No. 201100141

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

NORIKA Nordring-Kartoffelzucht- und Vermehrungs-GmbH GroB Lusewitz

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

'Soraya'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the* ***City of Washington, D.C.*** *this thirtieth day of September, in the year* ***two thousand and thirteen.***

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

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

Form Approved - OMB No. 0581-0055

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

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

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

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

1. NAME OF OWNER
Norika Nordring-Kartoffelzucht-und Vermehrungs-GmbH GroB Luesewitz

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME
US766-99

3. VARIETY NAME
Soraya

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
NORIKA GmbH
Parkweg 4
D-18190 Sanitz OT
GroB Lusewitz, Germany

5. TELEPHONE *(include area code)*
011 49 3820947600

6. FAX *(include area code)*
011 49 3820947666

FOR OFFICIAL USE ONLY

PVPO NUMBER
#201100141

FILING DATE
December 30, 2010

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

8. IF INCORPORATED, GIVE STATE OF INCORPORATION
Germany

9. DATE OF INCORPORATION
1991

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*
Charles Higgins
4220 N. Crescent Avenue
Farmington, New Mexico 87401
U.S.A.

FEES RECEIVED

FILING AND EXAMINATION FEES:
$ 4382.00
DATE 12/30/2010

CERTIFICATION FEE:
$
DATE

11. TELEPHONE (Include area code)
719 588 2388

12. FAX (Include area code)
505 960 2222

13. E-MAIL
higginsfarms@comcast.net

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)

RAD 1/25/2013

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? POTATO NO ELIGABLE FOR CERTIFICATION
☐ 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?

RAD 7/10/2013

☒ YES ■ NO

Germany March 29, 2009
EU February 23, 2009

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

Filing and Grant of rights
EU Application No: 2008/0876 February 23, 2009

IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

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

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

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

SIGNATURE OF OWNER		SIGNATURE OF OWNER	
NAME *(Please print or type)*		NAME *(Please print or type)*	
Charles Higgins		Wolfgang Walter	
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE
owner representative	12/24/2010	Managing Director, Norika	12/27/2010

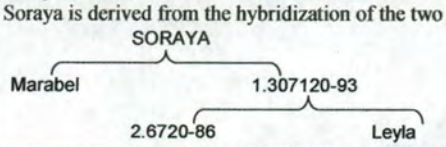
ST-470 (07-01-2009) designed by the Plant Variety Protection Office

2010 DEC 30 PM12:24

Exhibit A Form

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

See attached for the genealogy of Soraya.
Soraya resulted from the conventional cross of Marabel(♀) and 1.307 120-93 (♂).
Soraya is derived from the hybridization of the two parents and a phenotypic recurrent selection technique was utilized in its development.



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

Year	Detail of Stage	Selection Criteria
1998	Cross was made in the greenhouse in Groβ Lüsewitz, Germany	None
1999	TPS planted in the greenhouse.	None
2000	Tubers planted in the field and the selection Soraya was selected.	Tuber appearance
2001 to 2005	The selection Soraya was evaluated in a number of potato trials in different German locations.	Yield, resistance to diseases processing qualities and storage qualities
2006 to 2007	Tested for distinctness, uniformity and stability.	Evaluated by UPOV
2008 - 2009	Filing and Grant of rights EU February 29, 2009	
2009	First sale Germany March 29, 2009	

3a. Is the variety uniform? √ Yes No

How did you test for uniformity?
Since it selection Soraya was asexually-propagated via tubers as well as micro-propagated. During the 8 years of field evaluation and field observations, there is no report of variants arising from the in-vitro multiplication indicating it is a stable genotype with uniform morphology.

3b. Is the variety stable? √ Yes No

How did you test for stability? Over how many generations?
Since it selection Soraya was asexually-propagated via tubers as well as micro-propagated. During the 8 years of field evaluation and field observations, there is no report of variants arising from the in-vitro multiplication indicating it is a stable genotype with uniform morphology.

4. Are genetic variants observed or expected during reproduction and multiplication? Yes √ No

If yes, state how these variants may be identified, their type and frequency.

Continue on additional pages if necessary.

Received December 30, 2010

Exhibit B Form

Based on overall morphology, SORAYA is most similar to Yukon Gold.

Soraya

~~Gala~~ most clearly differs from Yukon Gold in the following traits:

Name the specific trait, then list the value of that trait for each variety in the comparison. Attach appropriate supporting evidence (see the Guidelines for Presenting Evidence in Support of Variety Distinctness, available from the PVP Office or website).

Eg. Leaf Pubescence ***Eg. Leaf Color*** ***Eg. Plant Height***	***heavy pubescence*** ***Dark Green (5GY 3/4)*** ***200 cm +/- 10 cm (N=25)***	***glabrous*** ***Light Green (2.5GY 8/10)*** ***250 cm +/- 15 cm (N=25)***	***photograph attached*** ***Munsell Color Chart*** ***statistics attached***
1. Qualitative traits: Corolla Shape corolla inner surface color	Applicant's New Variety Soraya rotate white	1st Comparison Variety Yukon Gold stellate pink	Location of Evidence
2. Color traits: Leaf Color Chart Value: Stem Anthocyanin Coloration	Applicant's New Variety Soraya 5 GY 5/6 1	1st Comparison Variety Yukon Gold 5 GY 4/4 4	Royal Horticultural Society Color Chart
3. Quantitative traits:			
4. Other:			

RAD

7/11/2013

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

20110014

SORAYA COROLLA PICTURE:

Received July 7, 2013

Yukon Gold Corolla Picture:

NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME
Norika Nordring-Kartoffelzucht-und Vermehrungs-GmbH GroB Luesewitz	US766-99	~~US766-99~~ (Soraya)

ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country)	FOR OFFICIAL USE ONLY
NORIKA GmbH Parkweg 4 D-18190 Sanitz OT GroB Lusewitz, Germany	PVPO NUMBER #201100141

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)
~~US766-99~~ Soraya	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 _____

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V	R1	R2	R3	R4
2	1			

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

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V	R1	R2	R3	R4
2	4			

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

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V	R1	R2	R3	R4
2	3			

***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
3				

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

RAD 7/10/2013

V	R1	R2	R3	R4
2	1			

2. LIGHT SPROUT CHARACTERISTICS: (continued)

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

RAD 7/10/2013

V	R1	R2	R3	R4
3	2			

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

RAD 7/10/2013

V	R1	R2	R3	R4
2	3			

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

RAD 7/10/2013

V	R1	R2	R3	R4
3	3			

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

RAD 7/10/2013

V	R1	R2	R3	R4
2	2			

3. PLANT CHARACTERISTICS:

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

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V	R1	R2	R3	R4
~~2~~ 3	3			

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

V	R1	R2	R3	R4
3	2			

MATURITY: Days after planting (DAP) at vine senescence

V	R1	R2	R3	R4
122	112			

PLANTING DATE:

V	R1	R2	R3	R4
04/26/10	04/26/2010			

***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	R1	R2	R3	R4
2	2			

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	R1	R2	R3	R4
3	3			

4. STEM CHARACTERISTICS: Measure at early first bloom

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

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V	R1	R2	R3	R4
~~1~~ 3	~~4~~ 5			

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

V	R1	R2	R3	R4
5	4			

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	R1	R2	R3	R4
3	4			

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	R1	R2	R3	R4
5gy5/6	5gy4/4			

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

V	R1	R2	R3	R4
2	3			

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

V	R1	R2	R3	R4
2	2			

(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	R1	R2	R3	R4
3	3			

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

V	R1	R2	R3	R4
1	2			

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

V	R1	R2	R3	R4
5	5			

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	R1	R2	R3	R4
2	5			

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	1	R1	2	R2		R3		R4	

NUMBER OF PRIMARY LEAFLET PAIRS: (See Figure 6)

AVERAGE:

V	3.85	R1	4.05	R2		R3		R4	

RANGE:

V	3 to 4	R1	3 to 5	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	2	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	3.5	R1	4	R2		R3		R4	

RANGE:

V	2 to 5	R1	2 to 7	R2	to	R3	to	R4	to

5. LEAF CHARACTERISTICS: (continued)

NUMBER OF INFLORESCENCE/PLANT:

AVERAGE:

V	1	R1		R2		R3		R4	

RANGE:

V	0 to 3	R1	to	R2	to	R3	to	R4	to

NUMBER OF FLORETS/INFLORESCENCE:

AVERAGE:

V	5	R1		R2		R3		R4	

RANGE:

V	4 to 7	R1	to	R2	to	R3	to	R4	to

*** 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	2.5 Y 8/2	R2		R3		R4	

*** 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	2.5 Y 8/2	R2		R3		R4	

* 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	1	R1	7	R2		R3		R4	

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

V	2	R1	5	R2		R3		R4	

6. INFLORESCENCE CHARACTERISTICS:

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

V	1	R1	3	R2		R3		R4	

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	2.5y5/	R1	2.5y8/	R2		R3		R4	

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

V	1	R1	1	R2		R3		R4	

6. INFLORESCENCE CHARACTERISTICS: (continued)

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

V	3	R1	3	R2		R3		R4	

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

V	1	R1	1	R2		R3		R4	

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

V	2.5 Y 7/6	R1	2.5 Y 8/10	R2		R3		R4	

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

V	3	R1	5	R2		R3		R4	

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	3	R1	2	R2		R3		R4	

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

V	2.5 Y 8/8	R1	2.5 Y 8/8	R2		R3		R4	

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

V	1	R1	2	R2		R3		R4	

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

V		R1	5 R 8/4	R2		R3		R4	

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

V		R1	1	R2		R3		R4	

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

V	1	R1	1	R2		R3		R4	

7. TUBER CHARACTERISTICS: (continued)

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

V	4	R1	3	R2		R3		R4	

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

V	2	R1	3	R2		R3		R4	

TUBER LENGTH (mm):

AVERAGE:

V	88	R1	87.2	R2		R3		R4	

RANGE:

V	67 to 126	R1	56 to 114	R2	to	R3	to	R4	to

STANDARD DEVIATION:

V	12.72	R1	12.05	R2		R3		R4	

AVERAGE WEIGHT OF SAMPLE TAKEN:

V	165.9	R1	220.3	R2		R3		R4	

TUBER WIDTH (mm)

AVERAGE:

V	60.3	R1	70.4	R2		R3		R4	

RANGE:

V	46 to 73	R1	56 to 88	R2	to	R3	to	R4	to

STANDARD DEVIATION:

V	5.69	R1	6.18	R2		R3		R4	

AVERAGE WEIGHT OF SAMPLE TAKEN (g):

V	165.9	R1	220.3	R2		R3		R4	

7. TUBER CHARACTERISTICS: (continued)

TUBER THICKNESS (mm):

AVERAGE:

V	50.3	R1	56.7	R2		R3		R4	

RANGE:

V	39 to 65	R1	45 to 69	R2	to	R3	to	R4	to

STANDARD DEVIATION:

V	5	R1	4.51	R2		R3		R4	

AVERAGE WEIGHT OF SAMPLE TAKEN (g):

V	165.9	R1	220.3	R2		R3		R4	

TUBER EYE DEPTH:

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

V	3	R1	5	R2		R3		R4	

TUBER LATERAL EYES:

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

V	3	R1	4	R2		R3		R4	

NUMBER EYE/TUBER:

AVERAGE:

V	7.4	R1	8.2	R2		R3		R4	

RANGE:

V	3 to 1	R1	4 to 14	R2	to	R3	to	R4	to

DISTRIBUTION OF TUBER EYES:

1 = Predominantly apical 2 = Evenly distributed

V	2	R1	2	R2		R3		R4	

PROMINENCE OF TUBER EYEBROWS:

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

V	1	R1	1	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	2	R2		R3		R4	

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

V	2.5 Y 8/10	R1	2.5 Y 8/8	R2		R3		R4	

SECONDARY TUBER FLESH COLOR:

1 = Absent 2 = Present, please describe: _____

V	1	R1	1	R2		R3		R4	

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

V		R1		R2		R3		R4	

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

V	2	R1	1	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	R1	R2	R3	R4
4	0			

EARLY BLIGHT: (Alternaria)

V	R1	R2	R3	R4
5	8			

SOFT ROT (Erwinia)

V	R1	R2	R3	R4
4	0			

COMMON SCAB (Streptomyces)

V	R1	R2	R3	R4
3	7			

POWDERY SCAB (Spongospora)

V	R1	R2	R3	R4
0	7			

DRY ROT (Fusarium)

V	R1	R2	R3	R4
4	0			

POTATO LEAF ROLL VIRUS (PLRV)

V	R1	R2	R3	R4
4	4			

8. DISEASES CHARACTERISTICS: (continued)

POTATO VIRUS X (PVX)

V	R1	R2	R3	R4
1	0			

POTATO VIRUS Y (PVY)

V	R1	R2	R3	R4
1	7			

POTATO VIRUS M (PVM)

V	R1	R2	R3	R4
3	0			

POTATO VIRUS A (PVA)

V	R1	R2	R3	R4
3	0			

GOLDEN NEMATODE (Globodera)

V	R1	R2	R3	R4
1	0			

ROOT – KNOT NEMATODE (Meloidogyne)

V	R1	R2	R3	R4
0	0			

OTHER DISEASE _____

V	R1	R2	R3	R4

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
	4			

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:

V	R1	R2	R3	R4

OTHER:

V	R1	R2	R3	R4

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	0	R1	3	R2		R3		R4	

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

V	5.4	R1	4.6	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.

20110141

EXHIBIT C-OBJECTIVE DESCRIPTION OF THE VARIETY:

SORAYA LEAF:

Received July 7, 2013

20110014

SORAYA PLANT:

Received July 7, 2013

20110014 1

Light Sprout Pictures of SORAYA and most similar:

SORAYA LIGHT SPROUT PICTURE;

Description of light sprout for the most similar variety:

Received July 7, 2013

20110014

Yukon Gold

Most similar variety light sprout description:

Yukon Gold:

Received July 7, 2013

General shape:R1 1

Pubescence of base: R1 4

Anthocyanin coloration: R1 2

Light sprout base: Anthocyanin coloration (if present): R1 3

Light sprout tip: habit: R1 1

Light sprout tip: pubescence: R1 2

Light sprout tip: intensity of anthocyanin coloration (if present): R1 3

Light sprout root initials: frequency: R1 2

Tuber Pictures:

Received July 7, 2013

EXHIBIT C-OBJECTIVE DESCRIPTION OF THE VARIETY SORAYA:

Growth Habit: Please change our response to 3+Erect.

BUNDESSORTENAMT
Osterfelddamm 80
D-30627 Hannover

UPOV-Sortenbeschreibung
UPOV-Variety description

und Prüfungsbericht - Registerprüfung - (§ 7 BSAVfV)

1. **Referenznummer der berichtenden Behörde:**
   Reference number of reporting authority: K 3679
2. **Referenznummer der beantragenden Behörde:**
   Reference number of requesting authority: -
3. **Referenz des Züchters:**
   Breeder´s reference: 766 103-99
4. **Antragsteller/in (Name und Adresse):**
   Applicant (name and address): NORIKA Nordring-Kartoffelzucht- und Vermehrungs-GmbH
   Parkweg 4
   18190 Groß Lüsewitz

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5. **Botanische Bezeichnung des Taxons:**
   Botanical name of taxon: Solanum tuberosum L.
6. **Landesübliche Bezeichnung des Taxons:**
   Common name of taxon: Kartoffel
7. **Sortenbezeichnung:**
   Variety denomination: Soraya
8. **Datum und Dokumentennummer der UPOV-Prüfungsrichtlinie:**
   Date and document number of UPOV Test Guidelines: UPOV TG/23/6 2004-03-31
9. **Datum und/oder Dokumentennummer der nationalen Prüfungsrichtlinie:**
   Date and/or document number of national Test Guidelines: BSA-Januar 1999/ CPVO-TP23/2 2005-12-01
10. **Prüfende Behörde:**
    Testing authority: Bundessortenamt
11. **Prüfungsstation(en) und -ort(e):**
    Testing station(s) and place(s): Magdeburg
12. **Prüfungsperiode:**
    Period of testing: 2006 - 2007
13. **Ausstellungsdatum und -ort des Dokuments:**
    Date and place of issue of document: 13.12.2007 - Hannover

14. **Gruppe: (wenn Merkmale der Nummer 15 für die Gruppierung verwendet werden, sind sie in der Nummer mit einem G gekennzeichnet)**
Group: (if characteristics of number 15 are used for grouping they are marked with a G in that number)

15. **In den UPOV-Prüfungsrichtlinien oder den nationalen Prüfungsrichtlinien aufgeführte Merkmale:**
Characteristics included in the UPOV Test Guidelines or national Test Guidelines:

	UPOV Nr. No.	Merkmale Characteristics	Ausprägungsstufen State of Expression	Note	Bemerkungen Remarks
	1	**Lichtkeim: Größe** Lightsprout: size	**mittel** medium	5	
	2	**Lichtkeim: Form** Lightsprout: shape	**eiförmig** ovoid	2	
	3	**Lichtkeim: Intensität der Anthocyanfärbung des Unterteils** Lightsprout: intensity of anthocyanin colouration of base	**mittel bis stark** medium to strong	6	
G	4	**Lichtkeim: Blauanteil der Anthocyanfärbung des Unterteils** Lightsprout: proportion of blue in anthocyanin colouration of base	**fehlend oder gering** absent or low	1	
	5	**Lichtkeim: Behaarung des Unterteils** Lightsprout: pubescence of base	**gering bis mittel** weak to medium	4	
	6	**Lichtkeim: Größe des Oberteils im Verhältnis zum Unterteil** Lightsprout: size of tip in relation to base	**klein** small	3	
	7	**Lichtkeim: Wuchsform des Oberteils** Lightsprout: habit of tip	**geschlossen bis mittel** closed to intermediate	2	
	8	**Lichtkeim: Anthocyanfärbung des Oberteils** Lightsprout: anthocyanin colouration of tip	**mittel bis stark** medium to strong	6	
	9	**Lichtkeim: Behaarung des Oberteils** Lightsprout: pubescence of tip	**mittel** medium	5	
	10	**Lichtkeim: Anzahl der Wurzelhöcker** Lightsprout: number of root tips	**mittel** medium	5	
	11	**Lichtkeim: Länge der Seitentriebe** Lightsprout: length of lateral shoots	**kurz** short	3	
	12	**Pflanze: Laubstruktur** Plant: foliage structure	**Zwischentyp** intermediate type	2	
	13	**Pflanze: Wuchsform** Plant: growth habit	**halbaufrecht bis breitwüchsig** semi-upright to spreading	6	
	14	**Stengel: Anthocyanfärbung** Stem: anthocyanin colouration	**gering** weak	3	
	15	**Blatt: Umrissgröße** Leaf: outline size	**mittel bis groß** medium to large	6	
	16	**Blatt: Offenheit** Leaf: openness	**geschlossen bis mittel** closed to intermediate	2	
	17	**Blatt: Vorhandensein von sekundären Blattfiedern** Leaf: presence of secondary leaflets	**stark** strong	7	
	18	**Blatt: Grünfärbung** Leaf: green colour	**mittel** medium	5	
	19	**Blatt: Anthocyanfärbung an der Mittelrippe der Oberseite** Leaf: anthocyanin colouration on midrib of upper side	**fehlend oder sehr gering** absent or very weak	1	
	20	**Zweites Paar Seitenblattfiedern: Größe** Second pair of lateral leaflets: size	**mittel bis groß** medium to large	6	
	21	**Zweites Paar Seitenblattfiedern: Breite im Verhältnis zur Länge** Second pair of lateral leaflets: width in relation to length	**mittel** medium	5	
	22	**End- und Seitenblattfiedern: Häufigkeit von Verwachsungen** Terminal and lateral leaflets: frequency of coalescence	**gering** low	3	
	23	**Blattfieder: Randwellung** Leaflet: waviness of margin	**mittel** medium	5	

	UPOV Nr. No.	Merkmale Characteristics	Ausprägungsstufen State of Expression	Note	Bemerkungen Remarks
	24	**Blattfieder: Tiefe der Adern** Leaflet: depth of veins	**mittel bis tief** medium to deep	6	
	25	**Blattfieder: Glanz der Oberseite** Leaflet: glossiness of the upperside	**mittel bis glänzend** medium to glossy	6	
	27	**Blütenknospe: Anthocyanfärbung** Flower bud: anthocyanin colouration	**gering** weak	3	
	28	**Pflanze: Höhe** Plant: height	**mittel bis hoch** medium to tall	6	
	29	**Pflanze: Häufigkeit von Blüten** Plant: frequency of flowers	**gering bis mittel** low to medium	4	
	30	**Blütenstand: Größe** Inflorescence: size	**klein bis mittel** small to medium	4	
	31	**Blütenstand: Anthocyanfärbung am Stiel** Inflorescence: anthocyanin colouration on peduncle	**sehr gering bis gering** very weak to weak	2	
	32	**Blütenkrone: Größe** Flower corolla: size	**mittel** medium	5	
G	33	**Blütenkrone: Intensität der Anthocyanfärbung an der Innenseite** Flower corolla: intensity of anthocyanin colouration on inner side	**fehlend oder sehr gering** absent or very weak	1	
	34	**Blütenkrone: Blauanteil der Anthocyanfärbung an der Innenseite** Flower corolla: proportion of blue in anthocyanin colouration on inner side	-	-	**nicht anwendbar** not applicable
	35	**Blütenkrone: Ausdehnung der Anthocyanfärbung an der Innenseite** Flower corolla: extent of anthocyanin colouration on inner side	-	-	**nicht anwendbar** not applicable
G	36	**Pflanze: Zeitpunkt der Reife** Plant: time of maturity	**früh bis mittel** early to medium	4	
	37	**Knolle: Form** Tuber: shape	**oval** oval	3	
	38	**Knolle: Augentiefe** Tuber: depth of eyes	**flach** shallow	3	
G	39	**Knolle: Farbe der Schale** Tuber: colour of skin	**gelb** yellow	2	
	40	**Knolle: Farbe des Augengrundes** Tuber: colour of base of eye	**gelb** yellow	2	
	41	**Knolle: Farbe des Fleisches** Tuber: colour of flesh	**mittelgelb** medium yellow	4	
	42	**Nur Sorten mit hellbeiger und gelber Schale: Knolle: Anthocyanfärbung der Schale nach Lichteinfluß** Light beige and yellow skinned varieties only: Tuber: anthocyanin colouration of skin in reaction to light	**gering** weak	3	
		Esterase-Zusammensetzung: Allel-Ausprägung in den Loci Est 2 und Est 3 Esterase composition: allele expression at loci Est 2 and Est 3	**Genotyp j + c** Genotype j + c	3	
		Peroxydase-Zusammensetzung: Allel-Ausprägung in dem Locus Prx Peroxydase composition: allele expression at locus Prx	**Genotyp a** Genotype a	1	
		Patatine-Zusammensetzung: Allel-Ausprägung in dem Locus Pat Patatin composition: allele expression at locus Pat	**Genotyp 3.02** Genotype 3.02	21	

16. **Ähnliche Sorten und Unterschiede zu diesen Sorten:**
Similar varieties and differences in relation to those varieties:

Bezeichnung der ähnlichen Sorte Denomination of similar variety	**Merkmal, in dem die ähnliche Sorte unterschiedlich ist** Characteristics, in which the similar variety is different	**Ausprägungsstufe der ähnlichen Sorte (Note)** State of expression of similar variety	**Ausprägungsstufe der Kandidatensorte (Note)** State of expression of the candidate variety
Nora (K 3327)	13 **Pflanze: Wuchsform** Plant: growth habit	**aufrecht bis halbaufrecht** upright to semi-upright (4)	**halbaufrecht bis breitwüchsig** semi-upright to spreading (6)
	14 **Stengel: Anthocyanfärbung** Stem: anthocyanin colouration	**fehlend oder sehr gering** absent or very weak (1)	**gering** weak (3)
Finka (K 3384)	8 **Lichtkeim: Anthocyanfärbung des Oberteils** Lightsprout: anthocyanin colouration of tip	**gering bis mittel** weak to medium (4)	**mittel bis stark** medium to strong (6)
	14 **Stengel: Anthocyanfärbung** Stem: anthocyanin colouration	**fehlend oder sehr gering** absent or very weak (1)	**gering** weak (3)

17. **Zusätzliche Informationen:**
Additional information:

a) **Zusätzliche Daten:**
Additional data:

b) **Bemerkungen:**
Remarks:

Received July 7, 2013

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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
Norika Nordring Kartoffelzucht-und Vermehrungs- GmbH, GroB Lusewitz	US 766-99	Soraya

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)*
Norika GmbH Parkweg 4 D-18190 Sanitz OT GroB Lusewitz, Germany	011 49 3820947600	011 49 3820947666

7. PVPO NUMBER #201100141

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.** ☐ **YES** ■ **NO**

Germany

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

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

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

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

PLEASE NOTE:

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

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

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

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
NORIKA Nordring Kartoffelzucht-und Vermehrungs-GmbH GroB Lusewitz	NORIKA GmbH Parkweg 4 D-18190 Sanitz OT GroB Lusewitz Germany	US766-99
		VARIETY NAME Soraya
NAME OF OWNER REPRESENTATIVE (S)	**ADDRESS *(Street and No. or RD No., City, State, and Zip Code and Country)***	**FOR OFFICIAL USE ONLY**
Charles Higgins	4220 N. Crescent Avenue Farmington, New Mexico 87401 USA	**PVPO NUMBER** #201100141

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

12/24/10
Date