



Rev Sep 2020

**SAVE this form to your desktop or computer.
Enter required information and upon completion, return to nvrb@aosca.org
by clicking on this link and attaching the application.**

*** if unable to submit in Word format, please contact the AOSCA office for assistance.**

**ASSOCIATION OF OFFICIAL SEED CERTIFYING AGENCIES
SMALL GRAIN VARIETY REVIEW BOARD
WHEAT APPLICATION – PART B – 2021**

**This application – Part B – must be submitted along with Part A
(Note You may submit ONE Part A application for multiple Part B applications)**

Please email the completed applications to: nvrb@aosca.org

All information provided on this application shall be maintained in complete confidence by the Association of Official Seed Certifying Agencies (AOSCA), its staff, and individual members of the AOSCA Variety Review Board. Each member of the Review Board will be required to sign a statement to this effect prior to their receipt of any applications for review. Upon completion of the review process, reviewers will be required to destroy or delete all applications in their possession. One copy of each application will be maintained on file in the AOSCA office.

**APPLICATION FOR REVIEW OF SMALL GRAIN VARIETIES
FOR CERTIFICATION**

WHEAT (*Triticum aestivum* L.)

Applicant _____ Date _____

Variety Name _____ Experimental Designation _____

**IT IS THE APPLICANT’S RESPONSIBILITY TO SUBMIT AN AMENDMENT APPLICATION
FOR NAME CHANGE WHEN THE PERMANENT VARIETY NAME HAS BEEN SELECTED.**

REQUIRED INFORMATION

(For reference, see U.S. Federal Seed Act §201.68)

1. **Origin and Breeding History:** Describe the variety’s origin and the breeding methods and procedures employed in its development. Include germplasm sources and specific selection traits. State the location and year that breeder seed was first produced. Breeder seed is seed directly controlled by the originating or sponsoring plant breeding institution, or person, or designee thereof. As applied to certified seed, and this application, breeder seed is the source for the production of the seed of other classes of certified seed. Insert this information in the following box.

Deleted:

2. **Variety Objective Description:** On pages 3-5, describe the variety by identifying the appropriate term in the list of descriptors provided. The corresponding descriptors on page 7, Section 5 (the Summary Description) may be entered by copy and paste or directly typing them into the corresponding boxes.

Rev Sep 2020

3. **Supporting Information:** Provide data to characterize the variety in the following areas.
All claims made about the variety must be supported by data.
- Yield and other agronomic responses obtained from test locations that support the area of adaptation. Provide data from at least two years and two locations within the area of adaptation for yield and agronomic response traits. Include and identify at least one recognized check variety for comparing agronomic data.
 - Disease and insect reactions if any such reactions are stated as varietal attributes. Provide testing conditions used to determine reactions (*e.g.*, field, greenhouse, or laboratory; identity of testing methods). State specific races or strains of organisms, if known. Include and identify susceptible and resistant checks for comparative pest reactions.
 - Provide evidence of quality and/or other relevant attributes if these claims are used as a means of identifying the variety. Include and identify at least one recognized check variety for comparing milling/baking traits, if referenced.

Present all data in well-constructed tables appended to the end of this application. Number the tables and indicate where the data were collected. Include captions or footnotes as necessary to clearly explain the nature of the units of measurements used in the header. Provide the number of entries in the tests, the test grand mean, and a measure of statistical significance, such as least significant difference or multiple range comparison, for each location-year or test.

Deleted: Provide data from at least two years and two locations within the area of adaptation for yield and agronomic response traits, as appropriate. Include and identify at least one recognized check variety for comparing agronomic data and for comparing milling/baking traits, if referenced. Include and identify susceptible and resistant checks for comparative pest reactions. ↓

4. **Summary Description:** Provide a concise single-page description of the variety for AOSCA to publish for use by official seed certifying agencies. All claims must be supported by data.

Use the instructions and template located at the end of this application.

Consult the sample application on the AOSCA website for guidance.

VARIETY OBJECTIVE DESCRIPTION

WHEAT (*Triticum aestivum* L.)

Variety Name: _____

Instructions: Select **one (1)** descriptor (except where otherwise instructed) to enter in the corresponding element on the Summary Description page (see page 7). If "Other" is selected, state what it is.

1. KIND OF WHEAT:

Common _____ Durum _____ Emmer _____ Spelt _____

Polish _____ Poulard _____ Club _____

If Common, state kernel characteristics in Item 5.1 on page 7.

Example: Hard red common, and place an "X" in the appropriate selection below.

Hard Red _____ Soft Red _____

Hard White _____ Soft White _____

2. SEASONAL GROWTH HABIT:

Winter _____ Spring _____ Other _____

3. COLEOPTILE COLOR:

White _____ Red _____ Other _____

4. JUVENILE GROWTH HABIT:

Prostrate _____ Semi-Erect _____ Erect _____

5. LEAF COLOR AT BOOT:

Yellow-Green _____ Green _____

Blue-Green _____ Gray-Blue _____

6. FLAG LEAF AT BOOT: (Multiple descriptors may be selected)

Erect _____ Re-curved _____

Twisted _____ Not-Twisted _____

Waxed _____ Not Waxed _____

7. AURICLE COLOR:

White _____ Purple _____ Other _____

8. HEADING DATE / ANTHESIS:

Average number of day(s) to 50% heading is _____

This averages _____ Day(s) Earlier _____ Day(s) Later

OR _____ The Same as _____ (known variety)

9. ANTHOR COLOR:

Yellow _____ Purple _____

STEM CHARACTERISTICS

10. ANTHOCYANIN:

Absent _____ Present _____

11. PLANT HEIGHT:

Average number in centimeters: _____

This averages _____ cm TALLER _____ cm SHORTER
OR _____ The Same as _____ (known variety)

12. INTERNODES:

Hollow _____ Solid _____ Semi-solid _____

SPIKE CHARACTERISTICS (at maturity)

13. SHAPE:

Tapering _____ Oblong _____ Clavate _____ Elliptical _____

14. DENSITY:

Lax _____ Mid Dense _____ Dense _____

15. CURVATURE (Orientation at maturity):

Erect _____ Inclined _____ Nodding _____

16. AWNS:

Awnless _____ Apically Awnletted _____ Awnletted _____ Awned _____

17. AWN COLOR:

White _____ Black _____ Brown _____ Tan _____

GLUME CHARACTERISTICS (at maturity)

18. COLOR:

Tan _____ White/Amber _____ Other _____

19. LENGTH:

Short _____ Medium _____ Long _____

20. SHOULDER SHAPE:

Wanting _____ Oblique _____ Rounded _____
 Square _____ Elevated _____ Apiculate _____

21. SHOULDER WIDTH:

Narrow _____ Medium _____ Wide _____

22. BEAK SHAPE:

Acuminate _____ Obtuse _____ Acute _____

23. BEAK LENGTH:

Short _____ Medium _____ Long _____ Very long _____

24. PUBESCENCE:

Present _____ Absent (glabrous) _____

SEED CHARACTERISTICS

25. COLOR:

White _____ Amber _____ Red _____ Other _____

26. SHAPE:

Ovate _____ Oval _____ Elliptical _____

27. CHEEK:

Rounded _____ Angular _____

28. BRUSH:

Short _____ Medium _____ Long _____

29. AVERAGE 1,000-KERNEL WEIGHT (Insert weight for comparison)

_____ Grams, Which is: _____ Grams Lighter Than _____ Grams Heavier Than
 OR _____ The Same as _____ (known variety)

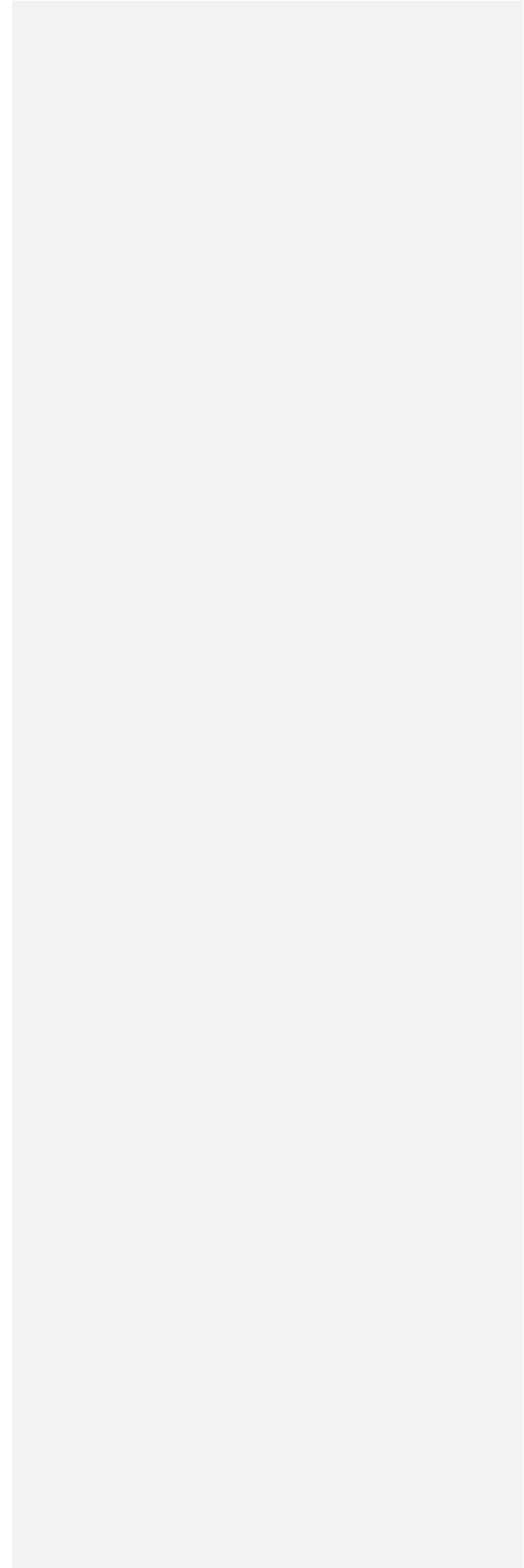
30. OTHER:

List any other traits or special markers that may be helpful in identifying the variety, including characteristics determined by molecular or bioassay methods that might be required as a condition of eligibility for final certification. Inclusion of the markers or bioassay methods in this variety application does not mean that the certification agency will screen for these other traits as a method of purity determination. If additional testing requirements are desired to determine purity of this variety, submit an Additional Certification Requirement (ACR) with this variety application.

31. Field or Seed Variants observed in this variety:

Describe any known variants and their rate(s) of occurrence. Field variants should be presented based on a population ratio (e.g., 10 per 10,000) and seed variants should be stated as a seed-based ratio, or a count per pound.

NOTE: The U.S. Federal Seed and most state seed laws do not allow the marketing of a variety with variants in excess of 5%. AOSCA suggests that applicants discuss this issue with the USDA Agriculture Marketing Service – Seed Regulatory and Testing Division, located in Gastonia, North Carolina.



4. **Summary Description:** Provide a concise, single page description of the variety on the next page for AOSCA to publish for use by official seed certifying agencies. All claims must be supported by data. You must use the categories described below, using COMPLETE SENTENCES. Insert your text in the blank cell next to the item number. **PLEASE DELETE THIS INSTRUCTION PAGE WHEN SUBMITTING AN APPLICATION.**

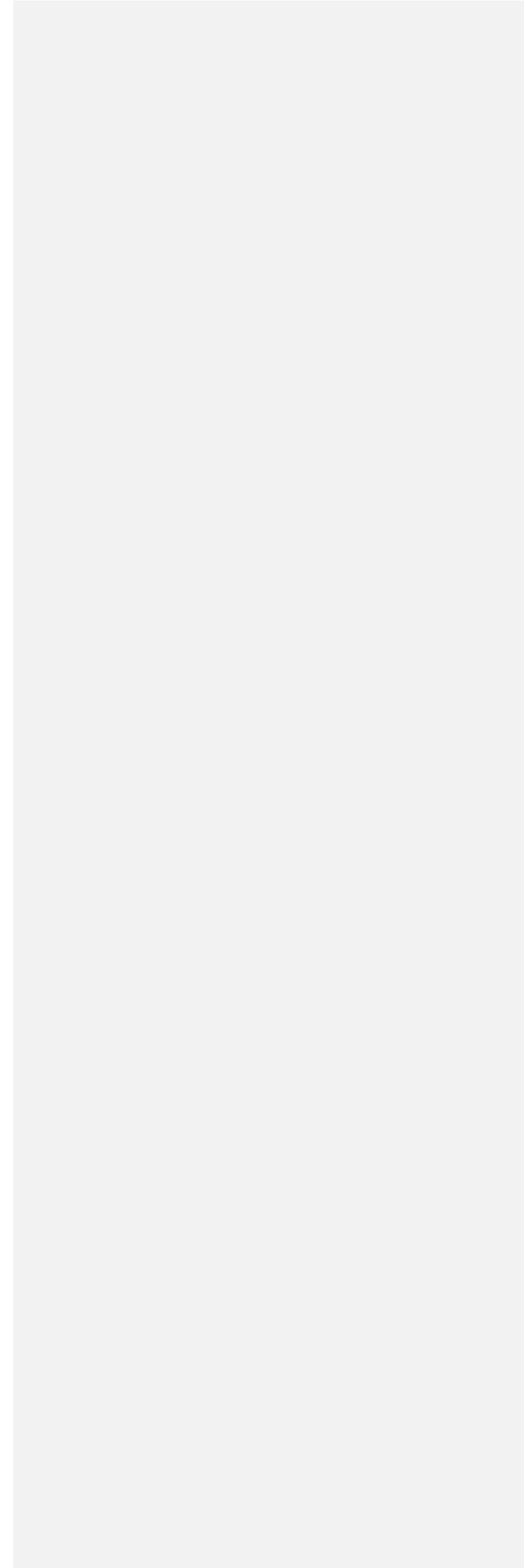
Wheat

Insert Variety Name Here

Insert Experimental Designation Name(s) Here

1. The name of the variety, including its experimental designation, its market class, and the identity of the developer and/or owner. **Example:** *Nuwheet* (Experimental no.) is a hard red winter wheat developed by ABC Breeding Company.
2. A summary statement of the selection criteria and breeding procedures that were previously described. **Confidential business information is not required. Example:** *Nuwheet* was selected for high spike density, resistance to stripe rust, and high falling number using the single seed descent method.
3. Area of probable adaptation, testing locations, and primary purpose for which the variety will be used. The stated area of adaptation must be supported by two years of data, which you have provided for full review as part of section 3, Supporting Information. **Example:** *Nuwheet* was tested in western Oklahoma and is well-adapted as to be a grazing-tolerant bread wheat in the irrigated and dryland production areas of the southern High Plains.
4. A statement relative to the variety's disease and insect resistance. If the statement is based on limited data due to testing constraints, reference that in the statement. If there are no claims to be made about disease and/or insect resistance, in this part of the template enter "No claims are made about pest resistance." **Example:** Based on testing in 2019, *Nuwheet* is resistant to races 1, 2, 3 of stem rust, and based on testing in 2019 and 2020 is moderately resistant to Hessian fly.
5. Provide a detailed description of morphological, physiological and other identifying characteristics by selecting options presented in the Variety Objective Description section and typing or pasting the selections into the table on the Summary Description format page. **Include a description of variants and their frequency at the end of the section.**
NOTE: The U.S. Federal Seed and most state seed laws do not allow the marketing of a variety with variants in excess of 5%. AOSCA suggests that applicants discuss this issue with the USDA Agriculture Marketing Service – Seed Regulatory and Testing Division, located in Gastonia, North Carolina.
6. State the certified seed classes to be recognized, the party responsible for maintaining the variety, and procedure(s) adopted for maintaining seed stocks, with limitations, if any. If applicable, state whether the variety may be subject to collection of a royalty fee by certifying agencies and whether any kind of stewardship or licensing agreement is required that would affect certifying agency activities, such as trait-verification by molecular or bioassay testing. **Example:** Recognized classes of *Nuwheet* are breeder, foundation, registered, and certified. ABC Breeding Company will maintain the variety by the head-row purification method to produce breeder seed as needed and all foundation seed. No royalty fees or licensing agreements are anticipated.
7. State the likely date that certified seed will first be offered for sale. **Example:** Certified seed of *Nuwheet* will likely be available for planting in fall of 2015
8. State whether or not application will be submitted for protection under the U.S. Plant Variety Protection Act and, if appropriate, whether or not the "Certification Option" will be elected (to be sold by variety name only as a class of certified seed). If application for PVP is not planned, state whether relevant descriptive data (morphological only) can be supplied to the PVP database. **Examples:** Application for PVP is anticipated with the option that *Nuwheet* can be sold by variety name only as a class of certified seed. OR: Application for PVP is not planned and descriptive data may be supplied to the PVP database.

9. State whether or not certified seed production acreage can be published by AOSCA and certifying agencies. **Examples:** Certified seed production acreage (may) (is not to) be published by AOSCA and individual certifying agencies



Wheat

Insert Variety Name Here

Insert Experimental Designation Name(s) Here

- 1.
- 2.
- 3.
- 4.
5. Identifying characteristics – insert the descriptive term from the Objective Description (pages 3-5) except where indicated:

1. Kind: _____

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

- | | |
|---------------------------------|--|
| 2. Seasonal Growth Habit: _____ | 16. Awn Type: _____ |
| 3. Coleoptile Color: _____ | 17. Awn Color: _____ |
| 4. Juvenile Growth Habit: _____ | 18. Glume Color: _____ |
| 5. Leaf Color at Boot: _____ | 19. Glume Length: _____ |
| 6. Flag Leaf at Boot: _____ | 20. Shoulder Shape: _____ |
| 7. Auricle Color: _____ | 21. Shoulder Width: _____ |
| 8. Day(s) to 50% Heading: _____ | 22. Beak Shape: _____ |
| 9. Anther Color: _____ | 23. Beak Length (S,M,L,VL): _____ |
| 10. Anthocyanin: _____ | 24. Glume Pubescence: _____ |
| 11. Plant Height (cm): _____ | 25. Seed Color: _____ |
| 12. Internodes: _____ | 26. Seed Shape: _____ |
| 13. Spike Shape: _____ | 27. Cheeks: _____ |
| 14. Spike Density: _____ | 28. Brush Size (S,M,L): _____ |
| 15. Spike Curvature: _____ | 29. Avg 1,000 Kernel Wt (grams): _____ |

30. Other Physiological/Biochemical Traits: _____

31. Variants and Frequency: _____

- 6.
- 7.
- 8.
- 9.