

No.



201400233

# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## Monsanto Technology 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 importing it, or exporting it, or conditioning it for propagation, or stocking it for any of the above 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*

*'WB6341'*

*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 thirtieth day of March, in the year two thousand and fifteen.*

Attest:

Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

Secretary of Agriculture

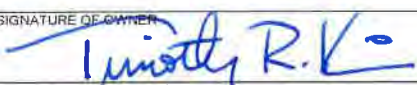
REPRODUCE LOCALLY. Include form number and date on all reproductions

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

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)

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

1 NAME OF OWNER <b>Monsanto Technology LLC</b>		2 TEMPORARY DESIGNATION OR EXPERIMENTAL NAME <b>BZ608-014</b>		3 VARIETY NAME <b>WB6341</b>	
4 ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) <b>800 N. Lindbergh Blvd. St. Louis, MO 63167 USA</b>		5 TELEPHONE (include area code) <b>815-758-9281</b>		FOR OFFICIAL USE ONLY	
		6 FAX (include area code) <b>815-758-3117</b>		PVPO NUMBER <b>201400233</b>	
7 IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) <b>Limited Liability Corporation</b>		8 IF INCORPORATED, GIVE STATE OF INCORPORATION <b>Delaware</b>		9 DATE OF INCORPORATION <b>March 2, 2000</b>	
10 NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION (First person listed will receive all papers) <b>Timothy R. Kain 8350 Minnegan Rd, Waterman, IL 60556</b>		11 TELEPHONE (include area code) <b>815-758-9281</b>		FILING DATE <b>3/11/2014</b>	
		12 FAX (include area code) <b>815-758-3117</b>		FILING AND EXAMINATION FEES: \$ <b>4,382</b>	
13 E-MAIL <b>trkain@monsanto.com</b>				DATE <b>3/11/2014</b>	
14 CROP KIND (Common Name) <b>Common Wheat</b>		15 GENUS AND SPECIES NAME OF CROP <b>Triticum aestivum</b>		16 FAMILY NAME (Botanical) <b>Poaceae</b>	
17 IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		18 DOES THE VARIETY CONTAIN ANY TRANSGENES? <input type="checkbox"/> YES <input type="checkbox"/> NO  IF YES, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERCIALIZATION		20 DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) <input type="checkbox"/> YES (if "yes", answer items 21 and 22 below) <input checked="" type="checkbox"/> NO (if "no", go to item 23) <input type="checkbox"/> UNDECIDED	
19 CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions) a <input checked="" type="checkbox"/> Exhibit A Origin and Breeding History of the Variety b <input checked="" type="checkbox"/> Exhibit B Statement of Distinctness c <input checked="" type="checkbox"/> Exhibit C Objective Description of Variety d <input type="checkbox"/> Exhibit D Additional Description of the Variety (Optional) e <input checked="" type="checkbox"/> Exhibit E Statement of the Basis of the Owner's Ownership f <input checked="" type="checkbox"/> Filing and Examination Fee (\$4,382) <input checked="" type="checkbox"/> Make checks and money orders payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office) <input checked="" type="checkbox"/> Credit Card Payments (See instructions on Page 2 of 10)		21 DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED		22 DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input type="checkbox"/> 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? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO  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)? <input checked="" type="checkbox"/> YES <input type="checkbox"/> 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 will be furnished directly to an acceptable depository in support of the variety within three months of filing. Seed will be replenished upon request in accordance with such regulations as may be applicable. For a tuber propagated variety or vegetative propagated parent of the variety, a tissue culture or vegetative sample will be deposited in a public repository within three months of the date of the certificate fee request letter. These will be 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			
NAME (Please print or type) <b>Timothy R. Kain</b>		NAME (Please print or type)			
CAPACITY OR TITLE <b>Patent Scientist</b>		DATE <b>3/7/2014</b>		CAPACITY OR TITLE	
				DATE	

Continuation Page from ST – 470 (Application for Plant Variety Protection Certificate)

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**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).)*

Filed in the US on 7/25/2013. Application number 13/951,286



## **PVP Origin and Breeding History – WB6341**

### **Exhibit A. Origin and Breeding History For PVP**

‘WB6341’ (BZ608-014) was selected by WestBred, a Unit of Monsanto, from the cross ‘Alturas/Nick’ which was made in the field near Bozeman, MT in 2005. The F1 was grown near Phoenix, AZ. F2 seed was harvested in April, 2006 and planted near Bozeman, MT in May, 2006. F2 heads were selected from agronomically desirable plants in September, 2006 and threshed bulk. F3 seed was planted near Bozeman in May, 2007 and F3 heads were selected from agronomically desirable plants in the fall and bulked. Bulk F4 seed was planted in November, 2007 near Yuma, AZ and F4 heads were selected from desirable plants in April, 2008. The F4 heads were threshed individually and planted as F5 single rows near Bozeman in May, 2008. Agronomically desirable rows were selected in September. Seed from these rows were analyzed for soft wheat quality traits, i.e., % protein, test weight, and Sodium Dodecyl Sulfate (SDS) Sedimentation (an indicator of gluten strength). Once such row was selected to advance to yield trials and was given the designation BZ608-014.

‘WB6341’ (BZ608-014) was tested in WestBred trials in 2009 through 2012 F6-F9 (Tables 1 and 2.). Individual heads were taken from an F7 plot near Yuma in April 2010 and planted as single rows near Bozeman, in May, 2010. Individual F8 rows were harvested in September 2010. This seed was used to plant F9 line row plots in November, 2010 near Yuma, AZ. Three of the plots looked uniform and were harvested individually in April, 2011 and planted near Bozeman, MT in May 2011. Uniform lines were harvested individually, examined for seed purity and bulked to produce Pre-Breeder seed. The Pre-Breeder seed was planted near Moses Lake, WA in March 2012 and the resultant seed was harvested as Breeder Seed in August, 2012. Breeder seed was planted in November, 2012 near Brawley, CA. This production will be harvested as Foundation and Registered. The first unencumbered sale of ‘WB6341’ (BZ608-014) Certified seed will occur in the spring of 2014.

#### **Statement of Variants**

A variant that is similar to WB6341 but is one to two heads taller than WB6341 can occur at a frequency of up to 0.2 %. A red seed variant may be found at a frequency of up to 20/10,000 seed (0.2%). An awnless variant may occur at a frequency of up to 0.1%.

#### **Statement of Uniformity and Stability**

Otherwise, WB6341 is a stable and uniform variety in appearance and performance across several generations (F7-F12) and growing conditions.

**[0100]** In Table 2, yield, quality and agronomic characteristics collected in 2011 in the Pacific Northwest of the United States for wheat cultivar WB6341 are compared to a commercial check. Column 1 shows the cultivar, column 2 shows the yield as a percent of the trial average, column 3 shows the test weight of harvested grain in pounds per bushel, column 4 shows the Julian flowering date when 50% of the variety flowers, column 5 shows the plant height in centimeters, column 6 shows the grain protein % on a 12% moisture basis, and column 7 shows the SDS Sedimentation in mm.

**Table 2:**  
**Characteristics of WB6341 Compared to a Commercial Check in 2011 in the Pacific Northwest of the US**

1	2	3	4	5	6	7
Characteristic	Yield	Test Weight	Flowering Date	Plant Height	Grain Protein	SDS Sedimentation
Unit of Measure	% of Average	lbs/bu	Julian	cm	% 12% mb	mm
NICK	90.3	60.6	195.0	86.6	11.1	60.0
Average	100.0	61.1	196.3	86.9	10.9	63.5
WB6341	104.4	61.2	196.0	85.3	10.4	63.1
LSD (0.05)	7.19	0.72		2.4	0.41	5.04
CV	7.68	1.21		9.03	3.51	7.46
No. of Tested Replications	14	14	2	14	7	7

**[0101]** In Table 3, yield, quality and agronomic characteristics collected in 2012 in the Pacific Northwest of the United States for wheat cultivar WB6341 are compared to two commercial check cultivars. Column 1 shows the cultivar, column 2 shows the yield as a percent of the trial average, column 3 shows the test weight of harvested grain in pounds per bushel, column 4 shows the Julian flowering date when 50% of the variety flowers, column 5 shows the plant height in centimeters, column 6 shows the grain protein % on a 12% moisture basis, column 7 shows the SDS Sedimentation in mm and column 8 shows the stripe rust rating on a scale of 1 (least) to 9 (most).

**Table 3:**  
**Characteristics of WB6341 Compared to Two Commercial Cultivars in 2012**  
**in the Pacific Northwest of the US**

1	2	3	4	5	6	7	8
Characteristic	Yield	Test Weight	Flowering Date	Plant Height	Grain Protein	SDS Sedimentation	Stripe Rust
Unit of Measure	% of Average	lbs/bu	Julian	cm	% 12% mb	mm	1-9*
NICK	98.7	62.0	185.0	89.4	11.9	53.9	3.8
ALTURAS	99.2	60.9	188.0	91.7	11.6	63.9	1.8
Average	100.0	61.3	184.4	84.1	11.9	49.7	2.0
WB6341	103.1	61.5	184.7	85.6	11.2	61.7	2.2
LSD (0.05)	7.40	1.48		1.1	0.39	6.59	1.1
CV	6.87	2.38		4.05	3.03	10.71	29.88
No. of Tested Replications	21	21	3	21	14	14	6
*Disease rating scale: 1=least disease and 9=most disease.							

## Exhibit B. Statement of Distinctness

WB6341 is most similar to the variety Nick. However, WB6341 is shorter than Nick and confers an increase in yield which could be attributed to a slightly greater resistance to stripe rust than Nick. WB6341 also does not have anthocyanin present in the stem, which makes it distinct from Nick.

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

Form Approved OMB NO 0581-0055

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

**Exhibit C**

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

<b>NAME OF APPLICANT (S)</b> Monsanto Technology, LLC	<b>TEMPORARY OR EXPERIMENTAL DESIGNATION</b> BZ608-014	<b>VARIETY NAME</b> WB6341
<b>ADDRESS (Street and No. or RD No., City, State, Zip Code and Country)</b> 800 N. Lindbergh Blvd. St. Louis MO 63167		<b>FOR OFFICIAL USE ONLY</b>  <b>PVPO NUMBER</b>

**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.

<b>1. KIND:</b> <u>1</u> 1 = Common 2 = Durum 3 = Club 4 = Other (Specify) _____	<b>2. VERNALIZATION:</b> <u>1</u> 1 = Spring 2 = Winter 3 = Other (Specify) _____
<b>3. COLEOPTILE ANTHOCYANIN:</b> <u>1</u> 1 = Absent      2 = Present	<b>4. JUVENILE PLANT GROWTH:</b> <u>3</u> 1 = Prostrate      2 = Semi-Erect      3 = Erect
<b>5. PLANT COLOR: (Boot Stage)</b> <u>2</u> 1 = Yellow-Green 2 = Green 3 = Blue-Green	<b>6. FLAG LEAF: (Boot Stage)</b> <u>2</u> 1 = Erect      2 = Recurved <u>2</u> 1 = Not Twisted      2 = Twisted <u>2</u> 1 = Wax Absent      2 = Wax Present
<b>7. EAR EMERGENCE:</b> <u>190</u> Number of Days (Average) ____ Number of Days Earlier Than * _____ Same As <input type="checkbox"/> * _____ <u>1</u> Number of Days Later Than * <u>Nick</u> _____ <i>*Relative to a PVPO-Approved Commercial Variety Grown in the Same Trial</i>	
<b>8. ANTHOR COLOR:</b> <u>1</u> 1 = Yellow      2 = Purple	



**9. PLANT HEIGHT:** (From Soil to Top of Head, Excluding Awns)

85 cm (Average)  
 \_\_\_\_\_ cm Taller Than \_\_\_\_\_ \*  
 Same As  \_\_\_\_\_ \*  
2 cm Shorter Than Nick \_\_\_\_\_ \*

**10. STEM:**

1 A. ANTHOCYANIN 1 = Absent 2 = Present  
2 B. WAXY BLOOM 1 = Absent 2 = Present  
2 C. HAIRINESS (last internode of rachis) 1 = Absent 2 = Present

1 D. INTERNODE 1 = Hollow 2 = Semi-Solid 3 = Solid  
4 Number of Nodes  
1 E. PEDUNCLE 1 = Erect 2 = Recurved 3 = Semi-Erect  
34 cm Length  
 \_\_\_\_\_ F. AURICLE  
1 Anthocyanin: 1 = Absent 2 = Present  
1 Hair: 1 = Absent 2 = Present

**11. HEAD:** (At Maturity)

2 A. DENSITY  
 1 = Lax  
 2 = Middense (Laxidense)  
 3 = Dense

2 B. SHAPE  
 1 = Tapering  
 2 = Strap  
 3 = Clavate  
 4 = Other (Specify) \_\_\_\_\_

2 C. CURVATURE  
 1 = Erect  
 2 = Inclined  
 3 = Recurved

4 D. AWNEDNESS  
 1 = Awnless  
 2 = Apically Awnletted  
 3 = Awnletted  
 4 = Awned

**12. GLUMES:** (At Maturity)

1 A. COLOR  
 1 = White  
 2 = Tan  
 3 = Other (Specify) \_\_\_\_\_

4 B. SHOULDER  
 1 = Wanting 2 = Oblique  
 3 = Rounded 4 = Square  
 5 = Elevated 6 = Apiculate  
 7 = Other (Specify) \_\_\_\_\_

2 C. SHOULDER WIDTH  
 1 = Narrow  
 2 = Medium  
 3 = Wide

3 D. BEAK  
 1 = Obtuse  
 2 = Acute  
 3 = Acuminate

1 E. BEAK WIDTH  
 1 = Narrow  
 2 = Medium  
 3 = Wide

2 F. GLUME LENGTH  
 1 = Short (ca. 7 mm)  
 2 = Medium (ca. 8 mm)  
 3 = Long (ca. 9 mm)

2 G. WIDTH  
 1 = Narrow (ca. 3 mm)  
 2 = Medium (ca. 3.5 mm)  
 3 = Wide (ca. 4 mm)

1 H. PUBESCENCE  
 1 = Not Present  
 2 = Present

13. SEED:

1 A. SHAPE

- 1 = Ovate
- 2 = Oval
- 3 = Elliptical

1 B. CHEEK

- 1 = Rounded
- 2 = Angular

3 C. BRUSH

- 1 = Short
- 2 = Medium
- 3 = Long

- 1 1 = Not Collared  
2 = Collared

D. CREASE

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

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

1 E. COLOR

- 1 = White
- 2 = Amber
- 3 = Red
- 4 = Other (Specify) \_\_\_\_\_

2 F. TEXTURE

- 1 = Hard
- 2 = Soft
- 3 = Other (Specify) \_\_\_\_\_

4 G. PHENOL REACTION

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

31.5 H. SEED WEIGHT

g/1000 Seed (Whole Number Only)

2 I. GERM SIZE

- 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)

<u>0</u> Stem Rust ( <i>Puccinia graminis</i> f. sp. <i>tritici</i> )	Race: _____
<u>0</u> Leaf Rust ( <i>Puccinia recondita</i> f. sp. <i>tritici</i> )	Race: _____
<u>0</u> Stripe Rust ( <i>Puccinia striiformis</i> )	Race: _____
<u>0</u> Loose Smut ( <i>Ustilago tritici</i> )	Race: _____
<u>0</u> Tan Spot ( <i>Pyrenophora tritici-repentis</i> )	Race: _____
<u>0</u> Flag Smut ( <i>Urocystis agropyri</i> )	Race: _____
<u>0</u> Halo Spot ( <i>Selenophoma donacis</i> )	Race: _____
<u>0</u> Common Bunt ( <i>Tilletia tritici</i> or <i>T. laevis</i> )	Race: _____
<u>0</u> <i>Septoria nodorum</i> (Glume Blotch)	Race: _____
<u>0</u> Dwarf Bunt ( <i>Tilletia controversa</i> )	Race: _____
<u>0</u> <i>Septoria avenae</i> (Speckled Leaf Disease)	Race: _____
<u>0</u> Karnal Bunt ( <i>Tilletia indica</i> )	Race: _____
<u>0</u> <i>Septoria tritici</i> (Speckled Leaf Blotch)	Race: _____
<u>0</u> Powdery Mildew ( <i>Erysiphe graminis</i> f. sp. <i>tritici</i> )	Race: _____
<u>0</u> Scab ( <i>Fusarium</i> spp.)	Race: _____
<u>0</u> "Snow Molds"	Race: _____
<u>0</u> "Black Point" (Kernel Smudge)	Race: _____
<u>0</u> Common Root Rot ( <i>Fusarium</i> , <i>Cochliobolus</i> and <i>Bipolaris</i> spp.)	Race: _____
<u>0</u> Barley Yellow Dwarf Virus (BYDV)	Race: _____
<u>0</u> Rhizoctonia Root Rot ( <i>Rhizoctonia solani</i> )	Race: _____
<u>0</u> Soilborne Mosaic Virus (SBMV)	Race: _____
<u>0</u> Black Chaff ( <i>Xanthomonas campestris</i> pv. <i>translucens</i> )	Race: _____
<u>0</u> Wheat Yellow (Spindle Streak) Mosaic Virus	Race: _____
<u>0</u> Bacterial Leaf Blight ( <i>Pseudomonas syringae</i> pv. <i>syringae</i> )	Race: _____
<u>0</u> Wheat Streak Mosaic Virus (WSMV)	Race: _____
____ Other (Specify) _____	Race: _____
____ Other (Specify) _____	Race: _____
____ Other (Specify) _____	Race: _____
____ Other (Specify) _____	Race: _____

**15. HOMOZYGOUS FOR SPECIFIC DISEASE RESISTANCE GENE**

Stem rust \_\_\_\_\_  
 Leaf rust \_\_\_\_\_  
 Other \_\_\_\_\_

**16. INSECT: PLEASE SPECIFY BIOTYPE (Where Needed) (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)**

- 0 Hessian Fly (*Mayetiola destructor*) General \_\_\_\_\_
- 0 Hessian Fly (*Mayetiola destructor*) Biotype A \_\_\_\_\_
- 0 Hessian Fly (*Mayetiola destructor*) Biotype B \_\_\_\_\_
- 0 Hessian Fly (*Mayetiola destructor*) Biotype C \_\_\_\_\_
- 0 Hessian Fly (*Mayetiola destructor*) Biotype D \_\_\_\_\_
- 0 Hessian Fly (*Mayetiola destructor*) Biotype E \_\_\_\_\_
- 0 Hessian Fly (*Mayetiola destructor*) Biotype F \_\_\_\_\_
- 0 Hessian Fly (*Mayetiola destructor*) Biotype G \_\_\_\_\_
- 0 Hessian Fly (*Mayetiola destructor*) Biotype H \_\_\_\_\_
- 0 Hessian Fly (*Mayetiola destructor*) Biotype I \_\_\_\_\_
- 0 Hessian Fly (*Mayetiola destructor*) Biotype J \_\_\_\_\_
- 0 Hessian Fly (*Mayetiola destructor*) Biotype L \_\_\_\_\_
- 0 Hessian Fly (*Mayetiola destructor*) Biotype M \_\_\_\_\_
- 0 Hessian Fly (*Mayetiola destructor*) Biotype N \_\_\_\_\_
- 0 Hessian Fly (*Mayetiola destructor*) Biotype O \_\_\_\_\_
- 0 Hessian Fly (*Mayetiola destructor*) (Specify) \_\_\_\_\_
- 0 Stem Sawfly (*Cephus* spp.) (Specify) \_\_\_\_\_
- 0 Cereal Leaf Beetle (*Oulema melanopa*) (Specify) \_\_\_\_\_
- 0 Russian Aphid 1 (*Diuraphis noxia*) \_\_\_\_\_
- 0 Russian Aphid 2 (*Diuraphis noxia*) \_\_\_\_\_
- 0 Greenbug (*Schizaphis graminum*) (General) \_\_\_\_\_
- 0 Greenbug (*Schizaphis graminum*) Biotype A \_\_\_\_\_
- 0 Greenbug (*Schizaphis graminum*) Biotype B \_\_\_\_\_
- 0 Greenbug (*Schizaphis graminum*) Biotype C \_\_\_\_\_
- 0 Greenbug (*Schizaphis graminum*) Biotype E \_\_\_\_\_
- 0 Greenbug (*Schizaphis graminum*) Other (Specify) \_\_\_\_\_
- 0 Aphids (Specify) \_\_\_\_\_
- 0 Other (Specify) \_\_\_\_\_

**17. HIGH MOLECULAR WEIGHT GLUTENIN SUBUNIT PROFILE (Check those that apply):**

<u>Glu-A1</u>	<u>Glu-B1</u>	<u>Glu-D1</u>
<u>      </u> 1	<u>      </u> 6+8	<u>      </u> 2+11
<u>      </u> 2*	<u>      </u> 7+8	<u>      </u> 2+12
<u>      </u> null	<u>      </u> 7+9	<u>      </u> 3+12
<u>      </u> 1*	<u>      </u> 13+16	<u>      </u> 5+10
	<u>      </u> 13+19	<u>      </u> null
	<u>      </u> 17+18	

**18. TRANSLOCATIONS (1=Present 2=Absent 3=Heterogeneous 4= Not Tested):**

- 4   1BL/1RS
- 4   1A/1R
- 4   2NS/2AS
- 4   4DL/4AgS
- OTHER (explain) \_\_\_\_\_
- OTHER (explain) \_\_\_\_\_

**19. IMIDAZOLINONE HERBICIDE TOLERANCE (1=Present 2=Absent 3=Not Tested):**

\_\_\_\_\_ *Als-1*

\_\_\_\_\_ *Als-2*





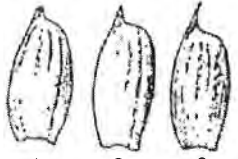
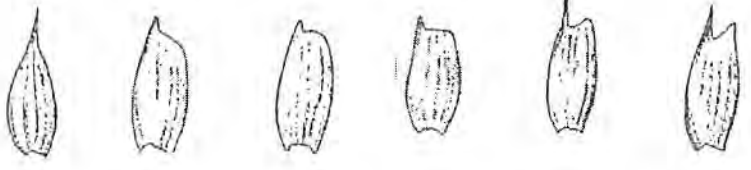
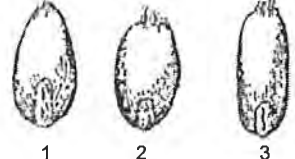

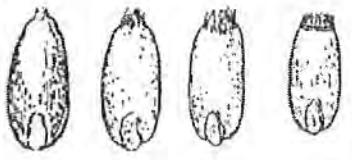




\_\_\_\_\_ *Als-3*

**20. ADDITIONAL INFORMATION ON ANY ITEM ABOVE OR GENERAL COMMENTS:**

Submit by Email

WHEAT DESCRIPTOR ILLUSTRATIONS

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

<p>4. EARLY PLANT GROWTH HABIT:</p>  <p>1 Prostrate      2 Intermediate      3 Erect</p>	<p>10. (D.) STEM INTERNODE X-SECTION:</p>  <p>1 Hollow      2 Semi-solid      3 Solid</p>	<p>11. (B.) SPIKE SHAPE:</p>  <p>1 Tapering      2 Oblong      3 Clavate      4 Elliptical</p>	
<p>11. (D.) AWNEDNESS:</p>  <p>1 Awnless      2 Apically Awnleted      3 Awnleted      4 Awned</p>	<p>12. (D.) BEAK SHAPE:</p>  <p>1 Obtuse      2 Acute      3 Acuminate</p>	<p>12. (C.) SHOULDER SHAPE:</p>  <p>1 Wanting      2 Oblique      3 Rounded      4 Square      5 Elevated      6 Apiculate</p>	
<p>13. (A.) SEED SHAPE:</p>  <p>1 Ovate      2 Oval      3 Elliptical</p>	<p>13. (B.) CHEEK SHAPE:</p>  <p>1 Rounded      2 Angular</p>	<p>13. (C.) BRUSH SIZE:</p>  <p>1 Small      2 Midsized      3 Large      4 Collared</p>	<p>13. (C.) BRUSH HAIR LENGTH:</p>  <p>1 Short      2 Medium      3 Long</p>
<p>13. (I.) GERM (EMBRYO) SIZE:</p>  <p>1 Small      2 Midsized      3 Large</p>	<p>13. (D.) SEED CREASE WIDTH:</p>  <p>1 Narrow      2 Mid-wide      3 Wide</p>	<p>13. (D.) SEED CREASE DEPTH:</p>  <p>1 Shallow      2 Mid-Deep      3 Deep</p>	



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

FOR OFFICIAL USE ONLY

PVPO NUMBER

## EXHIBIT E - STATEMENT OF THE BASIS OF OWNERSHIP

1. Name of Owner <b>Monsanto Technology LLC</b>	2. Temporary Designation or Experimental Name <b>BZ608-014</b>	3. Variety Name <b>WB6341</b>
4. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain.		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

5. Is the applicant a U.S. national or a U.S. based entity? If no, give name of country.  YES  NO

6. 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

7. 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.