

A REPORT OF THE
SMALL GRAIN VARIETY REVIEW BOARD



ASSOCIATION OF OFFICIAL SEED CERTIFYING AGENCIES

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SMALL GRAIN VARIETY REVIEW BOARD

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May 2016

The Association of Official Seed Certifying Agencies (AOSCA), Small Grain Variety Review Board (SGVRB), reviewed the following varieties on March 22, 2016. 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,

Steve Schuler, Chairman
Small Grains Variety Review Board

2016 AOSCA SMALL GRAIN VARIETY REVIEW BOARD

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Wheat

Avery CO11D174 (Exp)

1. Avery was tested under experimental number CO11D174. It is a medium-tall semidwarf hard red winter wheat developed by the Colorado State University (CSU) Agricultural experiment station. Ownership of Avery has been transferred to the Colorado Wheat Research Foundation.
2. Avery is a doubled haploid (DH) line developed using wheat-maize hybridization. Selection criteria during development included general agronomic adaptation (optimum plant height and maturity), grain yield and yield stability, test weight, and milling and bread baking quality.
3. Avery was tested throughout the western Great Plains area of the U.S. hard winter wheat region. It is best adapted for dryland and limited-irrigation production conditions in eastern Colorado, southeastern Wyoming, western Kansas, western Nebraska, and the Panhandles of both Oklahoma and Texas.
4. Avery is resistant to Greenbug biotype E, the wheat curl mite, and wheat soilborne mosaic virus.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind:	Common, Hard Red Winter Wheat		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awined
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:	Short
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:	147 (from Jan 1)	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S.M.L.VL):	Medium
10. Anthocyanin:	Absent	24. Glume Pubescence:	Present
11. Plant Height (cm):	81.9	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Ovate
13. Spike Shape:	Tapering	27. Cheeks:	Rounded
14. Spike Density:	Dense	28. Brush Size (S,M,L.):	Short
15. Spike Curvature:	Nodding (Recurved)	29. Avg 1,000 Kernel Wt (g):	30.0

30. Physiological/biochemical Traits: N/A

Variants and frequency: Talls at a frequency of 1 in 1,000 and red chaff at a frequency of 1 in 1,000

6. Recognized classes of Avery 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 Avery will likely be available for planting in fall of 2016.
8. Application for PVP is anticipated with the option that Avery can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage may be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 8, 2016

Date recommended by the VRB: Apr 19, 2016



Wheat

Larry

KS060143K-2 (Exp)

1. Larry is a medium-tall statured semi-dwarf. hard red winter wheat developed by the Kansas Agricultural Experiment Station.
2. Larry was developed using a selected bulk approach where selection was applied for maturity (using early and late checks to identify plants within the acceptable window), height (semi-dwarf), straw strength, resistance to prevalent diseases (leaf rust, stripe rust, stem rust, soil borne mosaic, tan spot, septoria leaf blotch and powdery mildew) and other plant characteristics such as spike size and density and tillering capacity, yield and quality
3. Larry was extensively tested in central and western Kansas. Larry is broadly adapted and should do well in dryland environments across the entire state but its best area of adaptation is east of US Highway 283.
4. Larry is resistant to the prevalent races of stripe rust in the Great Plains and is also resistant to soil-borne mosaic virus. It has an intermediate reaction to KS060106M-11 is susceptible to leaf rust and Hessian fly.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind:	Common, Hard Red Winter Wheat		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
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
5. Leaf Color at Boot:	Green	19. Glume Length:	Medium
6. Flag Leaf at Boot:	Erect, Twisted, Wax Absent	20. Shoulder Shape:	Elevated
7. Auricle Color:	White	21. Shoulder Width:	Medium
8. Day(s) to 50% Heading:	128	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S.M.L.VL):	L
10. Anthocyanin:	Absent	24. Glume Pubescence:	Absent
11. Plant Height (cm):	76	25. Seed Color	Red
12. Internodes:	Hollow	26. Seed Shape:	Elliptical
13. Spike Shape:	Oblong	27. Cheeks:	Angular
14. Spike Density:	Mid-Dense	28. Brush Size (S,M,L.):	M
15. Spike Curvature:	Nodding	29. Avg 1,000 Kernel Wt (g):	31.4

30. Physiological/biochemical Traits:

Variants and frequency: Talls at a frequency of 1 in 1,000 and dark chaff at a frequency of 1 in 1,000

6. Recognized classes of Larry are breeder, foundation, registered, and certified. Kansas State University will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalties or licensing agreements are anticipated to be collected through the Kansas Wheat Alliance.
7. Certified seed of Larry will likely be available for planting in fall of 2017.
8. Application for PVP is anticipated with the option that Larry can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage may be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 11, 2016

Date recommended by the VRB: May 3, 2016



Wheat

Zenda

KS060106M-11 (Exp)

1. Zenda is a medium-tall statured semi-dwarf. hard red winter wheat developed by the Kansas Agricultural Experiment Station.
2. Zenda was developed using a selected bulk approach where selection was applied for maturity (using early and late checks to identify plants within the acceptable window), height (semi-dwarf), straw strength, resistance to prevalent diseases (leaf rust, stripe rust, stem rust, soil borne mosaic, tan spot, septoria leaf blotch and powdery mildew) and other plant characteristics such as spike size and density and tillering capacity, yield and quality
3. Zenda was extensively tested in central and western Kansas. It is best adapted to central and eastern Kansas (areas to the east of US Highway 281).
4. Zenda is resistant to the prevalent races of stripe rust in the Great Plains and is also resistant to soil-borne mosaic virus. It has a reaction to FHB that is similar to 'Everest' for FHB severity and Fusarium damaged kernels. KS060106M-11 is moderately susceptible to leaf rust and susceptible to Hessian fly.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind:	Common, Hard Red Winter Wheat		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
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
5. Leaf Color at Boot:	Green	19. Glume Length:	Medium
6. Flag Leaf at Boot:	Erect, Twisted, Wax Absent	20. Shoulder Shape:	Square
7. Auricle Color:	White	21. Shoulder Width:	Medium
8. Day(s) to 50% Heading:	128	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):	78	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Elliptical
13. Spike Shape:	Oblong	27. Cheeks:	Rounded
14. Spike Density:	Mid-dense	28. Brush Size (S,M,L.):	S
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (g):	31.2

30. Physiological/biochemical Traits:

Variants and frequency: Talls at a frequency of 1 in 1,000 and dark chaff at a frequency of 1 in 1,000

6. Recognized classes of Zenda are breeder, foundation, registered, and certified. Kansas State University will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. Royalties or licensing agreements are anticipated to be collected through the Kansas Wheat Alliance.
7. Certified seed of Zenda will likely be available for planting in fall of 2017.
8. Application for PVP is anticipated with the option that Zenda can be sold by variety name only as a class of certified seed.
9. Certified seed production acreage may be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 11, 2016

Date recommended by the VRB: Apr 19, 2016



Wheat
Tatanka
KS12H56-6-4 (Exp)

1. KS12H56-6-4 (proposed name: Tatanka) 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. KS12H56-6-4 was selected for yield, baking quality, disease resistance (WSMV, stripe rust, leaf rust, SBMV, Hessian fly), and other agronomic traits (pre-harvest sprouting, grain shattering, lodging, maturity) using the modified bulk method.
3. KS12H56-6-4 was extensively tested in Kansas and is well adapted to the dryland production areas in central and western Kansas.
4. KS12H56-6-4 is resistant to stripe rust and wheat soilborne mosaic virus.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind: Common, Hard Red Winter Wheat

If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)

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>Prostrate</u>	18. Glume Color:	<u>White</u>
5. Leaf Color at Boot:	<u>Green</u>	19. Glume Length:	<u>Medium</u>
6. Flag Leaf at Boot:	<u>Erect, Twisted, No Wax</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>125</u>	22. Beak Shape:	<u>Acuminate</u>
9. Anther Color:	<u>Yellow</u>	23. Beak Length (S.M.L.VL):	<u>M</u>
10. Anthoncyanin:	<u>Absent</u>	24. Glume Pubescence:	<u>Absent</u>
11. Plant Height (cm):	<u>68</u>	25. Seed Color:	<u>Red</u>
12. Internodes:	<u>Five, Hollow</u>	26. Seed Shape:	<u>Ovate</u>
13. Spike Shape:	<u>Tapering</u>	27. Cheeks:	<u>Rounded</u>
14. Spike Density:	<u>Middense</u>	28. Brush Size (S,M,L.):	<u>S</u>
15. Spike Curvature:	<u>Inclined</u>	29. Avg 1,000 Kernel Wt (g):	<u>30.5</u>

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 1,000 plants; white seeded plants that occur at a frequency of less than 1 in 1,000 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 fall of 2017.
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 7, 2016

Date recommended by the VRB: Apr 19, 2016



Wheat
LCS Aymeric
NSA09-5098 (Exp)

1. LCS Aymeric (NSA 09-5098) is a Hard Red Winter wheat developed by Limagrain Europe in France, and tested in the Pacific Northwest from 2011-2015.
2. LCS Aymeric was developed using a classical pedigree selection method. Selection criteria included disease resistance, height, earliness, and lodging resistance.
3. LCS Aymeric is adapted to the low, intermediate, and high rainfall wheat production zones of Eastern Oregon and Eastern Washington.
4. No claims are made in this application relative to disease or insect resistance.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind:	Common, Hard Red Winter Wheat	
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)	
2. Seasonal Growth Habit:	Winter	16. Awn Type: Apically Awnletted
3. Coleoptile Color:	White	17. Awn Color: White
4. Juvenile Growth Habit:	Semi Erect	18. Glume Color: White
5. Leaf Color at Boot:	Green	19. Glume Length: Long
6. Flag Leaf at Boot:	Recurved, Twisted, Wax Present	20. Shoulder Shape: Elevated
7. Auricle Color:	White	21. Shoulder Width: Medium
8. Day(s) to 50% Heading:	145.5	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):	87	25. Seed Color: Red
12. Internodes:	Hollow	26. Seed Shape: Oval
13. Spike Shape:	Oblong	27. Cheeks: Angular
14. Spike Density:	Mid Dense	28. Brush Size (S,M,L.): Short
15. Spike Curvature:	Nodding	29. Avg 1,000 Kernel Wt (g): 34

30. Physiological/biochemical Traits:

Variants and frequency: May contain up to 5 per 1000 tall plants, up to 2 spike lengths above main canopy, up to 1 per 1000 red/brown glumed plants, and up to 1 per 1000 awned plants. Seed may contain up to 0.75% white wheat seeds.

6. Recognized seed classes will be Breeder, Foundation, Registered, and Certified. Registered and Certified seed may be produced and sold only through a license agreement with Limagrain Cereal Seeds. LCS will maintain Breeder and Foundation seed by roguing and removal of off-types in bulk seedings and headrowing if necessary.
7. Foundation seed will be available for planting in Fall 2016.
8. Plant Variety Protection will be applied for without the Title V option.
9. Certified seed production and acreage may be published by AOSCA and official state seed certifying agencies.

Date this application was submitted: Jan 11, 2016

Date recommended by the VRB: Apr 19, 2016



Wheat

LCS Chrome LCH13DH-20-87 (Exp)

1. LCS Chrome (LCH13DH-20-87) is a hard red winter wheat developed by Limagrain Cereal Seeds.
2. LCS Chrome was developed using doubled haploid methods; selection criteria included yield potential and resistance to yellow rust in Kansas.
3. LCS Chrome was tested in Kansas, North-Central Oklahoma, Western Nebraska, and Eastern Colorado. The area of probable adaptation is Central and Western Kansas. The primary purpose of the variety will be for milling and baking of breads using processed and whole wheat flour.
4. No claims are made in this application relative to disease or insect resistance.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind:	Common, Hard Red Winter Wheat		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	Tan
4. Juvenile Growth Habit:	Prostrate	18. Glume Color:	Tan
5. Leaf Color at Boot:	Blue-Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Recurved, Twisted, Waxy	20. Shoulder Shape:	Wanting
7. Auricle Color:	White	21. Shoulder Width:	Narrow
8. Day(s) to 50% Heading:	139	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):	58	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Ovate
13. Spike Shape:	Oblong	27. Cheeks:	Rounded
14. Spike Density:	Mid Dense	28. Brush Size (S,M,L.):	Short
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (g):	29.2

30. Physiological/biochemical Traits: None

Variants and frequency: May contain up to 5 per 1000 tall plants, up to 3 spike lengths above main canopy, up to 1 per 1000 white-glumed plants, and up to 2 per 1000 awnless plants.

6. Recognized seed classes will be Breeder, Foundation, Registered, and Certified. Registered and Certified seed may be produced and sold only through a license agreement with Limagrain Cereal Seeds. LCS will maintain Breeder and Foundation seed by roguing and removal of off-types in bulk seedings and headrowing if necessary.
7. Foundation seed will be available for planting in Fall 2016.
8. Plant Variety Protection will be applied for without the Title V option.
9. Certified seed production and acreage may be published by AOSCA and official state seed certifying agencies.

Date this application was submitted: Jan 11, 2016

Date recommended by the VRB: Mar 22, 2016



Wheat

LCS Drive LWW12-7105 (Exp)

1. LCS Drive (LWW12-7105) is a Soft White Winter wheat developed by Limagrain Cereal Seeds.
2. LCS Drive was developed using doubled haploid methods; selection criteria included grain yield, height, earliness, disease resistance, winter hardiness, resistance to lodging, resistance to drought and end use quality.
3. Areas of probable adaption are the low- and intermediate-rainfall wheat production zones of Oregon.
4. No claims are made in this application relative to disease or insect resistance.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind:	<u>Common, Soft White Winter Wheat</u>		
	<u>If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)</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</u>
5. Leaf Color at Boot:	<u>Blue-Green</u>	19. Glume Length:	<u>Medium</u>
6. Flag Leaf at Boot:	<u>Erect, Twisted, Wax Present</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>128</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>Absent</u>
11. Plant Height (cm):	<u>67</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>Mid Dense</u>	28. Brush Size (S,M,L.):	<u>Medium</u>
15. Spike Curvature:	<u>Inclined</u>	29. Avg 1,000 Kernel Wt (g):	<u>38</u>

30. Physiological/biochemical Traits: none

Variants and frequency: May contain up to 5 per 1000 tall plants, up to 2 spike lengths above main canopy, up to 1 per 1000 red/brown glumed plants, and up to 1 per 1000 awnless plants. Seed may contain up to 0.75% red wheat seeds.

6. Recognized seed classes will be Breeder, Foundation, Registered, and Certified. Registered and Certified seed may be produced and sold only through a license agreement with Limagrain Cereal Seeds. LCS will maintain Breeder and Foundation seed by roguing and removal of off-types in bulk seedings and headrowing if necessary.
7. Foundation seed will be available for planting in Fall 2016.
8. Plant Variety Protection will be applied for without the Title V option.
9. Certified seed production and acreage may be published by AOSCA and official state seed certifying agencies.

Date this application was submitted: Jan 11, 2016

Date recommended by the VRB: Mar 22, 2016



Wheat

LCS Evina NIC04-3377-A (Exp)

1. LCS Evina (NIC04-3377-A) is a Hard Red Winter Wheat developed by Limagrain Europe, marketed by Limagrain Cereal Seeds in the U.S.
2. LCS Evina was developed using a pedigree method with selection for grain yield, protein levels, bread volume, and resistance to stripe rust in Germany, UK and Czech Republic.
3. Area of probable adaptation for LCS Evina will be for organic wheat production in Oregon where the variety's acceptable grain yields, high protein levels and tall plant stature are desirable.
4. No claims are made in this application relative to disease or insect resistance.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind:	Common, Hard Red Winter Wheat		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Apically Awnletted
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Semi Erect	18. Glume Color:	White
5. Leaf Color at Boot:	Blue-Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Erect, Wax Present	20. Shoulder Shape:	Square
7. Auricle Color:	White	21. Shoulder Width:	Medium
8. Day(s) to 50% Heading:	150	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S.M.L.VL):	Short
10. Anthocyanin:	Absent	24. Glume Pubescence:	Absent
11. Plant Height (cm):	107	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Oval
13. Spike Shape:	Tapering	27. Cheeks:	Angular
14. Spike Density:	Lax	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Erect	29. Avg 1,000 Kernel Wt (g):	42

30. Physiological/biochemical Traits: None

Variants and frequency: May contain up to 5 per 1000 tall plants, up to 2 spike lengths above main canopy, up to 1 per 1000 red/brown glumed plants, and up to 1 per 1000 awned plants. Seed may contain up to 0.75% white wheat seeds.

6. Recognized seed classes will be Breeder, Foundation, Registered, and Certified. Registered and Certified seed may be produced and sold only through a license agreement with Limagrain Cereal Seeds. LCS will maintain Breeder and Foundation seed by roguing and removal of off-types in bulk seedings and headrowing if necessary.
7. Foundation seed will be available for planting in Fall 2016.
8. Plant Variety Protection will be applied for without the Title V option.
9. Certified seed production and acreage may be published by AOSCA and official state seed certifying agencies.

Date this application was submitted: Jan 11, 2016

Date recommended by the VRB: May 10, 2016



Wheat

LCS Iron 11SB0096 (Exp)

1. LCS Iron (11SB0096) is a hard red spring wheat developed by Limagrain Cereal Seeds.
2. LCS Iron was selected for earliness, height, and disease resistance using a modified bulk breeding method in Spain with initial seed multiplication in France.
3. The areas of probable adaptation for LCS Iron are the intermediate to higher rainfall spring wheat production zones of Eastern Washington.
4. No claims are made in this application relative to disease or insect resistance.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind: Common, Hard Red Spring Wheat

If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)

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</u>
5. Leaf Color at Boot:	<u>Blue-Green</u>	19. Glume Length:	<u>Long</u>
6. Flag Leaf at Boot:	<u>Recurved, Not Twisted, Wax Present</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>148</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>Absent</u>
11. Plant Height (cm):	<u>87</u>	25. Seed Color:	<u>Red</u>
12. Internodes:	<u>Hollow</u>	26. Seed Shape:	<u>Oval</u>
13. Spike Shape:	<u>Oblong</u>	27. Cheeks:	<u>Angular</u>
14. Spike Density:	<u>Dense</u>	28. Brush Size (S,M,L.):	<u>Short</u>
15. Spike Curvature:	<u>Erect</u>	29. Avg 1,000 Kernel Wt (g):	<u>37</u>

30. Physiological/biochemical Traits: none

Variants and frequency: May contain up to 5 per 1000 tall plants, up to 2 spike lengths above main canopy, up to 1 per 1000 red/brown glumed plants, and up to 1 per 1000 awnless plants. Seed may contain up to 0.75% white wheat seeds.

6. Recognized seed classes will be Breeder, Foundation, Registered, and Certified. Registered and Certified seed may be produced and sold only through a license agreement with Limagrain Cereal Seeds. LCS will maintain Breeder and Foundation seed by roguing and removal of off-types in bulk seedings and headrowing if necessary.
7. Foundation seed will be available for planting in Spring 2016.
8. Plant Variety Protection will be applied for without the Title V option.
9. Certified seed production and acreage may be published by AOSCA and official state seed certifying agencies.

Date this application was submitted: Jan 11, 2016

Date recommended by the VRB: Mar 22, 2016



Wheat

Long Branch LCH12-012 (Exp)

1. Long Branch (LCH12-012) is a hard red winter wheat developed by Limagrain Cereal Seeds. Long Branch will be marketed by a marketing partner.
2. Long Branch was developed using a modified pedigree method; selection criteria included grain yield, grain yield stability over locations, straw strength, desirable head shape and size, and absence of obvious disease.
3. Long Branch was tested in Kansas and Eastern Colorado. The area of probable adaptation is Central and Western Kansas. The primary purpose of the variety will be for milling and baking of breads using processed and whole wheat flour.
4. No claims are made in this application relative to disease or insect resistance.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind:	Common, Hard Red Winter Wheat		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
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
5. Leaf Color at Boot:	Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Erect, Twisted, Waxy	20. Shoulder Shape:	Elevated
7. Auricle Color:	White	21. Shoulder Width:	Medium
8. Day(s) to 50% Heading:	137	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S.M.L.VL):	Short
10. Anthocyanin:	Absent	24. Glume Pubescence:	Absent
11. Plant Height (cm):	74	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Oval
13. Spike Shape:	Tapering	27. Cheeks:	Angular
14. Spike Density:	Mid Dense	28. Brush Size (S,M,L.):	Short
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (g):	29

30. Physiological/biochemical Traits: none

Variants and frequency: May contain up to 5 per 1000 tall plants, up to 3 spike lengths above main canopy, up to 1 per 1000 red/brown-glumed plants, and up to 2 per 1000 awnless plants.

6. Recognized seed classes will be Breeder, Foundation, Registered, and Certified. Registered and Certified seed may be produced and sold only through a license agreement with Limagrain Cereal Seeds. LCS will maintain Breeder and Foundation seed by roguing and removal of off-types in bulk seedings and headrowing if necessary.
7. Foundation seed will be available for planting in Fall 2016.
8. Plant Variety Protection will be applied for without the Title V option.
9. Certified seed production and acreage may be published by AOSCA and official state seed certifying agencies.

Date this application was submitted: Jan 8, 2016

Date recommended by the VRB: Mar 22, 2016



Wheat

WB4303

HV9W10-1002 (Exp)

1. WB4303 (HV9W10-1002) is a hard red spring 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 spring wheat growing regions of the Central Plains.
4. No claims about disease resistance are made at this time.

5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-5) except where indicated:

1. Kind:	Common, Hard Red Winter Wheat		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awne
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Erect	18. Glume Color:	White
5. Leaf Color at Boot:	Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Erect, Twisted & Waxy	20. Shoulder Shape:	Rounded
7. Auricle Color:	White	21. Shoulder Width:	Wide
8. Days to 50% Heading:	131	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):	81.3	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Oval
13. Spike Shape:	Tapering	27. Cheeks:	Angular
14. Spike Density:	Mid-Dense	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Nodding	29. Avg 1,000 Kernel Wt (g):	40

30. Physiological/biochemical Traits:

Variants and frequency: A variant that is similar to WB4303 but has white seed occurs at a frequency of up to .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 .2% (20/10,000). A bronze head variant may occur at a frequency of .1% (10/10,000). An awnless variant may occur at a frequency of .1% (10/10,000).

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 11, 2016

Date recommended by the VRB: Apr 18, 2016



Wheat
WB4462
HV9W10-0091 (Exp)

1. WB4462 (HV9W10-0091) is a hard red winter wheat developed by the Monsanto LLC.
2. In early generations of WB4462, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality, and disease resistance.
3. WB4462 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 – insert the descriptive term from the Objective Description (pages 3-5) except where indicated:

1. Kind:	Common, Hard Red Winter Wheat		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
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
5. Leaf Color at Boot:	Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Erect, Twisted, Waxy	20. Shoulder Shape:	Apiculate
7. Auricle Color:	White	21. Shoulder Width:	Medium
8. Days to 50% Heading:	135 (Julian)	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):	86.4	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Oval
13. Spike Shape:	Tapering	27. Cheeks:	Angular
14. Spike Density:	Lax	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Nodding	29. Avg 1,000 Kernel Wt (g):	48.5

30. Physiological/biochemical Traits:

Variants and frequency: A variant that is similar to WB4462 but has white seed occurs at a frequency of up to .2% (20 out 10,000 seeds). A variant that is similar to WB4462 but is 15cm to 20cm taller occurs at a frequency of up to .2% (20/10,000). A bronze head variant may occur at a frequency of .1% (10/10,000). An awnless variant may occur at a frequency of .1% (10/10,000).

6. Recognized classes of WB4462 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 WB4462 will likely be ready for commercial sale by the fall of 2015.
8. Application for a Utility Patent and PVP is anticipated for WB4462, 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 11, 2016

Date recommended by the VRB: Apr 18, 2016



Wheat
WB4483
BZ9W09-2212 (Exp)

1. WB4483 (BZ9W09-2212) is a hard red spring wheat developed by the Monsanto LLC.
2. In early generations of WB4483, single spikes were selected based on agronomics, straw strength and disease resistance. Later generations were selected based on yield, quality, and disease resistance.
3. WB4483 is adapted to the hard winter wheat growing regions of Montana and the Pacific Northwest.
4. No claims about disease resistance are made at this time.

5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-5) except where indicate

1. Kind:	Common, Hard Red Winter Wheat		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
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
5. Leaf Color at Boot:	Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Recurved, Twisted, Waxy	20. Shoulder Shape:	Oblique
7. Auricle Color:	White	21. Shoulder Width:	Narrow
8. Days to 50% Heading:	163 (Julian)	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S.M.L.VL):	Long
10. Anthoncyanin:	Absent	24. Glume Pubescence:	Absent
11. Plant Height (cm):	81.3	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 (g):	37.5

30. Physiological/biochemical Traits:

Variants and frequency: A variant that is similar to WB4483 but has white seed occurs at a frequency of up to .2% (20 out 10,000 seeds). A variant that is similar to WB4462 but is 15cm to 20cm taller occurs at a frequency of up to .2% (20/10,000). A bronze head variant may occur at a frequency of .1% (10/10,000). An awnless variant may occur at a frequency of .1% (10/10,000).

6. Recognized classes of WB4483 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 WB4483 will likely be ready for commercial sale by the fall of 2015.
8. Application for a Utility Patent and PVP is anticipated for WB4483, 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 11, 2016

Date recommended by the VRB: Apr 18, 2016



Wheat
WB4515
HV9W10-0458 (Exp)

1. WB4515 (HV9W10-0458) is a hard red winter wheat developed by the Monsanto LLC.
2. In early generations of WB4515, single spikes were selected based on maturity, test weight and vigor. Later generations were selected based on yield, quality, and disease resistance.
3. WB4515 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 – insert the descriptive term from the Objective Description (pages 3-5) except where indicated:

1. Kind:	<u>Common, Hard Red Winter Wheat</u>		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
2. Seasonal Growth Habit:	<u>Winter</u>	16. Awn Type:	<u>Awne</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>Medium</u>
6. Flag Leaf at Boot:	<u>Erect, Twisted, Waxy</u>	20. Shoulder Shape:	<u>Apiculate</u>
7. Auricle Color:	<u>White</u>	21. Shoulder Width:	<u>Narrow</u>
8. Days to 50% Heading:	<u>136 (Julian)</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</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>Rounded</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>40</u>

30. Physiological/biochemical Traits:

Variants and frequency: A variant that is similar to WB4515 but has white seed occurs at a frequency of up to .2% (20 out 10,000 seeds). A variant that is similar to WB4515 but is 15cm to 20cm taller occurs at a frequency of up to .2% (20/10,000). A bronze head variant may occur at a frequency of .1% (10/10,000). An awnless variant may occur at a frequency of .1% (10/10,000).

6. Recognized classes of WB4515 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 WB4515 will likely be ready for commercial sale by the fall of 2015.
8. Application for a Utility Patent and PVP is anticipated for WB4515, 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 11, 2016

Date recommended by the VRB: Apr 18, 2016



Wheat
WB4721
HV9W10-0129 (Exp)

1. WB4721 (HV9W10-0129) is a hard red winter wheat developed by the Monsanto LLC.
2. In early generations of WB4721, single spikes were selected based on maturity, test weight and vigor. Later generations were selected based on yield, quality, and disease resistance.
3. WB4721 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 – insert the descriptive term from the Objective Description (pages 3-5) except where indicated:

1. Kind:	Common, Hard Red Winter Wheat		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awne
3. Coleoptile Color:	Red	17. Awn Color:	Brown
4. Juvenile Growth Habit:	Semi-Erect	18. Glume Color:	Bronze
5. Leaf Color at Boot:	Green	19. Glume Length:	Medium
6. Flag Leaf at Boot:	Erect, Twisted, Waxy	20. Shoulder Shape:	Elevated
7. Auricle Color:	White	21. Shoulder Width:	Narrow
8. Days to 50% Heading:	137 (Julian)	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):	83.8	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Oval
13. Spike Shape:	Tapering	27. Cheeks:	Rounded
14. Spike Density:	Middense	28. Brush Size (S,M,L.):	Short
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (g):	42

30. Physiological/biochemical Traits:

Variants and frequency: A variant that is similar to WB4721 but has white seed occurs at a frequency of up to .2% (20 out 10,000 seeds). A variant that is similar to WB4721 but is 15cm to 20cm taller occurs at a frequency of up to .2% (20/10,000). A white head variant may occur at a frequency of .1% (10/10,000). An awnless variant may occur at a frequency of .1% (10/10,000).

6. Recognized classes of WB4721 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 WB4721 will likely be ready for commercial sale by the fall of 2015.
8. Application for a Utility Patent and PVP is anticipated for WB4721, 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 11, 2016

Date recommended by the VRB: Apr 18, 2016



Wheat
WB7566
DA909-325 (Exp)

1. WB7566 (DA909-325) is a hard white spring wheat developed by the Monsanto LLC.
2. In early generations of WB7566, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality, and disease resistance.
3. WB7566 is adapted to the hard spring wheat growing regions of the Southwestern region of the United States.
4. No claims about disease resistance are made at this time.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-5) except where indicated:

1. Kind:	<u>Common, Hard White Spring Wheat</u>		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
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</u>
5. Leaf Color at Boot:	<u>Green</u>	19. Glume Length:	<u>Long</u>
6. Flag Leaf at Boot:	<u>Recurved, Twisted, No Wax</u>	20. Shoulder Shape:	<u>Apiculate</u>
7. Auricle Color:	<u>White</u>	21. Shoulder Width:	<u>Medium</u>
8. Days to 50% Heading:	<u>85 Julian</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</u>
11. Plant Height (cm):	<u>56</u>	25. Seed Color:	<u>White</u>
12. Internodes:	<u>Semi-solid</u>	26. Seed Shape:	<u>Ovate</u>
13. Spike Shape:	<u>Tapering</u>	27. Cheeks:	<u>Angular</u>
14. Spike Density:	<u>Middense</u>	28. Brush Size (S,M,L):	<u>Short</u>
15. Spike Curvature:	<u>Inclined</u>	29. Avg 1,000 Kernel Wt (g):	<u>40</u>

30. Physiological/biochemical Traits:

Variants and frequency: A variant that is similar to WB7566 but has red seed occurs at a frequency of up to .2% (20 out 10,000 seeds). A variant that is similar to WB7566 but is 15cm to 20cm taller occurs at a frequency of up to .2% (20/10,000). A bronze head variant may occur at a frequency of .1% (10/10,000). An awnless variant may occur at a frequency of .1% (10/10,000).

6. Recognized classes of WB7566 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 WB7566 will likely be ready for commercial sale by the spring of 2016.
8. Application for a Utility Patent and PVP is anticipated for WB7566, 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 11, 2016

Date recommended by the VRB: Apr 18, 2016



Wheat
WB9200
BZ9S09-0134R (Exp)

1. WB9200 (BZ9S09-0134R) is a hard red spring wheat developed by the Monsanto LLC.
2. In early generations of WB9200, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality, and disease resistance.
3. WB9200 is adapted to the hard spring wheat growing regions of the Pacific Northwest.
4. No claims about disease resistance are made at this time.

5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-5) except where indicated:

1. Kind:	Common, Hard Red Spring Wheat		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
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
5. Leaf Color at Boot:	Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Recurved, Wax Absent, Twisted	20. Shoulder Shape:	Apiculate
7. Auricle Color:	Purple	21. Shoulder Width:	Narrow
8. Days to 50% Heading:	164 (Julian)	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S.M.L.VL):	Long
10. Anthoncyanin:	Absent	24. Glume Pubescence:	Absent
11. Plant Height (cm):	78.7	25. Seed Color	Red
12. Internodes:	Semi-Solid	26. Seed Shape:	Oval
13. Spike Shape:	Tapering	27. Cheeks:	Angular
14. Spike Density:	Middense	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (g):	43

30. Physiological/biochemical Traits:

Variants and frequency: A variant that is similar to WB9200 but has white seed occurs at a frequency of up to .2% (20 out 10,000 seeds). A variant that is similar to WB9200 but is 15cm to 20cm taller occurs at a frequency of up to .2% (20/10,000). A bronze head variant may occur at a frequency of .1% (10/10,000). An awnless variant may occur at a frequency of .1% (10/10,000).

6. Recognized classes of WB9200 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 WB9200 will likely be ready for commercial sale by the spring of 2016.
8. Application for a Utility Patent and PVP is anticipated for WB9200, 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 11, 2016

Date recommended by the VRB: Apr 18, 2016



Wheat
WB9312
FA9S10-0048R (Exp)

1. WB9312 (FA9S10-0048R) is a hard red spring wheat developed by the Monsanto LLC.
2. In early generations of WB9312, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality, and disease resistance.
3. WB9312 is adapted to the hard spring wheat growing regions of the Northern Plains.
4. No claims about disease resistance are made at this time.

5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-5) except where indicated:

1. Kind:	<u>Common, Hard Red Spring Wheat</u>		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
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>Long</u>
6. Flag Leaf at Boot:	<u>Recurved, Twisted, Not Waxy</u>	20. Shoulder Shape:	<u>Oblique</u>
7. Auricle Color:	<u>White</u>	21. Shoulder Width:	<u>Narrow</u>
8. Days to 50% Heading:	<u>165 (Julian)</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>78.7</u>	25. Seed Color:	<u>Red</u>
12. Internodes:	<u>Semi-solid</u>	26. Seed Shape:	<u>Ovate</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>Erect</u>	29. Avg 1,000 Kernel Wt (g):	<u>38</u>

30. Physiological/biochemical Traits:

Variants and frequency: A variant that is similar to WB9312 but has white seed occurs at a frequency of up to .2% (20 out 10,000 seeds). A variant that is similar to WB9312 but is 15cm to 20cm taller occurs at a frequency of up to .2% (20/10,000). A bronze head variant may occur at a frequency of .1% (10/10,000). An awnless variant may occur at a frequency of .1% (10/10,000).

6. Recognized classes of WB9312 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 WB9312 will likely be ready for commercial sale by the spring of 2016.
8. Application for a Utility Patent and PVP is anticipated for WB9312, 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 11, 2016

Date recommended by the VRB: Apr 18, 2016



Wheat
WB9483
FA9S10-0022R (Exp)

1. WB9483 (FA9S10-0022R) is a hard red spring wheat developed by the Monsanto LLC.
2. In early generations of WB9483, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality, and disease resistance.
3. WB9483 is adapted to the hard spring wheat growing regions of the Northern Plains.
4. No claims about disease resistance are made at this time.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-5) except where indicated:

1. Kind:	Common, Hard Red Spring Wheat		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
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
5. Leaf Color at Boot:	Green	19. Glume Length:	Long
6. Flag Leaf at Boot:	Recurved, Twisted, Not Waxy	20. Shoulder Shape:	Oblique
7. Auricle Color:	White	21. Shoulder Width:	Narrow
8. Days to 50% Heading:	166 (Julian)	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):	74.9	25. Seed Color:	Red
12. Internodes:	Semi-Solid	26. Seed Shape:	Ovate
13. Spike Shape:	Oblong	27. Cheeks:	Angular
14. Spike Density:	Lax	28. Brush Size (S,M,L.):	Short
15. Spike Curvature:	Erect	29. Avg 1,000 Kernel Wt (g):	35

30. Physiological/biochemical Traits:

Variants and frequency: A variant that is similar to WB9483 but has white seed occurs at a frequency of up to .2% (20 out 10,000 seeds). A variant that is similar to WB9483 but is 15cm to 20cm taller occurs at a frequency of up to .2% (20/10,000). A bronze head variant may occur at a frequency of .1% (10/10,000). An awnless variant may occur at a frequency of .1% (10/10,000).

6. Recognized classes of WB9483 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 WB9483 will likely be ready for commercial sale by the spring of 2016.
8. Application for a Utility Patent and PVP is anticipated for WB9483, 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 11, 2016

Date recommended by the VRB: Apr 18, 2016



Wheat
WB9904
YU909-005 (Exp)

1. WB9904 (YU909-005) is a hard red spring wheat developed by the Monsanto LLC.
2. In early generations of WB9904, single spikes were selected based on agronomics and disease resistance. Later generations were selected based on yield, quality, and disease resistance.
3. WB9904 is adapted to the hard spring wheat growing regions of the Southwestern region of the United States.
4. No claims about disease resistance are made at this time.

5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-5) except where indicated:

1. Kind:	<u>Common, Hard Red Spring Wheat</u>		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
2. Seasonal Growth Habit:	<u>Spring</u>	16. Awn Type:	<u>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>White</u>
5. Leaf Color at Boot:	<u>Green</u>	19. Glume Length:	<u>Long</u>
6. Flag Leaf at Boot:	<u>Erect, Not Twisted, Not Waxy</u>	20. Shoulder Shape:	<u>Square</u>
7. Auricle Color:	<u>White</u>	21. Shoulder Width:	<u>Narrow</u>
8. Days to 50% Heading:	<u>93 (Julian)</u>	22. Beak Shape:	<u>Obtuse</u>
9. Anther Color:	<u>Yellow</u>	23. Beak Length (S.M.L.VL):	<u>Short</u>
10. Anthocyanin:	<u>Absent</u>	24. Glume Pubescence:	<u>Absent</u>
11. Plant Height (cm):	<u>91.4</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>Angular</u>
14. Spike Density:	<u>Lax</u>	28. Brush Size (S,M,L.):	<u>Medium</u>
15. Spike Curvature:	<u>Nodding</u>	29. Avg 1,000 Kernel Wt (g):	<u>42</u>

30. Physiological/biochemical Traits:

Variants and frequency: A variant that is similar to WB9904 but has white seed occurs at a frequency of up to .2% (20 out 10,000 seeds). A variant that is similar to WB9904 but is 5cm to 15cm taller occurs at a frequency of up to .2% (20/10,000). A bronze head variant may occur at a frequency of .1% (10/10,000). An awned variant may occur at a frequency of .1% (10/10,000).

6. Recognized classes of WB9904 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 WB9904 will likely be ready for commercial sale by the spring of 2016.
8. Application for a Utility Patent and PVP is anticipated for WB9904, 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 12, 2016

Date recommended by the VRB: Apr 18, 2016



Wheat

XW12M (Exp)

1. XW12M is a soft red winter wheat developed by Pioneer Hi-Bred Int'l., Inc.
2. The cultivar XW12M 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. XW12M has shown best adaptation to the northern U.S. soft wheat regions.
4. XW12M has shown strong resistance to leaf rust and very good resistance to Fusarium head blight (scab), powdery mildew and soil-borne mosaic virus.
5. Identifying characteristics –

1. Kind: Common, Soft Red Winter Wheat

If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)

2. Seasonal Growth Habit: <u>Winter</u>	16. Awn Type: <u>Awed</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, Waxy</u>	20. Shoulder Shape: <u>Rounded</u>
7. Auricle Color: <u>White</u>	21. Shoulder Width: <u>Medium</u>
8. Day(s) to 50% Heading: <u>128</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>Absent</u>
11. Plant Height (cm): <u>91.4</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>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>37.7</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 Pioneer Parent Seed Operations and Production 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 Pioneer Parent Seed Operations, Production department, or the appropriate certifying agency. No royalty fees or licensing agreements are anticipated.
7. Certified seed of XW12M will potentially first be offered for sale in the fall of 2017.
8. Plant Variety Protection application is anticipated in 2016 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 8, 2016

Date recommended by the VRB: Mar 22, 2016



Wheat

XW14A (Exp)

1. XW14A is a soft red winter wheat developed by Pioneer Hi-Bred Int'l., Inc.
2. The cultivar XW14A 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. XW14A has shown best adaptation to the northern U.S. soft wheat regions.
4. XW14A has shown high resistance to stripe rust and intermediate resistance to Fusarium head blight (scab), powdery mildew and soil-borne mosaic virus.
5. Identifying characteristics –

1. Kind:	<u>Common, Soft Red Winter Wheat</u>		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
2. Seasonal Growth Habit:	<u>Winter</u>	16. Awn Type:	<u>Apically Awnletted</u>
3. Coleoptile Color:	<u>Red</u>	17. Awn Color:	<u>Tan</u>
4. Juvenile Growth Habit:	<u>Semi-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, Waxy</u>	20. Shoulder Shape:	<u>Oblique</u>
7. Auricle Color:	<u>Purple</u>	21. Shoulder Width:	<u>Medium</u>
8. Day(s) to 50% Heading:	<u>132</u>	22. Beak Shape:	<u>Obtuse</u>
9. Anther Color:	<u>Yellow</u>	23. Beak Length (S.M.L.VL):	<u>Short</u>
10. Anthocyanin:	<u>Present</u>	24. Glume Pubescence:	<u>Absent</u>
11. Plant Height (cm):	<u>86.4</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>Rounded</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>36.3</u>

30. Physiological/biochemical Traits: Phenol Reaction = Black

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 Pioneer Parent Seed Operations and Production 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 Pioneer Parent Seed Operations, Production department, or the appropriate certifying agency. No royalty fees or licensing agreements are anticipated.
7. Certified seed of XW14A will potentially first be offered for sale in the fall of 2017.
8. Plant Variety Protection application is anticipated in 2016 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 8, 2016

Date recommended by the VRB: Mar 22, 2016



Wheat

XW14B (Exp)

1. XW14B is a soft red winter wheat developed by Pioneer Hi-Bred Int'l., Inc.
2. The cultivar XW14B 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. XW14B has shown best adaptation to the northern U.S. soft wheat regions.
4. XW14B has shown high resistance to powdery mildew and stripe rust and intermediate resistance to Fusarium head blight (scab), leaf rust, and soil-borne mosaic virus.
5. Identifying characteristics –

1. Kind:	Common, Soft Red Winter Wheat		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
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:	Yellow-Green	19. Glume Length:	Medium
6. Flag Leaf at Boot:	Erect, Twisted, Waxy	20. Shoulder Shape:	Wanting
7. Auricle Color:	Purple	21. Shoulder Width:	Medium
8. Day(s) to 50% Heading:	128	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):	83.8	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Ovate
13. Spike Shape:	Oblong	27. Cheeks:	Rounded
14. Spike Density:	Lax	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Nodding	29. Avg 1,000 Kernel Wt (g):	34.4

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

Variants and frequency: Awnless plants may occur at a frequency up to 0.5% (50/10,000).

6. Breeder, foundation, and registered seed classes will be maintained and controlled by the Pioneer Parent Seed Operations and Production 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 Pioneer Parent Seed Operations, Production department, or the appropriate certifying agency. No royalty fees or licensing agreements are anticipated.
7. Certified seed of XW14B will potentially first be offered for sale in the fall of 2017.
8. Plant Variety Protection application is anticipated in 2016 and the certification option will not elected.
9. Certified acreage is not to be published by AOSCA and certifying agencies.

Date this application was submitted: Jan 8, 2016

Date recommended by the VRB: Mar 22, 2016



Wheat
SY 944
M11*3144CW (Exp)

1. SY 944(M11*3144CW) is a soft white winter wheat developed by Syngenta Crop Protection, LLC.
2. SY 944 was selected for height, maturity, appearance, and kernel soundness using a modified bulk breeding method that originated with a single cross made in December of 2005.
3. SY 944 has shown best adaptation through testing to the primary white wheat growing regions of Michigan and northwest Ohio however it may also perform well in areas north of US 30 in the Midwest.
4. It has shown above average sprout tolerance and moderate resistance to Fusarium head blight, powdery mildew, current races of leaf rust in the testing area, and soil borne mosaic virus. It has tested intermediate to barley yellow dwarf virus and Septoria.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind:	<u>Common, Soft White Winter Wheat</u>		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
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>Green</u>	19. Glume Length:	<u>Long</u>
6. Flag Leaf at Boot:	<u>Recurved, Twisted, Waxy</u>	20. Shoulder Shape:	<u>Rounded</u>
7. Auricle Color:	<u>Purple</u>	21. Shoulder Width:	<u>Narrow</u>
8. Day(s) to 50% Heading:	<u>144</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>Present</u>
11. Plant Height (cm):	<u>82.7</u>	25. Seed Color:	<u>White</u>
12. Internodes:	<u>Hollow</u>	26. Seed Shape:	<u>Oval</u>
13. Spike Shape:	<u>Oblong</u>	27. Cheeks:	<u>Rounded</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>42.2</u>

30. Physiological/biochemical Traits:

Variants and frequency: Approximately 0.8% of the plants were rogued from the Breeder’s seed increase in 2015. Approximately 71% of the rogued variant plants were awnless plants and the remaining 29% were taller height wheat plants (8 to 15 cm). Up to 1.0% variant plants may be encountered in subsequent generations.

6. Syngenta Crop Protection, LLC maintains seed stock and certified classes of Foundation, Registered and Certified. Syngenta Crop Protection, LLC will maintain the variety by the head row/progeny method to produce breeder seed as needed. Royalty fees are anticipated.
7. Certified seed will likely be available Fall 2016
8. Plant Variety Protection is anticipated in 2016 and SY944 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 8, 2016

Date recommended by the VRB: Apr 13, 2016



Wheat

SY Assure 04PN096-2 (Exp)

1. SY Assure is a Soft White Winter Wheat bred and developed by Syngenta Seeds, Inc.
2. SY Assure was selected for high yield potential and test weight, lodging resistance and resistance to stripe rust using the modified bulk-pedigree method.
3. SY Assure has shown good adaptation in the high to moderate rainfall regions of western Idaho, eastern Washington, north-central and northeastern Oregon and irrigated production in the southern Snake River region of Idaho and the irrigated production areas of Washington.
4. SY Assure is resistant to the current predominant races of stripe rust and has no known insect resistance.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind: Common, Soft White Winter Wheat

If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)

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>Recurved, Twisted, Wax Absent</u>	20. Shoulder Shape: <u>Oblique</u>
7. Auricle Color: <u>White</u>	21. Shoulder Width: <u>Narrow</u>
8. Day(s) to 50% Heading: <u>145</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</u>
11. Plant Height (cm): <u>82</u>	25. Seed Color: <u>White</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>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>43</u>

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 (3 to 10 cm). Ten percent of the variants were awnless as opposed to the predominant awned typed. Up to 1% variant plants may be encountered in subsequent generations. Up to 0.5% red seed may be encountered in all classes of certified production.

6. Syngenta Seeds, Inc. maintains seed stock and certified classes of Foundation, Registered and Certified. Syngenta Seeds, Inc. will maintain the variety by the head row/progeny method to produce breeder seed as needed. Royalty fees are anticipated.
7. Certified seed will likely be available Fall of 2016
8. Plant Variety Protection is anticipated in 2016 and SY Assure 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 8, 2016

Date recommended by the VRB: Mar 22, 2016



Wheat
SY Grit
(05BC041-10-10)

1. SY Grit is a hard red winter wheat bred and developed by Syngenta Seeds, Inc.
2. SY Grit was selected for based on yield, disease, quality and resistance to leaf and stripe rust using a modified bulk breeding method that originated with a single cross made in 2005.
3. SY Grit was determined through testing to be best adapted to Hard Red wheat growing regions in Kansas, Oklahoma and Texas.
4. SY Grit has moderate resistance to current leaf rust and Stripe rust races. It also has resistance to BYDV and SBMV.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind:	<u>Common, Hard Red Winter Wheat</u>		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
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, Wax Absent</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>123</u>	22. Beak Shape:	<u>Acuminate</u>
9. Anther Color:	<u>Yellow</u>	23. Beak Length (S.M.L.VL):	<u>L</u>
10. Anthoncyanin:	<u>Absent</u>	24. Glume Pubescence:	<u>Absent</u>
11. Plant Height (cm):	<u>83</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>Lax</u>	28. Brush Size (S,M,L.):	<u>S</u>
15. Spike Curvature:	<u>Inclined</u>	29. Avg 1,000 Kernel Wt (g):	<u>35</u>

30. Physiological/biochemical Traits:

Variants and frequency: Approximately 0.8% of the plants were rogued from the Breeder’s seed increase in 2015. Approximately 85% of the rogued variant plants were taller height wheat plants (8 to 15 cm) and 15% awn less plants. Up to 1.0% variant plants may be encountered in subsequent generations.

6. Syngenta Seeds, Inc. maintains seed stock and certified classes of Foundation, Registered and Certified. Syngenta Seeds, Inc. will maintain the variety by the head row/progeny method to produce breeder seed as needed. Royalty fees are anticipated.
7. Certified seed will likely be available Fall 2016
8. Plant Variety Protection is anticipated in 2016 and SY Grit 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 8, 2016

Date recommended by the VRB: Mar 22, 2016



Wheat

SY Rustler 05S0242-6 (Exp)

1. SY Rustler (05S0242-6) is a hard red spring wheat bred and developed by Syngenta Seeds, Inc.
2. This line was developed through a pedigree system using single seed descent for the F3 and F4 generations. The primary selection criteria were short height, strong straw strength, early to medium maturity, good overall disease resistance, high yield and good protein.
3. SY Rustler appears to be broadly adapted to the spring wheat growing areas of the Northern Plains and was selected, screened and yield tested at Syngenta research sites across the Northern Plains in its development from 2006 through 2014
4. SY Rustler is moderately susceptible to Fusarium head blight.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind: Common-Hard Red

If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)

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</u>
5. Leaf Color at Boot:	<u>Green</u>	19. Glume Length:	<u>long</u>
6. Flag Leaf at Boot:	<u>Erect, Twisted, Wax Present</u>	20. Shoulder Shape:	<u>Apiculate</u>
7. Auricle Color:	<u>White</u>	21. Shoulder Width:	<u>Narrow</u>
8. Day(s) to 50% Heading:	<u>56</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>Present</u>
11. Plant Height (cm):	<u>76</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>Middense</u>	28. Brush Size (S,M,L.):	<u>Short</u>
15. Spike Curvature:	<u>Inclined</u>	29. Avg 1,000 Kernel Wt (g):	<u>32</u>

30. Physiological/biochemical Traits:

Variants and frequency: Variant plants are taller in height by 8 to 15 cm. Up to 1% taller variant plants may be encountered in subsequent generations.

6. Syngenta Seeds, Inc. maintains seed stock and certified classes of Foundation, Registered and Certified. Syngenta Seeds, Inc. will maintain the variety by the head row/progeny method to produce breeder seed as needed. Royalty fees are anticipated.
7. Certified seed will likely be available Fall 2016
8. Plant Variety Protection is anticipated in 2016 and SY Rustler 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 8, 2016

Date recommended by the VRB: Mar 22, 2016



Wheat

SY Touchstone 04PN028B-3 (Exp)

1. SY Touchstone is a hard winter wheat bred and developed by Syngenta Seeds, Inc.
2. SY Touchstone was selected for short plant height, high yield potential, and good hard red winter wheat end-use quality using the modified bulk-pedigree method.
3. SY Touchstone has shown good adaptation in the high to moderate rainfall regions of western Idaho, eastern Washington, north-central and northeastern Oregon and irrigated production in the southern Snake River region of Idaho and the irrigated production areas of Washington.
4. SY Touchstone is moderately resistant to current predominant races of stripe rust with no known insect resistance.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind: Common, Hard Red Winter Wheat

If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)

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>Re-curved, Twisted, Wax Present</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>148</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</u>
11. Plant Height (cm):	<u>82</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>Lax</u>	28. Brush Size (S,M,L.):	<u>M</u>
15. Spike Curvature:	<u>Erect</u>	29. Avg 1,000 Kernel Wt (g):	<u>35</u>

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 (3 to 10 cm). Ten percent of the variants were awnless as opposed to the predominant awned typed. Up to 1% variant plants may be encountered in subsequent generations. Up to 0.5% white seed may be encountered in all classes of certified production.

6. Syngenta Seeds, Inc. maintains seed stock and certified classes of Foundation, Registered and Certified. Syngenta Seeds, Inc. will maintain the variety by the head row/progeny method to produce breeder seed as needed. Royalty fees are anticipated.
7. Certified seed will likely be available Fall of 2016
8. Plant Variety Protection is anticipated in 2016 and SY Touchstone 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 8, 2016

Date recommended by the VRB: Mar 22, 2016



Wheat

SY605 CL (03S0409-16) (Exp) Amended – Add Variant

Variety Name SY605 CL

Experimental Designation(s) 03S0409-16

Date SGVRB first accepted this variety April 21, 2010

Date(s) any previous amendments were accepted _____

Date this amendment was submitted Feb 24, 2016

1. SY605 CL (Experimental designation - 03S0409-16) is a hard red spring wheat bred and developed by Syngenta Seeds, Inc.
2. SY605 CL originated from the cross “AP601 CL/AP602 CL//Briggs” and was developed using a modified single seed descent breeding method. SY605 CL was selected for high yield, good agronomics, general disease resistance and tolerance to BASF herbicide “Beyond”.
3. SY605 CL has been primarily tested across North Dakota and eastern Montana since 2006. It has yielded very well across the region relative to popular checks. It will primarily be used in “Clearfield” production systems.
4. SY605 CL has moderate resistance to the prevalent races of leaf rust.
5. Identifying characteristics – insert the descriptive term from the Objective Description except where indicated:

- | | |
|---------------------------------------|---|
| 1. <u>Kind</u> : common | 2. <u>Growth habit</u> : spring |
| 3. <u>Coleoptile color</u> : white | 4. <u>Juvenile growth habit</u> : erect |
| 5. <u>Leaf color at boot</u> : green | 6. <u>Flag leaf at boot</u> : |
| 7. <u>Auricle color</u> : purple | 8. <u>Days to 50% heading</u> : 55 |
| 9. <u>Anther color</u> : yellow | 10. <u>Stem color</u> : white |
| 11. <u>Plant height (cm)</u> : 84 | 12. <u>Internodes</u> : hollow |
| 13. <u>Spike shape</u> : tapering | 14. <u>Spike density</u> : middense |
| 15. <u>Spike curvature</u> : inclined | 16. <u>Awn type</u> : awned |
| 17. <u>Awn color</u> : white | 18. <u>Glume color</u> : white |
| 19. <u>Glume length</u> : short | 20. <u>Shoulder shape</u> : rounded |
| 21. <u>Shoulder width</u> : wide | 22. <u>Beak shape</u> : acuminate |
| 23. <u>Beak length (S, M, L)</u> : | 24. <u>Glume pubescence</u> : absent |
| 25. <u>Seed color</u> : red | 26. <u>Seed shape</u> : ovate |
| 27. <u>Cheeks</u> : angular | 28. <u>Brush size (S,M,L)</u> short & |
| 29. <u>Avg 1,000 kernel wt (g)</u> : | 30. <u>Phenol reaction</u> : not tested |
| 31. <u>Other</u> : | |

Physiological/biochemical traits:

Other characteristics (*e.g.*, herbicide tolerance): Tolerant to BASF herbicide “Beyond” (active ingredient – imazamox).

Variants: Less than 0.8% of the plants were rogued from the breeder seed increase. All of the rogued variant plants were taller height wheat plants (8 to 15 cm). Up to 1.0% variant plants may be encountered in subsequent generations. Up to 0.5% white seeds may be encountered in Registered and Certified seed production.



6. Recognized classes of SY605 CL are breeder, foundation, registered and certified. Syngenta Seeds, Inc. will maintain the variety by the headrow method. SY605 CL may only be sold as a class of certified seed and all seed sales are royalty bearing.
7. Certified seed sales of SY605 CL will be available in the spring of 2011.
8. Plant Variety Protection will be submitted in 2010 and SY605 CL 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: Feb 24, 2016

Date recommended by the VRB: Mar 22, 2016



Wheat

Falcon

D6575D (Exp)

1. Falcon is a durum wheat variety developed by World Wide Wheat Nurseries, L.L.C.
2. Falcon was selected for its high yield potential, good disease package, and excellent quality characteristics.
3. Falcon has been tested and found to be well adapted to the desert production regions of Arizona and California.
4. Falcon has been evaluated in the field for disease resistance. It has demonstrated resistance to Stripe Rust. It has not been evaluated for insect resistance.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind:	Durum Wheat		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
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:	Green	19. Glume Length:	Medium
6. Flag Leaf at Boot:	Erect; Recurved	20. Shoulder Shape:	Wanting
7. Auricle Color:	White	21. Shoulder Width:	Medium
8. Day(s) to 50% Heading:	76.5	22. Beak Shape:	Obtuse
9. Anther Color:	White	23. Beak Length (S.M.L.VL):	Medium
10. Anthoncyanin:	Absent	24. Glume Pubescence:	Absent
11. Plant Height (cm):	77.5	25. Seed Color:	Amber
12. Internodes:	Semi-Solid	26. Seed Shape:	Elliptical
13. Spike Shape:	Oblong	27. Cheeks:	Angular
14. Spike Density:	Dense	28. Brush Size (S,M,L.):	Medium
15. Spike Curvature:	Inclined	29. Avg 1,000 Kernel Wt (g):	45.9

30. Physiological/biochemical Traits: NA

Variants and frequency: True variants that may occur include tall plants and dark awned plants both at a rate of 0.002%.

6. Recognized classes of Falcon are breeder, foundation, registered, and certified. World Wide Wheat Nurseries, L.L.C. will maintain the variety through head-row purification method to produce breeder seed on an as needed basis. Production of certified seed will be licensed by World Wide Wheat Nurseries, L.L.C. but will not affect the certifying agency's activities. There are no trait testing requirements to be met for certified seed classes.
7. Certified seed of Falcon will likely be available for sale in the spring of 2017.
8. Application for Plant Variety Protection is anticipated and the Title V certification option (sale by variety name only as a class of certified seed) will be elected.
9. Certified seed production acreage may be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 4, 2016

Date recommended by the VRB: Apr 19, 2016



Wheat

Pegasus

D2517 (Exp)

1. Pegasus is a durum wheat variety developed by World Wide Wheat Nurseries, L.L.C.
2. Pegasus was selected for its high yield potential, good disease package, and excellent quality characteristics.
3. Pegasus has been tested and found to be well adapted to the desert production regions of Arizona and California.
4. Pegasus has been evaluated in the field for disease resistance. It has demonstrated resistance to Stripe Rust. It has not been evaluated for insect resistance.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind:	<u>Durum Wheat</u>		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
2. Seasonal Growth Habit:	<u>Spring</u>	16. Awn Type:	<u>Awne</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</u>	20. Shoulder Shape:	<u>Wanting</u>
7. Auricle Color:	<u>White</u>	21. Shoulder Width:	<u>Medium</u>
8. Day(s) to 50% Heading:	<u>75</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>Absent</u>
11. Plant Height (cm):	<u>84.2</u>	25. Seed Color:	<u>Amber</u>
12. Internodes:	<u>Semi-Solid</u>	26. Seed Shape:	<u>Elliptical</u>
13. Spike Shape:	<u>Oblong</u>	27. Cheeks:	<u>Angular</u>
14. Spike Density:	<u>Dense</u>	28. Brush Size (S,M,L.):	<u>Medium</u>
15. Spike Curvature:	<u>Inclined</u>	29. Avg 1,000 Kernel Wt (g):	<u>51.0</u>

30. Physiological/biochemical Traits: NA

Variants and frequency: True variants that may occur include tall plants and dark awned plants both at a rate of 0.002%.

6. Recognized classes of Pegasus are breeder, foundation, registered, and certified. World Wide Wheat Nurseries, L.L.C. will maintain the variety through head-row purification method to produce breeder seed on an as needed basis. Production of certified seed will be licensed by World Wide Wheat Nurseries, L.L.C. but will not affect the certifying agency's activities. There are no trait testing requirements to be met for certified seed classes.
7. Certified seed of Pegasus will likely be available for sale in the spring of 2017.
8. Application for Plant Variety Protection is anticipated and the Title V certification option (sale by variety name only as a class of certified seed) will be elected.
9. Certified seed production acreage may be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 4, 2016

Date recommended by the VRB: Apr 19, 2016



Wheat

Phoenix

D1636 (Exp)

1. Phoenix is a durum wheat variety developed by World Wide Wheat Nurseries, L.L.C.
2. Phoenix was selected for high yield potential, good disease package, and excellent quality characteristics.
3. Phoenix has been tested with and found to be well adapted to the desert production regions of Arizona and California.
4. Phoenix has been evaluated in the field for disease resistance. It has shown resistance to Stripe Rust. It has not been evaluated for insect resistance.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated):

1. Kind:	<u>Durum Wheat</u>		
	If common, provide appropriate kernel characteristic: (Hard Red, Soft Red, Hard White, Soft White)		
2. Seasonal Growth Habit:	<u>Spring</u>	16. Awn Type:	<u>Awne</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</u>	20. Shoulder Shape:	<u>Wanting</u>
7. Auricle Color:	<u>White</u>	21. Shoulder Width:	<u>Medium</u>
8. Day(s) to 50% Heading:	<u>78</u>	22. Beak Shape:	<u>Accuminate</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>94.9</u>	25. Seed Color:	<u>Amber</u>
12. Internodes:	<u>Semi-Solid</u>	26. Seed Shape:	<u>Elliptical</u>
13. Spike Shape:	<u>Oblong</u>	27. Cheeks:	<u>Angular</u>
14. Spike Density:	<u>Dense</u>	28. Brush Size (S,M,L.):	<u>Long</u>
15. Spike Curvature:	<u>Erect</u>	29. Avg 1,000 Kernel Wt (g):	<u>47.2</u>

30. Physiological/biochemical Traits: NA

Variants and frequency: True variants that may occur include tall plants and dark awned plants both at a rate of 0.002%.

6. Recognized classes of Phoenix are breeder, foundation, registered, and certified. World Wide Wheat Nurseries, L.L.C. will maintain the variety through head-row purification method to produce breeder seed on an as needed basis. Production of certified seed will be licensed by World Wide Nurseries, L.L.C. but will not affect the certifying agency's activities. There are no trait testing requirements to be met for certified seed classes.
7. Certified seed of Phoenix will likely be available for planting in spring of 2017.
8. Application for Plant Variety Protection is anticipated and the Title V certification option (sale by variety name only as a class of certified seed) will be elected.
9. Certified seed production acreage may be published by AOSCA and individual certifying agencies.

Date this application was submitted: Jan 4, 2016

Date recommended by the VRB: Apr 19, 2016



Oat

Reins

IL06-5433 (Exp)

1. Reins is a spring oat (*Avena sativa*) cultivar developed by the University of Illinois Agricultural Experiment Station and owned by the Board of Trustees of the University of Illinois. Reins was tested as IL06-5433 and released in 2015.
2. Reins was selected based on early maturity, high test weight, good lodging resistance and moderately short plant height. Reins has good tolerance to barley yellow dwarf virus and is resistant to loose smut (caused by *Ustilago avenae* (Pers.) Rostr.). The F₂ and F₃ generations of the cross from which Reins was derived were grown in the greenhouse at Urbana, IL using a modified single seed descent method.
3. Reins is adapted in Illinois and surrounding states (the Midwest Corn Belt). It is expected that it will perform well in Indiana, Illinois, and Iowa and possibly further east. Reins was evaluated in the Uniform Midseason Oat Performance Nursery in 2011, 2012 and 2013 and was evaluated in trials at three locations (Urbana, DeKalb and Monmouth) in Illinois from 2010 -2015.
4. Reins is tolerant to barley yellow dwarf virus (BYDV). Reins is moderately resistant to moderately susceptible to crown rust (caused by *Puccinia coronata* Cda.f. sp. *avenae* Eriks.) depending upon races present at a location.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-except where indicated:

1. Seasonal Plant Growth Habit:	<u>Spring</u>	2. Juvenile Growth Habit:	<u>Erect</u>
3. Tillering Capacity:	<u>--</u>	4. Leaf Color at Boot:	<u>RHS139A</u>
5. Flag Leaf Attitude at Boot:	<u>Erect</u>	6. Relative Time of Heading:	<u>Early</u>
7. Leaf Margin Texture:	<u>Glabrous</u>	8. Relative Width First Leaf Below Flag:	<u>Mid-Wide</u>
9. Ligules:	<u>Present</u>	10.:Leaf Sheath Texture:	<u>Glabrous</u>
11. Stem (culm) Color at Maturity:	<u>Yellow</u>	12. Relative Stem (culm) Diameter:	<u>Medium</u>
13. Pubescence at Stem Nodes:	<u>Numerous</u>	14. Relative Total Plant Height:	<u>Short</u>
15. Panicle Shape:	<u>Equilateral</u>	16. Relative Panicle Size:	<u>Medium</u>
17. Relative Panicle Width:	<u>Mid-Broad</u>	18. Relative Panicle Length:	<u>Mid-Long</u>
19. Rachis Flexousness:	<u>Straight</u>	20. Average Number of Branch Whorls:	<u>4.2</u>
21. Branch Position:	<u>Ascending</u>	22. Spikelet Separation Mechanism:	<u>Fracture</u>
23. Floret Separation Mechanism:	<u>Disarticulation</u>	24. 2nd Floret Rachilla Segment Pubescence:	<u>Glabrous</u>
25. Number of Florets Per Spikelet:	<u>2</u>	26. Average Number of Veins on Glumes:	<u>7.4</u>
27. Relative Length of Glumes:	<u>Mid-Long</u>	28. Relative Lemma Length	<u>Short</u>
29. Mature Glume Color:	<u>Yellow</u>	30. Pubescence on Lemma Dorsal Surface:	<u>No</u>
31. Mature Lemma Color:	<u>Tan, RHS 161</u>	32. Awn Type, if Present:	<u>N.A.</u>
33. Awn Frequency on 1 st Floret:	<u>Absent</u>	34. Seed Shape:	<u>Plump</u>
35. Seed Fluorescence:	<u>Fluorescent</u>	36. Seed Basal Hairs:	<u>Few to Several</u>
37. Seeds Are Most Similar to (Known Variety):	<u>Saber</u>	38. Average Weight/1,000 Seeds:	<u>32.6 gms</u>

Variants (Describe, including frequency of occurrence; not to include off-types: Up to 0.5% tall variants are allowed.

6. Recognized classes of Reins are breeder, foundation, and certified. There is no registered class of seed. Indiana Ag Alumni has produced Foundation seed and will maintain the cultivar in consultation with the University of Illinois oat breeder. A research assessment fee of \$0.30 per bushel will be collected on the Certified class of seed. For seed produced in other states, the fees will be shared 50:50 with that state. One-half of the fee should be returned to Illinois Crop Improvement Association (fee collection agent for Illinois).
7. Certified Seed will first be offered for sale by seedsmen following harvest in 2016 (about July 2016). Indiana Ag Alumni has sold Foundation Seed for planting in spring 2016.
8. PVP will be applied for and the “Certification Option” will be selected. Descriptive data may be supplied to the PVP database, but will be submitted by the breeder as part of the PVP application.
9. Certified seed production acreage of Reins may be published by AOSCA and certifying agencies.

Date this application was submitted: Feb 19, 2016

Date recommended by the VRB: Apr 12, 2016

