



No.

202100352

# THE UNITED STATES OF AMERICA

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

## Colorado State University Research Foundation

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.)



POTATO

'Vista Gold'

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 nineteenth day of January, in the year two thousand twenty three.*

Attest:

Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

Administrator  
Agricultural Marketing Service



U.S. Department of Agriculture  
 Agricultural Marketing Service, Science & Technology Program  
 Plant Variety Protection Office

## US Plant Variety Protection Report Potato Variety 'Vista Gold' PV Number: 202100352

**Owner / Applicant / Organization**

Colorado State University Research Foundation  
 PO Box 483

Fort Collins, CO 80522  
 United States

Tel:  
 Fax:  
 Email:

**Experimental Name:**

Vista Gold

**Variety Name:**

**Crop Kind:** Potato

**Filing Date :** 05/24/2021

**Owner Representative / Agent**

David Holm  
 0249 East County Road 9 North

Center, CO 81125  
 United States

Tel: (719) 480-2511  
 Fax:  
 Email: david.holm@colostate.edu

**Application Status:** Application Submitted and Ready for Preliminary Review and Filing Letter

**Application Status Code:** AS

**ST470 Main**

**1. Genus and Species name of crop**

Solanum tuberosum L.

**2. Family name (Botanical)**

Solanaceace

**3. Is the variety a first generation hybrid?**

Yes

**4. Does the variety contain any Transgenes?**

No

**5. 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)**

No

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**6. 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?**

No

**7. Is the variety or any component of the variety protected by intellectual property right? (plant breeder's right or patent)**

No

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**Exhibit A - Origin and Breeding History**

**1. Genealogy (back to and including public and commercial varieties, lines, or clones used) and the breeding method(s).**

CO05037-3W/Y was derived from a cross of AC99330-1P/Y and CO97227-2P/PW at the San Luis Valley Research Center. See attached pedigree tree for full breeding history.

**2. Give the details of subsequent stages of selection and multiplication.**

CO05037-3W/Y was initially field selected in 2007 at the San Luis Valley Research Center. Multiplication of CO05037-3W/Y tubers for initial selection and research trials and subsequent seed increase was via vegetative means using tubers and /or tissue cultured disease tested seed stocks. **Selection Criteria: yellow flesh color, high yield potential, tuber shape, resistance to grade defects. MS 10/3/2022**

**3. Is the variety uniform?**

Yes

**How did you test for uniformity?**

CO05037-3W/Y has been observed for more than 14 yeas of field screening and/or tissue culture production. No variants have been observed during this time, indicating that CO05037-3W/Y is uniform.

**4. Is the variety stable?**

Yes

**How did you test for stability? Over how many generations?**

CO05037-3W/Y has been observed for more than 14 yeas of field screening and/or tissue culture production. No variants have been observed during this time, indicating that CO05037-3W/Y is stable.

**5. Are genetic variants observed or expected during reproduction and multiplication?**

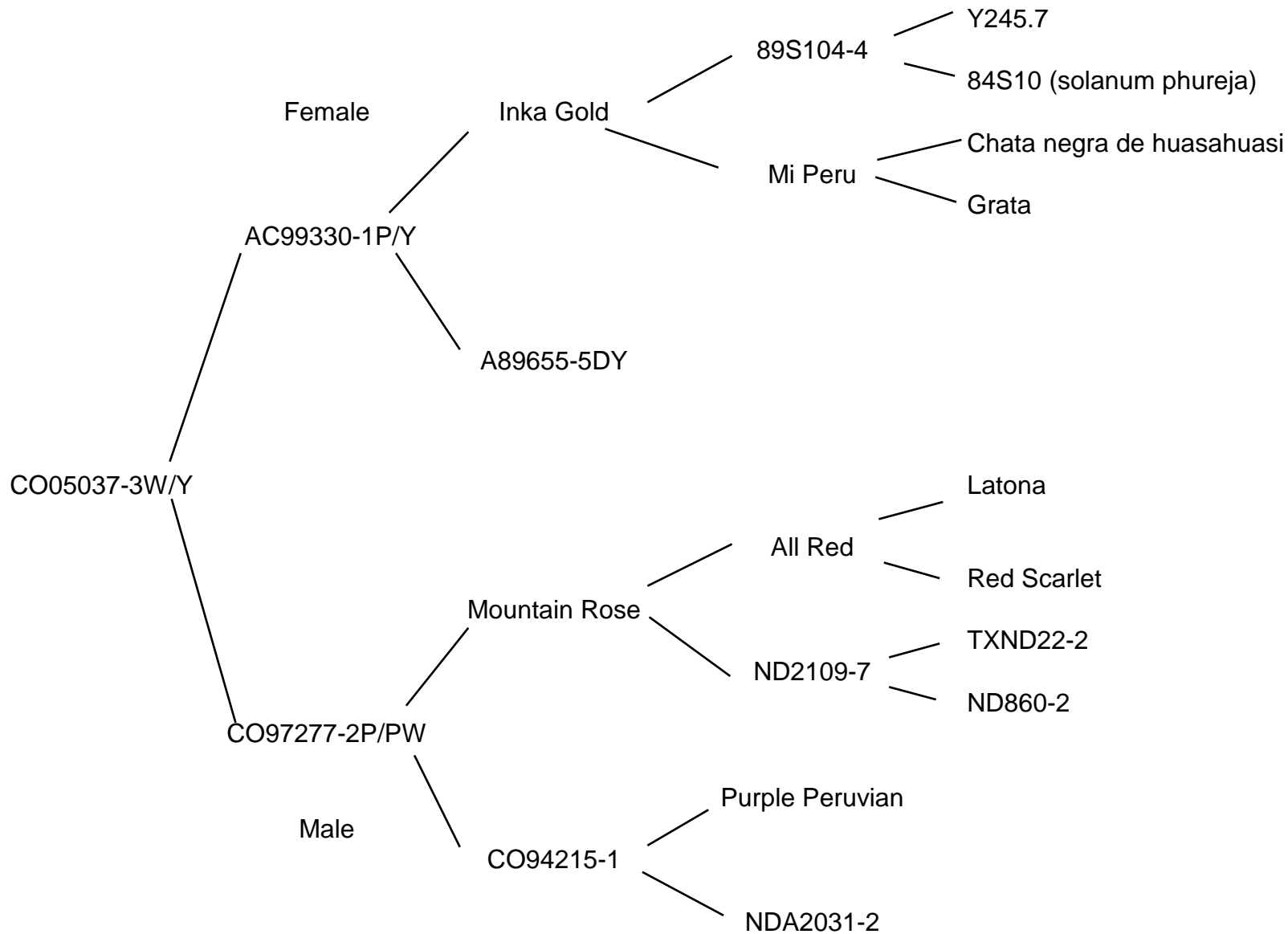
No

**Exhibit A Attached Files List**

<b>File Name</b>	<b>Last Modified On</b>
Vista Gold Pedigree Tree.pdf	3/17/2021 6:17:35 PM

Exhibit A (continued)

Figure 1. Pedigree of Vista Gold



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**Exhibit B - Statement of Distinctness**

**1. Based on overall morphology. Applicant's new variety** Vista Gold  
**is most similar to Comparison Variety** Yukon Gold , ,

**2. Application Variety Traits**

See attached document for the statement of distinctness

**3. Comparison Variety1 Additional Comments?**

**4. Comparison Variety2 Additional Comments?**

**5. Comparison Variety3 Additional Comments**

**Exhibit B Attached Files List**

**File Name**

**Last Modified On**

Exhibit B Statement of Distinctness Vista Gold.pdf

5/20/2021 3:13:31 PM

## Exhibit B

### Statement of Distinctness

**Vista Gold** is compared to Yukon Gold, the most similar yellow table stock reference cultivar grown in our trials. **Vista Gold** most clearly differs from Yukon Gold in the following traits:

Trait	<b>Vista Gold</b>	Yukon Gold	Evidence
Stem Anthocyanin Coloration	Absent	Medium	Figure 1
Terminal Leaflet Shape	Broadly Ovate	Elliptical	Figure 2
Terminal Leaflet Base Shape	Cordate	Acute	Figure 2
Primary Leaflet Shape	Medium Ovate	Narrowly Ovate	Figure 3
Primary Leaflet Base Shape	Cordate	Obtuse	Figure 3
Corolla Inner Surface Color	Violet-White 84C	Purple 76A	Figure 4 / RHS Color Chart
Number of Inflorescence/ Plant	4.4 +/-1.4	1.4 +/-0.5	Table 1
Predominant Tuber Flesh Color	Yellow 13C	Light Yellow 11B	Figure 5 / RHS Color Chart

**Exhibit B**

**Statement of Distinctness**

**Figure 1. Stem Anthocyanin Coloration- Vista Gold (left), Yukon Gold (right).**





**Exhibit B**

**Statement of Distinctness**

**Figure 2. Terminal Leaflet Shape, Terminal Leaflet Base Shape- Vista Gold (left), Yukon Gold (right).**



**Exhibit B**

**Statement of Distinctness**

**Figure 3. Primary Leaflet Shape, Primary Leaflet Base Shape- Vista Gold (left), Yukon Gold (right).**



**Exhibit B**

**Statement of Distinctness**

**Figure 4. Corolla Inner Surface Color- Vista Gold (left), Yukon Gold (right).**



**Exhibit B (continued)**  
**Statement of Distinctness**  
**Table 1.**

<b>Number of Inflorescence/Plant Analysis</b>												
<b>Vista Gold</b>	6	3	3	6	2	6	3	6	4	4	Number	50
	4	3	4	4	5	4	3	2	7	2	Mean	4.4
	4	2	4	4	2	6	6	6	5	4	SD	1.4
	5	6	4	5	6	5	4	7	6	4	Max	7
	4	4	3	4	5	6	5	4	6	4	Min	2
<b>Yukon Gold</b>	1	2	1	1	1	1	1	2	1	1	Number	50
	2	1	1	1	2	2	2	2	1	1	Mean	1.4
	2	1	2	2	2	1	2	1	1	1	SD	0.5
	1	1	1	1	1	2	1	1	2	1	Max	2
	1	1	1	2	1	2	2	2	2	2	Min	1

## Exhibit B

### Statement of Distinctness

Figure . Predominant Tuber Flesh Color- Vista Gold (left), Yukon Gold (right).



**Exhibit C**

**Potato**

**A . Location**

I. Location

1 . *Breeding Location*

**Center, CO 81125**

2 . *Breeding Latitude (Decimal Degrees)*

3 . *Breeding Longitude (Decimal Degrees)*

4 . *Trial Location*

**Center, CO**

5 . *Trial Location Latitude (Decimal Degrees)*

6 . *Trial Location Longitude (Decimal Degrees)*

7 . *Area of Adaptation*

**B . Market Characteristics**

1 . *Market Class*

**Yellow-flesh Tablestock**

**C . Light Sprout Characteristics**

1 . *Light Sprout General Shape*

**Spherical**

2 . *Light Sprout Base Pubescence of Base*

**Absent**

3 . *Light Sprout Base Anthocyanin Coloration*

**Red-Violet**

4 . *Light Sprout Base Intensity of Anthocyanin Coloration*

**Medium**

5 . *Light Sprout Tip Habit*

**Intermediate**

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6 . *Light Sprout Tip Pubescence*

**Absent**

7 . *Light Sprout Tip Anthocyanin Coloration*

**Red-Violet**

8 . *Light Sprout Tip Intensity of Anthocyanin Coloration if Present*

**Weak**

9 . *Light Sprout Root Initials Frequency*

**Some**

**D . Plant Characteristics**

1 . *Growth Habit*

**Erect (>45° with ground)**

2 . *Type*

**Leaf (Foliage closed, stems hardly visible)**

3 . *Maturity Days After Plant at Vine Senescence*

4 . *Regional Area*

**Pacific North West (WA, OR, ID, CO, CA)**

5 . *Maturity Class*

**Early (100-110 DAP)**

**E . Stem Characteristics Measured at Early First Bloom**

1 . *Stem Anthocyanin Coloration*

**Absent**

2 . *Stem Wings*

**Medium**

**F . Leaf Characteristics**

1 . *Leaf Color Observed when Fully Developed Leaves are Located on the Middle 1/3 of Plant*

**Medium Green**

2 . *Leaf Color Chart*

2.a. *Leaf Color Chart*

**Royal Horticulture Society Color Chart**

2.b. *Leaf Color Chart Value*

**137A**

3 . *Leaf Pubescence Length*

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**Short**

4 . *Leaf Silhouette*

**Medium**

5 . *Petioule Anthocyanin Coloration*

**Weak**

6 . *Leaf Stipules Size*

**Small**

7 . *Terminal Leaflet Shape*

**Broadly Ovate**

8 . *Terminal Leaflet Tip Shape*

**Acuminate**

9 . *Terminal Leaflet Base Shape*

**Cordate**

10 . *Terminal Leaflet Margin Waviness*

**Weak**

11 . *Average Number of Primary Leaflet Pairs*

**3.8**

12 . *Primary Leaflet Pairs Range*

*Primary Leaflet Pairs Range From*

**3**

*Primary Leaflet Pairs Range To*

**5**

13 . *Primary Leaflet Tip Shape*

**Acuminate**

14 . *Primary Leaflet Size*

**Large**

15 . *Primary Leaflet Shape*

**Medium Ovate**

16 . *Primary Leaflet Base Shape*

**Cordate**

17 . *Average Number of Secondary and Tertiary Leaflet Pairs*



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**5.44**

18 . *Number of Secondary and Tertiary Leaflet Pairs Range*  
*Number of Secondary and Tertiary Leaflet Pairs Range From*

**3**

*Number of Secondary and Tertiary Leaflet Pairs Range To*

**8**

19 . *Average Number of Inflorescence per Plant*

**4.42**

20 . *Number of Inflorescence per Plant Range*  
*Number of Inflorescence per Plant Range From*

**2**

*Number of Inflorescence per Plant Range To*

**7**

21 . *Average Number of Florets per Inflorescence*

**9.16**

22 . *Number of Florets per Inflorescence Range*  
*Number of Florets per Inflorescence Range From*

**3**

*Number of Florets per Inflorescence Range To*

**17**

23 . *Corolla Inner Surface Color Chart*

23.a. *Corolla Inner Surface Color Chart*

**Royal Horticulture Society Color Chart**

23.b. *Corolla Inner Surface Color Chart Value*

**84C**

24 . *Outer Surface Color Chart*

24.a. *Outer Surface Color Chart*

**Royal Horticulture Society Color Chart**

24.b. *Outer Surface Color Chart Value*

**84D**

25 . *Corolla Inner Surface Color*

**Violet-White 3:1**

26 . *Corolla Shape*

**Semi-stellate**

**G . Inflorescence Characteristics**

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1 . *Calyx Anthocyanin Coloration*

**Weak**

2 . *Anther Color Chart*

2.a. *Anther Color Chart One*

**Royal Horticulture Society Color Chart**

2.b. *Anther Color Chart Value*

**17C**

3 . *Anther Shape*

**Narrow cone**

4 . *Pollen Production*

5 . *Stigma Shape*

**Capitate**

6 . *Stigma Color Chart*

6.a. *Stigma Color Chart One*

**Royal Horticulture Society Color Chart**

6.b. *Stigma Color Chart Value*

**146A**

7 . *Berry Production*

**H . Tuber Characteristics**

1 . *Predominant Skin Color*

**White**

2 . *Predominant Skin Color Chart*

2.a. *Predominant Skin Color Chart*

**Royal Horticulture Society Color Chart**

2.b. *Predominant Skin Color Chart Value*

**161B**

3 . *Secondary Skin Color*

**Absent**

4 . *Secondary Skin Color Chart*

4.a. *Secondary Skin Color Chart*

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4.b. *Secondary Skin Color Chart Value*

5. *Secondary Skin Color Distribution*

6. *Skin Texture*

**Smooth**

7. *Tuber Shape*

**Oval**

8. *Tuber Thickness*

**Medium thick**

9. *Tuber Average Length (mm)*

**65**

10. *Tuber Length Range (mm)*

*Tuber Length From (mm)*

**46**

*Tuber Length Range To (mm)*

**87**

11. *Tuber Length Standard Deviation*

**6**

12. *Tuber Length Average Weight of Sample (g)*

**111**

13. *Potato Average Tuber Width (mm)*

**60**

14. *Tuber Width Range (mm)*

*Tuber Width From (mm)*

**48**

*Tuber Width To (mm)*

**73**

15. *Tuber Width Standard Deviation*

**5**

16. *Tuber Width Average Weight of Sample (g)*

**111**

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17 . *Average Tuber Thickness (mm)*

**44**

18 . *Tuber Thickness Range (mm)*

*Tuber Thickness From (mm)*

**5**

*Tuber Thickness To (mm)*

**56**

19 . *Tuber Thickness Standard Deviation*

**6**

20 . *Tuber Thickness Average Weight of Sample (g)*

**111**

21 . *Tuber Eye Depth*

**Shallow**

22 . *Tuber Lateral Eyes*

**Shallow**

23 . *Average Number of Eyes per Tuber*

**6**

24 . *Number of Eyes per Tuber Range*

*Number of Eyes per Tuber From*

**4**

*Number of Eyes per Tuber To*

**9**

25 . *Distribution of Tuber Eyes*

26 . *Prominence of Tuber Eyebrows*

**Slight prominence**

27 . *Predominant Tuber Flesh Color*

**White**

28 . *Primary Tuber Flesh Color Chart*

28.a. *Primary Tuber Flesh Color Chart*

**Royal Horticulture Society Color Chart**

28.b. *Primary Tuber Flesh Color Chart Value*

**31C**

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29 . *Secondary Tuber Flesh Color*

**Absent**

30 . *Secondary Tuber Flesh Color Chart*

30.a. *Secondary Tuber Flesh Color Chart*

30.b. *Secondary Tuber Flesh Color Chart Value*

31 . *Number of Tubers per Plant*

**I . Disease Characteristics**

1 . *Late Blight (Phytophthora)*

**Not Tested**

2 . *Early Blight (Alternaria)*

**Susceptible**

3 . *Soft Rot (Erwinia)*

**Intermediately Susceptible**

4 . *Common Scab (Streptomyces)*

**Not Tested**

5 . *Powdery Scab (Spongospora)*

**Susceptible**

6 . *Dry Rot (Fusarium)*

**Moderately Resistant**

7 . *Leaf Roll Virus (PLRV)*

**Not Tested**

8 . *Virus X (PVX)*

**Not Tested**

9 . *Virus Y (PVY)*

**Susceptible**

10 . *Virus M (PVM)*

**Not Tested**

11 . *Virus A (PVA)*

**Not Tested**

12 . *Golden Nematode (Globodera)*

**Not Tested**

13 . *Root Knot Nematode (Meloidogyne)*

**Not Tested**

14 . *Other Disease*

14.a. *Other Disease*

14.b. *Other Disease (Specify)*

15 . *Physiological Disorder*

**J . Pest Characteristics**

1 . *Colorado Potato Beetle (Leptinotarsa)*

**Not Tested**

2 . *Green Peach Aphid (Myzus)*

**Not Tested**

3 . *Other Pest Characteristics*

**K . Gene Traits**

1 . *Insertion of Genes*

**No**

**L . Chief Market Other Quality Characteristics**

I. Chief Market Quality Characteristics

1 . *Specific Gravity ((wt. air)/(wt. air – wt. water))*

**1.070-1.079**

2 . *Total Glycoalkaloid Content (mg/100 grams fresh tuber)*

**6.5**

II. Chief Market Other Quality Characteristics

1 . *Describe any Other Quality Characteristics that May Aid in Identification*

**M . Chemical Identification**

1 . *Chemical Identification*

**N . Molecular Markers**

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1 . *Isozymes*

**No**

**O . DNA Profile**

1 . *DNA Profile*

**No**

**P . Additional Comments and Characteristics**

1 . *Additional Comments and Characteristics*

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**Exhibit D - Additional Descriptive Information**

**Additional descriptive question / text:**

**Additional descriptive answer / information in detail:**

**Exhibit D Attached Files List**

**File Name**

**Last Modified On**



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**Exhibit E - Statement of the Basis of Ownership**

**1. Does the applicant own all rights to the variety?**

Yes

**2. Is the applicant a U.S. national or a U.S. based entity?**

Yes

**3. Is the applicant the original owner?**

Yes

**4. Additional explanation on ownership (Trace ownership from original breeder to current owner):**

PLEASE NOTE:

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

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.

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.

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.