

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



ASSOCIATION OF OFFICIAL SEED CERTIFYING AGENCIES

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August 2022

The Association of Official Seed Certifying Agencies (AOSCA), Small Grain Variety Review Board (SGVRB), reviewed the following varieties on August 25, 2022. 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,

Lauren Port, Chairman
Small Grains Variety Review Board

2022 AOSCA SMALL GRAIN VARIETY REVIEW BOARD
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Wheat

T18C904

1. T18C904 is a hard red spring wheat (HRS) developed by 21st Century Genetics Corp (TCG)
2. T18C904 was selected for yield, disease tolerance, and agronomic characteristics in growth chamber and in the field using pedigree, single seed descent.
3. T18C904 was tested in the Red River Valley (RRV) area of North Dakota (ND) and Minnesota (MN) and is adapted to HRS production areas of ND and MN.
4. No claims are being made as to the disease and insect resistance of T18C904.
5. Identifying characteristics –
 1. Kind: 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: Erect 18. Glume Color: White
 5. Leaf Color at Boot: Blue green 19. Glume Length: Medium
 6. Flag Leaf at Boot: Recurved, Twisted, Waxed 20. Shoulder Shape: Oblique

 7. Auricle Color: White 21. Shoulder Width: Narrow
 8. Day(s) to 50% Heading: 53.5 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): 71.8 25. Seed Color: Red
 12. Internodes: Hollow 26. Seed Shape: Ovate
 13. Spike Shape: Oblong 27. Checks: Rounded
 14. Spike Density: Mid dense 28. Brush Size (S,M,L.): Medium
 15. Spike Curvature: Erect 29. Avg 1,000 Kernel Wt. (grams): 31.0 grams
30. Other Physiological/Biochemical Traits: None
31. Variants and Frequency: Talls 12 cm or more above the canopy, up to 1/100.
6. Recognized classes of T18C904 are Breeder, Foundation, Registered, and Certified. TCG will maintain the variety by head row and bulk purifications to produce Breeder seed as needed.
7. Certified Seed may be offered for sale in 2023, more likely 2024.
8. Application for PVP (Title 5) protection is anticipated.
9. Seed Production acreage of T18C904 is not to be published by AOSCA or any other seed certifying agency.

T17C12D(Exp)

1. T17C12D is a durum wheat (durum) developed by 21st Century Genetics (TCG)
2. T17C12D was selected for yield, quality, disease tolerance, and agronomic characteristics in growth chamber and in the field using pedigree, single seed descent.
3. T17C12D was tested in North Dakota (ND) and is adapted to the hard amber durum growing areas of ND.
4. No claims are being made as to the disease and insect resistance of T17C12D.
5. Identifying characteristics –

1. Kind:	<u>Hard Amber Durum</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, Waxed</u>	20. Shoulder Shape:	<u>Wanting</u>
7. Auricle Color:	<u>White</u>	21. Shoulder Width:	<u>Narrow</u>
8. Day(s) to 50% Heading:	<u>58.2</u>	22. Beak Shape:	<u>Acute</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>67.0</u>	25. Seed Color:	<u>Amber</u>
12. Internodes:	<u>Solid</u>	26. Seed Shape:	<u>Elliptical</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>No brush</u>
15. Spike Curvature:	<u>Erect</u>	29. Avg 1,000 Kernel Wt. (grams):	<u>45.5</u>

30. Other Physiological/Biochemical Traits: None

31. Variants and Frequency: Talls, 12cm or more above the canopy, up to 1/100

6. Recognized classes of T17C12D are Breeder, Foundation, Registered, and Certified. TCG will maintain the variety by head row purification and bulk purification to produce Breeder Seed as needed.
7. Certified Seed may be offered for sale in 2023, more likely 2024.
8. Application for PVP (Title V) protection is anticipated
9. Seed production acreage of T17C12D is not to be published by AOSCA or other seed certifying agencies.

4.

Wheat

T16Y871

1. T16Y871 is a hard red spring (HRS) developed by 21st Century Genetics (TCG).
2. T16Y871 was selected for yield, quality, disease tolerance, and agronomic characteristics in growth chambers and in the field using pedigree, single seed descent.
3. T16Y871 was tested in the Red River Valley area of North Dakota (ND) and Minnesota (MN) and is adapted to HRS production areas of ND and MN.
4. No claims are being made as to the disease and insect resistance of T16Y871.
5. Identifying characteristics –

1. Kind:	<u>Hard Red Spring Wheat</u>		
	If common, provide <u>appropriate kernel characteristic:</u> (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>Tan</u>
4. Juvenile Growth Habit:	<u>Erect</u>	18. Glume Color:	<u>Tan</u>
5. Leaf Color at Boot:	<u>Green</u>	19. Glume Length:	<u>Long</u>
6. Flag Leaf at Boot:	<u>Recurved, Twisted, Waxed</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>52.4</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>78.0</u>	25. Seed Color:	<u>Red</u>
12. Internodes:	<u>Hollow</u>	26. Seed Shape:	<u>Ovate</u>
13. Spike Shape:	<u>Oblong</u>	27. Cheeks:	<u>Round</u>
14. Spike Density:	<u>Mid dense</u>	28. Brush Size (S,M,L.):	<u>Short</u>
15. Spike Curvature:	<u>Erect</u>	29. Avg 1,000 Kernel Wt (grams):	<u>28.8grams</u>

30. Other Physiological/Biochemical Traits: None

31. Variants and Frequency: Talls, 12 cm or more above the canopy, up to 1/100

6. Recognized classes of T17Y871 are Breeder, Foundation, Registered, and Certified. TCG will maintain the variety by head row and bulk purification to produce Breeder Seed as needed.
7. Certified Seed may be offered for sale in 2023, more likely 2024.
8. Application for PVP (Title V) protection is anticipated
9. Seed production acreage of T16Y871 is not to be published by AOSCA or other seed certifying agencies.

Hard Red Spring Wheat

APB709

500709 (Exp)

1. APB709, experimental designation 500709, is a Hard Red Spring Wheat variety developed and released by Arizona Plant Breeders, Inc.
2. APB709 was selected for high yield potential, excellent agronomic traits, disease resistance, and superior milling and end use characteristics.
3. APB709 has been tested extensively both for agronomics, grain yield, and end use characteristics in the wheat producing regions of California. It has performed well across many years and locations and has been found to be well suited to these growing regions. This will be the primary marketing region of APB709. The primary end use for APB709 will be for the baking and milling industry.
4. APB709 demonstrates resistance to the field races of Stripe Rust and Leaf Rust present in the wheat production regions of California as well as resistance to Barley Yellow Dwarf Virus.

5. Identifying characteristics –

1. Kind:	Hard Red		
2. Seasonal Growth Habit:	Spring	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	Tan
4. Juvenile Growth Habit:	Erect	18. Glume Color:	Tan
5. Leaf Color at Boot:	Green	19. Glume Length:	Medium
6. Flag Leaf at Boot:	Erect, Twisted, Waxed	20. Shoulder Shape:	Square
7. Auricle Color:	White	21. Shoulder Width:	Medium
8. Day(s) to 50% Heading:	84	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Long
10. Anthocyanin:	Absent	24. Glume Pubescence:	Present
11. Plant Height (cm):	85.9	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.):	Long
15. Spike Curvature:	Erect	29. Avg. 1,000 Kernel Wt.(grams):	36.6

30. Other Physiological/Biochemical Traits: None applicable

31. Variants and Frequency: Tall plants, 6 inches or more, occur at a frequency of 1 in 3,000

6. Recognized classes of APB709 will be Breeder, Foundation, Registered, and Certified seed. Arizona Plant Breeders, Inc. will maintain the variety by the spike to row method to produce breeder seed on an as needed basis. APB709 will most likely have a royalty fee and licensing agreement required.
7. Certified seed of APB709 will likely be available for commercial release and sale in the fall of 2026.
8. Application for a PVP is anticipated with the option that APB709 can be sold by variety name only as a class of certified seed.
9. Certified seed acreage may be published by AOSCA and individual certifying agencies.

Barley

BG Nitro

HO216-297

1. HO216-297, BG Nitro 6-row spring food barley was developed by Highland Specialty Grains Inc. from the cross of BG 104/BZ509-896.
2. BG Nitro was developed through a modified bulk pedigree breeding program and was selected for shrunken grain, waxy starch, resistance to lodging and grain yield.
3. BG Nitro is adapted to the irrigated and dryland acres of Eastern Washington and Northern Idaho.
4. BG Nitro has shown an intermediate reaction to Yellow Stripe rust compared to moderately susceptible reaction of BG 104, one of its parents.

5. Identifying characteristics –

1. Growth Habit:	Spring	16. Plant Height (see below):	
2. Spike:	Six-row	17. Spike Shape:	Tapering
3. Coleoptile Color:	Green	18. Spike Density:	Dense
4. Juvenile Growth Habit:	Prostrate	19. Spike Position at Maturity:	Nodding
5. Plant Tillering:	Intermediate	20. Hairiness of Rachis Edge:	Few
6. Leaf Color at Boot:	Dark Green	21. Rachilla Hair Length:	Long
7. Flag Leaf at Boot:	Erect, Twisted, Slight waxy bloom	22. Lemma Awns:	Straight
8. Pubescence on Leaf Blade:	No	23. Length of Lemma Awns:	Short
9. Pubescence on Leaf Sheath:	No	24. Lemma Awn Surface:	Rough
10.:Auricle Color:	White	25. Glume Hairiness:	Middle Only
11.Heading Date (see below):		26. Glume Awn Surface:	Rough
12. Stem Color:	White	27. Glume/Lemma Adherence:	Naked
13. Neck Shape:	Straight	28. Texture (if covered):	N/A
14. Collar Shape:	V-Shaped	29. Aleurone Color:	Colorless
15. Spike Exsertion:	Intermediate	30. Avg 1,000 Kernel Wt grams:	27.9g

Heading date: 170.9 which is: 1.6 Days LATER than: BG 104

Plant height: 68.6 cm, which is 3.3 cm TALLER than: BG 104

Physiological or Biochemical Traits:

Variants and Frequency: Tall variant 3-6 inches taller @ 4/10,000 plants. Long awned variant @ 8/10,000 plants. 2 row variant at 4/10,000 plants. 6 row hooded variant at 4/10,000 plants. Plump and/or covered variant @ 18/10,000 seeds. Non-waxy variant @ 18/10,000 seeds.

6. Highland Specialty Grains will maintain breeder seed by planting head rows as necessary, the certified classes of seed shall be Foundation, Registered, and Certified.
7. Certified seed will first be available for sale in fall of 2023 or spring of 2024.
8. Application will be made for Plant Variety Protection as well as application for Utility Patent. BG Nitro will not be limited for sale as class of certified seed.
9. Certified seed production acreage is not to be published by AOSCA and certifying agencies.

Wheat

Variety Name: MT Raska

Experimental Designation: MTD18313

Varietal Type: Pure Line Maintainer Restorer

1. MT Raska is a spring durum wheat developed by Montana State University.
2. MT Raska was bred using the single seed descent method and was selected for its yield performance under dryland conditions, consistent high-test weight, good semolina color and protein strength, semi-dwarf stature, early heading/maturity, fungal leaf spot resistance, and standability under sawfly pressure.
3. MT Raska performs well in both the Northcentral and Northeastern regions of Montana, where most durum is produced and is intended for pasta production.
4. No claims are being made about disease or pest resistance.

5. Variety Objective Description

1. Kind: Durum	14. Awn Type: Awned
2. Seasonal Growth Habit: Spring	15. Awn Color: White
3. Coleoptile Color: Red	16. Glume Color: White/Amber
4. Juvenile Growth Habit: Erect	17. Glume Length: Medium
5. Leaf Color at Boot: Green	18. Shoulder Shape: Oblique
6. Flag Leaf at Boot: Erect, Not Twisted, Waxed	19. Shoulder Width: Medium
7. Auricle Color: White	20. Beak Shape: Acuminate
8. Anther Color: Yellow	21. Beak Length: Medium
9. Stem Anthocyanin: Absent	22. Glume Pubescence: Absent (glabrous)
10. Stem Internodes: Hollow	23. Seed Color: Amber
11. Spike Shape: Oblong	24. Seed Shape: Elliptical
12. Spike Density: Mid Dense	25. Cheeks: Angular
13. Spike Curvature: Erect	26. Brush Size: Short
27. Physiological/Biochemical Traits: na	
28. Variants and Frequency: Talls at a rate of 5/10,000 spikes.	
Comparison to Check Variety Name of check variety: Divide	
29. Days to 50% Heading: 68	which is 3 days earlier than check
30. Plant height (cm): 62.7	which is 18 cm shorter than check.
31. Avg 1,000 kernel wt (g): 37.1	which is 2 g lighter than check.

6. Recognized classes of MT Raska are breeder, foundation, registered, and certified. Seed of MT Raska will be maintained by the Montana State University Foundation Seed Program who will also collect fees from any seed sales.
7. It is anticipated that certified seed of MT Raska will be available for planting spring of 2025.
8. Application for PVP and Title V is anticipated whereby it can only be sold by its variety name as a class of certified seed.
9. Certified seed production acreage of MT Raska may be published by AOSCA and individual certifying agencies.

Wheat

Variety Name: MT Blackbeard

Experimental Designation: MTD18348

Varietal Type: Pure Line Maintainer Restorer

1. MT Blackbeard is a spring durum wheat with experimental designation MTD18348 developed by Montana State University.
2. MT Blackbeard was bred using the single seed descent method and was selected for its high yield performance under dryland conditions and excellent quality characteristics. MT Blackbeard has a high percent of large seeds, high semolina yellowness, and high gluten strength. MT Blackbeard has low grain cadmium accumulation.
3. MT Blackbeard performs well in both the Northcentral and Northeastern regions of Montana where most durum is produced and is intended for pasta production.
4. No claims are being made about disease or pest resistance.

5. Variety Objective Description

1. Kind: Durum	14. Awn Type: Awned
2. Seasonal Growth Habit: Spring	15. Awn Color: Black
3. Coleoptile Color: White	16. Glume Color: White/Amber
4. Juvenile Growth Habit: Erect	17. Glume Length: Medium
5. Leaf Color at Boot: Green	18. Shoulder Shape: Oblique
6. Flag Leaf at Boot: Erect, Not-Twisted, Waxed	19. Shoulder Width: Medium
7. Auricle Color: White	20. Beak Shape: Acuminate
8. Anther Color: Yellow	21. Beak Length: Medium
9. Stem Anthocyanin: Absent	22. Glume Pubescence: Absent (glabrous)
10. Stem Internodes: Hollow	23. Seed Color: Amber
11. Spike Shape: Oblong	24. Seed Shape: Elliptical
12. Spike Density: Mid Dense	25. Cheeks: Angular
13. Spike Curvature: Erect	26. Brush Size: Short
27. Physiological/Biochemical Traits: MT Blackbeard has the <i>cdul</i> allele for low grain cadmium accumulation, which is detectable using the CAPS marker <i>usw47</i> .	
28. Variants and Frequency: Awns are black but may turn white and may drop at harvest maturity	
Comparison to Check Variety Name of check variety: Divide	
29. Days to 50% Heading: 72	which is 1.5 days later than check
30. Plant height (cm): 83.3	which is 2.5 cm taller than check.
31. Avg 1,000 kernel wt (g): 41.0	which is 2 g g heavier than check.

6. Recognized classes of MT Blackbeard are breeder, foundation, registered, and certified. Seed of MT Blackbeard will be maintained by the Montana State University Foundation Seed Program who will also collect fees from any seed sales.
7. It is anticipated that certified seed of MT Blackbeard will be commercially available for planting spring of 2025.
8. Application for PVP and Title V is anticipated whereby MT Blackbeard can only be sold by its variety name as a class of certified seed.
9. Certified seed production acreage of MT Blackbeard may be published by AOSCA and individual certifying agencies.

Wheat

Redwing 515 14W526(Exp)

1. 'Redwing 515' is a hard red spring wheat released by Syngenta Crop Protection AG
2. 'Redwing 515' was selected for height, maturity, appearance, kernel color, end-use quality, and disease reaction.
3. 'Redwing 515' is primarily adapted to the Sacramento and San Joaquin Valleys.
4. 'Redwing 515' has shown above average tolerance to current races of stripe rust.
5. Identifying characteristics –

1. Kind: Common, Hard Red, Spring

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>Awined</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>Blue-Green</u>	19. Glume Length:	<u>Long</u>
6. Flag Leaf at Boot:	<u>Erect, Twisted, Waxed</u>	20. Shoulder Shape:	<u>Square</u>
7. Auricle Color:	<u>White</u>	21. Shoulder Width:	<u>Narrow</u>
8. Day(s) to 50% Heading:	<u>99</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>Present</u>
11. Plant Height (cm):	<u>87.4</u>	25. Seed Color:	<u>Red</u>
12. Internodes:	<u>Hollow</u>	26. Seed Shape:	<u>Elliptical</u>
13. Spike Shape:	<u>Tapering</u>	27. Cheeks:	<u>Rounded</u>
14. Spike Density:	<u>Mid Dense</u>	28. Brush Size (S,M,L.):	<u>Medium</u>
15. Spike Curvature:	<u>Inclined</u>	29. Avg 1,000 Kernel Wt (grams):	<u>38</u>

30. Other Physiological/Biochemical Traits:

31. Variants and Frequency: Approximately 0.5% of plants were rogued from the Breeder's seed increase with 0.3% being taller height wheat plants (8 to 15 cm) and 0.2% being erect flag leaf off types. Up to 0.5% variant plants may be encountered in future generations. Up to 0.3% white seed may be encountered in all classes of certified seed.

6. Syngenta Seeds, LLC. maintains seed stock and certified classes of Foundation, Registered and Certified. Syngenta Seeds, LLC. will maintain the variety by the head row/progeny method to produce breeder seed as needed. Royalty fees are anticipated.
7. Certified seed stocks of Redwing 515 (Exp: 14W526) will be available in the spring of 2023.
8. Plant Variety Protection is anticipated in 2022 and 'Redwing 515' may only be sold as a class of certified seed.
9. Certified acreage is not to be published by AOSCA and certifying agencies.

Wheat

TMC Lockhaven 10PN2013-02 (Exp)

1. TMC Lockhaven is a Soft White Spring wheat developed by Syngenta Crop Protection AG
2. TMC Lockhaven was selected for height, maturity, appearance, kernel color, end-use quality, and disease reaction.
3. TMC Lockhaven is primarily adapted to the high moisture region of Washington and Northern Idaho.
- 4.
5. Identifying characteristics –

1. Kind:	<u>Common, Soft 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/Amber</u>
5. Leaf Color at Boot:	<u>Blue Green</u>	19. Glume Length:	<u>Long</u>
6. Flag Leaf at Boot:	<u>Erect, Twisted, Waxed</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>184</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>60</u>	25. Seed Color:	<u>White</u>
12. Internodes:	<u>Hollow</u>	26. Seed Shape:	<u>Elliptical</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>Short</u>
15. Spike Curvature:	<u>Erect</u>	29. Avg 1,000 Kernel Wt (grams):	<u>47</u>

30. Other Physiological/Biochemical Traits:

31. Variants and Frequency: Approximately 0.5% of plants were rogued from the Breeder's seed increase with 0.5% being taller height wheat plants (8 to 15 cm). Up to 0.5% variant plants may be encountered in future generations. Up to 0.5% red seed may be encountered in all classes of certified seed.
6. Syngenta Seeds, LLC. maintains seed stock and certified classes of Foundation, Registered and Certified. Syngenta Seeds, LLC. will maintain the variety by the head row/progeny method to produce breeder seed as needed. Royalty fees are anticipated
7. Certified seed stocks of 'TMC Lockhaven' will be available in the spring of 2023
8. Plant Variety Protection is anticipated in 2022 and 'TMC Lockhaven.' Title V protection, for sale only as a class of certified seed will NOT be sought.
9. Certified acreage is not to be published by AOSCA and certifying agencies.

Wheat
AP Prolific
CP12000452#142 (Exp)
(Amended-Name Change)

Variety Name AP Prolific

Experimental Designation(s) CP12000452#142

Date SGVRB first recommended this variety 05/12/22

Date any previous amendments were recommended _____

Date this amendment was submitted 6/01/2022

1. CP12000452#142 is a hard red winter wheat developed by Syngenta Crop Protection AG.
2. CP12000452#142 was selected for height, maturity, green leaf duration, disease reaction, and end use quality in yield and disease test plots following doubled haploid method.
3. CP12000452#142 was tested in Kansas, Oklahoma, Nebraska, and South Dakota and is well-adapted to be a high yielding bread wheat in the Central Plains.
4. CP12000452#142 is tolerant to moderately tolerant to common stripe rust races in the Central Plains.
5. Identifying characteristics –

1. Kind:	Common, Hard Red Winter Wheat		
2. Seasonal Growth Habit:	Winter	16. Awn Type:	Awned
3. Coleoptile Color:	White	17. Awn Color:	White
4. Juvenile Growth Habit:	Semi-Erect	18. Glume Color:	White/Amber
5. Leaf Color at Boot:	Blue-Green	19. Glume Length:	Medium
6. Flag Leaf at Boot:	Erect, Twisted, Waxed	20. Shoulder Shape:	Square
7. Auricle Color:	White	21. Shoulder Width:	Medium
8. Day(s) to 50% Heading:	126	22. Beak Shape:	Acuminate
9. Anther Color:	Yellow	23. Beak Length (S,M,L,VL):	Medium
10. Anthoncyanin:	Absent	24. Glume Pubescence:	Present
11. Plant Height (cm):	92	25. Seed Color:	Red
12. Internodes:	Hollow	26. Seed Shape:	Ovate
13. Spike Shape:	Tapering	27. Cheeks:	Rounded
14. Spike Density:	Mid-Dense	28. Brush Size (S,M,L.):	Long
15. Spike Curvature:	Erect	29. Avg 1,000 Kernel Wt (grams):	33

30. Other Physiological/Biochemical Traits:

31. Variants and Frequency: CP12000452#142 has been uniform and stable since 2019. Approximately 0.03% of the plants were rogued from the Breeder's seed increase in 2020. Allowed variants are taller height plants and awnless plants, and may be encountered at up to 1%, combined. Up to 1.0% variant plants may be encountered in subsequent generations. We also would expect to see up to 1.8% white seed variant.
6. Syngenta Crop Protection AG will maintain seed stock and certified classes of Foundation, Registered and Certified. Syngenta Crop Protection AG. will maintain the variety at the breeder seed level to produce breeder seed as needed. Royalty fees are anticipated.
7. Certified seed will likely be available Fall of 2022.
8. Plant Variety Protection is anticipated in 2022 and CP12000452#142 may only be sold as a class of certified seed.
9. Certified acreage is not published by AOSCA or by individual certifying agencies.

Date this application was submitted: Jan 5, 2022

Date recommended by the VRB: May 12, 2022