zone (Fairfield, Farmington, Palouse, Pullman), 2017–2019, 12 loc/years

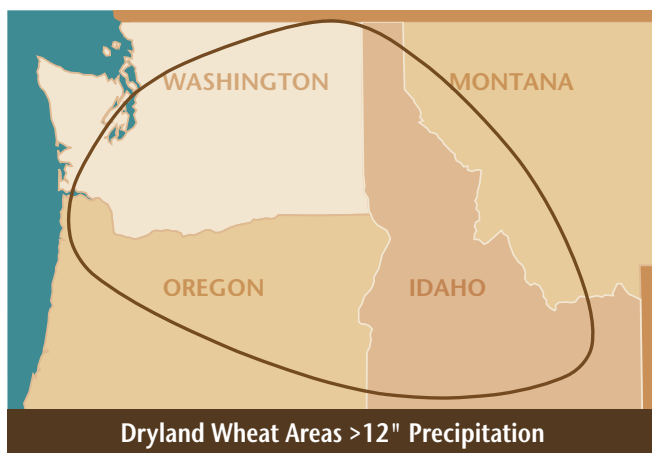
<12" Precip Zone (Bickleton, Horse Heaven, Lind), 2017–2019, 8 loc/years

### AVAILABILITY

For seed inquiries  
please call:

Washington Genetics  
509-659-4020, or  
contact your local  
seed dealer.

U.S. Plant Variety  
Protection status for  
this cultivar is  
approved. Signed  
grower agreements  
are required.









## ***Mission***

*The WSU Extension Cereal Variety Testing Program provides growers and the agribusiness industry with comprehensive information on the adaptation and performance of winter and spring wheat and barley varieties across the different climatic regions of eastern Washington. The program also provides WSU and USDA/ARS wheat breeding programs a uniform testing and evaluation program for preliminary wheat and barley lines to assist in determinations for variety release recommendations to the Washington Agricultural Research Center.*





# WSU CEREAL VARIETIES

## **FOR MORE INFORMATION**

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Washington Genetics  
PO Box 143  
Ritzville, WA 99169

215 W Main, Ritzville

509-659-4020

<http://www.washgenetics.com>

[info@WashGenetics.com](mailto:info@WashGenetics.com)

