No. 201400086

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

President Colorado Certified Potato Growers' Association, Inc.

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.)

POTATO

'Masquerade'

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 sixteenth day of April, in the year* ***two thousand and fifteen.***

Attest:

Commissioner
Plant Variety Protection Office

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
Colorado Certified Potato Growers' Association, Inc.

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME
AC99329-7PW/Y

3. VARIETY NAME
Masquerade

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
0249 East Road 9 North
Center, CO 81125

5. TELEPHONE *(include area code)*
(719) 754-3594

6. FAX *(include area code)*
(719) 754-2619

FOR OFFICIAL USE ONLY

PVPO NUMBER
201400086

FILING DATE
December 23, 2013

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

8. IF INCORPORATED, GIVE STATE OF INCORPORATION
CO

9. DATE OF INCORPORATION
January 1, 1949

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*
Dr. David G. Holm
0249 East Road 9 North
Center, CO 81125

FEES RECEIVED

FILING AND EXAMINATION FEES:
$ 4382
DATE December 23, 2013

CERTIFICATION FEE:
$
DATE

11. TELEPHONE (Include area code)
(719) 754-3594

12. FAX (Include area code)
(719) 754-2619

13. E-MAIL
spudmkr@lamar.colostate.edu

14. CROP KIND *(Common Name)*
Potato

16. FAMILY NAME *(Botanical)*
Solanaceae

15. GENUS AND SPECIES NAME OF CROP
Solanum tuberosum

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 COMMERCIALIZATION. _____

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)*
h. ■ 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 ONLY 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)*
○ UNDECIDED

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
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
Brendon Rockey President of CCPGA

NAME *(Please print or type)*
Brendon Rockey

CAPACITY OR TITLE
President, CCPGA

DATE
12/16/2013

SIGNATURE OF OWNER

NAME *(Please print or type)*

CAPACITY OR TITLE

DATE

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

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.)*

Tissue-cultured plantlets and tuber seed stocks of AC99329-7PW/Y were pre-released to local seed growers for research and evaluation purposes under an agreement regarding experimental potato selections. Commercial sales of AC99329-7PW/Y were first approved on January 15, 2013.

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).)*

Exhibit A

Origin and Breeding History of Variety

1. Pedigree:

Masquerade, tested under pedigree number AC99329-7PW/Y, was selected in 2001 at the San Luis Valley Research Center - Colorado State University, Center Colorado. It resulted from a cross of Inka Gold and A91846-5R made by the USDA-ARS at the University of Idaho Research and Extension Center, Aberdeen, Idaho in 1999 under the direction of Dr. Richard Novy. The complete pedigree is available in Figure 1.

2. Selection and Multiplication:

Refer to Table 1 for an outline of the potato breeding, selection, and multiplication scheme for **Masquerade**.

Selection and early testing was done by Dr. David G. Holm at the San Luis Valley Research Center - Colorado State University, Center, Colorado. Colorado State University personnel conducting cultural management trials and disease evaluations/observations were Dr. Samuel Y. C. Essah and Dr. Robert D. Davidson, respectively.

Primary criteria used in selecting **Masquerade** were yield potential, novel tuber visual appearance, vine vigor, and resistance to internal and external grade defects.

Masquerade was evaluated in the Western Regional Trials in 2008-2009. These trials were conducted in several locations around the Western United States as part of WERA027 - Potato Variety Development.

Multiplication of **Masquerade** 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.

3. Statement of Uniformity and Stability:

Masquerade has been observed for more than14 years of field screening and/or tissue-culture production. No variants have been observed during this time indicating that **Masquerade** is uniform and stable.

Exhibit A (continued)

Figure 1. Pedigree of Masquerade

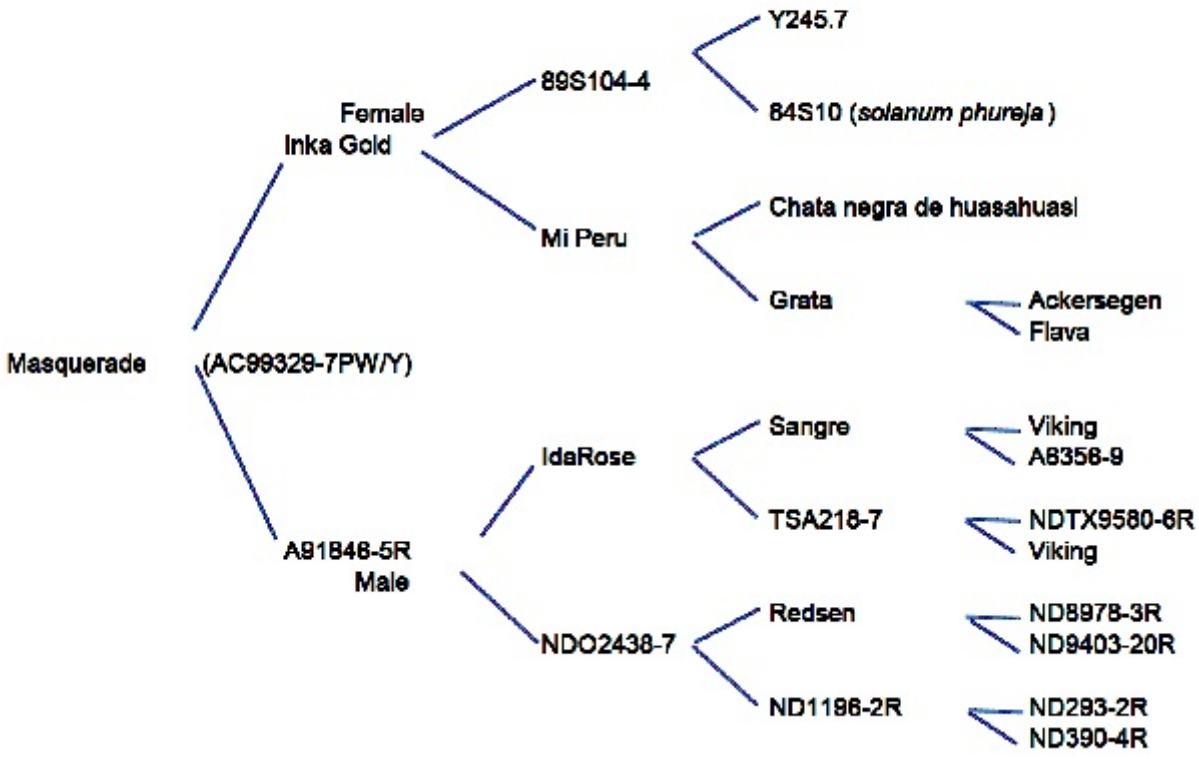

Exhibit A (continued)

Table 1. Potato breeding, selection, and multiplication scheme for **Masquerade**.

Year	Comments
1	Select parents for crossing and true seed production in the greenhouse at Aberdeen, Idaho.
2	Produce seedling tubers from true seed in the greenhouse at Aberdeen, Idaho.
3	Three hundred and ten seedling tubers of the family designated as A99329 were planted as single hills and underwent the first cycle of field selection at harvest at the San Luis Valley Research Center.
4	Twelve-hills of each single-hill selection are planted. Second cycle of field selection.
5	Preliminary Selections 1 (P1). Third cycle of field selection (48 plant tuber-unit seed increase). Initial evaluations for chipping qualities (chip color after various storage regimes and specific gravity) are conducted this year and subsequently.
6	Preliminary Selections 2 (P2). Fourth cycle of field selection (96 plant tuber-unit seed increase). Initial evaluations to characterize selections for blackspot bruise potential, storage weight loss, dormancy, and enzymatic browning. Initial evaluations for french fry potential (french fry color and specific gravity) are conducted this year and subsequently. Evaluations for chipping qualities are continued.
7	Intermediate Selections. Fifth cycle of field selection. Initial data collected on yield, grade, and growth characteristics. Plant a 144 plant tuber-unit seed increase and a 2 rep x 25 plants intermediate yield trial (IYT).
8-9, 14+	Advanced Selections: Includes selections that have advanced from the IYT. Additionally selections are included that have graduated from the Southwest Regional and Western Regional Trials. The advanced yield trials for reds, specialty types, and chippers are planted with entries in the Western Regional Red, Specialty and Chip Trials. Selections are in the 6th-7th and 12+ cycles of field selection. All advanced yield trials (AYT) have 4 reps x 25 plants. Sixth- and seventh- year field selections respectively have a 400/1,600 plant tuber-unit seed increase. Selections in the sixth cycle of selection are indexed for viruses and cleanup/micropropagation is initiated. Testing for ring rot and PLRV reaction is also initiated at this stage and continues as needed. Selections in the 7th cycle of field selection are entered into cultural management trials and postharvest disease reaction (dry rot and soft rot) evaluations.
10	All 8th year selections have a 1/2 acre tuber-unit seed increase planted. These selections are entered in the Southwestern Regional Trials (4 locations - CO, TX, two in CA). Cultural management trials and postharvest disease reaction evaluations continue as needed.
11-13	All 9th year or older selections generally have a 1 acre or greater seed increase. These selections are entered in the Western Regional Trials (4 trials): main (russets and long whites), red, specialty , and chip. The Western Regional Committee (WERA027) directs these trials at 10+ locations in the Western United States each year. Cultural management trials and postharvest disease reaction evaluations continue as needed.
11+	Grower/industry evaluations. The Colorado Potato Breeding and Selection Project relies on the cooperation of several growers, shippers, and processors to evaluate advanced selections for adaptability and marketability.
14+	Release as a named cultivar.

Exhibit B

Statement of Distinctness

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

Trait	**Masquerade**	Yukon Gold	Evidence
Light Sprout Tip: Anthocyanin	Blue-violet	Green	Figure 1
Light Sprout Tip: Intensity of Anthocyanin Coloration	Strong	Absent	Figure 1
Petiole Anthocyanin Coloration	Medium	Weak	Figure 2
Terminal Leaflet Shape	Narrowly ovate	Elliptical	Figure 3
Terminal Leaflet Base Shape	Obtuse	Acute	Figure 3
Terminal Leaflet Margin Waviness	Weak	Slight	Figure 3
Corolla Inner Surface Color Chart Value	82A	76A	RHS Color Chart
Corolla Inner Surface Color	Purple-violet	Purple	Figure 4
Calyx Anthocyanin Coloration	Strong	Weak	Figure 4
Secondary Skin Color	Present/83A	Absent	Figure 5/RHS Color Chart
Tuber Thickness	Slightly flattened	Medium thick	Figure 6
Number of Florets/Inflorescence	15.7 +/- 5.6 (n=50)	7.1 +/- 3.4 (n=50)	Table 1
Vine Maturity	Medium (3.1)	Early (2.0)	Table 2

Exhibit B (continued)

Statement of Distinctness

Figure 4. Corolla Inner Surface Color and Calyx Anthocyanin Coloration: Masquerade (left) and Yukon Gold (right).

Exhibit B (continued)

Statement of Distinctness

Figure 5. Secondary Skin Color: Masquerade (left) and Yukon Gold (right).

NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME
President Colorado Potato Growers' Association, Inc.	AC99329-7PW/Y	Masquerade

ADDRESS *(Street and No. or RD No., City, State, Zip Code, and Country)*

0249 East Road 9 North
Center, CO 81125

FOR OFFICIAL USE ONLY

PVPO NUMBER

20140008 6

REFERENCE VARIETIES: Enter the reference variety name in the appropriate box.

Application Variety (V)	Reference Variety 1 (R1)	Reference Variety 2 (R2)	Reference Variety 3 (R3)	Reference Variety 4 (R4)
AC99329-7PW/Y	Yukon Gold			

PLEASE READ ALL INSTRUCTIONS CAREFULLY:

1. MARKET CHARACTERISTICS:

***MARKET CLASS**:
1 = Yellow-flesh Tablestock 2 = Round-white Tablestock 3 = Chip-processing 4 = Frozen-processing
5 = Russet Tablestock 6 = Other _____

V	R1	R2	R3	R4
1	1			

2. LIGHT SPROUT CHARACTERISTICS: (See Figure 1)

***LIGHT SPROUT: GENERAL SHAPE**
1 = Spherical 2 = Ovoid 3 = Conica 4 = Broad cylindrica 5 = Narrow cylindrical 6 = Other _____

V	R1	R2	R3	R4
4	3			

***LIGHT SPROUT BASE: PUBESCENCE OF BASE**
1 = Absent 2 = Weak 3 = Medium 4 = Strong 5 = Very Strong

V	R1	R2	R3	R4
4	3			

***LIGHT SPROUT BASE: ANTHOCYANIN COLORATION**
1 = Green 2 = Red-violet 3 = Blue-violet 4 = Other(describe) Blue-violet patches

V	R1	R2	R3	R4
4	2			

***LIGHT SPROUT BASE: INTENSITY OF ANTHOCYANIN COLORATION (IF PRESENT)**
1 = Absent 2 = Weak 3 = Medium 4 = Strong 5 = Very Strong

V	R1	R2	R3	R4
4	3			

* **LIGHT SPROUT TIP: HABIT**
1 = Closed 2 = Intermediate 3 = Open

V	R1	R2	R3	R4
1	1			

2. LIGHT SPROUT CHARACTERISTICS: (continued)

LIGHT SPROUT TIP: PUBESCENCE
1 = Absent 2 = Weak 3 = Medium 4 = Strong 5 = Very Strong

V	2	R1	1	R2		R3		R4	

LIGHT SPROUT TIP ANTHOCYANIN COLORATION
1 = Green 2 = Red-violet 3 = Blue-violet 4 = Other(describe) _____

V	3	R1	1	R2		R3		R4	

LIGHT SPROUT TIP: INTENSITY OF ANTHOCYANIN COLORATION (IF PRESENT)
1 = Absent 2 = Weak 3 = Medium 4 = Strong 5 = Very Strong

V	4	R1	1	R2		R3		R4	

LIGHT SPROUT ROOT INITIALS: FREQUENCY
1 = Absent 2 = Some 3 = Abundant

V	2	R1	2	R2		R3		R4	

3. PLANT CHARACTERISTICS:

GROWTH HABIT: (See Figure 2)
3 = Erect (>45° with ground) 5 = Semi-erect (30-45° with ground) 7 = Spreading

V	3	R1	5	R2		R3		R4	

TYPE:
1 = Stem (Foliage open, stems clearly visible) 2 = Intermediate 3 = Leaf (Foliage closed, stems hardly visible)

V	2	R1	3	R2		R3		R4	

MATURITY: Days after planting (DAP) at vine senescence

V		R1		R2		R3		R4	

PLANTING DATE:

V	5/24/12	R1	5/10/12	R2		R3		R4	

*__REGIONAL AREA__:
1 = Pacific North West (WA, OR, ID, CO, CA) 2 = North Central (ND, WI, MI, MN, OH) 3 = North East (ME, NY, PA, NJ, MD, MA, RI,)
4 = Mid-Atlantic Erect (VI, NC, SC, South NJ, FL) 5 = South (LA, TX, AZ, NE) 6 = Canada
7 = Europe 8 = England 9 = Latin America 10 = Brazil 11 = Other _____

V	1	R1	1	R2		R3		R4	

MATURITY CLASS:
1 = Very Early (<100 DAP) 2 = Early (100-110 DAP) 3 = Mid-season (111-120 DAP) 4 = Late (121-130 DAP) 5 = Very Late (>130 DAP).

V	3	R1	2	R2		R3		R4	

4. STEM CHARACTERISTICS: Measure at early first bloom

*** STEM ANTHOCYANIN COLORATION**:
1 = Absent 3= Weak 5 = Medium 7 = Strong 9 = Very Strong

V	5	R1	5	R2		R3		R4	

STEM WINGS: (See Figure 3)
1 = Absent 3 = Weak 5 = Medium 7 = Strong 9 = Very Strong

V	3	R1	3	R2		R3		R4	

5. LEAF CHARACTERISTICS:

LEAF COLOR: (*Observe fully developed leaves located on middle 1/3 of plant)*
1 = Yellowing-green 2 = Olive-green 3 = Medium Green 4 = Dark Green 5 = Grey-green 6 = Other _____

V	4	R1	1	R2		R3		R4	

XX

LEAF COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsell Color Chart
(*Observe fully developed leaves located on middle 1/3 of plant and circle the appropriate color chart)*

V	137A	R1	137A	R2		R3		R4	

LEAF PUBESCENCE DENSITY:
1 = Absent 2 = Sparse 3 = Medium 4 = Thick 5 = Heavy

V	3	R1	3	R2		R3		R4	

LEAF PUBESCENCE LENGTH:
1 = None 2 = Short 3 = Medium 4 = Long 5 = Very Long

V	2	R1	2	R2		R3		R4	

(*Note Descriptor #15 can be used to describe the type and length of the glandular trichomes observed.)*

*** LEAF SILHOUETTE**: (See Figure 4)
1 = Closed 3 = Medium 5 = Open

V	5	R1	3	R2		R3		R4	

PETIOLES ANTHOCYANIN COLORATION:
1 = Absent 3 = Weak 5 = Medium 7 = Strong 9 = Very Strong

V	5	R1	3	R2		R3		R4	

LEAF STIPULES SIZE: (Se Figure 5)
1 = Absent 3 = Small 5 = Medium 7 = Large

V	5	R1	5	R2		R3		R4	

TERMINAL LEAFLET SHAPE (See Figures 6 and 7)
1 = Narrowly ovate 2 = Medium Ovate 3 = Broadly Ovate 4 = Lanceolate 5 = Elliptical 6 = Obovate 7 = Oblong 8 = Other _____

V	1	R1	5	R2		R3		R4	

5. LEAF CHARACTERISTICS: (continued)

TERMINAL LEAFLET TIP SHAPE: (See Figures 6 and 8)
1 = Acute 2 = Cuspidate 3 = Acuminate 4 = Obtuse 5 = Other _____

V	3	R1	3	R2		R3		R4	

*** TERMINAL LEAFLET BASE SHAPE**: (See Figure 9)
1 = Cuneate 2 = Acute 3 = Obtuse 4 = Cordate 5 = Truncate 6 = Lobed 7 = Other _____

V	3	R1	2	R2		R3		R4	

TERMINAL LEAFLET MARGIN WAVINESS:
1 = Absent 2 = Slight 3 = Weak 4 = Medium 5 = Strong

V	3	R1	2	R2		R3		R4	

NUMBER OF PRIMARY LEAFLET PAIRS: (See Figure 6)

AVERAGE:

V	5	R1	5	R2		R3		R4	

RANGE:

V	4 to 6	R1	4 to 6	R2	to	R3	to	R4	to

PRIMARY LEAFLET TIP SHAPE: (See Figures 6 and 8)
1 = Acute 2 = Cuspidate 3 = Acuminate 4 = Obtuse 5 = Other _____

V	3	R1	3	R2		R3		R4	

PRIMARY LEAFLET SIZE:
1 = Very Small 2 = Small 3 = Medium 4 = Large 5 = Very Large

V	3	R1	4	R2		R3		R4	

PRIMARY LEAFLET SHAPE: (See Figures 6 and 7)
1 = Narrowly ovate 2 = Medium ovate 3 = Broadly ovate 4 = Lanceolate 5 = Elliptical 6 = Ovate 7 = Oblong 8 = Other _____

V	1	R1	1	R2		R3		R4	

PRIMARY LEAFLET BASE SHAPE: (See Figures 6 and 9)
1 = Cuneate 2 = Acute 3 = Obtuse 4 = Cordate 5 = Truncate 6 = Lobed 7 = Other _____

V	3	R1	3	R2		R3		R4	

NUMBER OF SECONDARY AND TERTIARY LEAFLET PAIRS: (See Figure 6)

AVERAGE:

V	12	R1	9	R2		R3		R4	

RANGE:

V	2 to 19	R1	5 to 14	R2	to	R3	to	R4	to

5. LEAF CHARACTERISTICS: (continued)

NUMBER OF INFLORESCENCE/PLANT:

AVERAGE:

V	R1	R2	R3	R4
4	2			

RANGE:

V	R1	R2	R3	R4
2 to 8	1 to 4	to	to	to

NUMBER OF FLORETS/INFLORESCENCE:

AVERAGE:

V	R1	R2	R3	R4
16	7			

RANGE:

V	R1	R2	R3	R4
2 to 25	1 to 16	to	to	to

XX

*** COROLLA INNER SURFACE COLOR CHART VALUE**: Royal Horticulture Society Color Chart or Munsell Color Chart (Measure predominant color of newly open flower and circle the appropriate color chart)

V	R1	R2	R3	R4
82A	76A			

XX

* **COROLLA OUTER SURFACE COLOR CHART VALUE**: Royal Horticulture Society Color Chart or Munsell Color Chart (Measure predominant color of newly open flower and circle the appropriate color chart)

V	R1	R2	R3	R4
82A	76B			

* **COROLLA INNER SURFACE COLOR**: (Measure predominant color of newly open flower, if flowers are bi-color please use the ratio codes)
1 = White 2 = Red-violet 3 = Blue-violet 4 = Cream 5 = Red-purple 6 = Blue 7 = Pink 8 = Pink-white 9 = Purple 10 = Violet 11 = Purple-violet 13 = Violet-White 1:1 14 = Violet-White 1:3 15 = Violet-White 3:1 16 = Violet-White Halo 17 = Pink-White 1:1 18 = Pink-White 1:3 19 = Pink-White 3:1 20 = Pink-White Halo 21 = RedViolet-White 1:1 22 = RedViolet-White 1:3 23 = RedViolet-White 3:1 24 = RedViolet-White Halo 25 = BlueViolet-White 1:1 26 = BlueViolet-White 1:3 27 = BlueViolet-White 3:1 28 = BlueViolet-White Halo 12 = Other _____

V	R1	R2	R3	R4
11	9			

COROLLA SHAPE: (See Figure 10)
1 = Very rotate 2 = Rotate 3 = Pentagonal 4 = Semi-stellate 5 = Stellate

V	R1	R2	R3	R4
3	3			

6. INFLORESCENCE CHARACTERISTICS:

CALYX ANTHOCYANIN COLORATION:
1 = Absent 3 = Weak 5 = Medium 7 = Strong 9 = Very strong

V	R1	R2	R3	R4
7	3			

XX

ANTHER COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsel Color Chart (Measure when newly opened flower is fully expanded and circle the appropriate color chart)

V	R1	R2	R3	R4
14A	14A			

ANTHER SHAPE: (See Figure 11)
1 = Broad cone 2 = Narrow cone 3 = Pear-shaped cone 4 = Loose 5 = Other

V	R1	R2	R3	R4
2	1			

6. INFLORESCENCE CHARACTERISTICS: (continued)

POLLEN PRODUCTION:
1 = None 3 = Some 5 = Abundant

V	R1	R2	R3	R4
5	3			

STIGMA SHAPE: (See Figure 12)
1 = Capitate 2 = Clavate 3 Bi-lobed

V	R1	R2	R3	R4
1	1			

XX

STIGMA COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsel Color Chart (Circle the appropriate color chart)

V	R1	R2	R3	R4
138A	138A			

BERRY PRODUCTION: (Under field conditions)
1 = Absent 3 = Low 5 = Moderate 7 = Heavy 9 = Very Heavy

V	R1	R2	R3	R4
5	3			

7. TUBER CHARACTERISTICS:

*** PREDOMINANT SKIN COLOR**:
1 = White 2 = Light Yellow 3 = Yellow 4 = Buff 5 = Tan 6 = Brown 7 = Pink 8 = Red 9 = Purplish-red
10 = Purple 11 = Dark purple-black 12 = Other _____

V	R1	R2	R3	R4
3	3			

XX

PREDOMINANT SKIN COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsell Color Chart (Circle the appropriate color chart)

V	R1	R2	R3	R4
161A	161B			

SECONDARY SKIN COLOR:
1 = Absent 2 = Present (please describe)

V	R1	R2	R3	R4
2	1			

XX

SECONDARY SKIN COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsell Color Chart (Circle the appropriate color)

V	R1	R2	R3	R4
83A				

SECONDARY SKIN COLOR DISTRIBUTION: (See Figure 13)
1 = Eyes 2 = Eyebrows 3 = Splashed 4 = Scattered 5 = Spectacled 6 = Stippled 7 = Other eyes in yellow

V	R1	R2	R3	R4
4				

SKIN TEXTURE:
1 = Smooth 2 = Rough (flaky) 3 = Netled 4 = Russetted 5 = Heavily russetted 6 = Other _____

V	R1	R2	R3	R4
1	1			

7. TUBER CHARACTERISTICS: (continued)

*** TUBER SHAPE**: (See Figure 14)
1 = Compressed 2 = Round 3 = Oval 4 = Oblong 5 = Long 6 = Other _____

V	2	R1	3	R2		R3		R4	

TUBER THICKNESS:
1 = Round 2 = Medium thick 3 = Slightly flattened 4 = Flattened 5 = Other _____

V	3	R1	2	R2		R3		R4	

TUBER LENGTH (mm):

AVERAGE:

V	72	R1	91	R2		R3		R4	

RANGE:

V	56 to 104	R1	54 to 114	R2	to	R3	to	R4	to

STANDARD DEVIATION:

V	9	R1	9	R2		R3		R4	

AVERAGE WEIGHT OF SAMPLE TAKEN:

V	152	R1	212	R2		R3		R4	

TUBER WIDTH (mm)

AVERAGE:

V	64	R1	69	R2		R3		R4	

RANGE:

V	52 to 86	R1	52 to 97	R2	to	R3	to	R4	to

STANDARD DEVIATION:

V	6	R1	7	R2		R3		R4	

AVERAGE WEIGHT OF SAMPLE TAKEN (g):

V	152	R1	212	R2		R3		R4	

7. TUBER CHARACTERISTICS: (continued)

TUBER THICKNESS (mm):

AVERAGE:

V	51	R1	57	R2		R3		R4	

RANGE:

V	37 to 70	R1	25 to 70	R2	to	R3	to	R4	to

STANDARD DEVIATION:

V	5	R1	6	R2		R3		R4	

AVERAGE WEIGHT OF SAMPLE TAKEN (g):

V	152	R1	212	R2		R3		R4	

TUBER EYE DEPTH:

1 = Protruding 3 = Shallow 5 = Intermediate 7 = Deep 9 = Very deep

V	5	R1	7	R2		R3		R4	

TUBER LATERAL EYES:

1 = Protruding 3 = Shallow 5 = Intermediate 7 = Deep 9 = Very deep

V	3	R1	5	R2		R3		R4	

NUMBER EYE/TUBER:

AVERAGE:

V	8	R1	10	R2		R3		R4	

RANGE:

V	5 to 11	R1	6 to 14	R2	to	R3	to	R4	to

DISTRIBUTION OF TUBER EYES:

1 = Predominantly apical 2 = Evenly distributed

V	2	R1	1	R2		R3		R4	

PROMINENCE OF TUBER EYEBROWS:

1= Absent 2 = Slight prominence 3 = Medium prominence 4 = Very prominent 5 = Other _____

V	2	R1	2	R2		R3		R4	

7. TUBER CHARACTERISTICS: (continued)

PREDOMINANT TUBER FLESH COLOR
1 = White 2 = Light Yellow 3 = Yellow 4 = Buff 5 = Tan 6 = Brown 7 = Pink 8 = Red 9 = Purplish-red
10 = Purple 11 = Dark purple-black 12 = Other _____

V	3	R1	3	R2		R3		R4	

PRIMARY TUBER FLESH COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsell Color Chart (Circle the appropriate color chart)
XX

V	10A	R1	11B	R2		R3		R4	

SECONDARY TUBER FLESH COLOR:

1 = Absent 2 = Present, please describe: _____

V		R1		R2		R3		R4	

SECONDARY TUBER FLESH COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsell Color Chart (Circle the appropriate color chart)
XX

V		R1		R2		R3		R4	

NUMBER OF TUBERS/PLANT:
1 = Low (<8) 2 = Medium (8-15) 3 = High (>15)

V		R1		R2		R3		R4	

8. DISEASES CHARACTERISTICS:

DISEASES REACTION: 0 = Not Tested 1 = Highly Resistant 2 = Resistant Few Symptoms 3 = Resistance Few Lessions in Number and Size 4 = Moderately Resistance 5 = Intermedia Susceptible 6 = Moderate Susceptible 7 = Susceptible 9 = Highly Susceptible

LATE BLIGHT: (Phytophthora)

V	0	R1	0	R2		R3		R4	

EARLY BLIGHT: (Alternaria)

V	2	R1	6	R2		R3		R4	

SOFT ROT (Erwinia)

V	4	R1	6	R2		R3		R4	

COMMON SCAB (Streptomyces)

V	0	R1	0	R2		R3		R4	

POWDERY SCAB (Spongospora)

V	5	R1	4	R2		R3		R4	

DRY ROT (Fusarium)

V	5	R1	3	R2		R3		R4	

POTATO LEAF ROLL VIRUS (PLRV)

V	2	R1	6	R2		R3		R4	

8. DISEASES CHARACTERISTICS: (continued)

POTATO VIRUS X (PVX)

V	R1	R2	R3	R4
0	0			

POTATO VIRUS Y (PVY)

V	R1	R2	R3	R4
2	6			

POTATO VIRUS M (PVM)

V	R1	R2	R3	R4
0	0			

POTATO VIRUS A (PVA)

V	R1	R2	R3	R4
0	0			

GOLDEN NEMATODE (Globodera)

V	R1	R2	R3	R4
0	0			

ROOT – KNOT NEMATODE (Meloidogyne)

V	R1	R2	R3	R4
0	0			

OTHER DISEASE powdery scab - root galling

V	R1	R2	R3	R4
5	5			

PHYSIOLOGICAL DISORDER

1 = Malformed shape 2 = Tuber cracking 3 = Feathering 4 = Hollow heart 5 = Internal necrosis
6 = Blackheart 7 = Internal sprouting 8 = Other _____

V	R1	R2	R3	R4

9. PESTS CHARACTERISTICS:

PEST REACTION: 0 = Not Tested 1 = Highly Resistant 2 = Resistant Few Symptoms 3 = Resistance Few Lessions in Number and Size
4 = Moderately Resistance 5 = Intermedia Susceptible 6 = Moderate Susceptible
7 = Susceptible 9 = Highly Susceptible

COLORADO POTATO BEETLE (CPB) (*Leptinotarsa*)

V	R1	R2	R3	R4
0	0			

GREEN PEACH APHID *(Myzus*)

V	R1	R2	R3	R4
0	0			

OTHER: BRR foliar

V	R1	R2	R3	R4
7	7			

OTHER: BRR tuber

V	R1	R2	R3	R4
4	4			

10. GENE TRAITS:

INSERTION OF GENES: 1 = YES 2 = NO

IF YES, describe the gene(s) introduced or attach information:

11. QUALITY CHARACTERISTICS:

CHIEF MARKET:

SPECIFIC GRAVITY (wt. air/wt. air – wt. water)
1 = <1.060 2 = 1.060-1.069 3 = 1.070-1.079 4 = 1.080-1.089 5 = >1.090

V	5	R1	4	R2		R3		R4	

TOTAL GLYCOALKALOID CONTENT (mg./100 g. fresh tuber)

V	1.9	R1	3.3	R2		R3		R4	

OTHER QUALITY CHARACTERISTICS: Describe any other quality characteristics that may aid in identification, (e.g., chip-processing, french fry processing, baking, boiling, after-cooking darkening). Please attach data and corresponding protocol.

12. CHEMICAL IDENTIFICATION:

Describe chemical traits of the candidate variety that aid in its identification (e.g., protien or DSN electrophoresis). Please attach data and the corresponding protocol.

13. FINGER PRINTING MARKERS:

ISOZYMES 1 = YES 2 = NO

IF YES, attach information

14. DNA PROFILE: 1 = YES 2 = NO

IF YES, attach information

15. ADDDITIONAL COMMENTS AND CHARACTERISTICS:

Include any additional descriptors that would be useful in distringuishing the candidate variety.

D

Exhibit ~~B~~ ~~(continued)~~

~~Statement of Distinctness~~

Figure 1. Light Sprout Tip: Anthocyanin Coloration and Intensity of Anthocyanin Coloration - Masquerade (left) and Yukon Gold (right).

~~**Exhibit B (continued)**~~

~~**Statement of Distinctness**~~

Figure 2. Petiole Anthocyanin: Masquerade (left) and Yukon Gold (right).

~~**Exhibit B (continued)**~~

~~**Statement of Distinctness**~~

Figure 3. Terminal Leaflet: Shape, Base Shape, and Margin Waviness - Masquerade (top) and Yukon Gold (bottom).

Figure 6. Tuber Thickness: Masquerade (left) and Yukon Gold (right).

~~**Exhibit B (continued)**~~

~~**Statement of Distinctness**~~

Table 1.

Number of Florets/Inflorescence Analysis													
Masquerade	12	11	11	14	23	22	16	25	15	13		Number	50
	7	4	21	19	15	13	17	13	22	10		Mean	15.7
	5	15	20	11	17	16	2	13	8	21		SD	5.6
	3	24	19	16	11	18	20	21	18	18		Max	25
	17	21	21	22	16	13	24	18	16	20		Min	2
Yukon Gold	3	16	6	15	6	2	6	8	4	5		Number	50
	7	5	9	2	10	6	9	6	9	1		Mean	7.1
	13	9	4	7	4	6	6	12	4	11		SD	3.4
	11	5	5	2	5	11	11	3	8	5		Max	16
	11	9	9	4	8	9	7	6	5	9		Min	1

RAD 12/31/2014

~~**Exhibit B (continued)**~~

~~**Statement of Distinctness**~~

Table 2.

Vine Maturity Analysis[1]		
Trial	**Masquerade**	Yukon Gold
1	3.3	2.8
2	3.0	2.0
3	2.8	1.3
4	3.0	2.0
5	3.0	1.8
6	3.5	2.0
7	3.3	2.0
Number	7	7
Mean	3.1	2.0
SD	0.2	0.4
Max	3.5	2.8
Min	2.8	1.3

[1]1=very early; 2=early; 3=medium; 4=late; and 5=very late.

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
Colorado Certified Potato Growers Assoc., Inc.	AC99329-7PW/Y	Masquerade
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)*
0249 East Road 9 North Center, CO 81125	(719) 754-3594	(719)754-2619
	7. PVPO NUMBER	

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 a U.S. national or a U.S. based entity? **If no, give name of country.** [X] **YES** ☐ **NO**

10. Is the applicant the original owner? ☐ **YES** ■ **NO** **If no, please answer <u>one</u> 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)*:

The Colorado Certified Potato Growers' Association, Inc., and the Board of Governors of Colorado State University System entered into an agreement on February 1, 1998 (renewed on 8/31/08). This agreement allows the transfer of ownership of potato cultivars developed at Colorado State University by the Agriculture Experiment Station to the Colorado Certified Potato Growers' Association.

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.

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
Colorado Certified Potato Growers' Association, Inc.	0249 East Road 9 North Center, CO 81125	AC99329-7PW/Y
		VARIETY NAME Masquerade
NAME OF OWNER REPRESENTATIVE (S)	ADDRESS *(Street and No. or RD No., City, State, and Zip Code and Country)*	FOR OFFICIAL USE ONLY
Dr. David G. Holm	0249 East Road 9 North Center, CO 81125	PVPO NUMBER

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.

Signature

December 19, 2013
Date