

**A REPORT OF THE
SMALL GRAIN VARIETY REVIEW BOARD**



ASSOCIATION OF OFFICIAL SEED CERTIFYING AGENCIES

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SMALL GRAIN VARIETY REVIEW BOARD

ASSOCIATION OF OFFICIAL SEED CERTIFYING AGENCIES
March 2018

The Association of Official Seed Certifying Agencies (AOSCA), Small Grain Variety Review Board (SGVRB), reviewed the following varieties on March 28, 2018. The Board recommended the inclusion of these varieties for certification. Seed of these varieties may be certified, providing production meets all standards of the Seed Certifying Agency of the jurisdiction in which the seed is grown.

All variety information, including descriptions, claims, and research data to support any claim, was supplied to the Small Grain Variety Review Board by the applicants. The Small Grain Variety Review Board makes judgments regarding recommendation of varieties for inclusion into certification based on the data supplied. Beyond that, the Small Grain Variety Review Board takes no position on the accuracy or truthfulness of any description or claim made by the applicants.

Further information on current procedures, application forms, and detail regarding the Small Grain Variety Review Board can be obtained from:

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Respectfully submitted,

Rick Novak, Chairman
Small Grains Variety Review Board

2018 AOSCA SMALL GRAIN VARIETY REVIEW BOARD

TABLE OF CONTENTS

PLACING THE CURSOR OVER THE DESIRED VARIETY/EXPERIMENTAL DESIGNATION & CLICKING WILL TAKE YOU DIRECTLY TO THE SUMMARY DESCRIPTION.

Company	Variety Name	Experimental Designation	Kind	Page
Wheat				
21 st Century Genetics Corp	TCG-Bright	DG080183/ T16B202D	Durum, Spring	1
Colorado Wheat Research Foundation	Breck	CO12D2011	Hard White Winter	2
Colorado Wheat Research Foundation	Incline AX	CO14A065	Hard Red Winter	3
DuPont Pioneer	25W38	XW12Q	Soft White Winter	5*
DuPont Pioneer	26R45	XW15C	Soft Red Winter	6*
DuPont Pioneer		XW16G	Soft Red Winter	4
Global Soy Genetics (21st CGC)	TCG-Glennville	M13C1010	Hard Red Spring	7*
Kansas State University Research Foundation		KS13HW92-3	Hard White Winter	8
Kansas State University Research Foundation		KS14H180-4-6	Hard Red Winter	9
Limagrain Cereal Seeds	LCS Fusion AX	CO14A058	Hard Red Winter	10
Monsanto Company	7412018	XA4103	Hard Red Winter	11
Monsanto Company	7442009	XA4403	Hard Red Winter	12
Monsanto Company	7953004	XA9504	Hard Red Spring	13
Monsanto Company	7966204	XA9660	Hard Red Spring	14
Monsanto Company	7972004	XA9760	Hard Red Spring	15
Monsanto Company	7995104	XA9903	Hard Red Spring	16
Monsanto Company	WB1376CLP	BZ6WM09-1030	Soft White Winter	17**
Monsanto Company	WB1604	BZ6W07-458	Soft White Winter	18**
Monsanto Company	WB4303	HV9W10-1002	Hard Red Winter	19**
Monsanto Company	WB4311	XA4104	Hard Red Winter	20
Monsanto Company	WB4418	XA4402	Hard Red Winter	21
Monsanto Company	WB4575	BZ9W09-2075	Hard Red Winter	22**
Monsanto Company	WB7202CLP	XA7320	Hard White Spring	23
Monsanto Company	WB9350	Y9A13-0016	Hard Red Spring	24**
Monsanto Company	WB9433	XA9503	Hard Red Spring	25
Monsanto Company	WB9662	07651-10-0006	Hard Red Spring	26**
Monsanto Company	WB9717	XA9861	Hard Red Spring	27
Second Nature Research LLC	SNR-0003	SJ808-003	Durum, Spring	28*
Second Nature Research LLC	SNR-0068	YU809-068	Durum, Spring	29*
Syngenta Seeds, Inc.	SY Legend CL2	07CL046-2	Hard Red Winter	30
Syngenta Seeds, Inc.	122009W	M13-4009#	Soft Red Winter	31
Syngenta Seeds, Inc.	SY Candor	09PN008#72	Soft White Winter	32
Syngenta Seeds, Inc.	SY Collins	B13*3189	Soft Red Winter	33
			*indicates amendment application for name change	
			*indicates amendment application for description change	

PLACING THE CURSOR OVER THE DESIRED VARIETY/EXPERIMENTAL DESIGNATION & CLICKING WILL TAKE YOU DIRECTLY TO THE SUMMARY DESCRIPTION.

Company	Variety Name	Experimental Designation	Kind	Page
Syngenta Seeds, Inc.	SY Sienna	13W00886	Hard Red Spring	34
Syngenta Seeds, Inc.	WHR7110	10BC163#56	Hard Red Winter	35
Barley				
Highland Specialty Grains Inc.	Pronto	SJ508-447e	Spring	36-37*
Malteurop North America	Mayflower	08032-156	Winter	38
Triticale				
Northern AgriBrand, LLC	348612571	11T70171	Spring	39
Northern AgriBrand, LLC	530690862	14T00238	Intermediate	40
Northern AgriBrand, LLC	690724516	APT11A30412	Intermediate	41
Northern AgriBrand, LLC	879684836	08TF01	Winter	42
			*indicates amendment application for name change	
			*indicates amendment application for description change	

Wheat

TCG-Bright DG080183/T16B202D (Exp)

1. TCG-Bright is a hard amber durum developed by 21st Century Genetics Corp. (TCG) (experimental designation) DG080183/T16B202D.
2. TCG-Bright was developed using a pedigree, single seed descent breeding procedure, with selection for standability, yielding potential, test weight, protein gluten strength, and semolina color. It was also selected for general resistance/tolerance to the major diseases of Western ND and N.E. MT.
3. TCG-Climax is adapted to Western ND and N.E. MT.
4. No claims are made in this application for disease or insect resistance.
5. Identifying characteristics –

1. Kind: Durum, Hard Amber Spring Wheat			
2. Seasonal Growth Habit:	<u>Spring</u>	16. Awn Type:	<u>Awned</u>
3. Coleoptile Color:	<u>Red</u>	17. Awn Color:	<u>White</u>
4. Juvenile Growth Habit:	<u>Semi erect</u>	18. Glume Color:	<u>Light Tan</u>
5. Leaf Color at Boot:	<u>Green</u>	19. Glume Length:	<u>Long</u>
6. Flag Leaf at Boot:	<u>Re-curved, Twisted, Waxy</u>	20. Shoulder Shape:	<u>Wanting</u>
7. Auricle Color:	<u>White</u>	21. Shoulder Width:	<u>Narrow</u>
8. Day(s) to 50% Heading:	<u>58 DAP</u>	22. Beak Shape:	<u>Acuminate</u>
9. Anther Color:	<u>Yellow</u>	23. Beak Length (S,M,L,VL):	<u>Long (L)</u>
10. Anthocyanin:	<u>Absent</u>	24. Glume Pubescence:	<u>Absent</u>
11. Plant Height (cm):	<u>79</u>	25. Seed Color:	<u>Amber</u>
12. Internodes:	<u>Hollow</u>	26. Seed Shape:	<u>Elliptical</u>
13. Spike Shape:	<u>Oblong</u>	27. Cheeks:	<u>Angular</u>
14. Spike Density:	<u>Mid-dense</u>	28. Brush Size (S,M,L.):	<u>Short (S)</u>
15. Spike Curvature:	<u>Nodding</u>	29. Avg 1,000 Kernel Wt (grams):	<u>41</u>

30. Physiological/Biochemical Traits:

Variants and Frequency: 1/1000 tall 30 cm above the canopy, Black awns 1/1000

6. Recognized classes of seed are Breeder, Foundation Registered, and Certified. TCG-Bright will be regenerated by head row purification when needed.
7. Certified Seed will be offered for sale in 2018.
8. Application will be made for PVP (Title V) protection.
9. Seed production acreage of TCG is not to be published by AOSCA or other seed certifying agencies.

Date this application was submitted: Jan 08, 2018

Date recommended by the VRB: Apr 10, 2018



Wheat

Breck

CO12D2011 (Exp)

1. Breck was tested as experimental number CO12D2011. It is a medium-maturity, medium-height semidwarf hard white winter wheat developed by Colorado State University (CSU). Ownership of Breck has been transferred to the Colorado Wheat Research Foundation.
2. Breck is a doubled haploid (DH) line developed using the wheat-maize hybridization method. Selection criteria during development included general agronomic adaptation, grain yield and yield stability, test weight, stripe rust resistance, pre-harvest sprouting tolerance, and milling and bread baking quality.
3. Breck was tested throughout the western Great Plains area of the U.S. hard winter wheat region. It is best adapted for dryland and irrigated production conditions in eastern Colorado, southeastern Wyoming, western Kansas, western Nebraska, and the Panhandles of both Oklahoma and Texas.
4. No pest reaction claims are made.
5. Identifying characteristics –

1. Kind:	Common, Hard White Winter Wheat		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Semi-erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Blue-Green	19. Glume Length:	Medium
6. Flag Leaf at Boot:	Erect, Not Twisted, Wax Present	20. Shoulder Shape:	Elevated
7. Auricle Color:	White	21. Shoulder Width:	Wide
8. Day(s) to 50% Heading:	143	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Medium
10. Anthoncyanin:	Absent	24. Glume Pubescence:	Absent
11. Plant Height (cm):	89	25. Seed Color:	White
12. Internodes:	Hollow	26. Seed Shape:	Ovate
13. Spike Shape:	Tapering	27. Cheeks:	Rounded
14. Spike Density:	Mid dense	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (grams):	27.6

30. Physiological/Biochemical Traits: N/A

Variants and Frequency: Tall plants at a frequency of fewer than 1 in 1,000 plants; plants with red glumes that occur at a frequency of fewer than 1 in 1,000 plants; plants without awns that occur at a frequency of fewer than 1 in 2,000 plants; plants that produce seed with a red seed coat at a frequency of fewer than 1 in 200 plants.

6. Recognized classes of Breck are breeder, foundation, registered, and certified. Colorado State University will maintain the variety by manual removal of off-types as needed to produce breeder seed and foundation seed. Royalties will be collected through the Colorado Wheat Research Foundation.
7. Certified seed of Breck will likely be available for planting in fall of 2018.
8. Application for PVP is anticipated with the option that Breck can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage of Breck may be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 03, 2018

Date recommended by the VRB: Apr 07, 2018



Wheat

Incline AX

CO14A065 (Exp)

1. Incline AX was tested as experimental number CO14A065. It is a late maturing, medium-height hard red winter wheat developed by the Colorado State University (CSU) Agricultural Experiment Station. Ownership of Incline AX has been transferred to the Colorado Wheat Research Foundation.
2. Incline AX was developed using a modified pedigree breeding method. Selection criteria during development included general agronomic adaptation, tolerance to the herbicide quizalofop, grain yield and yield stability, and milling and bread baking quality.
3. Incline AX was tested throughout the western Great Plains area of the U.S. hard winter wheat region. It is best adapted for dryland production in eastern Colorado, southeastern Wyoming, western Kansas and Nebraska, and the Texas and Oklahoma Panhandles, particularly in fields with winter annual grassy weed pressure.
4. No pest reaction claims are made.

5. Identifying characteristics –

1. Kind:	Common, Hard Red Winter Wheat		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Semi-erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Green	19. Glume Length:	Medium
6. Flag Leaf at Boot:	Erect, Not Twisted, Wax Present	20. Shoulder Shape:	Rounded
7. Auricle Color:	White	21. Shoulder Width:	Narrow
8. Day(s) to 50% Heading:	153	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Medium
10. Anthocyanin:	Absent	24. Glume Pubescence:	Absent
11. Plant Height (cm):	84	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Ovate
13. Spike Shape:	Tapering	27. Cheeks:	Rounded
14. Spike Density:	Mid dense	28. Brush Size (S,M,L):	Medium
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (grams):	22.1

30. Physiological/
Biochemical Traits: The owner of the variety requests an Additional Certification Requirement as a condition of eligibility for final certification. All CoAXium™ Wheat Production System seedlots must be submitted to a CoAXium™ Wheat Production System certified seed testing lab and pass the AXigen™ Trait Test prior to its sale and distribution as Foundation, Registered, or Certified seed to confirm the acceptable, minimum herbicide tolerance level of 92% to Aggressor™ herbicide.

Variants and Frequency: Tall plants at a frequency of fewer than 1 in 1,000 plants; plants with red glumes that occur at a frequency of fewer than 1 in 1,000 plants; plants without awns that occur at a frequency of fewer than 1 in 2,000 plants.

6. Recognized classes of Incline AX are breeder, foundation, registered, and certified. Colorado State University will maintain the variety by manual removal of off-types as needed to produce breeder seed and foundation seed. Royalties and a trait fee will be collected through the Colorado Wheat Research Foundation.
7. Certified seed of Incline AX will likely be available for planting in fall of 2018.
8. Application for PVP is anticipated with the option that Incline AX can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage of Incline AX may be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 03, 2018

Date recommended by the VRB: Apr 07, 2018



Wheat

XW16G (Exp)

1. XW16G is a soft red winter wheat developed by DuPont Pioneer.
2. The cultivar XW16G was bred and selected using a modified pedigree selection method for the following characteristics in the field environment: disease resistance, plant type, plant height, head type, straw strength, maturity, grain yield, test weight, and milling and baking characteristics.
3. XW16G has shown best adaptation to the northern soft wheat growing regions of the U.S.
4. XW16G has shown high resistance to stripe rust and very good resistance to powdery mildew.
5. Identifying characteristics –

1. Kind: Common, Soft Red Winter Wheat			
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awned
3. Coleoptile Color:	Red	17. Awn Color:	Tan
4. Juvenile Growth Habit:	Semi-erect	18. Glume Color:	Tan
5. Leaf Color at Boot:	Green	19. Glume Length:	Medium
6. Flag Leaf at Boot:	Erect, Not Twisted, Wax Present	20. Shoulder Shape:	Rounded
7. Auricle Color:	Purple	21. Shoulder Width:	Narrow
8. Day(s) to 50% Heading:	139	22. Beak Shape:	Acuminate
9. Anther Color:	Purple	23. Beak Length (S,M,L,VL):	Short
10. Anthocyanin:	Present	24. Glume Pubescence:	Absent (Glabrous)
11. Plant Height (cm):	94	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Ovate
13. Spike Shape:	Tapering	27. Cheeks:	Rounded
14. Spike Density:	Lax	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (grams):	37

30. Physiological/Biochemical Traits: None

Variants and Frequency: Awnless and/or taller plants may occur at a frequency up to 0.1% (10/10,000).

6. Breeder, foundation, and registered seed classes will be maintained and controlled by the DuPont Pioneer Integrated Operations department. Foundation seed will initially be produced from breeders' seed, and thereafter foundation seed will be produced from foundation seed: maintaining the specific identity and purity of the variety as released. Registered seed will be grown from foundation or breeder seed and maintained at a purity level satisfactory to DuPont Pioneer Integrated Operations or the appropriate certifying agency. No royalty fees or licensing agreements are anticipated.
7. Certified seed of XW16G will potentially first be offered for sale in the fall of 2019.
8. Plant Variety Protection application is anticipated in 2018 and the certification option will not be elected.
9. Certified acreage is not to be published by AOSCA and certifying agencies.

Date this application was submitted: Jan 04, 2018 Date recommended by the VRB: Apr 07, 2018



Wheat
25W38
XW12Q (Exp)
(Amended – Name Change)

Variety Name 25W38
 Experimental Designation(s) XW12Q
 Date SGVRB first recommended this variety April 11, 2017
 Date(s) any previous amendments were recommended _____
 Date this amendment was submitted 12-14-17

1. 25W38 is a soft white winter wheat developed by DuPont Pioneer.
2. The cultivar 25W38 was bred and selected using a modified pedigree selection method for the following characteristics in the field environment: disease resistance, plant type, plant height, head type, straw strength, maturity, grain yield, test weight, and milling and baking characteristics.
3. 25W38 has shown best adaptation to the soft white wheat growing regions of the U.S. and Canada.
4. 25W38 has shown high resistance to powdery mildew and stripe rust and intermediate resistance to Fusarium head blight (scab), leaf rust, and leaf blights.
5. Identifying characteristics –

1. Kind:	<u>Common, Soft White Winter Wheat</u>		
2. Seasonal Growth Habit:	<u>Winter</u>	16. Awn Type:	<u>Awned</u>
3. Coleoptile Color:	<u>Red</u>	17. Awn Color:	<u>White</u>
4. Juvenile Growth Habit:	<u>Semi-Erect</u>	18. Glume Color:	<u>Other (Yellow)</u>
5. Leaf Color at Boot:	<u>Yellow-Green</u>	19. Glume Length:	<u>Short</u>
6. Flag Leaf at Boot:	<u>Recurved, Twisted, Wax Absent</u>	20. Shoulder Shape:	<u>Oblique</u>
7. Auricle Color:	<u>Purple</u>	21. Shoulder Width:	<u>Narrow</u>
8. Day(s) to 50% Heading:	<u>150</u>	22. Beak Shape:	<u>Acuminate</u>
9. Anther Color:	<u>Yellow</u>	23. Beak Length (S.M.L.VL):	<u>Medium</u>
10. Anthocyanin:	<u>Present</u>	24. Glume Pubescence:	<u>Absent</u>
11. Plant Height (cm):	<u>89</u>	25. Seed Color:	<u>White</u>
12. Internodes:	<u>Hollow</u>	26. Seed Shape:	<u>Ovate</u>
13. Spike Shape:	<u>Oblong</u>	27. Cheeks:	<u>Rounded</u>
14. Spike Density:	<u>Dense</u>	28. Brush Size (S,M,L.):	<u>Medium</u>
15. Spike Curvature:	<u>Nodding</u>	29. Avg 1,000 Kernel Wt (g):	<u>38.2</u>

30. Physiological/Biochemical Traits: Phenol Reaction = Dark brown

Variants and Frequency: Awnless and/or taller plants may occur at a frequency up to 0.1% (10/10,000).

6. Breeder, foundation, and registered seed classes will be maintained and controlled by the DuPont Pioneer Integrated Operations department. Foundation seed will be initially produced from breeders' seed, and thereafter foundation seed will be produced from foundation seed: maintaining the specific identity and purity of the variety as released. Registered seed will be grown from foundation or breeder seed, and maintained at a purity level satisfactory to DuPont Pioneer Integrated Operations or the appropriate certifying agency. No royalty fees or licensing agreements are anticipated.
7. Certified seed of 25W38 will potentially first be offered for sale in the fall of 2018.
8. Plant Variety Protection application is anticipated in 2017 and the certification option will not be elected.
9. Certified acreage is not to be published by AOSCA and certifying agencies.

Date this application was submitted: Dec 14, 2017 Date recommended by the VRB: Mar 28, 2018



Wheat
26R45
XW15C (Exp)
(Amended – Name Change)

Variety Name 26R45

Experimental Designation(s) XW15C

Date SGVRB first recommended this variety April 11, 2017

Date(s) any previous amendments were recommended _____

Date this amendment was submitted 12-14-17

1. 26R45 is a soft red winter wheat developed by DuPont Pioneer.
2. The cultivar 26R45 was bred and selected using a modified pedigree selection method for the following characteristics in the field environment: disease resistance, plant type, plant height, head type, straw strength, maturity, grain yield, test weight, and milling and baking characteristics.
3. 26R45 has shown best adaptation to the southern soft wheat growing regions of the U.S.
4. 26R45 has shown high resistance to stripe rust and very good resistance to leaf rust and powdery mildew.
5. Identifying characteristics –

1. Kind:	<u>Common, Soft Red Winter Wheat</u>		
2. Seasonal Growth Habit:	<u>Winter</u>	16. Awn Type:	<u>Apically Awnletted</u>
3. Coleoptile Color:	<u>White</u>	17. Awn Color:	<u>White</u>
4. Juvenile Growth Habit:	<u>Erect</u>	18. Glume Color:	<u>Tan</u>
5. Leaf Color at Boot:	<u>Green</u>	19. Glume Length:	<u>Short</u>
6. Flag Leaf at Boot:	<u>Erect, Twisted, Wax Present</u>	20. Shoulder Shape:	<u>Square</u>
7. Auricle Color:	<u>Purple</u>	21. Shoulder Width:	<u>Medium</u>
8. Day(s) to 50% Heading:	<u>131</u>	22. Beak Shape:	<u>Acute</u>
9. Anther Color:	<u>Yellow</u>	23. Beak Length (S.M.L.VL):	<u>Medium</u>
10. Anthoncyanin:	<u>Absent</u>	24. Glume Pubescence:	<u>Absent</u>
11. Plant Height (cm):	<u>94</u>	25. Seed Color:	<u>Red</u>
12. Internodes:	<u>Hollow</u>	26. Seed Shape:	<u>Ovate</u>
13. Spike Shape:	<u>Tapering</u>	27. Cheeks:	<u>Rounded</u>
14. Spike Density:	<u>Mid Dense</u>	28. Brush Size (S,M,L.):	<u>Short</u>
15. Spike Curvature:	<u>Nodding</u>	29. Avg 1,000 Kernel Wt (g):	<u>36.1</u>

30. Physiological/Biochemical Traits: Phenol Reaction = Fawn

Variants and Frequency: Awned and/or taller plants may occur at a frequency up to 0.1% (10/10,000).

6. Breeder, foundation, and registered seed classes will be maintained and controlled by the DuPont Pioneer Integrated Operations department. Foundation seed will be initially produced from breeders' seed, and thereafter foundation seed will be produced from foundation seed: maintaining the specific identity and purity of the variety as released. Registered seed will be grown from foundation or breeder seed, and maintained at a purity level satisfactory to DuPont Pioneer Integrated Operations or the appropriate certifying agency. No royalty fees or licensing agreements are anticipated.
7. Certified seed of 26R45 will potentially first be offered for sale in the fall of 2018.
8. Plant Variety Protection application is anticipated in 2017 and the certification option will not be elected.
9. Certified acreage is not to be published by AOSCA and certifying agencies.

Date this application was submitted: Dec 14, 2017

Date recommended by the VRB: Mar 28, 2018



Wheat

TCG-Glennville M13C1010 (Exp) (Amended – Name Change)

Variety Name TCG-Glennville

Experimental Designation(s) M13C1010

Date SGVRB first recommended this variety 4/19/2017

Date(s) any previous amendments were recommended

Date this amendment was submitted 10/19/2017

1. TCG-Glennville is a hard red spring wheat owned by Global Soy Genetics.
2. TCG-Glennville was selected for yield, quality, disease tolerance, and agronomic characteristics in growth chambers and in the field using modified single seed descent.
3. TCG-Glennville was tested in the Red River Valley of North Dakota/Minnesota and is well-adapted to be a quality hard red spring bread wheat in the wheat production areas of North Dakota and Minnesota.
4. No claims are being made as to the disease or insect resistance of TCG-Glennville.
5. Identifying characteristics –

1. Kind:	<u>Common, Hard Red Spring Wheat</u>		
2. Seasonal Growth Habit:	<u>Spring</u>	16. Awn Type:	<u>Awned</u>
3. Coleoptile Color:	<u>White</u>	17. Awn Color:	<u>White</u>
4. Juvenile Growth Habit:	<u>Erect</u>	18. Glume Color:	<u>White/Amber</u>
5. Leaf Color at Boot:	<u>Green</u>	19. Glume Length:	<u>Medium</u>
6. Flag Leaf at Boot:	<u>Erect, Twisted, Wax Absent</u>	20. Shoulder Shape:	<u>Square</u>
7. Auricle Color:	<u>White</u>	21. Shoulder Width:	<u>Medium</u>
8. Day(s) to 50% Heading:	<u>62 Days After Planting</u>	22. Beak Shape:	<u>Acuminate</u>
9. Anther Color:	<u>Yellow</u>	23. Beak Length (S.M.L.VL):	<u>Medium</u>
10. Anthocyanin:	<u>Absent</u>	24. Glume Pubescence:	<u>Present</u>
11. Plant Height (cm):	<u>75</u>	25. Seed Color:	<u>Red</u>
12. Internodes:	<u>Hollow</u>	26. Seed Shape:	<u>Ovate</u>
13. Spike Shape:	<u>Oblong</u>	27. Cheeks:	<u>Rounded</u>
14. Spike Density:	<u>Mid Dense</u>	28. Brush Size (S,M,L.):	<u>S</u>
15. Spike Curvature:	<u>Erect</u>	29. Avg 1,000 Kernel Wt (g):	<u>32</u>

30. Physiological/Biochemical Traits: None

Variants and Frequency: 1/1000 talls 30 cm above the canopy.

6. Recognized classes of TCG-Glennville are breeder, foundation, registered, and certified. Global Soy Genetics will maintain the variety by the head-row purification method to produce breeder seed as needed.
7. Certified Seed will likely be offered for sale for planting in 2018.
8. Application will be made for PVP (Title V) protection.
9. Seed production acreage of TCG-Glennville is not to be published by AOSCA or other seed certifying agencies.

Date this application was submitted: Oct 19, 2017

Date recommended by the VRB: Mar 28, 2018



Wheat

KS13HW92-3 (Exp)

1. KS13HW92-3 is a hard white winter wheat breeding line. It was developed by Dr. Guorong Zhang at the Agricultural Research Center-Hays, Kansas State University
2. KS13HW92-3 was selected for yield, baking quality, disease resistance (WSMV, stripe rust, leaf rust, SBMV, Hessian fly), and other agronomic traits (PPO, pre-harvest sprouting, grain shattering, lodging, winter hardiness, maturity) using the modified bulk method.
3. KS13HW92-3 was extensively tested in Kansas and is adapted to the dryland production areas in central and western Kansas.
4. KS13HW92-3 is resistant to stripe rust, leaf rust, and wheat soilborne mosaic virus.
5. Identifying characteristics –

1. Kind:	Common, Hard White Winter Wheat		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Semi-erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Erect, Twisted, Wax Absent	20. Shoulder Shape:	Oblique
7. Auricle Color:	White	21. Shoulder Width:	Medium
8. Day(s) to 50% Heading:	126.5 (from Jan. 1)	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	L
10. Anthoncyanin:	Absent	24. Glume Pubescence:	Absent
11. Plant Height (cm):	83	25. Seed Color:	White
12. Internodes:	Five, Hollow	26. Seed Shape:	Elliptical
13. Spike Shape:	Tapering	27. Cheeks:	Round
14. Spike Density:	Middense	28. Brush Size (S,M,L.):	S
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (grams):	34

30. Physiological/Biochemical Traits: NA

Variants and Frequency: Variants are limited to: slightly taller plants that occur at a frequency of less than 1 in 100 plants; red seeded plants that occur at a frequency of less than 2 in 100 plants.

6. Recognized classes are breeder, foundation, registered, and certified seed. Kansas State University will maintain its purity by the head-row method to produce breeder seed as needed.
7. Certified seed will likely be available for planting in the fall of 2019.
8. If this breeding line gets approved for release by the KSU Plant and Genetic Material Release Committee, an application will be submitted for protection under the U.S. Plant Variety Protection Act and the “Certification Option” will be elected (to be sold by variety name only as a class of certified seed).
9. Certified seed production acreage may be published by AOSCA and certifying agencies.

Date this application was submitted: Jan 08, 2018

Date recommended by the VRB: Apr 10, 2018



Wheat

KS14H180-4-6 (Exp)

1. KS14H180-4-6 is a hard red winter wheat breeding line. It was developed by Dr. Guorong Zhang at the Agricultural Research Center-Hays, Kansas State University
2. KS14H180-4-6 was selected for yield, baking quality, disease resistance (WSMV, stripe rust, leaf rust, SBMV, Hessian fly), and other agronomic traits (grain shattering, lodging, winter hardiness, maturity) using the modified bulk method.
3. KS14H180-4-6 was extensively tested in Kansas and is well adapted to the dryland production areas in western Kansas.
4. KS14H180-4-6 is resistant to wheat streak mosaic virus, stripe rust, and wheat soilborne mosaic virus.
5. Identifying characteristics –

1. Kind:	Common, Hard Red Winter Wheat		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Semi-erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Green	19. Glume Length:	Medium
6. Flag Leaf at Boot:	Erect, Twisted, Wax	20. Shoulder Shape:	Oblique
7. Auricle Color:	White	21. Shoulder Width:	Narrow
8. Day(s) to 50% Heading:	122 (from Jan. 1)	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	M
10. Anthocyanin:	Absent	24. Glume Pubescence:	Absent
11. Plant Height (cm):	85	25. Seed Color:	Red
12. Internodes:	Five, Hollow	26. Seed Shape:	Oval
13. Spike Shape:	Tapering	27. Cheeks:	Round
14. Spike Density:	Middense	28. Brush Size (S,M,L.):	M
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (grams):	34

30. Physiological/Biochemical Traits: NA

Variants and Frequency: Variants are limited to: slightly taller plants that occur at a frequency of less than 1 in 100 plants; white seeded plants that occur at a frequency of less than 1 in 1000 plants.

6. Recognized classes are breeder, foundation, registered, and certified seed. Kansas State University will maintain its purity by the head-row method to produce breeder seed as needed.
7. Certified seed will likely be available for planting in the fall of 2019.
8. If this breeding line gets approved for release by the KSU Plant and Genetic Material Release Committee, an application will be submitted for protection under the U.S. Plant Variety Protection Act and the “Certification Option” will be elected (to be sold by variety name only as a class of certified seed).
9. Certified seed production acreage may be published by AOSCA and certifying agencies.

Date this application was submitted: Jan 08, 2018 Date recommended by the VRB: Apr 10, 2018



Wheat

LCS Fusion AX CO14A058 (Exp)

1. LCS Fusion AX was tested as experimental number CO14A058. It is a medium-late maturing, medium-height hard red winter wheat developed by Colorado State University (CSU). Ownership of LCS Fusion AX was transferred to the Colorado Wheat Research Foundation and sub-licensed to Limagrain Cereal Seeds.
2. LCS Fusion AX was developed using a modified pedigree breeding method. Selection criteria during development included general agronomic adaptation, tolerance to the herbicide quizalofop, grain yield and yield stability, and milling and bread baking quality.
3. LCS Fusion AX was tested throughout the western Great Plains of the U.S. hard winter wheat region. It is best adapted for dryland production in eastern Colorado, southeastern Wyoming, western Kansas and Nebraska, and the Texas and Oklahoma Panhandles, particularly in fields with winter annual grassy weed pressure.
4. No claims are made relative to disease or insect resistance.
5. Identifying characteristics –

1. Kind:	Common, Hard Red Winter Wheat		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Semi-erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Green	19. Glume Length:	Medium
6. Flag Leaf at Boot:	Erect, Not Twisted, Wax Present	20. Shoulder Shape:	Rounded
7. Auricle Color:	White	21. Shoulder Width:	Narrow
8. Day(s) to 50% Heading:	150	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Medium
10. Anthoncyanin:	Absent	24. Glume Pubescence:	Absent
11. Plant Height (cm):	88.6	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Ovate
13. Spike Shape:	Tapering	27. Cheeks:	Rounded
14. Spike Density:	Mid dense	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (grams):	22.6

30. Physiological/
Biochemical Traits: LCS Fusion AX carries novel mutations in the A and D genome of the ACC1 gene conferring tolerance to quizalofop herbicide.

The owner of the variety requests an Additional Certification Requirement as a condition of eligibility for final certification. All CoAXium™ Wheat Production System seedlots must be submitted to a CoAXium™ Wheat Production System certified seed testing lab and pass the AXigen™ Trait Test prior to its sale and distribution as Foundation, Registered, or Certified seed to confirm the acceptable, minimum herbicide tolerance level of 92% to Aggressor™ herbicide.

Variants and Frequency: Tall plants at a frequency of fewer than 1 in 1,000 plants; plants with red glumes that occur at a frequency of fewer than 1 in 1,000 plants; plants without awns that occur at a frequency of fewer than 1 in 2,000 plants.

6. Recognized classes of LCS Fusion AX are breeder, foundation, registered, and certified. Limagrain Cereal Seeds will maintain the variety by manual removal of off-types as needed to produce breeder seed and foundation seed. Royalties and a trait fee will be collected by Limagrain Cereal Seeds.
7. Certified seed of LCS Fusion AX will likely be available for planting in fall of 2018.
8. Application for PVP is anticipated with the option that LCS Fusion AX can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage of LCS Fusion AX may be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 08, 2018 Date recommended by the VRB: Apr 07, 2018



Wheat

7412018

XA4103 (Exp)

1. 7412018 is a hard red winter wheat developed by the Monsanto LLC.
2. In early generations of 7412018, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality and disease resistance.
3. 7412018 is adapted to the hard red winter wheat growing regions of the Pacific Northwest.
4. No claims about disease resistance are made at this time.
5. Identifying characteristics –

1. Kind:	Common, Hard Red Winter Wheat		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Blue-Green	19. Glume Length:	Short
6. Flag Leaf at Boot:	Erect, Twisted, Wax	20. Shoulder Shape:	Oblique
7. Auricle Color:	Purple	21. Shoulder Width:	Medium
8. Day(s) to 50% Heading:	178	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Long
10. Anthocyanin:	Absent	24. Glume Pubescence:	Absent (glabrous)
11. Plant Height (cm):	94	25. Seed Color:	Red
12. Internodes:	Semi-solid	26. Seed Shape:	Ovate
13. Spike Shape:	Tapering	27. Cheeks:	Angular
14. Spike Density:	Lax	28. Brush Size (S,M,L.):	Short
15. Spike Curvature:	Nodding	29. Avg 1,000 Kernel Wt (grams):	48.5

30. Physiological/Biochemical Traits:

Variants and Frequency: A variant that is similar to 7412018 but has white seed occurs at a frequency of up to 0.50% (50 out 10,000 seeds). A variant that is similar to 7412018 but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000).

6. Recognized classes of 7412018 are breeder, foundation, registered, and certified. Monsanto Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalty fees and/ or licensing agreements are anticipated.
7. Commercial seed will likely be ready for commercial sale by the fall of 2019.
8. Application for PVP is anticipated with the option that 7412018 can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage is not to be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 09, 2018

Date recommended by the VRB: Apr 27, 2018



Wheat
7442009
XA4403 (Exp)

1. 7442009 is a hard red winter wheat developed by the Monsanto LLC.
2. In early generations of 7442009, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality and disease resistance.
3. 7442009 is adapted to the hard red winter wheat growing regions of the Central Plains.
4. No claims about disease resistance are made at this time.
5. Identifying characteristics –

1. Kind:	Common, Hard Red Winter Wheat		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awned
3. Coleoptile Color:	Red	17. Awn Color:	White
4. Juvenile Growth Habit:	Erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Blue-Green	19. Glume Length:	Short
6. Flag Leaf at Boot:	Recurved, Twisted, Wax	20. Shoulder Shape:	Square
7. Auricle Color:	Purple	21. Shoulder Width:	Wide
8. Day(s) to 50% Heading:	179	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Long
10. Anthocyanin:	Absent	24. Glume Pubescence:	Absent (glabrous)
11. Plant Height (cm):	89	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Oval
13. Spike Shape:	Tapering	27. Cheeks:	Rounded
14. Spike Density:	Lax	28. Brush Size (S,M,L.):	Short
15. Spike Curvature:	Nodding	29. Avg 1,000 Kernel Wt (grams):	48.5

30. Physiological/Biochemical Traits:

Variants and Frequency: A variant that is similar to 7442009 but has white seed occurs at a frequency of up to 0.50% (50 out 10,000 seeds). A variant that is similar to 7442009 but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000).

6. Recognized classes of 7442009 are breeder, foundation, registered, and certified. Monsanto Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalty fees and/ or licensing agreements are anticipated.
7. Commercial seed will likely be ready for commercial sale by the fall of 2019.
8. Application for PVP is anticipated with the option that 7442009 can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage is not to be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 09, 2018

Date recommended by the VRB: Apr 27, 2018



Wheat
7953004
XA9504 (Exp)

1. 7953004 is a hard red spring wheat developed by the Monsanto LLC.
2. In early generations of 7953004, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality and disease resistance.
3. 7953004 is adapted to the hard red spring wheat growing regions of the Northern Plains.
4. No claims about disease resistance are made at this time.
5. Identifying characteristics –

1. Kind:	Common, Hard Red Spring Wheat		
2. Seasonal Growth Habit:	Spring	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Prostrate	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Green	19. Glume Length:	Short
6. Flag Leaf at Boot:	Recurved, Twisted, Wax	20. Shoulder Shape:	Apiculate
7. Auricle Color:	White	21. Shoulder Width:	Medium
8. Day(s) to 50% Heading:	58	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Long
10. Anthocyanin:	Absent	24. Glume Pubescence:	Absent
11. Plant Height (cm):	94	25. Seed Color:	Red
12. Internodes:	Semi-solid	26. Seed Shape:	Ovate
13. Spike Shape:	Tapering	27. Cheeks:	Angular
14. Spike Density:	Lax	28. Brush Size (S,M,L.):	Long
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (grams):	48.5

30. Physiological/Biochemical Traits:

Variants and Frequency: A variant that is similar to 7953004 but has white seed occurs at a frequency of up to 0.50% (50 out 10,000 seeds). A variant that is similar to 7953004 but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000).

6. Recognized classes of 7953004 are breeder, foundation, registered, and certified. Monsanto Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalty fees and/ or licensing agreements are anticipated.
7. Commercial seed will likely be ready for commercial sale by the spring of 2019.
8. Application for PVP is anticipated with the option that 7953004 can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage is not to be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 9, 2018 Date recommended by the VRB: Apr 27, 2018



Wheat
7966204
XA9660 (Exp)

1. 7966204 is a hard red spring wheat developed by the Monsanto LLC.
2. In early generations of 7966204, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality and disease resistance.
3. 7966204 is adapted to the hard red spring wheat growing regions of the Pacific Northwest.
4. No claims about disease resistance are made at this time.
5. Identifying characteristics –

1. Kind:	Common, Hard Red Spring Wheat		
2. Seasonal Growth Habit:	Spring	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Prostrate	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Blue-Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Erect, Twisted, Wax	20. Shoulder Shape:	Oblique
7. Auricle Color:	Purple	21. Shoulder Width:	Narrow
8. Day(s) to 50% Heading:	166	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Long
10. Anthocyanin:	Absent	24. Glume Pubescence:	Absent (glabrous)
11. Plant Height (cm):	84	25. Seed Color:	Red
12. Internodes:	Semi-solid	26. Seed Shape:	Oval
13. Spike Shape:	Tapering	27. Cheeks:	Angular
14. Spike Density:	Lax	28. Brush Size (S,M,L.):	Short
15. Spike Curvature:	Erect	29. Avg 1,000 Kernel Wt (grams):	48.5

30. Physiological/Biochemical Traits:

Variants and Frequency: A variant that is similar to 7966204 but has white seed occurs at a frequency of up to 0.50% (50 out 10,000 seeds). A variant that is similar to 7412018 but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000).

6. Recognized classes of 7966204 are breeder, foundation, registered, and certified. Monsanto Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalty fees and/ or licensing agreements are anticipated.
7. Commercial seed will likely be ready for commercial sale by the fall of 2019.
8. Application for PVP is anticipated with the option that 7966204 can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage is not to be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 09, 2018

Date recommended by the VRB: Apr 27, 2018



Wheat
7972004
XA9760 (Exp)

1. 7972004 is a hard red spring wheat developed by the Monsanto LLC.
2. In early generations of 7972004, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality and disease resistance.
3. 7972004 is adapted to the hard red spring wheat growing regions of the Pacific Northwest.
4. No claims about disease resistance are made at this time.
5. Identifying characteristics –

1. Kind:	Common, Hard Red Spring Wheat		
2. Seasonal Growth Habit:	Spring	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Semi-erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Blue-Green	19. Glume Length:	Medium
6. Flag Leaf at Boot:	Recurved, Twisted, Wax	20. Shoulder Shape:	Square
7. Auricle Color:	Purple	21. Shoulder Width:	Narrow
8. Day(s) to 50% Heading:	136	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Long
10. Anthocyanin:	Absent	24. Glume Pubescence:	Absent (glabrous)
11. Plant Height (cm):	86	25. Seed Color:	Red
12. Internodes:	Semi-solid	26. Seed Shape:	Ovate
13. Spike Shape:	Tapering	27. Cheeks:	Angular
14. Spike Density:	Lax	28. Brush Size (S,M,L.):	Short
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (grams):	48.5

30. Physiological/Biochemical Traits:

Variants and Frequency: A variant that is similar to 7972004 but has white seed occurs at a frequency of up to 0.50% (50 out 10,000 seeds). A variant that is similar to 7972004 but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000).

6. Recognized classes of 7972004 are breeder, foundation, registered, and certified. Monsanto Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalty fees and/ or licensing agreements are anticipated.
7. Commercial seed will likely be ready for commercial sale by the spring of 2019.
8. Application for PVP is anticipated with the option that 7972004 can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage is not to be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 09, 2018

Date recommended by the VRB: Apr 27, 2018



Wheat
7995104
XA9903 (Exp)

1. 7995104 is a hard red spring wheat developed by the Monsanto LLC.
2. In early generations of 7995104, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality and disease resistance.
3. 7995104 is adapted to the hard red spring wheat growing regions of the Northern Plains.
4. No claims about disease resistance are made at this time.
5. Identifying characteristics –

1. Kind:	Common, Hard Red Spring Wheat		
2. Seasonal Growth Habit:	Spring	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Semi-erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Green	19. Glume Length:	Medium
6. Flag Leaf at Boot:	Recurved, Twisted, Wax	20. Shoulder Shape:	Square
7. Auricle Color:	White	21. Shoulder Width:	Medium
8. Day(s) to 50% Heading:	67	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Long
10. Anthoncyanin:	Absent	24. Glume Pubescence:	Absent (glabrous)
11. Plant Height (cm):	89	25. Seed Color:	Red
12. Internodes:	Semi-solid	26. Seed Shape:	Ovate
13. Spike Shape:	Tapering	27. Cheeks:	Angular
14. Spike Density:	Mid-dense	28. Brush Size (S,M,L.):	Long
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (grams):	48.5

30. Physiological/Biochemical Traits:

Variants and Frequency: A variant that is similar to 7995104 but has white seed occurs at a frequency of up to 0.50% (50 out 10,000 seeds). A variant that is similar to 7995104 but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000).

6. Recognized classes of 7995104 are breeder, foundation, registered, and certified. Monsanto Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalty fees and/ or licensing agreements are anticipated.
7. Commercial seed will likely be ready for commercial sale by the spring of 2019.
8. Application for PVP is anticipated with the option that 7995104 can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage is not to be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 09, 2018

Date recommended by the VRB: Apr 27, 2018



Wheat

WB1376CLP BZ6WM09-1030 (Exp) (Amended – Variant Change)

Variety Name WB1376CLP

Experimental Designation(s) BZ6WM09-1030

Date SGVRB first recommended this variety 2015

Date(s) any previous amendments were recommended

Date this amendment was submitted January 8, 2018

1. WB1376CLP (BZ6WM09-1030) is a soft white winter wheat developed by the Monsanto LLC.
2. In early generations of WB1376CLP, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality, disease resistance, and resistance to Imazamox.
3. WB1376CLP is adapted to the hard winter wheat growing regions of the Pacific Northwest, including parts of Washington, Oregon, Idaho, and Montana.
4. Preliminary data indicates that WB1376CLP may be moderately resistant Stripe Rust, FHB, and Powdery Mildew. WB1376CLP also contains the Als1 and Als2 mutations that confer Imazamox resistance.

5. Identifying characteristics –

1. Kind:	Common, Soft White Winter Wheat		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	Tan
4. Juvenile Growth Habit:	Semi-erect	18. Glume Color:	White
5. Leaf Color at Boot:	Green	19. Glume Length:	Medium
6. Flag Leaf at Boot:	Erect, Twisted, Waxy	20. Shoulder Shape:	Square
7. Auricle Color:	White	21. Shoulder Width:	Wide
8. Days to 50% Heading:	170 (Julian)	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S.M.L.VL):	Medium
10. Anthocyanin:	Absent	24. Glume Pubescence:	Absent
11. Plant Height (cm):	88.9	25. Seed Color:	White
12. Internodes:	Hollow	26. Seed Shape:	Oval
13. Spike Shape:	Tapering	27. Cheeks:	Rounded
14. Spike Density:	Dense	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Erect	29. Avg 1,000 Kernel Wt (g):	25

30. Physiological/Biochemical Traits: WB1376CLP has Als1 and Als2 mutations conferring resistance to Imazamox.

Variants and Frequency: A variant that is similar to WB1376CLP but has red seed occurs at a frequency of up to 0.5% (50 out of 10,000 seeds). A variant that is similar to WB1376CLP but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000).

6. Recognized classes of WB1376CLP are breeder, foundation, registered, and certified. Monsanto Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalty fees and/ or licensing agreements are anticipated.
7. Certified seed of WB1376CLP will likely be ready for commercial sale by the fall of 2015.
8. Application for Utility Patent and PVP for 4231598 are anticipated. Title V option will be taken.
9. Application of certified seed production acreage cannot be published.

Date this application was submitted: Jan 08, 2018 Date recommended by the VRB: Apr 10, 2018



Wheat

WB1604 BZ6W07-458 (Exp) (Amended – Variant Change)

Variety Name WB1604

Experimental Designation(s) BZ6W07-458

Date SGVRB first recommended this variety 2014

Date(s) any previous amendments were recommended

Date this amendment was submitted January 8, 2018

1. WB1604 is a soft white winter wheat developed by Monsanto Technology, LLC.
2. WB1604 was selected for yield, lodging resistance, high test weight and low protein and sedimentation values.
3. WB1604 is adapted to the soft white winter wheat growing areas of the Pacific Northwest.
4. WB1604 showed resistance to prevalent races of stripe rust in 2012.
5. Identifying characteristics –

1. Kind:	<u>Common Wheat</u>	2. Seasonal Growth Habit:	<u>Winter</u>
3. Coleoptile Color:	<u>White</u>	4. Juvenile Growth Habit:	<u>Prostrate</u>
5. Leaf Color at Boot:	<u>Green</u>	6. Flag Leaf at Boot:	<u>Recurved Twisted, Not Waxy</u>
7. Auricle Color:	<u>White</u>	8. Days to 50% Heading:	<u>171 (Julian)</u>
9. Anther Color:	<u>Yellow</u>	10. Stem Color:	<u>Anthocyanin Absent</u>
11. Plant Height (cm):	<u>87.7</u>	12. Internodes:	<u>Hollow</u>
13. Spike Shape:	<u>Oblong (Strap)</u>	14. Spike Density:	<u>Mid dense</u>
15. Spike Curvature:	<u>Inclined</u>	16. Awn Type:	<u>Awned</u>
17. Awn Color:	<u>White</u>	18. Glume Color:	<u>White</u>
19. Glume Length:	<u>Long</u>	20. Shoulder Shape:	<u>Square</u>
21. Shoulder Width:	<u>Wide</u>	22. Beak Shape:	<u>Acuminate</u>
23. Beak Length (S.M.L.VL):	<u>M</u>	24. Glume Pubescence:	<u>Absent</u>
25. Seed Color:	<u>White</u>	26. Seed Shape:	<u>Ovate</u>
27. Cheeks:	<u>Rounded</u>	28. Brush Size (S,M,L.):	<u>Long</u>
29. Avg 1,000 Kernel Wt (g):	<u>42</u>		

Physiological/Biochemical Traits: _____

Variants and Frequency: A variant that is similar to WB1604 but has red seed occurs at a frequency of up to 0.5% (50 out 10,000 seeds). A variant that is similar to WB1604 but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000).

6. Recognized classes of this variety will be breeder, foundation, registered, and certified. Monsanto will maintain the variety by the head-row purification method to produce breeder seed as needed and foundation seed will be produced from breeder or foundation class of seed.
7. Certified Seed of WB1604 will be available for planting in the fall of 2014.
8. Application will be made under the Plant Variety Protection Act and certification option will not be selected.
9. AOSCA and seed certifying agencies may not publish seed production acreages.

Date this application was submitted: Jan 08, 2018 Date recommended by the VRB: Apr 10, 2018



Wheat

WB4303

HV9W10-1002 (Exp) (Amended – Variant Change)

Variety Name WB4303

Experimental Designation(s) HV9W10-1002

Date SGVRB first recommended this variety Apr 18, 2016

Date(s) any previous amendments were recommended _____

Date this amendment was submitted January 16, 2018

1. WB4303 (HV9W10-1002) is a hard red winter wheat developed by the Monsanto LLC.
2. In early generations of WB4303, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality, and disease resistance.
3. WB4303 is adapted to the hard winter wheat growing regions of the Central Plains.
4. No claims about disease resistance are made at this time.

5. Identifying characteristics –

1. Kind:	Common, Hard Red Winter Wheat		
2. Seasonal Growth Habit:	<u>Winter</u>	16. Awn Type:	<u>Awned</u>
3. Coleoptile Color:	<u>White</u>	17. Awn Color:	<u>White</u>
4. Juvenile Growth Habit:	<u>Erect</u>	18. Glume Color:	<u>White</u>
5. Leaf Color at Boot:	<u>Green</u>	19. Glume Length:	<u>Long</u>
6. Flag Leaf at Boot:	<u>Erect, Twisted & Waxy</u>	20. Shoulder Shape:	<u>Rounded</u>
7. Auricle Color:	<u>White</u>	21. Shoulder Width:	<u>Wide</u>
8. Days to 50% Heading:	<u>131</u>	22. Beak Shape:	<u>Acuminate</u>
9. Anther Color:	<u>Yellow</u>	23. Beak Length (S.M.L.VL):	<u>Long</u>
10. Anthoncyanin:	<u>Absent</u>	24. Glume Pubescence:	<u>Absent</u>
11. Plant Height (cm):	<u>81.3</u>	25. Seed Color:	<u>Red</u>
12. Internodes:	<u>Hollow</u>	26. Seed Shape:	<u>Oval</u>
13. Spike Shape:	<u>Tapering</u>	27. Cheeks:	<u>Angular</u>
14. Spike Density:	<u>Mid-Dense</u>	28. Brush Size (S,M,L.):	<u>Medium</u>
15. Spike Curvature:	<u>Nodding</u>	29. Avg 1,000 Kernel Wt (g):	<u>40</u>

30. Physiological/Biochemical Traits:

Variants and off-types: A variant that is similar to WB4303 but has white seed occurs at a frequency of up to 0.2% (20 out 10,000 seeds). A variant that is similar to WB4303 but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000). Up to 4 off-type wheats/lb may be found in WB4303.

6. Recognized classes of WB4303 are breeder, foundation, registered, and certified. Monsanto Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalty fees and/ or licensing agreements are anticipated.
7. Commercial seed of WB4303 will likely be ready for commercial sale by the fall of 2015.
8. Application for a Utility Patent and PVP is anticipated for WB4303, but the option for Title V will not be taken.
9. Certified seed production acreage is not to be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 08, 2018 Date recommended by the VRB: Apr 10, 2018



Wheat
WB4311
XA4104 (Exp)

1. WB4311 is a hard red winter wheat developed by the Monsanto LLC.
2. In early generations of WB4311, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality and disease resistance.
3. WB4311 is adapted to the hard red winter wheat growing regions of the Pacific Northwest.
4. No claims about disease resistance are made at this time.
5. Identifying characteristics –

1. Kind:	Common, Hard Red Winter Wheat		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Semi-erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Blue-Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Recurved, Twisted, Wax	20. Shoulder Shape:	Apiculate
7. Auricle Color:	White	21. Shoulder Width:	Medium
8. Day(s) to 50% Heading:	177	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Long
10. Anthoncyanin:	Absent	24. Glume Pubescence:	Absent (glabrous)
11. Plant Height (cm):	94	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Oval
13. Spike Shape:	Oblong	27. Cheeks:	Rounded
14. Spike Density:	Lax	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (grams):	48.5

30. Physiological/Biochemical Traits:

Variants and Frequency: A variant that is similar to WB4311 but has white seed occurs at a frequency of up to 0.50% (50 out 10,000 seeds). A variant that is similar to WB4311 but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000).

6. Recognized classes of WB4311 are breeder, foundation, registered, and certified. Monsanto Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalty fees and/ or licensing agreements are anticipated.
7. Commercial seed will likely be ready for commercial sale by the fall of 2019.
8. Application for PVP is anticipated with the option that WB4311 can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage is not to be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 09, 2018

Date recommended by the VRB: Apr 27, 2018



Wheat
WB4418
XA4402 (Exp)

1. WB4418 is a hard red winter wheat developed by the Monsanto LLC.
2. In early generations of WB4418, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality and disease resistance.
3. WB4418 is adapted to the hard red winter wheat growing regions of the Central Plains.
4. No claims about disease resistance are made at this time.
5. Identifying characteristics –

1. Kind:	Common, Hard Red Winter Wheat		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Green	19. Glume Length:	Medium
6. Flag Leaf at Boot:	Erect, Twisted, Wax	20. Shoulder Shape:	Square
7. Auricle Color:	Purple	21. Shoulder Width:	Narrow
8. Day(s) to 50% Heading:	178	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Long
10. Anthocyanin:	Absent	24. Glume Pubescence:	Absent (glabrous)
11. Plant Height (cm):	89	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Oval
13. Spike Shape:	Tapering	27. Cheeks:	Rounded
14. Spike Density:	Lax	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (grams):	48.5

30. Physiological/Biochemical Traits:

Variants and Frequency: A variant that is similar to WB4418 but has white seed occurs at a frequency of up to 0.50% (50 out 10,000 seeds). A variant that is similar to WB4418 but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000).

6. Recognized classes of WB4418 are breeder, foundation, registered, and certified. Monsanto Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalty fees and/ or licensing agreements are anticipated.
7. Commercial seed will likely be ready for commercial sale by the fall of 2019.
8. Application for PVP is anticipated with the option that WB4418 can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage is not to be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 09, 2018

Date recommended by the VRB: Apr 27, 2018



Wheat
WB4575
BZ9W09-2075 (Exp)
(Amended – Variant Change)

Variety Name WB4575
 Experimental Designation(s) BZ9W09-2075
 Date SGVRB first recommended this variety 2017
 Date(s) any previous amendments were recommended
 Date this amendment was submitted January 8, 2018

1. WB4575 is a hard red winter wheat developed by the Monsanto LLC.
2. In early generations of WB4575, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality, and disease resistance.
3. WB4575 is adapted to the hard red winter wheat growing regions of Montana.
4. No claims about disease resistance are made at this time.
5. Identifying characteristics –

1. Kind:	<u>Common, Hard Red Winter Wheat</u>		
2. Seasonal Growth Habit:	<u>Winter</u>	16. Awn Type:	<u>Awned</u>
3. Coleoptile Color:	<u>White</u>	17. Awn Color:	<u>White</u>
4. Juvenile Growth Habit:	<u>Semi-erect</u>	18. Glume Color:	<u>White</u>
5. Leaf Color at Boot:	<u>Blue-Green</u>	19. Glume Length:	<u>Long</u>
6. Flag Leaf at Boot:	<u>Recurved, Twisted, Wax</u>	20. Shoulder Shape:	<u>Elevated</u>
7. Auricle Color:	<u>Purple</u>	21. Shoulder Width:	<u>Narrow</u>
8. Day(s) to 50% Heading:	<u>163</u>	22. Beak Shape:	<u>Acuminate</u>
9. Anther Color:	<u>Yellow</u>	23. Beak Length (S.M.L.VL):	<u>M</u>
10. Anthocyanin:	<u>Absent</u>	24. Glume Pubescence:	<u>Absent (glabrous)</u>
11. Plant Height (cm):	<u>78</u>	25. Seed Color:	<u>Red</u>
12. Internodes:	<u>Hollow</u>	26. Seed Shape:	<u>Oval</u>
13. Spike Shape:	<u>Tapering</u>	27. Cheeks:	<u>Angular</u>
14. Spike Density:	<u>Lax</u>	28. Brush Size (S,M,L.):	<u>Short</u>
15. Spike Curvature:	<u>Nodding</u>	29. Avg 1,000 Kernel Wt (g):	<u>38</u>

30. Physiological/Biochemical Traits:

Variants and Frequency: A variant that is similar to WB4575 but has white seed occurs at a frequency of up to 0.50% (50 out 10,000 seeds). A variant that is similar to WB4575 but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000).

6. Recognized classes of WB4575 are breeder, foundation, registered, and certified. Monsanto Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalty fees and/ or licensing agreements are anticipated.
7. Commercial seed of WB4575 will likely be ready for commercial sale by the fall of 2018.
8. Application for a Utility Patent and PVP is anticipated for BZ9W09-2075 and the option for Title V will not be taken.
9. Certified seed production acreage is not to be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 08, 2018 Date recommended by the VRB: Apr 10, 2018



Wheat

WB7202CLP XA7320 (Exp)

1. WB7202CLP is a Clearfield tolerant hard white spring wheat developed by the Monsanto LLC.
2. In early generations of WB7202CLP, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality and disease resistance.
3. WB7202CLP is adapted to the hard white spring wheat growing regions of the Pacific Northwest.
4. No claims about disease resistance are made at this time.
5. Identifying characteristics –

1. Kind:	Common, Hard White Spring Wheat		
2. Seasonal Growth Habit:	<u>Spring</u>	16. Awn Type:	<u>Awned</u>
3. Coleoptile Color:	<u>White</u>	17. Awn Color:	<u>White</u>
4. Juvenile Growth Habit:	<u>Prostrate</u>	18. Glume Color:	<u>White/Amber</u>
5. Leaf Color at Boot:	<u>Blue-Green</u>	19. Glume Length:	<u>Long</u>
6. Flag Leaf at Boot:	<u>Erect, Twisted, Wax</u>	20. Shoulder Shape:	<u>Apiculate</u>
7. Auricle Color:	<u>Purple</u>	21. Shoulder Width:	<u>Narrow</u>
8. Day(s) to 50% Heading:	<u>132</u>	22. Beak Shape:	<u>Acuminate</u>
9. Anther Color:	<u>Yellow</u>	23. Beak Length (S,M,L,VL):	<u>Long</u>
10. Anthocyanin:	<u>Absent</u>	24. Glume Pubescence:	<u>Absent (glabrous)</u>
11. Plant Height (cm):	<u>79</u>	25. Seed Color:	<u>White</u>
12. Internodes:	<u>Semi-solid</u>	26. Seed Shape:	<u>Oval</u>
13. Spike Shape:	<u>Tapering</u>	27. Cheeks:	<u>Angular</u>
14. Spike Density:	<u>Lax</u>	28. Brush Size (S,M,L):	<u>Short</u>
15. Spike Curvature:	<u>Inclined</u>	29. Avg 1,000 Kernel Wt (grams):	<u>48.5</u>

30. Physiological/Biochemical Traits:

Variants and Frequency: A variant that is similar to WB7202CLP but has red seed occurs at a frequency of up to 0.50% (50 out 10,000 seeds). A variant that is similar to WB7202CLP but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000).

6. Recognized classes of WB7202CLP are breeder, foundation, registered, and certified. Monsanto Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalty fees and/ or licensing agreements are anticipated.
7. Commercial seed will likely be ready for commercial sale by the spring of 2019.
8. Application for PVP is anticipated with the option that WB7202CLP can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage is not to be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 09, 2018

Date recommended by the VRB: Apr 27, 2018



Wheat
WB9350
Y9A13-0016 (Exp)
(Amended – Variant Change)

Variety Name WB9350
 Experimental Designation(s) Y9A13-0016
 Date SGVRB first recommended this variety 2017
 Date(s) any previous amendments were recommended
 Date this amendment was submitted January 8, 2018

1. WB9350 is a hard red spring wheat developed by the Monsanto LLC.
2. In early generations of WB9350, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality, and disease resistance.
3. WB9350 is adapted to the hard red spring wheat growing regions of California and the Pacific Northwest.
4. No claims about disease resistance are made at this time.
5. Identifying characteristics –

1. Kind:	<u>Common, Hard Red Spring Wheat</u>		
2. Seasonal Growth Habit:	<u>Spring</u>	16. Awn Type:	<u>Awned</u>
3. Coleoptile Color:	<u>White</u>	17. Awn Color:	<u>White</u>
4. Juvenile Growth Habit:	<u>Semi-erect</u>	18. Glume Color:	<u>White/Amber</u>
5. Leaf Color at Boot:	<u>Green</u>	19. Glume Length:	<u>Medium</u>
6. Flag Leaf at Boot:	<u>Erect, Twisted, Wax</u>	20. Shoulder Shape:	<u>Elevated</u>
7. Auricle Color:	<u>White</u>	21. Shoulder Width:	<u>Narrow</u>
8. Day(s) to 50% Heading:	<u>82</u>	22. Beak Shape:	<u>Acuminate</u>
9. Anther Color:	<u>Yellow</u>	23. Beak Length (S.M.L.VL):	<u>L</u>
10. Anthocyanin:	<u>Absent</u>	24. Glume Pubescence:	<u>Absent (glabrous)</u>
11. Plant Height (cm):	<u>76</u>	25. Seed Color:	<u>Red</u>
12. Internodes:	<u>Hollow</u>	26. Seed Shape:	<u>Oval</u>
13. Spike Shape:	<u>Tapering</u>	27. Cheeks:	<u>Angular</u>
14. Spike Density:	<u>Lax</u>	28. Brush Size (S,M,L.):	<u>S</u>
15. Spike Curvature:	<u>Nodding</u>	29. Avg 1,000 Kernel Wt (g):	<u>48.5</u>

30. Physiological/Biochemical Traits:

Variants and Frequency: A variant that is similar to WB9350 but has white seed occurs at a frequency of up to 0.50% (50 out 10,000 seeds). A variant that is similar to WB9350 but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000).

6. Recognized classes of WB9350 are breeder, foundation, registered, and certified. Monsanto Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalty fees and/ or licensing agreements are anticipated.
7. Commercial seed of WB9350 will likely be ready for commercial sale by the spring of 2018.
8. Application for a Utility Patent and PVP is anticipated for Y9A13-006 and the option for Title V will not be taken.
9. Certified seed production acreage is not to be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 08, 2018 Date recommended by the VRB: Apr 10, 2018



Wheat
WB9433
XA9503 (Exp)

1. WB9433 is a hard red spring wheat developed by the Monsanto LLC.
2. In early generations of WB9433, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality and disease resistance.
3. WB9433 is adapted to the hard red spring wheat growing regions of the Pacific Northwest.
4. No claims about disease resistance are made at this time.
5. Identifying characteristics –

1. Kind:	Common, Hard Red Spring Wheat		
2. Seasonal Growth Habit:	Spring	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Semi-erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Blue-Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Erect, Twisted, Wax	20. Shoulder Shape:	Wanting
7. Auricle Color:	Purple	21. Shoulder Width:	Narrow
8. Day(s) to 50% Heading:	70	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Long
10. Anthocyanin:	Absent	24. Glume Pubescence:	Absent (glabrous)
11. Plant Height (cm):	76	25. Seed Color:	Red
12. Internodes:	Semi-solid	26. Seed Shape:	Ovate
13. Spike Shape:	Tapering	27. Cheeks:	Rounded
14. Spike Density:	Lax	28. Brush Size (S,M,L.):	Short
15. Spike Curvature:	Nodding	29. Avg 1,000 Kernel Wt (grams):	48.5

30. Physiological/Biochemical Traits:

Variants and Frequency: A variant that is similar to WB9433 but has white seed occurs at a frequency of up to 0.50% (50 out 10,000 seeds). A variant that is similar to WB9433 but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000).

6. Recognized classes of WB9433 are breeder, foundation, registered, and certified. Monsanto Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalty fees and/ or licensing agreements are anticipated.
7. Commercial seed will likely be ready for commercial sale by the spring of 2019.
8. Application for PVP is anticipated with the option that WB9433 can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage is not to be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 09, 2018

Date recommended by the VRB: Apr 27, 2018



Wheat
WB9662
07651-10-0006 (Exp)
(Amended – Variant Change)

Variety Name WB9662

Experimental Designation(s) 07651-10-0006

Date SGVRB first recommended this variety Apr 25, 2017

Date(s) any previous amendments were recommended _____

Date this amendment was submitted January 9, 2018

1. WB9662 is a hard red spring wheat developed by the Monsanto LLC.
2. In early generations of WB9662, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality, and disease resistance.
3. WB9662 is adapted to the hard red spring wheat growing regions of the Pacific Northwest.
4. No claims about disease resistance are made at this time.
5. Identifying characteristics –

1. Kind:	<u>Common, Hard Red Spring Wheat</u>		
2. Seasonal Growth Habit:	<u>Spring</u>	16. Awn Type:	<u>Awned</u>
3. Coleoptile Color:	<u>White</u>	17. Awn Color:	<u>White</u>
4. Juvenile Growth Habit:	<u>Semi-erect</u>	18. Glume Color:	<u>White/Amber</u>
5. Leaf Color at Boot:	<u>Green</u>	19. Glume Length:	<u>Long</u>
6. Flag Leaf at Boot:	<u>Recurved, Twisted, Wax</u>	20. Shoulder Shape:	<u>Elevated</u>
7. Auricle Color:	<u>White</u>	21. Shoulder Width:	<u>Narrow</u>
8. Day(s) to 50% Heading:	<u>166</u>	22. Beak Shape:	<u>Acuminate</u>
9. Anther Color:	<u>Yellow</u>	23. Beak Length (S.M.L.VL):	<u>L</u>
10. Anthocyanin:	<u>Present</u>	24. Glume Pubescence:	<u>Absent (glabrous)</u>
11. Plant Height (cm):	<u>81.3</u>	25. Seed Color:	<u>Red</u>
12. Internodes:	<u>Hollow</u>	26. Seed Shape:	<u>Oval</u>
13. Spike Shape:	<u>Tapering</u>	27. Cheeks:	<u>Angular</u>
14. Spike Density:	<u>Lax</u>	28. Brush Size (S,M,L.):	<u>M</u>
15. Spike Curvature:	<u>Nodding</u>	29. Avg 1,000 Kernel Wt (g):	<u>38</u>

30. Physiological/Biochemical Traits:

Variants and Frequency: A variant that is similar to WB9662 but has white seed occurs at a frequency of up to 0.50% (50 out 10,000 seeds). A variant that is similar WB9662 but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000).

6. Recognized classes of WB9662 are breeder, foundation, registered, and certified. Monsanto Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalty fees and/ or licensing agreements are anticipated.
7. Commercial seed of WB9662 will likely be ready for commercial sale by the spring of 2018.
8. Application for a Utility Patent and PVP is anticipated for WB9662 and the option for Title V will not be taken.
9. Certified seed production acreage is not to be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 08, 2018 Date recommended by the VRB: Apr 10, 2018



Wheat
WB9717
XA9861 (Exp)

1. WB9717 is a hard red spring wheat developed by the Monsanto LLC.
2. In early generations of WB9717, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality and disease resistance.
3. WB9717 is adapted to the hard red spring wheat growing regions of the Pacific Northwest.
4. No claims about disease resistance are made at this time.
5. Identifying characteristics –

1. Kind:	Common, Hard Red Spring Wheat		
2. Seasonal Growth Habit:	Spring	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Semi-erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Blue-Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Erect, Twisted, Wax	20. Shoulder Shape:	Oblique
7. Auricle Color:	White	21. Shoulder Width:	Medium
8. Day(s) to 50% Heading:	169	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Long
10. Anthocyanin:	Absent	24. Glume Pubescence:	Absent (glabrous)
11. Plant Height (cm):	84	25. Seed Color:	Red
12. Internodes:	Semi-solid	26. Seed Shape:	Oval
13. Spike Shape:	Tapering	27. Cheeks:	Angular
14. Spike Density:	Lax	28. Brush Size (S,M,L.):	Short
15. Spike Curvature:	Erect	29. Avg 1,000 Kernel Wt (grams):	48.5

30. Physiological/Biochemical Traits:

Variants and Frequency: A variant that is similar to WB9717 but has white seed occurs at a frequency of up to 0.50% (50 out 10,000 seeds). A variant that is similar to WB9717 but is 15cm to 20cm taller occurs at a frequency of up to 0.2% (20/10,000). A bronze head variant may occur at a frequency of 0.1% (10/10,000). An awnless variant may occur at a frequency of 0.1% (10/10,000).

6. Recognized classes of WB9717 are breeder, foundation, registered, and certified. Monsanto Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalty fees and/ or licensing agreements are anticipated.
7. Commercial seed will likely be ready for commercial sale by the spring of 2019.
8. Application for PVP is anticipated with the option that WB9717 can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage is not to be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 09, 2018

Date recommended by the VRB: Apr 27, 2018



Wheat

SNR-0003

SJ808-003 (Exp)

(Amended – Name Change)

Variety Name SNR-0003

Experimental Designation(s) SJ808-003

Date SGVRB first recommended this variety 8/8/17

Date(s) any previous amendments were recommended

Date this amendment was submitted 12/7/17

1. SNR-0003 is a spring durum wheat variety developed by Second Nature Research LLC.
2. SNR-0003 was selected for high yield, high test weight, and good pasta making quality. The breeding method used was a selected spike bulk modified pedigree
3. SNR-0003 is adapted to the irrigated durum growing areas of the Southwest United States.
4. SNR-0003 is resistant to current races of stripe rust in California.
5. Identifying characteristics –

1. Kind:	<u>Durum, Spring Wheat</u>	16. Awn Type:	<u>Awned</u>
2. Seasonal Growth Habit:	<u>Spring</u>	17. Awn Color:	<u>Black</u>
3. Coleoptile Color:	<u>White</u>	18. Glume Color:	<u>White/Amber</u>
4. Juvenile Growth Habit:	<u>Erect</u>	19. Glume Length:	<u>Long</u>
5. Leaf Color at Boot:	<u>Blue-Green</u>	20. Shoulder Shape:	<u>Oblique</u>
6. Flag Leaf at Boot:	<u>Erect, Twisted, Wax Present</u>	21. Shoulder Width:	<u>Narrow</u>
7. Auricle Color:	<u>White</u>	22. Beak Shape:	<u>Acuminate</u>
8. Day(s) to 50% Heading:	<u>89</u>	23. Beak Length (S,M,L,VL):	<u>Medium</u>
9. Anther Color:	<u>Yellow</u>	24. Glume Pubescence:	<u>Present</u>
10. Anthocyanin:	<u>Absent</u>	25. Seed Color:	<u>Amber</u>
11. Plant Height (cm):	<u>88.9</u>	26. Seed Shape:	<u>Elliptical</u>
12. Internodes:	<u>Hollow</u>	27. Cheeks:	<u>Rounded</u>
13. Spike Shape:	<u>Oblong</u>	28. Brush Size (S,M,L.):	<u>Medium</u>
14. Spike Density:	<u>Dense</u>	29. Avg 1,000 Kernel Wt (g):	<u>64.5</u>
15. Spike Curvature:	<u>Inclined</u>		

30. Physiological/Biochemical Traits:

Variants and Frequency: SNR-0003 has been observed for four generations of reproduction and increases and is stable and uniform. SNR-0003 has a taller variant that is 12-30cm taller that occurs at a frequency of up to 0.2%. A white awn variant occurs at a frequency of up to 0.2%. The variants are otherwise identical in all other characteristics described.

6. The certified classes of seed to be recognized of SNR-0003 are Breeder, Foundation, Registered and Certified. Second Nature Research LLC, will maintain the breeders seed by planting spike rows as needed. SJ 808-003 will have a royalty fee and licensing agreement required.
7. Certified seed of SNR-0003 will likely be offered for planting in the fall of 2017.
8. Application for Plant Variety Protection will be applied for in 2017.
9. Certified acreage is not to be published by AOSCA or individual certifying agencies.

Date this application was submitted: Dec 07, 2017 Date recommended by the VRB: Mar 28, 2018



Wheat

SNR-0068

YU809-068 (Exp)

(Amended – Name Change)

Variety Name SNR-0068

Experimental Designation(s) YU809-068

Date SGVRB first recommended this variety 8/8/17

Date(s) any previous amendments were recommended _____

Date this amendment was submitted 12/7/17

1. SNR-0068 is a spring durum wheat variety developed by Second Nature Research LLC.
2. SNR-0068 was selected for high yield, lodging resistance, low cadmium accumulation and good pasta making quality. The breeding method used was a selected spike bulk modified pedigree.
3. SNR-0068 is adapted to the irrigated durum growing areas of the Southwest United States.
4. SNR-0068 is moderately resistant to leaf rust and stripe rust which have a low occurrence in its area of intended use.
5. Identifying characteristics –

1. Kind:	<u>Durum, Spring Wheat</u>	16. Awn Type:	<u>Awned</u>
2. Seasonal Growth Habit:	<u>Spring</u>	17. Awn Color:	<u>Black</u>
3. Coleoptile Color:	<u>White</u>	18. Glume Color:	<u>White/Amber</u>
4. Juvenile Growth Habit:	<u>Erect</u>	19. Glume Length:	<u>Long</u>
5. Leaf Color at Boot:	<u>Green</u>	20. Shoulder Shape:	<u>Oblique</u>
6. Flag Leaf at Boot:	<u>Erect, Twisted, Wax Present</u>	21. Shoulder Width:	<u>Narrow</u>
7. Auricle Color:	<u>White</u>	22. Beak Shape:	<u>Acuminate</u>
8. Day(s) to 50% Heading:	<u>93</u>	23. Beak Length (S.M.L.VL):	<u>Medium</u>
9. Anther Color:	<u>Yellow</u>	24. Glume Pubescence:	<u>Present</u>
10. Anthocyanin:	<u>Absent</u>	25. Seed Color:	<u>Amber</u>
11. Plant Height (cm):	<u>81.25</u>	26. Seed Shape:	<u>Elliptical</u>
12. Internodes:	<u>Semi-solid</u>	27. Cheeks:	<u>Rounded</u>
13. Spike Shape:	<u>Oblong</u>	28. Brush Size (S,M,L.):	<u>Short</u>
14. Spike Density:	<u>Dense</u>	29. Avg 1,000 Kernel Wt (g):	<u>56</u>
15. Spike Curvature:	<u>Erect</u>		

30. Physiological/Biochemical Traits: Low Cadmium

Variants and Frequency: SNR-0068 has been observed for three generations of reproduction and increases and is stable and uniform. SNR-0068 has a taller variant that is 12-30cm taller that occurs at a frequency of up to 0.2%. A white awn variant occurs at a frequency of up to 0.2%. The variants are otherwise identical in all other characteristics described.

6. The certified classes of seed to be recognized of SNR-0068 are Breeder, Foundation, Registered and Certified. Second Nature Research LLC, will maintain the breeder seed by planting spike rows as needed. SNR-0068 will have a royalty fee and licensing agreement required
7. Certified Seed of YU809-068 will likely be offered for planting in the fall of 2017.
8. Application for Plant Variety Protection will be applied for in 2017.
9. Certified acreage is not to be published by AOSCA or individual certifying agencies.

Date this application was submitted: Dec 07, 2017 Date recommended by the VRB: Mar 28, 2018



Wheat

SY Legend CL2 07CL046-2 (Exp)

1. SY Legend CL2 is a hard red winter wheat bred and developed by Syngenta Participations AG.
2. SY Legend CL2 was selected for type, disease, Greenleaf duration, herbicide tolerance, test weight, yield and quality.
3. 07CL046-2 is primarily adapted to Western High Plains spanning from Texas panhandle through Oklahoma panhandle, western Kansas, eastern Colorado, and western Nebraska and panhandle.
4. SY Legend CL2 demonstrates good tolerance to leaf rust, stripe rust, barley yellow dwarf virus and soil born mosaic virus.
5. Identifying characteristics –

1. Kind:	Common, Hard Red Winter Wheat		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Erect	18. Glume Color:	Tan
5. Leaf Color at Boot:	Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Re-curved, Twisted, Wax Absent	20. Shoulder Shape:	Oblique
7. Auricle Color:	Purple	21. Shoulder Width:	Medium
8. Day(s) to 50% Heading:	124	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Medium
10. Anthocyanin:	Present	24. Glume Pubescence:	Absent
11. Plant Height (cm):	81	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Ovate
13. Spike Shape:	Tapering	27. Cheeks:	Angular
14. Spike Density:	Lax	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (grams):	35

30. Physiological/Biochemical Traits:

Variants and Frequency: Up to 1.0% variant plants may be encountered in subsequent generations. We also would expect to see up to 1.8% white seed variant.”

6. Syngenta Seeds, LLC. maintains seed stock and certified classes of Foundation, Registered and Certified. Syngenta Seeds, LLC. will maintain the variety by the head row/progeny method to produce breeder seed as needed.
7. Certified seed will likely be available in the Fall of 2018.
8. Plant Variety Protection is anticipated in 2018 and SY Legend CL2 may only be sold as a class of certified seed.
9. Certified acreage is not to be published by AOSCA and certifying agencies.

Date this application was submitted: Jan 09, 2018

Date recommended by the VRB: Apr 18, 2018



Wheat
122009W
M13-4009# (Exp)

1. 122009W is a soft red winter wheat bred and developed by Syngenta Participations AG.
2. 122009W was selected for grain yield, test weight, height, maturity, appearance, and disease resistance.
3. 122009W is primarily adapted to areas of Virginia, Maryland and Pennsylvania in the Mid-Atlantic and northern Indiana, Ohio, and southern Michigan of the upper Midwest.
4. 122009W has moderate resistance to stripe rust, leaf rust, fusarium head blight, and powdery mildew.
5. Identifying characteristics –

1. Kind:	Common, Soft Red Winter Wheat		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awnless
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Blue-Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Erect, Not-twisted, Wax Present	20. Shoulder Shape:	Oblique
7. Auricle Color:	White	21. Shoulder Width:	Medium
8. Day(s) to 50% Heading:	127	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Short
10. Anthoncyanin:	Absent	24. Glume Pubescence:	Absent
11. Plant Height (cm):	87	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Ovate
13. Spike Shape:	Oblong	27. Cheeks:	Rounded
14. Spike Density:	Middense	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (grams):	36

30. Physiological/Biochemical Traits:

Variants and Frequency: Approximately 0.6% of plants were rogued from the breeder seed increase in Berthoud, CO in 2017. Of these variants, approximately 78% were taller (>3 inches) and the other 22% were awned, and a small percentage were deemed off-type. Up to 1% variant plants may be encountered in subsequent generations.

6. Syngenta Seeds, LLC. maintains seed stock and certified classes of Foundation, Registered and Certified. Syngenta Seeds, LLC. will maintain the variety by the head row/progeny method to produce breeder seed as needed.
7. Certified seed will likely be available in the Fall of 2018.
8. Plant Variety Protection is anticipated in 2018 without the option for Title V.
9. Certified acreage is not to be published by AOSCA and certifying agencies.

Date this application was submitted: Jan 09, 2018

Date recommended by the VRB: Apr 18, 2018



Wheat

SY Candor 09PN008#72 (Exp)

1. SY Candor is a soft white winter wheat bred and developed by Syngenta Participations AG.
2. SY Candor was selected for height, maturity, appearance, kernel color, kernel soundness, disease reaction and end use quality.
3. SY Candor is primarily adapted to intermediate to high rainfall areas. It appears well suited to irrigated and high rainfall production areas of Southern Idaho as well.
4. SY Candor has shown above average tolerance to current races of stripe rust.
5. Identifying characteristics –

1. Kind:	Common, Soft White Winter Wheat		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Re-curved, Not-Twisted, Wax Absent	20. Shoulder Shape:	Wanting
7. Auricle Color:	Purple	21. Shoulder Width:	Narrow
8. Day(s) to 50% Heading:	148	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Long
10. Anthoncyanin:	Absent	24. Glume Pubescence:	Absent (glabrous)
11. Plant Height (cm):	73.2	25. Seed Color:	White
12. Internodes:	Hollow	26. Seed Shape:	Ovate
13. Spike Shape:	Tapering	27. Cheeks:	Rounded
14. Spike Density:	Mid Dense	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (grams):	49.7

30. Physiological/Biochemical Traits:

Variants and Frequency: Less than 0.5% of plants were rogued from the Breeder Seed increase. Ninety percent of the variant plants were taller (8 to 12 cm). Six percent of the variants were awnless as opposed to the predominant awned typed. Up to 0.5% variant plants may be encountered in subsequent generations. Up to 0.3% red seed may be encountered in all classes of certified production.

6. Syngenta Seeds, LLC. maintains seed stock and certified classes of Foundation, Registered and Certified. Syngenta Seeds, LLC. will maintain the variety by the head row/progeny method to produce breeder seed as needed.
7. Certified seed will likely be available in the Fall of 2018.
8. Plant Variety Protection is anticipated in 2018 and SY Candor may only be sold as a class of certified seed.
9. Certified acreage is not to be published by AOSCA and certifying agencies.

Date this application was submitted: Jan 09, 2018

Date recommended by the VRB: Apr 18, 2018



Wheat

SY Collins

B13*3189 (Exp)

1. SY Collins is a soft red winter wheat bred and developed by Syngenta Participations AG. The variety name, SY Collins, was selected to honor long-time University of Arkansas and CR Seeds/Northrup King Seed Co. wheat breeder, Dr. Fred Collins.
2. SY Collins was selected for height, maturity, appearance, kernel color, kernel soundness, disease reaction and end use quality.
3. SY Collins is primarily adapted to the wheat growing areas of Louisiana and southern Georgia extending north into the eastern Atlantic coastal plain areas of the Carolinas.
4. SY Collins shown moderate-to-good resistance to the current races of leaf rust and stripe rust in these areas. In lab testing it has also show tolerance to Hessian Fly biotypes B, C, and D.

5. Identifying characteristics –

1. Kind:	<u>Common, Soft Red Winter Wheat</u>	
2. Seasonal Growth Habit:	<u>Winter</u>	16. Awn Type: <u>Awned</u>
3. Coleoptile Color:	<u>White</u>	17. Awn Color: <u>White</u>
4. Juvenile Growth Habit:	<u>Erect</u>	18. Glume Color: <u>White/Amber</u>
5. Leaf Color at Boot:	<u>Green</u>	19. Glume Length: <u>Medium</u>
6. Flag Leaf at Boot:	<u>Erect, Not-twisted, Wax Absent</u>	20. Shoulder Shape: <u>Oblique</u>
7. Auricle Color:	<u>White</u>	21. Shoulder Width: <u>Medium</u>
8. Day(s) to 50% Heading:	<u>89.8</u>	22. Beak Shape: <u>Acute</u>
9. Anther Color:	<u>Yellow</u>	23. Beak Length (S,M,L,VL): <u>Medium</u>
10. Anthoncyanin:	<u>Absent</u>	24. Glume Pubescence: <u>Present</u>
11. Plant Height (cm):	<u>101.5</u>	25. Seed Color: <u>Red</u>
12. Internodes:	<u>Hollow</u>	26. Seed Shape: <u>Ovate</u>
13. Spike Shape:	<u>Tapering</u>	27. Cheeks: <u>Rounded</u>
14. Spike Density:	<u>Mid-Dense</u>	28. Brush Size (S,M,L.): <u>Medium</u>
15. Spike Curvature:	<u>Inclined</u>	29. Avg 1,000 Kernel Wt (grams): <u>34</u>

30. Physiological/Biochemical Traits:

Variants and Frequency: Approximately 0.06 % of the total plants were rogued from the Breeder’s seed increase in 2017. Of the variant plants rogued, approximately 88 % were taller in height (> 7.6 cm taller) and 12 % were awnless. Up to 1.0% variant plants may be encountered in subsequent generations.

6. Syngenta Seeds, LLC. maintains seed stock and certified classes of Foundation, Registered and Certified. Syngenta Seeds, LLC. will maintain the variety by the head row/progeny method to produce breeder seed as needed.
7. Certified seed will likely be available in the Fall of 2018.
8. Plant Variety Protection is anticipated in 2018 and SY Collins may only be sold as a class of certified seed.
9. Certified acreage is not to be published by AOSCA and certifying agencies.

Date this application was submitted: Jan 09, 2018 Date recommended by the VRB: Apr 18, 2018



Wheat

SY Sienna

13W00886 (Exp)

1. SY Sienna is a hard red spring wheat bred and developed by Syngenta Participations AG.
2. SY Sienna was selected for yield, testweight, stripe rust reaction, maturity, plant height, uniformity and end use quality.
3. SY Sienna is primarily adapted to the wheat growing areas of California.
4. SY Sienna has shown above average tolerance to current races of stripe rust.
5. Identifying characteristics –

1. Kind:	Common, Hard Red Spring Wheat		
2. Seasonal Growth Habit:	Spring	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Blue-Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Erect, Not Twisted, Wax Absent	20. Shoulder Shape:	Wanting
7. Auricle Color:	Purple	21. Shoulder Width:	Narrow
8. Day(s) to 50% Heading:	87	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Long
10. Anthocyanin:	Absent	24. Glume Pubescence:	Absent
11. Plant Height (cm):	73	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Ovate
13. Spike Shape:	Oblong	27. Cheeks:	Angular
14. Spike Density:	Mid Dense	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (grams):	46

30. Physiological/Biochemical Traits:

Variants and Frequency: SY Sienna has been uniform and stable since 2016. Less than 0.5% of the plants were rogued from the Breeder. Seventy five percent of the variant plants were taller height wheat plants (4 to 8 cm). Twenty-five percent of the variants off chaff color at maturity (light Bronze). White seeded variant of approximately 0.5% may be encountered in subsequent generations. Up to 1.0% of the variant plants may be encountered in subsequent generations.

6. Syngenta Seeds, LLC. maintains seed stock and certified classes of Foundation, Registered and Certified. Syngenta Seeds, LLC. will maintain the variety by the head row/progeny method to produce breeder seed as needed.
7. Certified seed will likely be available in the Fall of 2018.
8. Plant Variety Protection is anticipated in 2018 and SY Sienna may only be sold as a class of certified seed.
9. Certified acreage is not to be published by AOSCA and certifying agencies.

Date this application was submitted: Jan 09, 2018

Date recommended by the VRB: Apr 18, 2018



Wheat
WHR7110
10BC163#56 (Exp)

1. WHR7110 is a hard red winter wheat bred and developed by Syngenta Participations AG.
2. WHR7110 was selected for height, maturity, greenleaf duration, disease reaction and end use quality.
3. WHR7110 is primarily adapted to central Kansas and north central Oklahoma.
4. WHR7110 has shown above average tolerance to soil borne mosaic virus, leaf rust, and barley yellow dwarf virus, as well as good low pH tolerance.

5. Identifying characteristics –

1. Kind:	Common, Hard Red Winter Wheat		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Re-curved, Twisted, Wax Absent	20. Shoulder Shape:	Oblique
7. Auricle Color:	White	21. Shoulder Width:	Narrow
8. Day(s) to 50% Heading:	119	22. Beak Shape:	Acute
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Medium
10. Anthocyanin:	Present	24. Glume Pubescence:	Absent
11. Plant Height (cm):	86	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Ovate
13. Spike Shape:	Tapering	27. Cheeks:	Rounded
14. Spike Density:	Lax	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (grams):	35

30. Physiological/Biochemical Traits:

Variants and Frequency: Approximately 0.08% of the plants were rogued from the Breeder's seed increase in 2016. Approximately 98.8% of the rogued variant plants were taller height wheat plants (8 to 15 cm), 0.7% were awnless, and the other remaining 0.4% being of the off type. Up to 1.0% variant plants may be encountered in subsequent generations. We also would expect to see up to 1.8% white seed variant.

6. Syngenta Seeds, LLC. maintains seed stock and certified classes of Foundation, Registered and Certified. Syngenta Seeds, LLC. will maintain the variety by the head row/progeny method to produce breeder seed as needed.
7. Certified seed will likely be available in the Fall of 2018.
8. Plant Variety Protection is anticipated in 2018 without the option for Title V.
9. Certified acreage is not to be published by AOSCA and certifying agencies.

Date this application was submitted: Jan 09, 2018

Date recommended by the VRB: Apr 18, 2018



Barley

Pronto

SJ508-447e (Exp)

(Amended – Name Change)

Variety Name Pronto

Experimental Designation(s) SJ508-447e

Date SGVRB first recommended this variety 8/8/17

Date(s) any previous amendments were recommended n/a

Date this amendment was submitted 12/6/17

1. Pronto two-rowed spring forage barley, was developed by WestBred/a unit of Monsanto, from the cross of UC932/YU597-432//Stockford. (Ownership of all barley germplasm has been transferred from WestBred/Monsanto to Highland Specialty Grains).
2. Agronomically desired rows were selected based on standability, tillering, and resistance to leaf rust and stripe rust. Pronto was advanced through the standard pedigree breeding method.
3. Pronto has been tested and shown adaptation to the irrigated acres of Eastern Washington.
4. Pronto is moderately resistant to leaf rust and barley stripe rust.

5. Identifying characteristics –

1. Growth Habit:	<u>Spring</u>	16. Plant Height (see below):	<u></u>
2. Spike:	<u>Two-rowed</u>	17. Spike Shape:	<u>Clavate</u>
3. Coleoptile Color:	<u>Green</u>	18. Spike Density:	<u>Mid-Dense</u>
4. Juvenile Growth Habit:	<u>Prostrate</u>	19. Spike Position at Maturity:	<u>Inclined</u>
5. Plant Tillering:	<u>Intermediate</u>	20. Hairiness of Rachis Edge:	<u>Covered</u>
6. Leaf Color at Boot:	<u>Green</u>	21. Rachilla Hair Length:	<u>Long</u>
7. Flag Leaf at Boot:	<u>Erect, Not-Twisted, Waxy Bloom</u>	22. Lemma Awns:	<u>Sessile Hoods</u>
8. Pubescence on Leaf Blade:	<u>No</u>	23. Length of Lemma Awns:	<u>n/a</u>
9. Pubescence on Leaf Sheath:	<u>No</u>	24. Lemma Awn Surface:	<u>n/a</u>
10. Auricle Color:	<u>White</u>	25. Glume Hairiness:	<u>Covered</u>
11. Heading Date (see below):	<u></u>	26. Glume Awn Surface:	<u>Rough</u>
12. Stem Color:	<u>White</u>	27. Glume/Lemma Adherence:	<u>Covered</u>
13. Neck Shape:	<u>Straight</u>	28. Texture (if covered):	<u>Slightly Wrinkled</u>
14. Collar Shape:	<u>V-shaped</u>	29. Aleurone Color:	<u>Colorless</u>
15. Spike Exsertion:	<u>Full</u>	30. Avg 1,000 Kernel Wt (g):	<u>40.6</u>

Heading date: 77 days which is: 5 Days EARLIER than: Stockford

Plant height: 65.0 cm, which is 30 cm SHORTER than: Stockford

Physiological or Biochemical Traits:

Variants and Frequency: Pronto is stable and uniform in appearance and performance, which has been observed through the F6 through F10 generations. Pronto may contain a tall variant (3-6 inches taller), and earlier heading variant (2-4 days earlier), at frequencies of up to 6/10,000 plants (0.06%). An awned variant may occur at 2/10,000 plants (0.02%). No other variants are known to occur.

Continued on next page (37)



Barley

Pronto

SJ508-447e (Exp)

(Amended – Name Change)

Variety Name Pronto

Experimental Designation(s) SJ508-447e

Date SGVRB first recommended this variety 8/8/17

Date(s) any previous amendments were recommended n/a

Date this amendment was submitted 12/6/17

6. Highland Specialty Grains will maintain breeder seed by planting head rows when necessary. The certified classes of seed shall be: Foundation, Registered, and Certified.
7. Certified seed will possibly be sold in the fall of 2017.
8. Application will be made for protection in the United States of America under the Plant Variety Protection Act.
9. Certified seed production acreage is not to be published by AOSCA and certifying agencies.

Date this application was submitted: Dec 06, 2017

Date recommended by the VRB: Mar 28, 2018



Barley
Mayflower
08032-156 (Exp)

1. Mayflower is a spring malting barley developed and marketed by Malteurop North America.
2. Mayflower was selected for malting quality, yield, % plump, test weight and other agronomic characteristics that are desirable for a two-rowed malting barley.
3. The area of adaptation will primarily be Montana but may also be produced in North Dakota and the Prairie Provinces of Canada.
4. No claims are made with respect to disease or insect pest reaction for this variety.
5. Identifying characteristics –

1. Growth Habit:	<u>Spring</u>	16. Plant Height (see below):	<u>62 cm</u>
2. Spike:	<u>Two-rowed</u>	17. Spike Shape:	<u>Fusiform</u>
3. Coleoptile Color:	<u>Green</u>	18. Spike Density:	<u>Lax</u>
4. Juvenile Growth Habit:	<u>Erect</u>	19. Spike Position at Maturity:	<u>Inclined</u>
5. Plant Tillering:	<u>Intermediate</u>	20. Hairiness of Rachis Edge:	<u>Covered</u>
6. Leaf Color at Boot:	<u>Green</u>	21. Rachilla Hair Length:	<u>Long</u>
7. Flag Leaf at Boot:	<u>Erect, Twisted, Waxy</u>	22. Lemma Awns:	<u>Straight</u>
8. Pubescence on Leaf Blade:	<u>No</u>	23. Length of Lemma Awns:	<u>Long</u>
9. Pubescence on Leaf Sheath:	<u>No</u>	24. Lemma Awn Surface:	<u>Rough</u>
10. Auricle Color:	<u>White</u>	25. Glume Hairiness:	<u>Covered</u>
11. Heading Date (see below):	<u>187 Julian</u>	26. Glume Awn Surface:	<u>Rough</u>
12. Stem Color:	<u>White at Maturity</u>	27. Glume/Lemma Adherence:	<u>Covered</u>
13. Neck Shape:	<u>Straight</u>	28. Texture (if covered):	<u>Slightly Wrinkled</u>
14. Collar Shape:	<u>Closed</u>	29. Aleurone Color:	<u>Colorless</u>
15. Spike Exertion:	<u>Slight</u>	30. Avg 1,000 Kernel Wt (ggrams):	<u>46.3</u>

Heading date: 187 which is: 0 Day(s) (EARLIER) (LATER) than: AC Metcalfe

Plant height: 62 cm, which is 19 cm (SHORTER) AC Metcalfe

Physiological or Biochemical Traits:

Variants and Frequency: No variants have been observed to occur.

6. Recognized classes of Mayflower are breeder, foundation, registered, and certified. Malteurop North America will maintain the variety by the head-row method to produce breeder seed as needed and will produce all foundation seed. A royalty fee and licensing agreements are anticipated.
7. Certified seed will likely be available for the 2019 spring growing season, if accepted as eligible.
8. Application will be submitted for protection under the U.S. Plant Variety Protection Act in 2018 and the Title V option will be taken.
9. Certified seed production acreage is not to be published by AOSCA and certifying agencies.

Date this application was submitted: Jan 09, 2018 Date recommended by the VRB: Apr 10, 2018



Triticale

348612571 11T70171 (Exp)

1. 348612571 (11T70171) is a spring triticale developed by Northern Agri-Brands LLC.
2. 348612571 was selected for its silage yield production, improved grain yield, and early maturity.
3. 348612571 has been tested and found to be adaptive to areas within California.
4. 348612571 is significantly earlier than Trical 105.
5. Identifying characteristics –

1. Ploidy:	<u>Hexaploid</u>	15. Awn Color:	<u>White</u>
2. Growth Habit:	<u>Spring</u>	16. Glume Pubescence:	<u>Glabrous</u>
3. Photoperiod Reaction:	<u>Insensitive</u>	17. Glume Color:	<u>White</u>
4. Winterhardiness:	<u>Medium</u>	18. Glume Length:	<u>Mid-Long</u>
5. Maturity:	<u>Very Early</u>	19. Glume Width:	<u>Mid-Wide</u>
6. Height:	<u>Mid-Tall</u>	20. Glume Shoulder Shape:	<u>Wanting</u>
7. Plant Color at Boot Stage:	<u>Blue-Green</u>	21. Glume Beak Shape:	<u>Acuminate</u>
8. Stem Anthocyanin:	<u>Absent</u>	22. Coleoptile Color:	<u>White</u>
9. Neck Hairiness:	<u>Moderate</u>	23. Seed Shape:	<u>Elliptical</u>
10. Neck Shape:	<u>Wavy</u>	24. Seed Smoothness:	<u>Slightly Wrinkled</u>
11. Flag Leaf at Boot:	<u>Twisted, Erect, & Waxy</u>	25. Seed Brush Area:	<u>Small</u>
12. Spike Density:	<u>Dense</u>	26. Seed Brush Length:	<u>Short</u>
13. Spike Shape:	<u>Fusiform</u>	27. Seed Color:	<u>Red</u>
14. Spike Awnedness:	<u>Awned</u>	28. Seed Relative Size:	<u>Med-Large</u>

Unique Physiological/Biochemical Traits: _____

Variants and Frequency: Tall plants observed occurring at the rate of 1 per 1000 plants in subsequent generations.

6. Recognized classes of 348612571 are breeder, foundation, registered, and certified. Northern Agri-Brands LLC will maintain the variety by the head-row system to produce breeder seed if needed
7. Certified seed of 348612571 will be available 2018.
8. Application for Plant Variety Protection will be submitted in 2018 and the title V option will not be selected.
9. Certified seed production acreage may not be published by AOSCA or other Certification agencies.

Date this application was submitted: Jan 08, 2018 Date recommended by the VRB: Apr 27, 2018



Triticale

530690862 14T00238 (Exp)

1. 530690862 (14T00238) is an intermediate triticale developed by Northern Agri-Brands LLC.
2. 530690862 was selected for its silage yield production, improved grain yield, and earlier maturity than Lance.
3. 530690862 has been tested and found to be adaptive to areas within California.
4. 530690862 is significantly earlier than Lance.
5. Identifying characteristics –

1. Ploidy:	<u>Hexaploid</u>	15. Awn Color:	<u>NA</u>
2. Growth Habit:	<u>Intermediate</u>	16. Glume Pubescence:	<u>Pubescent</u>
3. Photoperiod Reaction:	<u>Insensitive</u>	17. Glume Color:	<u>Yellow</u>
4. Winterhardiness:	<u>Medium</u>	18. Glume Length:	<u>Mid-Long</u>
5. Maturity:	<u>Late</u>	19. Glume Width:	<u>Narrow</u>
6. Height:	<u>Mid-Tall</u>	20. Glume Shoulder Shape:	<u>Wanting</u>
7. Plant Color at Boot Stage:	<u>Blue-Green</u>	21. Glume Beak Shape:	<u>Acuminate</u>
8. Stem Anthocyanin:	<u>Absent</u>	22. Coleoptile Color:	<u>White</u>
9. Neck Hairiness:	<u>Slight</u>	23. Seed Shape:	<u>Elliptical</u>
10. Neck Shape:	<u>Wavy</u>	24. Seed Smoothness:	<u>Slightly Wrinkled</u>
11. Flag Leaf at Boot:	<u>Twisted, Erect, & Waxy</u>	25. Seed Brush Area:	<u>Mid-Size</u>
12. Spike Density:	<u>Mid-Dense</u>	26. Seed Brush Length:	<u>Short</u>
13. Spike Shape:	<u>Fusiform</u>	27. Seed Color:	<u>Amber</u>
14. Spike Awedness:	<u>Awnless</u>	28. Seed Relative Size:	<u>Medium</u>

Unique Physiological/Biochemical Traits: _____

Variants and Frequency: Tall/Awned plants observed occurring at the rate of 1 per 1000 plants in subsequent generations.

6. Recognized classes of 530690862 are breeder, foundation, registered, and certified. Northern Agri-Brands LLC will maintain the variety by the head-row system to produce breeder seed if needed.
7. Certified seed of 530690862 will be available 2018.
8. Application for Plant Variety Protection will be submitted in 2018 and the title V option will not be selected.
9. Certified seed production acreage may not be published by AOSCA or other Certification agencies.

Date this application was submitted: Jan 08, 2018 Date recommended by the VRB: Apr 27, 2018



Triticale

690724516 APT11A30412 (Exp)

1. 690724516 (APT11A30412) is a winter triticale developed by Northern Agri-Brands LLC.
2. 690724516 was selected for its Silage yield production, improved grain yield, Early Maturity and Awn Length.
3. 690724516 has been tested and found to be adaptive to Great Plains region of the US including Kansas, Oklahoma, and Texas.
4. No Claims about disease resistance are made at this time.
5. Identifying characteristics –

1. Ploidy:	<u>Hexaploid</u>	15. Awn Color:	<u>N/A</u>
2. Growth Habit:	<u>Intermediate</u>	16. Glume Pubescence:	<u>Pubescent</u>
3. Photoperiod Reaction:	<u>Insensitive</u>	17. Glume Color:	<u>Yellow</u>
4. Winterhardiness:	<u>Medium</u>	18. Glume Length:	<u>Long</u>
5. Maturity:	<u>Early</u>	19. Glume Width:	<u>Narrow</u>
6. Height:	<u>Mid-Tall</u>	20. Glume Shoulder Shape:	<u>Wanting</u>
7. Plant Color at Boot Stage:	<u>Green</u>	21. Glume Beak Shape:	<u>Acuminate</u>
8. Stem Anthocyanin:	<u>Absent</u>	22. Coleoptile Color:	<u>White</u>
9. Neck Hairiness:	<u>Moderate</u>	23. Seed Shape:	<u>Elliptical</u>
10. Neck Shape:	<u>Straight</u>	24. Seed Smoothness:	<u>Slightly Wrinkled</u>
11. Flag Leaf at Boot:	<u>Twisted, Erect, Waxy</u>	25. Seed Brush Area:	<u>Large</u>
12. Spike Density:	<u>Mid-Dense</u>	26. Seed Brush Length:	<u>Mid-Long</u>
13. Spike Shape:	<u>Fusiform</u>	27. Seed Color:	<u>Amber</u>
14. Spike Awnedness:	<u>Awnless</u>	28. Seed Relative Size:	<u>Med-Large</u>

Unique Physiological/Biochemical Traits: _____

Variants and Frequency: Awned plants observed occurring at the rate of 1 per 1000 plants in subsequent generations.

6. Recognized classes of 690724516 are breeder, foundation, registered, and certified. Northern Agri-Brands LLC will maintain the variety by the head-row system to produce breeder seed if needed.
7. Certified seed of 690724516 will be available 2018.
8. Application for Plant Variety Protection will be submitted in 2018 and the title V option will not be selected.
9. Certified seed production acreage may not be published by AOSCA or other Certification agencies.

Date this application was submitted: Jan 08, 2018 Date recommended by the VRB: Apr 27, 2018



Triticale

879684836 08TF01 (Exp)

1. 879684836 (08TF01) is a winter triticale developed by Northern Agri-Brands LLC.
2. 879684836 was selected for its Silage yield production, improved grain yield, and Awn Length.
3. 879684836 has been tested and found to be adaptive to areas within Montana and Washington.
4. No Claims about disease resistance are made at this time.
5. Identifying characteristics –

1. Ploidy:	<u>Hexaploid</u>	15. Awn Color:	<u>Tan</u>
2. Growth Habit:	<u>Winter</u>	16. Glume Pubescence:	<u>Glabrous</u>
3. Photoperiod Reaction:	<u>Insensitive</u>	17. Glume Color:	<u>Yellow</u>
4. Winterhardiness:	<u>Med. High</u>	18. Glume Length:	<u>Mid-Long</u>
5. Maturity:	<u>Mid-Season</u>	19. Glume Width:	<u>Narrow</u>
6. Height:	<u>Mid-Tall</u>	20. Glume Shoulder Shape:	<u>Wanting</u>
7. Plant Color at Boot Stage:	<u>Blue Green</u>	21. Glume Beak Shape:	<u>Acuminate</u>
8. Stem Anthocyanin:	<u>Absent</u>	22. Coleoptile Color:	<u>White</u>
9. Neck Hairiness:	<u>Slight</u>	23. Seed Shape:	<u>Elliptical</u>
10. Neck Shape:	<u>Straight</u>	24. Seed Smoothness:	<u>Slightly Wrinkled</u>
11. Flag Leaf at Boot:	<u>Not Twisted, Erect, & Waxy</u>	25. Seed Brush Area:	<u>Small</u>
12. Spike Density:	<u>Dense</u>	26. Seed Brush Length:	<u>Short</u>
13. Spike Shape:	<u>Oblong</u>	27. Seed Color:	<u>Amber</u>
14. Spike Awnedness:	<u>Awnletted</u>	28. Seed Relative Size:	<u>Large</u>

Unique Physiological/Biochemical Traits: _____

Variants and Frequency: Awned plants observed occurring at the rate of 1 per 1000 plants in subsequent generations.

6. Recognized classes of 879684836 are breeder, foundation, registered, and certified. Northern Agri-Brands LLC will maintain the variety by the head-row system to produce breeder seed if needed.
7. Certified seed of 879684836 will be available 2018.
8. Application for Plant Variety Protection will be submitted in 2018 and the title V option will not be selected.
9. Certified seed production acreage may not be published by AOSCA or other Certification agencies.

Date this application was submitted: Jan 08, 2018 Date recommended by the VRB: Apr 27, 2018

