

No.

202100362

# THE UNITED STATES OF AMERICA

**TO ALL TO WHOM THESE PRESENTS SHALL COME:**

## Limagrain Cereal Seeds, LLC and University of Idaho

Whereas, THERE HAS BEEN PRESENTED TO THE

Administrator of the Agricultural Marketing Service

An application requesting a certificate of protection for an alleged novel variety of sexually reproduced, asexually 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 germplasm material 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 there from, to the extent provided by the PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)



WHEAT

'VI Voodoo CL+'

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 seventh day of May, in the year two thousand twenty two.*

Attest:

Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

Administrator  
Agricultural Marketing Service

202100362

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE  <b>APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE</b> <i>(Instructions and information collection burden statement on reverse)</i>		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 <b>Limagrain Cereal Seeds, LLC, and Univ. of Idaho</b>		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME <b>UIL 17-6268 CL+</b>	3. VARIETY NAME <b>VI Voodoo CL+</b>
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) <b>2040 SE Frontage Road Fort Collins, CO 80525</b>		5. TELEPHONE (include area code) <b>(970) 498-2200</b>	FOR OFFICIAL USE ONLY
		6. FAX (include area code) <b>(970) 498-2207</b>	PVPO NUMBER <b>202100362</b>
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) <b>Limited Liability Company; Land-grant University</b>		8. IF INCORPORATED, GIVE STATE OF INCORPORATION <b>Delaware</b>	9. DATE OF INCORPORATION <b>12/21/2009</b>
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) <b>Mike Flowers Dr. C. James Peterson Limagrain Cereal Seeds 2040 SE Frontage Road Fort Collins, CO 80525</b>		11. TELEPHONE (include area code) <b>(970) 498-2202; (208) 885-4550</b>	FILING AND EXAMINATION FEES: <b>\$ 5,150 DATE 6/16/2021</b>
		12. FAX (include area code) <b>(970) 498-2207</b>	CERTIFICATION FEE: <b>\$ Check# 11365 DATE</b>
13. E-MAIL			
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>Gramineae</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? (OPTIONAL) <input type="checkbox"/> YES <input checked="" 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 checked="" type="checkbox"/> YES (If "yes", answer items 21 and 22 below) <input type="checkbox"/> NO (If "no", go to item 23) <input type="checkbox"/> UNDECIDED
19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) 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), make checks payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office) other methods of payment explained in the instructions		21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? <input type="checkbox"/> YES <input checked="" 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 checked="" type="checkbox"/> NO IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. ___ FOUNDATION ___ REGISTERED ___ CERTIFIED <i>(If additional explanation is necessary, please use the space indicated on the reverse.)</i>	
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(s) 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>Dr. C. James Peterson</b>		NAME (Please print or type) <b>Karen A Stevenson</b>	
CAPACITY OR TITLE <b>Vice President of Research</b>		CAPACITY OR TITLE <b>Sr Licensing Assoc</b>	
DATE <b>3/30/21</b>		DATE <b>5/4/2021</b>	

MAH  
9/24/2021

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.)*

The variety was first sold in September of 2020 in the United States.

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).)*

US utility application: 13/366,932

filed: 2012-02-06

priority date: 2001-08-09

title: Wheat Plants Having Increased Resistance to Imidazolinone Herbicides

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
<b>EXHIBIT A – ORIGIN AND BREEDING HISTORY</b> ** Use additional pages as needed.		PVPO NUMBER
1. Name of Owner Limagrain Cereal Seeds, LLC, and Univ. of Idaho	2. Temporary Designation or Experimental Name UUL 17-6268 CL+	3. Variety Name VI Voodoo CL+
<p>4. Describe the genealogy (back to and including public and commercial varieties, lines, or clones used) and the breeding method(s). **</p> <p>The soft white winter wheat (SWW) line VI Voodoo CL+ is from the cross LCS Artdeco/UI Magic. The pedigree of LCS Artdeco is NSA02-1466/VR99B057. The pedigree of UI Magic is 07-688-10/Bitterroot. UI Magic was used as the donor of the 2 IMI resistance genes.</p> <p>The cross from which VI Voodoo CL+ originated was made in 2013. The seeds from the F1 generation was sent to the Limagrain Double Haploid Facility in Chappes, France in 2014. Double haploid progeny were returned to LCS in February 2016.</p>		
5. Give the details of subsequent stages of selection and multiplication. **		
Year	Detail of Stage	Selection Criteria
2013	Initial cross	None
2016	Dihaploid headrow grown in Walla Walla, WA	None
2017	Y1 plots grown in Walla Walla, WA	Grain yield, agronomic type, disease resistance
2018	Replicated trial at 5 locations	Grain yield, agronomic type, disease resistance
2019	Replicated trial at 18 locations	Grain yield, agronomic type, disease resistance
	Pre-breeder seed production in Walla Walla, WA	
2020	Replicated trial at 34 locations	Grain yield, yield stability, disease resistance,
	Foundation seed production near Parma, ID	milling and baking quality
6. Is the variety uniform? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
How did you test for uniformity?		
Uniformity was evaluated during Pre-breeder and Foundation seed production. Pre-Breeder seed was first produced in Walla Walla, WA in plots which produced enough seed to plant a 1 acre headrowed Foundation seed increase in Parma, ID in the fall of 2019 which resulted in 150 bushels of Foundation seed. The variety was lightly rogued for off types in each production cycle.		
7. Is the variety stable? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
How did you test for stability? Over how many generations?		
Stability was evaluated over 2 years including Pre-breeder and Foundation seed production. All generations were stable for phenotypic characteristics and expression of variants.		
8. Are genetic variants observed or expected during reproduction and multiplication? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
If yes, state how these variants may be identified, their type and frequency.		
VI Voodoo CL+ may contain up to 1 per 1000 taller plants, up to 2 spike lengths above the main canopy, up 1 per 10,000 awnless plants; seed may contain up to 0.75% red grain.		

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 B – STATEMENT OF DISTINCTNESS**  
**\*\* Use additional tables to present clear differences for additional comparison varieties. Use additional pages to present supporting evidence.**

1. Name of Owner Limagrain Cereal Seeds, LLC, and Univ. of Idaho	2. Temporary Designation or Experimental Name UIL 17-6268 CL+	3. Variety Name VI Voodoo CL+
---	--	----------------------------------

Based on overall morphology, VI Voodoo CL+ is most similar to LCS Artdeco and UI Magic VI Voodoo CL+ most clearly  
*Applicant's new variety* *Most similar comparison variety(ies)* *Applicant's new variety*  
 differs from LCS Artdeco and UI Magic in the following traits Name the specific trait. Then list the value of that trait for each variety in the comparison. Submit  
*Most similar comparison variety(ies)*  
 appropriate supporting evidence (see the [Guidelines for Presenting Evidence in Support of Variety Distinctness in the instructions](#)):

	<i>Eg. Leaf Pubescence</i> <i>Eg. Leaf Color</i> <i>Eg. Plant Height</i>	<i>heavy pubescence</i> <i>Dark Green (SGY 3/4)</i> <i>200 cm +/- 10 cm (N=25)</i>	<i>glabrous</i> <i>Light Green (2.5GY 8/10)</i> <i>250 cm +/- 15 cm (N=25)</i>	<i>photograph attached</i> <i>Munsell Color Chart</i> <i>statistics attached</i>
	1. Qualitative traits:	2. Color traits:	3. Quantitative traits:	4. Other traits:
Application Variety	VI Voodoo CL+ Juvenile plant growth - semi-erect Plant color - blue-green Flag leaf - wax present Head curvature - inclined Glumes beak - acuminate Seed cheek - rounded			
Comparison Variety 1	LCS Artdeco Juvenile plant growth - semi-erect Plant color - green Flag leaf - wax absent Head curvature - inclined Glumes beak - acute Seed cheek - rounded			
Comparison Variety 2	UI Magic Juvenile plant growth - erect Plant color - blue-green Flag leaf - wax present Head curvature - erect Glumes beak - acuminate Seed cheek - angular			
Comparison Variety 3				

**\*\* Use additional tables to present clear differences for additional comparison varieties. Use additional pages to present supporting evidence.**

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 2.5 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.

202100362

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

EXHIBIT C

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

NAME OF APPLICANT (S) Limagrain cereal Seeds, LLC, and Univ. of Idaho	TEMPORARY OR EXPERIMENTAL DESIGNATION <b>UIL 17-6268 CL+</b>	VARIETY NAME <b>VI Voodoo CL+</b>
LOCATION OF FIELD TRIAL (S) (NEAREST CITY, STATE, COUNTY, AND COUNTRY) Walla Walla, WA, Whitman, USA	<b>FOR OFFICIAL USE ONLY:</b>	
	PVPO NUMBER	

**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:  
Royal Horticultural Society.
- Please answer all questions for your variety; lack of response may delay progress of your application.

**Morphology:**

I. PLANT:

1.   A   Plant Kind:

- A. Common                       B. Durum                       C. Club  
 D. Other (Specify) \_\_\_\_\_

2.   E   Market Class:

- A. HRW (Hard Red Winter)       B. HRS (Hard Red Spring)       C. HW (Hard White)  
 D. SRW (Soft Red Winter)       E. SW (Soft White)

3.   B   Vernalization:

- A. Spring                                       B. Winter  
 C. Other (Specify) \_\_\_\_\_



IV. PLANT HEIGHT:

1.   A   Plant Height Class:  
 A. Semi-Dwarf                       B. Standard
2.  84  Plant Height (cm)
3.   1   Plant Height (cm Taller than\*  LCS Artdeco )
4.        Plant Height (cm Same as\*       )
5.   1   Plant Height (cm Shorter than\*  UI Magic )

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

V. STEM:

1.   A   Stem Anthocyanin Coloration:  
 A. Absent                                       B. Present  
 C. Other (Specify)
2.   B   Stem Waxy Bloom:  
 A. Absent                                       B. Present
3.   A   Stem Hairiness (Last Internode of Rachis)  
 A. Absent                                       B. Present  
 C. Other (Specify)
4.   A   Internode Type:  
 A. Hollow                                       B. Semi-Solid                                       C. Solid  
 D. Other (Specify)

STEM INTERNODE CROSS SECTION:



Hollow                      Semi-solid                      Solid

5.   4   Internode: Number of Nodes
6.   A   Peduncle Type:  
 A. Erect                                       B. Recurved                                       C. Semi-Erect  
 D. Other (Specify)
7.  11  Peduncle Length (cm)
8.   A   Auricle Anthocyanin:  
 A. Absent                                       B. Present

V. STEM: (con.)

9. A Auricle Hairiness:

- A. Absent
- B. Present
- C. Other (Specify) \_\_\_\_\_

VI. HEAD:

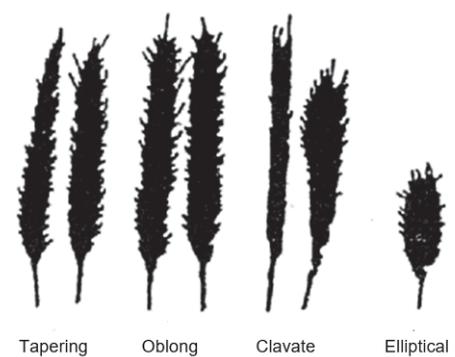
1. B Head Density at Maturity:

- A. Lax
- B. Middense (Laxidense)
- C. Dense
- D. Other (Specify) \_\_\_\_\_

2. B Head Shape at Maturity:

- A. Tapering
- B. Strap
- C. Clavate
- D. Elliptical
- E. Other (Specify) \_\_\_\_\_

SPIKE SHAPE:

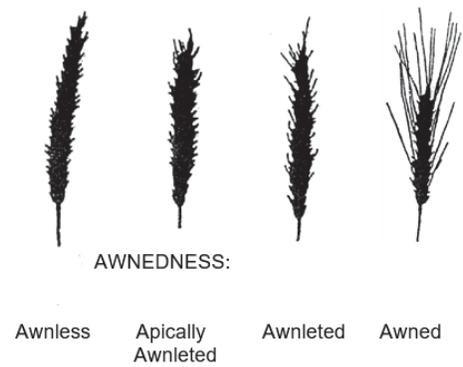


3. C Head Curvature at Maturity:

- A. Erect
- B. Erect to Inclined
- C. Inclined
- D. Inclined to Recurve
- E. Recurved

4. D Head Awnedness at Maturity:

- A. Awnless
- B. Apically Awnletted
- C. Awnletted
- D. Awned
- E. Other (Specify) \_\_\_\_\_

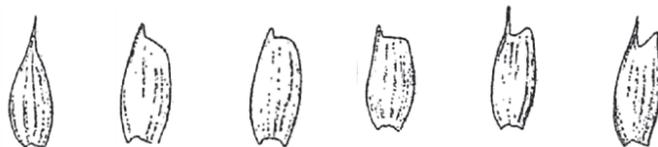


VII. GLUME:

1.   A   Glume Color at Maturity:  
 A. White  B. Tan  
 C. Other (Specify) \_\_\_\_\_

2.   B   Glume Shoulder at Maturity:  
 A. Wanting  B. Oblique  C. Rounded  
 D. Square  E. Elevated  F. Apiculate  
 G. Other (Specify) \_\_\_\_\_

SHOULDER SHAPE:



Wanting    Oblique    Rounded    Square    Elevated    Apiculate

3.   E   Glume Shoulder Width at Maturity:  
 A. Narrow  B. Narrow to Medium  C. Medium  
 D. Medium to Wide  E. Wide

4.   C   Glume Beak Shape at Maturity:  
 A. Obtuse  B. Acute  C. Acuminate  
 D. Other (Specify) \_\_\_\_\_

BEAK SHAPE:



Obtuse    Acute    Acuminate

5.   B   Glume Beak Length at Maturity:  
 A. Very Short  B. Short  C. Medium  
 D. Long  E. Very Long

6.   0.2   Glume Beak Length at Maturity (cm)

7.   C   Glume Beak Width:  
 A. Narrow  B. Narrow to Medium  C. Medium  
 D. Medium to Wide  E. Wide

8.   0.1   Glume Beak Width at Maturity (cm)

VII. GLUME: (con.)

9.   C   Glume Length at Maturity:
- A. Short (~7mm)                       B. Medium (~8mm)                       C. Long (~9mm)
- D. Other (Specify) \_\_\_\_\_

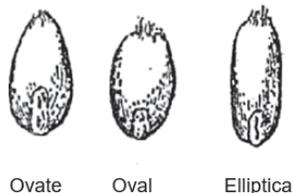
10.   B   Glume Width at Maturity:
- A. Narrow (~3mm)                       B. Medium (~3.5mm)
- C. Wide (~4mm)                       D. Other (Specify) \_\_\_\_\_
- E. Wide

11.   A   Glume Pubescence at Maturity:
- A. Not Present                       B. Present

VIII. SEED:

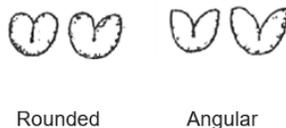
1.   C   Seed Shape:
- A. Ovate                       B. Oval                       C. Elliptical
- D. Other (Specify) \_\_\_\_\_

SEED SHAPE:



2.   A   Seed Cheek:
- A. Rounded                       B. Angular

CHEEK SHAPE:



VIII. SEED: (con.)

3.   C   Seed Brush:

- A. Short
- B. Short to Medium
- C. Medium
- D. Medium to Long
- E. Long

BRUSH HAIR LENGTH:

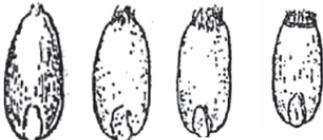


Short      Medium      Long

4.   A   Seed Brush Collar:

- A. Not Collared
- B. Collared

BRUSH SIZE



Small      Midsized      Large      Collared

5.   A   Seed Crease Width:

- A. 60% or Less of Kernel
- B. 80% or Less of Kernel
- C. Nearly as Wide as Kernel
- D. Other (Specify) \_\_\_\_\_

SEED CREASE WIDTH:



Narrow      Mid-wide      Wide

VIII. SEED: (con.)

6.   B   Seed Crease Depth:

- A. 20% or Less of Kernel
- B. 35% or Less of Kernel
- C. 50% or Less of Kernel
- D. Other (Specify) \_\_\_\_\_

SEED CREASE DEPTH:



7.   A   Seed Color:

- A. White
- B. Amber
- C. Red
- D. Other (Specify) \_\_\_\_\_

8.   B   Seed Texture:

- A. Hard
- B. Soft
- C. Other (Specify) \_\_\_\_\_

9. \_\_\_\_\_ Seed Phenol Reaction (See Instructions for More Information):

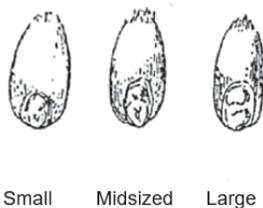
- A. Ivory
- B. Fawn
- C. Light Brown
- D. Dark Brown
- E. Black
- F. Other (Specify) \_\_\_\_\_

10.   45   Seed Weight (g per 1000 Seeds, Whole Number Only)

11.   C   Seed Germ Size

- A. Small
- B. Small to Medium
- C. Medium
- D. Medium to Large
- E. Large

GERM (EMBRYO) SIZE:



IX. DISEASE:

1. Disease: Please Indicate the Specific Race or Strain Tested

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

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

IX. DISEASE: (con.)

2. Homozygous For Specific Disease Resistance Gene

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

0 Stem rust \_\_\_\_\_

- 0. Not Tested
- 1. Susceptible
- 2. Resistant
- 3. Intermediate
- 4. Tolerant

0 Stripe rust \_\_\_\_\_

- 0. Not Tested
- 1. Susceptible
- 2. Resistant
- 3. Intermediate
- 4. Tolerant

0 Leaf rust \_\_\_\_\_

- 0. Not Tested
- 1. Susceptible
- 2. Resistant
- 3. Intermediate
- 4. Tolerant

\_\_\_\_ Other (Specify) \_\_\_\_\_

- 0. Not Tested
- 1. Susceptible
- 2. Resistant
- 3. Intermediate
- 4. Tolerant

X. PESTS:

1. INSECT: PLEASE SPECIFY BIOTYPE (Where Needed)

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

- 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) \_\_\_\_\_
- 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 GP \_\_\_\_\_
- 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) \_\_\_\_\_

XI. ADDITIONAL INFORMATION:

1. High Molecular Weight Glutenin Subunit Profile (Check those that apply):

Glu-A1

- 1
- 2\*
- null
- 1\*

Glu-B1

- 6+8
- 7+8
- 7+9
- 13+16
- 13+19
- 17+18

Glu-D1

- 2+11
- 2+12
- 3+12
- 5+10
- null

2. Translocations

(1=Present, 2=Absent, 3=Heterogeneous, 4= Not Tested):

4 1BL/1RS

- 1
- 2
- 3
- 4

4 1A/1R

- 1
- 2
- 3
- 4

4 2NS/2AS

- 1
- 2
- 3
- 4

4 4DL/4AgS

- 1
- 2
- 3
- 4

3. Imidazolinone Herbicide Tolerance:

1 Als-1

- 1. Present
- 2. Absent
- 3. Not Tested

1 Als-2

- 1. Present
- 2. Absent
- 3. Not Tested

2 Als-3

- 1. Present
- 2. Absent
- 3. Not Tested

4. End Use Quality:

Grain Protein \_\_\_\_\_

Flour Protein 10.0

SDS \_\_\_\_\_

Farniograph \_\_\_\_\_

Other Cookie Diam. 8.9 cm

[ PLEASE ENTER ADDITIONAL VARIETY TRAITS ON NEXT PAGE ]

XII. COMMENTS:

References:

- (a) L.W. Briggles and L.P. Reitz. 1963. Classification of Triticum Species and Wheat Varieties Grown in the United States. Technical Bulletin 1278. United States Department of Agriculture.
- (b) W.E. Walls. 1965. A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity. Contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts.

**Table 1.** Yield of VI Voodoo CL+ (bu/ac) compared to check varieties LCS Artdeco, SY Ovation, UI Castle and UI Magic in Washington State University Variety Trials during 2019 and 2020 at Pullman, WA and Colton, WA. Mean, %CV and LSD derived from entire data set.

Variety	Colton, WA 2019	Pullman, WA 2019	Colton, WA 2020	Pullman, WA 2020	Average
VI Voodoo CL+	131	94	140	144	127
LCS Artdeco	131	91	139	143	126
SY Ovation	127	99			113
UI Castle	127	101	127	134	122
UI Magic	132	106	133	129	125
Mean	129	102	133	140	126
%CV	4	8	6	6	
LSD	7	10	16	15	

Table 2. Grain yield, test weight, protein and agronomic traits for VI Voodoo CL+ compared to currently grown soft white winter wheat varieties. Excerpt from a 40 entry trial grown at 9 locations in 2020.

2020 LCS IYT Yield Trial		Agronomic Traits				Grain Test Wt.	Grain Protein	Grain Yield	
Source	Genotype	Heading Date site mean (DOY)	Plant Height 7-site mean (cm)	Lodging Walla Walla, WA (0-9)	Stripe Rust site mean (0-9)	8-site mean (lb/bu)	3-site mean (%)	9-site mean (bu/ac)	9-site rank
LCS	VI Voodoo CL+	153	84	0	3.3	60.6	10.4	110.0	28
LCS	VI Presto CL+	152	99	0	0.4	62.4	11.6	113.0	23
LCS	VI Shock	152	94	0	0.9	61.0	10.9	116.0	12
LCS	LCS Artdeco	150	83	0	1.9	60.9	10.2	109.0	31
Syngenta	5Y Ovation	153	94	0	1.8	61.6	11.0	113.0	21
UI	UI Magic	151	85	0	9.3	60.4	11.2	91.0	36
UI	UI Castle	158	97	1	2.4	61.5	11.7	109.0	32

Table 3. Mean milling analyses and glutenin composition of grain from 7-site years in Washington and Idaho.

	Flour analyses			Glutenin composition		
	Break Flour Yield %	Protein %	Cookie Diameter cm	GluA1_m1	GluB1_m1	GluD1_m1
VI Voodoo CL+	79.0	10.0	8.9	2*	7 + 9	5 + 10
VI Presto CL+	78.0	11.0	8.7	Null	7 + 9	2 + 12
VI Shock	79.0	9.0	8.8	2*	7 + 9	2 + 12
UI Magic	77.0	10.0	8.8	2*	7 + 9	2 + 12
LCS Artdeco	76.0	8.0	8.7	2*	7 + 9	5 + 10

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

2. Temporary Designation or Experimental Name

3. Variety Name

Limagrain Cereal Seeds, LLC, and Univ. of Idaho

UIL 17-6268 CL+

VI Voodoo CL+

4. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain.

YES

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.

202100362