200700254

No.

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

West Bred, LLC

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR MULTIPLYING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE FOREGOING PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'Agawam'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twenty-third day of May, in the year two thousand and seven.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions*

Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER: WestBred, LLC

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME: BZ 996-472W

3. VARIETY NAME: Agawam

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*: 81 Timberline Drive, Bozeman, MT 59718

5. TELEPHONE *(include area code)*: 406-587-1218

6. FAX *(include area code)*: 406-586-8247

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PVPO NUMBER: #200700254

FILING DATE: MARCH 29, 2007

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*: Limited Liability Corporation

8. IF INCORPORATED, GIVE STATE OF INCORPORATION: Arizona

9. DATE OF INCORPORATION: August 4, 2003

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*

Dr. Dale R. Clark
81 Timberline Drive
Bozeman, MT 59718

FEES RECEIVED

FILING AND EXAMINATION FEES: $ 4,382.00 DATE 3/29/07

CERTIFICATION FEE: $ 768.00 DATE 4/27/07

11. TELEPHONE (Include area code): 406-587-1218

12. FAX (Include area code): 406-586-8247

13. E-MAIL: dclark@westbred.com

14. CROP KIND *(Common Name)*: Wheat

16. FAMILY NAME *(Botanical)*: Poaceae

15. GENUS AND SPECIES NAME OF CROP: Triticum aestivum

17. IS THE VARIETY A FIRST GENERATION HYBRID? ☐ YES ☒ NO

18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (***OPTIONAL***)
☐ YES ☒ NO
IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERICALIZATION. _____

19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)

a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of Variety
d. ☐ Exhibit D. Additional Description of the Variety *(Optional)*
e. ☒ Exhibit E. Statement of the Basis of the Owner's Ownership
f. ☒ Exhibit F. Declaration Regarding Deposit
g. ☒ Voucher Sample *(3,000 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
g. ☒ Filing and Examination Fee ($4,382), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)*
☐ YES *(If "yes", answer items 21 and 22 below)* ☒ NO *(If "no", go to item 23)*

21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES?
☐ YES ☐ NO
IF YES, WHICH CLASSES? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO
IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS.
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.)

23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?
☒ YES ☐ NO USA April 10, 2006
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
☐ YES ☒ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER		SIGNATURE OF OWNER	
Dale R. Clark for WestBred, LLC		Craig R. Cook for WestBred, LLC	
NAME *(Please print or type)*		NAME *(Please print or type)*	
Dale R. Clark		Craig R. Cook	
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE
Director of Research	March 28, 2007	Wheat Breeder	March 28, 2007

(See reverse for instructions and information collection burden statement)

ST-470 (02-06) designed by the Plant Variety Protection Office using Word 2003.

GENERAL INSTRUCTIONS: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E, F; (3) for a tuber reproduced variety, verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; and (4) payment by credit card or check drawn on a U.S. bank for $4,382 ($518 filing fee and $3,864 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice)*. **NEW:** With the application for a seed reproduced variety **or by direct deposit soon after filing**, the applicant must provide at least 3,000 viable untreated seeds of the variety *per se*, and for a hybrid variety at least 3,000 untreated seeds of each line necessary to **reproduce** the variety. Partial applications will be held in the PVPO for not more than 90 days; then returned to the applicant as un-filed. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a payment by credit card or check payable to "Treasurer of the United States" in the amount of $768 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

Plant Variety Protection Office
Telephone: (301) 504-5518 **FAX:** (301) 504-5291
General E-mail: PVPOmail@usda.gov
Homepage: http://www.ams.usda.gov/science/pvpo/PVPindex.htm

#200700254

SPECIFIC INSTRUCTIONS:
To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and **provide evidence** that the permanent name of the application variety (even if it is a parental, inbred line) has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: U.S. Department of Agriculture, Agricultural Marketing Service, Livestock and Seed Programs, **Seed Regulatory and Testing Branch**, 801 Summit Crossing Place, Suite C, Gastonia, North Carolina 28054-2193 Telephone: (704) 810-8870. http://www.ams.usda.gov/lsg/seed.htm.

ITEM

19a. Give:
(1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach replicated statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc.*

19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

20. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

23. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

24. *See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.*

22. CONTINUED FROM FRONT *(Please provide a statement as to the limitation and sequence of generations that may be certified.)*

23. CONTINUED FROM FRONT *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*

24. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

16.a. Exhibit A. Origin and Breeding History

Agawam (Exp. # BZ 996-472W) is a hard white spring wheat that was developed by WestBred, LLC from the cross of "Fortuna/WestBred 906R//Golden 86". The final cross was made near Phoenix, AZ in 1994. The F1 seed were planted near Bozeman, MT, in the spring of 1994, and the F2 seed harvested in September 1994. The F2 seed was planted in November, 1994 near Phoenix, AZ. Individual F2 heads were harvested in April, 1995 and the F3 seed planted as individual 7' rows near Bozeman, MT, in May, 1995. Individual heads were harvested from agronomically acceptable rows in September 1995 and the F4 seed was planted as 7' single rows again near Bozeman in May, 1996. The F4 rows were observed for agronomic appearance and one of the rows was harvested and given the designation, BZ 996-472W. Grain from the F4 row and subsequent generations, F5-F9, was tested for bread making quality by measuring test weight, percent protein, SDS sedimentation and the five-gram mixogram, mix time and stability. Yield trials, along with quality analysis for hard white spring wheat, were conducted on the F4 thru F11 generations in WestBred, LLC, hard spring wheat trials across Montana. The F5 and later generation yield trials in north central Montana indicated that this line exhibited a solid stem and was tolerant to the wheat stem sawfly. Table 1 provides agronomic performance across 10 locations in the 2004 Montana State University Advanced, Intrastate Spring Wheat Variety Trials. Tables 2 and 3 provide bread wheat and noodle quality data, respectively.

Twenty individual heads were harvested from an F6 plot in September 1998 and planted as head rows near Brawley, CA in the fall of 1998. In late April of 1999, four rows were harvested individually, and planted in May, 1999 near Bozeman, MT in long plots. This seed was harvested in August, 1999. One of the lines (designated BZ996-472W-h) was used for future yield trialing and increasing. Fifty F9 heads were selected from this line in the fall of 2000 and planted as head rows near Bozeman, MT in the spring of 2001. These 50 head rows were harvested individually and planted as 5'x 20' plots near Yuma, AZ in the fall of 2001. The field at Yuma had chemical residual (from a previous cotton crop) which this line was sensitive to. One line '-r' showed the most tolerance to this residual chemical, and was selected as the source of further increases. The

seed was harvested in April 2002 and planted in a strip increase near Bozeman, MT in May, 2002. Seed from this strip was harvested in September 2002 and designated Pre-Breeders seed. This seed was used to plant approximately 10 acres near Blackfoot, ID in April, 2003. Seed from this field was harvested in August 2003 and designated 'Breeders' seed. Some of this seed was used to plant demonstration strips in 2004 with the intent to send samples to milling and baking companies, which evaluated the hard white wheat for their purposes. Breeders seed was used to plant a 20 acre field near Conrad, MT in 2005. Certified seed was harvested from this field. The first unencumbered sale of Agawam occurred in April 10, 2006.

A variant that is similar to Agawam, but is 4 to 8 inches taller, occurs at a frequency of up to .08% (8 per 10,000 plants). Also, a red seed variant may occur at a frequency of up to 0.6% (60/10,000 seed). Otherwise, Agawam is a stable and uniform variety in appearance and performance across several generations (F4 to F11) and growing conditions.

The name Agawam comes from what was once a small town near Choteau, Montana.

16.b. Exhibit B. Statement of Distinctness

Agawam is most similar to the solid stemmed variety Choteau. However, Choteau is red seeded and Agawam is white seeded.

The above comparison, along with the complete Objective Description (Exhibit C) show Agawam to be a novel variety of hard white spring wheat.

#200700254

"Agawam"

Hard White Spring Wheat

Table 1. Agronomic comparisons of Agawam and check varieties in Montana State University 2004 Intrastate variety trials (means of 10 locations).

Variety	Headin date Julian	Plt. Ht inches	T.W. lbs/bu	Protein %	Yield bu/ac
AGAWAM	**172.0**	**31.2**	**62.9**	**13.9**	**71.9**
CHOTEAU	175.2	31.9	61.4	14.3	71.9
CONAN	174.2	32.5	61.0	14.5	68.8
ERNEST	175.9	38.6	61.2	14.6	67.8
FORTUNA	174.9	38.7	61.7	14.0	68.7
HANK	173.3	31.5	60.0	14.4	76.1
MCNEAL	176.6	34.4	60.6	14.1	71.5
MTHW9420	174.6	32.6	59.4	13.5	70.0
REEDER	175.1	35.1	61.5	14.1	71.5
WESTBRED 926	172.7	30.7	59.9	14.6	71.1
SITE MEAN ********	174.9	34.00	61.14	14.1	71.30
C.V. (S/MEAN%)	0.56	3.98	1.40	5.55	7.06
LSD (.05)	0.86	1.19	0.75	0.69	4.42

Table 2. Bread wheat quality of Agawam compared to check varieties in Montana State University, Intrastate 2004 variety trial.

Variety	Class	Wheat Protein, % (12%m.b.)	Flour Yield, %	Flour Protein, % (14%m.b.)	Flour Ash, %	Mixing Tolerance	Mixo Mixing Time, min	Mixo Water Absorption, %	Bake Mixing Time, min	Bake Water Absorption, %	Loaf Volume	Crumb Grain Score
AGAWAM	**HWS**	**13.9**	**67.5**	**11.9**	**0.40**	**5.3**	**4.4**	**61.6**	**7.0**	**72.7**	**1054**	**3.5**
FORTUNA	HRS	15.6	69.8	13.2	0.41	4.0	3.3	63.4	4.9	73.1	1161	3.5
MCNEAL	HRS	15.5	65.4	13.0	0.40	6.3	8.2	63.8	15.0	77.2	1202	3.0
REEDER	HRS	15.5	66.5	13.1	0.38	4.5	3.4	63.4	4.9	73.1	1086	3.0
CONAN	HRS	15.5	65.6	12.7	0.39	4.8	5.6	62.2	9.4	73.8	1172	3.8
HANK	HRS	15.8	67.2	13.1	0.38	4.8	6.3	62.5	9.2	72.7	1170	3.8
CHOTEAU	HRS	15.3	66.6	13.1	0.37	5.0	3.7	63.1	6.0	72.7	1157	3.3
MTHW9420	HWS	15.2	65.3	13.3	0.44	5.0	4.3	63.8	6.8	73.6	1194	3.3
EXPLORER	HWS	14.9	64.1	13.1	0.43	5.0	4.6	63.4	7.2	73.7	1230	3.8
NURSERY MIN		*13.7*	*62.6*	*11.9*	*0.36*	*3.3*	*2.1*	*61.3*	*2.5*	*69.3*	*1054*	*2.3*
NURSERY MAX		*16.7*	*70.3*	*14.4*	*0.44*	*7.0*	*11.4*	*66.9*	*23.3*	*79.7*	*1275*	*4.0*
NURSERY AVE		*15.4*	*67.2*	*13.1*	*0.40*	*5.0*	*4.8*	*63.6*	*8.9*	*74.2*	*1159*	*3.4*

WestBred, LLC, 81 Timberline Dr., Bozeman, MT 59718

"Agawam"

Hard White Spring Wheat

Table 3. Noodle quality analysis of Agawam compared to check varieties in Montana State University 2004 Intrastate wheat nursery (Bozeman only).

					Flour Color			Noodle Color							
Variety	Class	Wheat Protein, % (12%m.b.)	Flour Yield, %	Flour Protein, % (14%m.b.)	L* Brightness	a* Green - Red	b* Blue - Yellow	L* at 0 hour (Brightness)	a* at 0 hour (Green - Red)	b* at 0 hour (Blue - Yellow)	L* at 24 hour (Brightness)	a* at 24 hour (Green - Red)	b* at 24 hour (Blue - Yellow)	24 hour L * Stability (0hr-2	Noodle Score
Agawam	HWS	11.6	68.9	9.8	90.62	-0.97	9.11	87.63	0.33	13.75	79.26	0.77	17.60	8.4	293
HI-LINE	HRS	13.9	67.4	11.7	90.61	-0.66	8.21	86.38	1.17	12.92	76.56	2.1	18.3	9.8	295
MTHW9420	HWS	13.6	67.1	11.9	90.50	-0.97	9.91	86.25	0.69	15.71	76.70	1.56	22.65	9.6	293
EXPLORER	HWS	12.2	65.4	10.7	91.03	-1.11	9.45	88.05	0.23	14.51	77.82	0.76	19.95	10.2	274

REPRODUCE LOCALLY. Include form number and date on all reproductions.

Form Approved OMB NO 0581-0055

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Exhibit C

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

OBJECTIVE DESCRIPTION OF VARIETY
Wheat (*Triticum* spp.)

NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME
WestBred, LLC	BZ 996-472W	Agawam

ADDRESS *(Street and No. or RD No., City, State, Zip Code and Country)*
81 Timberline Drive
Bozeman, MT 59718

FOR OFFICIAL USE ONLY

PVPO NUMBER
#200700254

PLEASE READ ALL INSTRUCTIONS CAREFULLY:

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g., [0][9][9] or [0][9]) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: _____. Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

[1]
1 = Common
2 = Durum
3 = Club
4 = Other (Specify) _____

2. VERNALIZATION:

[1]
1 = Spring
2 = Winter
3 = Other (Specify) _____

3. COLEOPTILE ANTHOCYANIN:

[1] 1 = Absent 2 = Present

4. JUVENILE PLANT GROWTH:

[3] 1 = Prostrate 2 = Semi-Erect 3 = Erect

5. PLANT COLOR: (boot stage)

[3]
1 = Yellow-Green
2 = Green
3 = Blue-Green

6. FLAG LEAF: (boot stage)

[2] 1 = Erect 2 = Recurved
[2] 1 = Not Twisted 2 = Twisted
[2] 1 = Wax Absent 2 = Wax Present

7. EAR EMERGENCE:

[0][6][0] Number of Days (Average)
[0][3] Number of Days Earlier Than * Choteau
Same As * Triple IV
[ ][ ] Number of Days Later Than * _____

**Relative to a PVPO-Approved Commercial Variety Grown in the Same Trial*

8. ANTHER COLOR:

[1] 1 = Yellow 2 = Purple

Agawam

#200700254

Exhibit C (Wheat)

9. PLANT HEIGHT: (from soil to top of head, excluding awns)

[0 7 9] cm (Average)

[ ] cm Taller Than _____ *

Same As Hank *

[1 0] cm Shorter Than Reeder *

10. STEM:

A. ANTHOCYANIN

[1] 1 = Absent 2 = Present

B. WAXY BLOOM

[2] 1 = Absent 2 = Present

C. HAIRINESS (last internode of rachis)

[2] 1 = Absent 2 = Present

D. INTERNODE

[3] 1 = Hollow 2 = Semi-Solid 3 = Solid

[4] Number of Nodes

E. PEDUNCLE

[1] 1 = Erect 2 = Recurved 3 = Semi-Erect

[6 0] cm Length

F. AURICLE

[2] Anthocyanin: 1 = Absent 2 = Present

[2] Hair: 1 = Absent 2 = Present

11. HEAD: (At Maturity)

A. DENSITY

[2]
1 = Lax
2 = Middense (Laxidense)
3 = Dense

B. SHAPE

[2]
1 = Tapering
2 = Strap
3 = Clavate
4 = Other (Specify) _____

C. CURVATURE

[2]
1 = Erect
2 = Inclined
3 = Recurved

D. AWNEDNESS

[4]
1 = Awnless
2 = Apically Awnletted
3 = Awnletted
4 = Awned

12. GLUMES: (At Maturity)

A. COLOR

[1]
1 = White
2 = Tan
3 = Other (Specify) _____

B. SHOULDER

[2]
1 = Wanting 2 = Oblique
3 = Rounded 4 = Square
5 = Elevated 6 = Apiculate
7 = Other (Specify) _____

C. SHOULDER WIDTH

[2]
1 = Narrow
2 = Medium
3 = Wide

D. BEAK

[3]
1 = Obtuse
2 = Acute
3 = Acuminate

E. BEAK WIDTH

[2]
1 = Narrow
2 = Medium
3 = Wide

F. GLUME LENGTH

[2]
1 = Short (ca. 7 mm)
2 = Medium (ca. 8 mm)
3 = Long (ca. 9 mm)

G. WIDTH

[2]
1 = Narrow (ca. 3 mm)
2 = Medium (ca. 3.5 mm)
3 = Wide (ca. 4 mm)

H. PUBESCENCE

[1]
1 = Not Present
2 = Present

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#200700254 Exhibit C (Wheat)

13. SEED:

A. SHAPE

[1] 1 = Ovate
2 = Oval
3 = Elliptical

B. CHEEK

[2] 1 = Rounded
2 = Angular

C. BRUSH

[2] 1 = Short
2 = Medium
3 = Long

[1] 1 = Not Collared
2 = Collared

D. CREASE

[1] 1 = Width 60% or less of Kernel
2 = Width 80% or less of Kernel
3 = Width Nearly as Wide as Kernel

[2] 1 = Depth 20% or less of Kernel
2 = Depth 35% or less of Kernel
3 = Depth 50% or less of Kernel

E. COLOR

[1] 1 = White
2 = Amber
3 = Red
4 = Other (Specify) _____

F. TEXTURE

[1] 1 = Hard
2 = Soft
3 = Other (Specify) _____

G. PHENOL REACTION (See Instructions)

[2] 1 = Ivory
2 = Fawn
3 = Light Brown
4 = Dark Brown
5 = Black

H. SEED WEIGHT

[3 8] g/1000 Seed (whole number only)

I. GERM SIZE

[2] 1 = Small
2 = Midsize
3 = Large

14. DISEASE: PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

(0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

[0] Stem Rust (*Puccinia graminis* f. sp. *tritici*)
[0] Stripe Rust (*Puccinia striiformis*)
[0] Tan Spot (*Pyrenophora tritici-repentis*)
[0] Halo Spot (*Selenophoma donacis*)
[0] *Septoria nodorum* (Glume Blotch)
[0] *Septoria avenae* (Speckled Leaf Disease)
[0] *Septoria tritici* (Speckled Leaf Blotch)
[0] Scab (*Fusarium* spp.)
[0] "Black Point" (Kernel Smudge)
[0] Barley Yellow Dwarf Virus (BYDV)
[0] Soilborne Mosaic Virus (SBMV)
[0] Wheat Yellow (Spindle Streak) Mosaic Virus
[0] Wheat Streak Mosaic Virus (WSMV)
[0] Other (Specify) _____
[0] Other (Specify) _____
[0] Other (Specify) _____

[0] Leaf Rust (*Puccinia recondita* f. sp. *tritici*)
[0] Loose Smut (*Ustilago tritici*)
[0] Flag Smut (*Urocystis agropyri*)
[0] Common Bunt (*Tilletia tritici* or T. *laevis*)
[0] Dwarf Bunt (*Tilletia controversa*)
[0] Karnal Bunt (*Tilletia indica*)
[0] Powdery Mildew (*Erysiphe graminis* f. sp. *tritici*)
[0] "Snow Molds"
[0] Common Root Rot (*Fusarium*, *Cochliobolus* and *Bipolaris* spp.)
[0] Rhizoctonia Root Rot (*Rhizoctonia solani*)
[0] Black Chaff (*Xanthomonas campestris* pv. *translucens*).
[0] Bacterial Leaf Blight (*Pseudomonas syringae* pv. *syringae*)
[0] Other (Specify) _____
[0] Other (Specify) _____
[0] Other (Specify) _____
[0] Other (Specify) _____

15. INSECT: (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

[0] Hessian Fly (*Mayetiola destructor*)
[2] Stem Sawfly (*Cephus* spp.)
[0] Cereal Leaf Beetle (*Oulema melanopa*)

[0] Other (Specify) _____
[0] Other (Specify) _____
[0] Other (Specify) _____

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#200700254

Exhibit C (Wheat)

15. INSECT: (continued) (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

PLEASE SPECIFY BIOTYPE (Where Needed)

0	Russian Aphid (*Diuraphis noxia*)	0	Other (Specify) _____
0	Greenbug (*Schizaphis graminum*)	0	Other (Specify) _____
0	Aphids	0	Other (Specify) _____

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS:

Agawam

WHEAT DESCRIPTOR ILLUSTRATIONS #200700254 Exhibit C (Wheat)

Section Numbers Correspond to the Numbers of the Sections on the Form

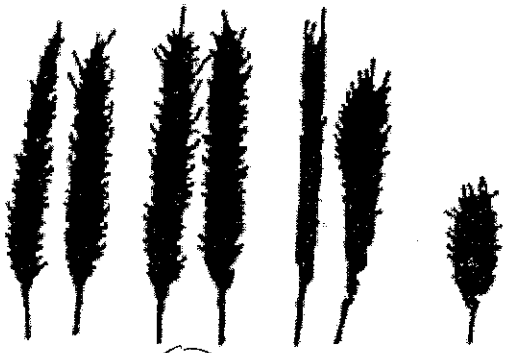
4. EARLY PLANT GROWTH HABIT:

1 Prostrate | 2 Intermediate | 3 Erect

10. (D.) STEM INTERNODE X-SECTION:

1 Hollow | 2 Semi-solid | 3 Solid

11. (B.) SPIKE SHAPE:



1 Tapering | 2 Oblong | 3 Clavate | 4 Elliptical

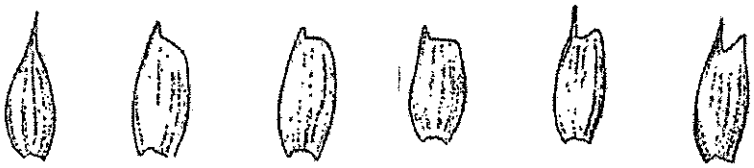
11. (D.) AWNEDNESS:

1 Awnless | 2 Apically Awnleted | 3 Awnleted | 4 Awned

12. (D.) BEAK SHAPE:

1 Obtuse | 2 Acute | 3 Acuminate

12. (C.) SHOULDER SHAPE:



1 Wanting | 2 Oblique | 3 Rounded | 4 Square | 5 Elevated | 6 Apiculate

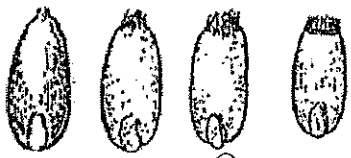
13. (A.) SEED SHAPE:

1 Ovate | 2 Oval | 3 Elliptical

13. (B.) CHEEK SHAPE:

1 Rounded | 2 Angular

13. (C.) BRUSH SIZE



1 Small | 2 Midsized | 3 Large | 4 Collared

13. (C.) BRUSH HAIR LENGTH:

1 Short | 2 Medium | 3 Long

13. (I.) GERM (EMBRYO) SIZE:

1 Small | 2 Midsized | 3 Large

13. (D.) SEED CREASE WIDTH:

1 Narrow | 2 Mid-wide | 3 Wide

13. (D.)SEED CREASE DEPTH:

1 Shallow | 2 Mid-Deep | 3 Deep

11

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued *(7 U.S.C. 2421)*. The information is held confidential until the certificate is issued *(7 U.S.C. 2426)*.

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
WestBred, LLC	BZ 996-472W	Agawam
4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	5. TELEPHONE *(Include area code)*	6. FAX *(Include area code)*
81 Timberline Drive Bozeman, MT 59718	(406) 587-1218	(406) 586-8247
	7. PVPO NUMBER	#200700254

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. **If no, please explain.** ☑ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? **If no, give name of country.** ☑ YES ☐ NO

10. Is the applicant the original owner? ☑ YES ☐ NO **If no, please answer one of the following:**

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?
☐ YES ☐ NO **If no, give name of country**

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?
☐ YES ☐ NO **If no, give name of country**

11. Additional explanation on ownership *(Trace ownership from original breeder to current owner. Use the reverse for extra space if needed)*:

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provide and employer.

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Form Approved OMB NO 0581-0055

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT F
DECLARATION REGARDING DEPOSIT

NAME OF OWNER (S)	ADDRESS *(Street and No. or RD No., City, State, and Zip Code and Country)*	TEMPORARY OR EXPERIMENTAL DESIGNATION
WestBred, LLC	81 Timberline Drive Bozeman, MT 59718	BZ996-472 W
		VARIETY NAME Agawam
NAME OF OWNER REPRESENTATIVE (S)	ADDRESS *(Street and No. or RD No., City, State, and Zip Code and Country)*	FOR OFFICIAL USE ONLY
Dr. Dale R. Clark	81 Timberline Drive Bozeman, MT 59718	PVPO NUMBER #200700254

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Dale R. Clark
Signature

March 28, 2007
Date