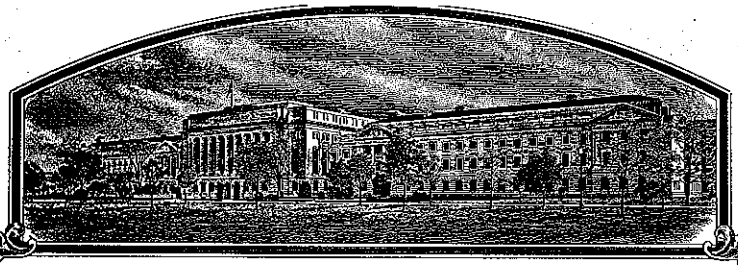
200100009

No.



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Idaho Agricultural Experiment Station

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

'IdaRose'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twenty-third day of May, in the year two thousand and seven.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

200100009

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: Idaho Agricultural Experiment Station ~~(representing also, the interests of the Experiments Stations of Oregon State Univ., & Washington State Univ., & the USDA-ARS)~~ per letter 03-08-07 LMC

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME: A82705-1R

3. VARIETY NAME: IdaRose

4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)

Idaho Agricultural Experiment Station
University of Idaho
Moscow, ID 83844

5. TELEPHONE (Include area code): (208) 885-7173

6. FAX (Include area code): (208) 885-6869

FOR OFFICIAL USE ONLY

PVPO NUMBER: 200100009

FILING DATE: 10/16/2000

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

8. IF INCORPORATED, GIVE STATE OF INCORPORATION:

9. DATE OF INCORPORATION:

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*

Stephen L. Love
Aberdeen R&E Center
PO Box 870
Aberdeen, ID 83210

FEES RECEIVED

FILING AND EXAMINATION FEES: $ 2705
DATE 10/16/2000

CERTIFICATION FEE: $ 7680
DATE 4/30/07

11. TELEPHONE (Include area code): (208) 397-4181

12. FAX (Include area code): (208) 397-4311

13. E_MAIL: slove@uidaho.edu

14. CROP KIND (Common Name): Potato

15 GENUS AND SPECIES NAME OF CROP: Solanum tuberosum

16. FAMILY NAME (Botanical): Solanaceae

17. IS THE VARIETY A FIRST GENERATION HYBRID? ☐ YES ☒ NO

18. 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) per letter 3-08-07 LMC
e. ☒ Exhibit E. Statement of the Basis of the Owner's Ownership
f. ☐ Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)
g. ☒ Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *See Section 83(a) of the Plant Variety Protection Act)*
☐ YES (If "yes", answer items 20 and 21 below) ☒ NO (If "no," go to item 22)

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☒ NO

21. IF "YES" TO ITEM 20, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

22. 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.)*
per letter 3-08-07 LMC

23. 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.)*

24. The owners declare that a viable sample of basic seed of the variety will be 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: Richard C Heimsch

NAME (Please print or type): RICHARD C. HEIMSCH, DIRECTOR
IDAHO AG. EXPERIMENT STATION

CAPACITY OR TITLE:

DATE:

SIGNATURE OF OWNER:

NAME (Please print or type):

CAPACITY OR TITLE:

DATE:

TC-470 (6-96) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (03-96) which is obsolete. *(See reverse for instructions and information collection burden statement)*

INSTRUCTIONS 200100009

GENERAL: 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; (3) at least 2,500 viable untreated seeds, or for tuber reproduced varieties verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in a public repository prior to issuance of a certificate; (4) check drawn on a U.S. bank for $2,450 ($300 filing fee and $2,150 examination fee), payable to "Treasurer of the United States" *(See Section 97.175 of the Regulations and Rules of Practice.)* Partial applications will be held in the PVPO for not more than 30 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Blvd., 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 check payable to "Treasurer of the United States" in the amount of $300 for issuance of the Certificate.

Plant Variety Protection Office
Telephone: (301) 504-5518

ITEM

16a. 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.

16b. 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 statistical data for characters expressed numerically and demonstrate that these are clear differences;

(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

16c. Exhibit C forms are available from the PVPO for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

16d. 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.

16e. Section 52(4) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. The applicant may be the actual breeder, the employee of the breeder, the owner through purchase or inheritance, etc.

17. 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 labelled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See P.L. 103-349 for additional information.)*

20. See Sections 41, 42, and 43 of the Act and Section 97.175 of the regulations for eligibility requirements.

22. First unrestricted sales February & May of 2001 per letter 3-08-07 LMC

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 during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment 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 Regulations and Rules of Practice.)*

To avoid conflict with other variety names in use, the applicant should check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center–East, Beltsville, MD 20705. Telephone: (301) 504-8089.

Exhibit A
Origin and Breeding History of the Variety
Variety: IdaRose
Experimental Designation: A82705-1R
Owner: University of Idaho

IdaRose originated from a cross of Sangre and TXA218-7 made at the University of Idaho's Aberdeen Research and Extension Center in April of 1982. It was originally maintained under the breeding designation A82705-1R. A four-generation pedigree is attached. IdaRose was selected out of an F_1 population using the following selection criteria: appearance, specific gravity, culinary quality, ability to maintain skin color in storage, resistance to common field diseases including Verticillium wilt, early blight, and net necrosis, and resistance to internal defects such as hollow heart, blackspot bruise, and heat necrosis.

IdaRose has been clonally propagated since the first year of selection. The variety has remained true-to-type during all subsequent years of maintenance and propagation. It has not produced recognizable variants.

Exhibit A (Addendum)
Origin and Breeding History of the Variety
Variety: IdaRose
Experimental Designation: A82705-1R
Owner: University of Idaho

Details of Selection and Multiplication

Year	Stage	Selection Criteria
1984	Unriplicated single hill	Visual appearance
1985	Unreplicated 12-hill	Visual appearance, specific gravity
1987	2 replicate yield trial	Yield, grade
1988-1992	Multi-location yield trials	Yield, grade, tuber defects, disease response
1992-1995	Regional yield trials	Yield, grade, adaptation, disease response
1996-2001	Grower trials	Yield, grade, storage ability, market reaction
1996-2001	Grower seed increases	None

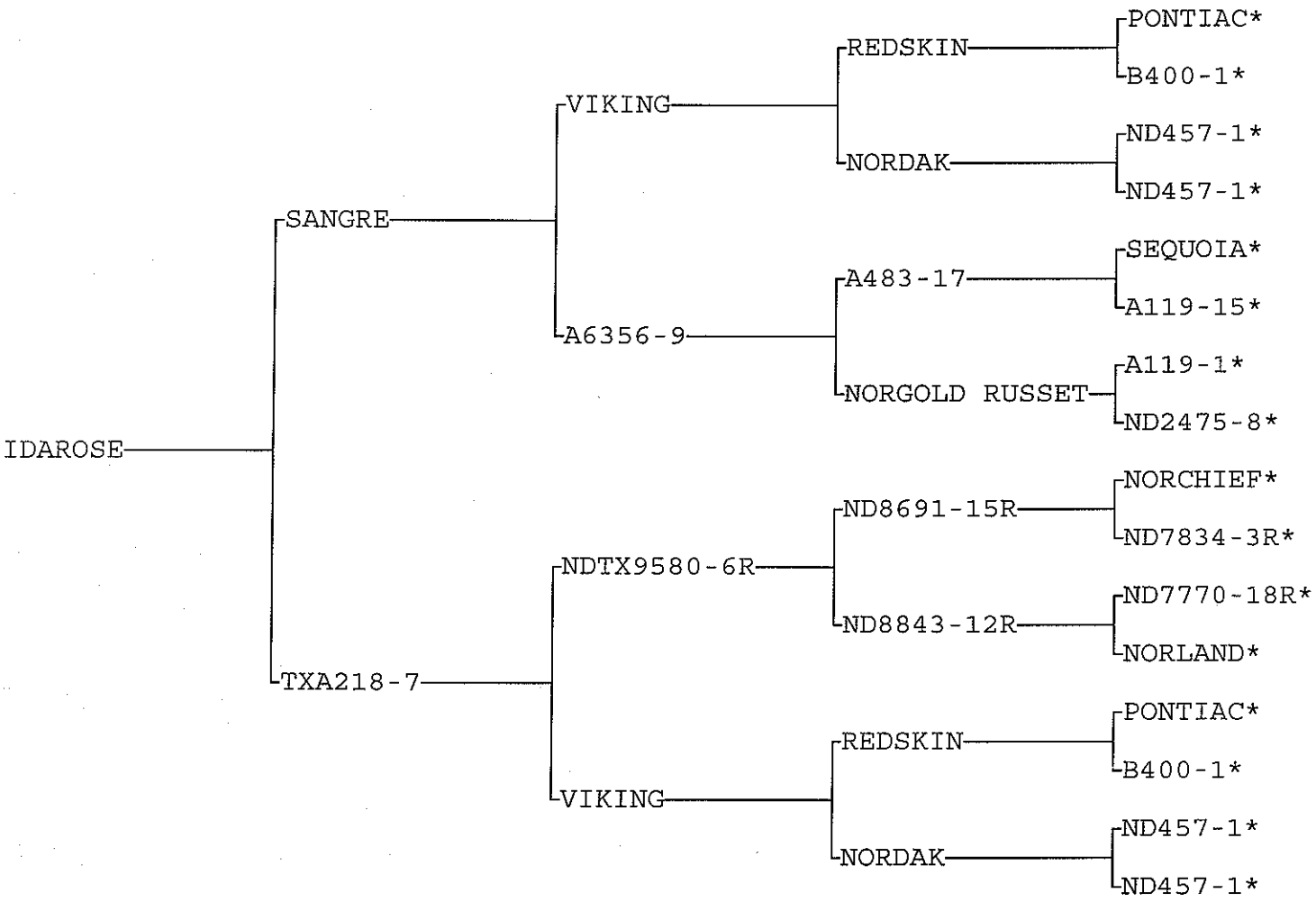
Uniformity and Stability

In every trial to date, IdaRose has proven to be uniform.
Beginning with the 12-hill stage, plots were inspected twice annually for off-type plants. None were found.

Across years, IdaRose has shown itself to be stable.
Comparison of major descriptors recorded in breeding records for trials from ~~1984~~ 1985 to 2001 has confirmed consistent appearance and performance. per conversation 4-4-07 LMC

IdaRose is clonally propagated. To date no sports or variants have been observed. It is concluded that variants will be very rare and lack of history makes prediction of type and frequency impossible.

CLONE: IDAROSE



Four-generation pedigree for IdaRose

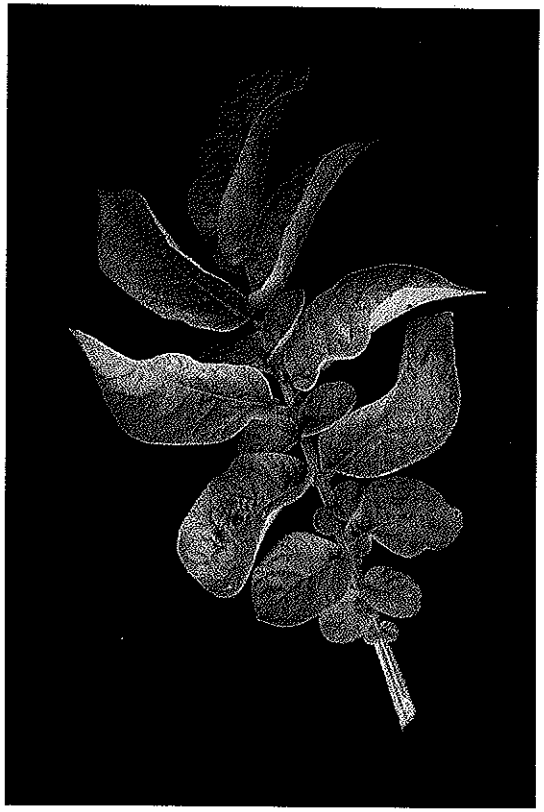
Exhibit B (Addendum)
Statement of Distinctness
Variety: IdaRose
Owner: University of Idaho

IdaRose is most similar to the variety Dark Red Norland. IdaRose is distinct from Dark Red Norland for a number of Objective Descriptors, including:

IdaRose has a more upright plant type (rating of 2 for IdaRose vs 4 for Dark Red Norland).
IdaRose has a more open leaf silhouette (4 vs 2).
IdaRose has a stronger expression of anthocyanin coloration on the petioles (7 vs 5).
IdaRose has much smaller leaf stipules (3 vs 7).
IdaRose has more numerous inflorescences per plant (2.6 vs 1.6).
IdaRose has more numerous florets per inflorescence (14.6 vs 4.5).
IdaRose has rounder tubers (89L x 75W for IdaRose vs 92L x 72W for Dark Red Norland).
IdaRose tubers have a less prominent tuber eyebrow (1 vs 2).

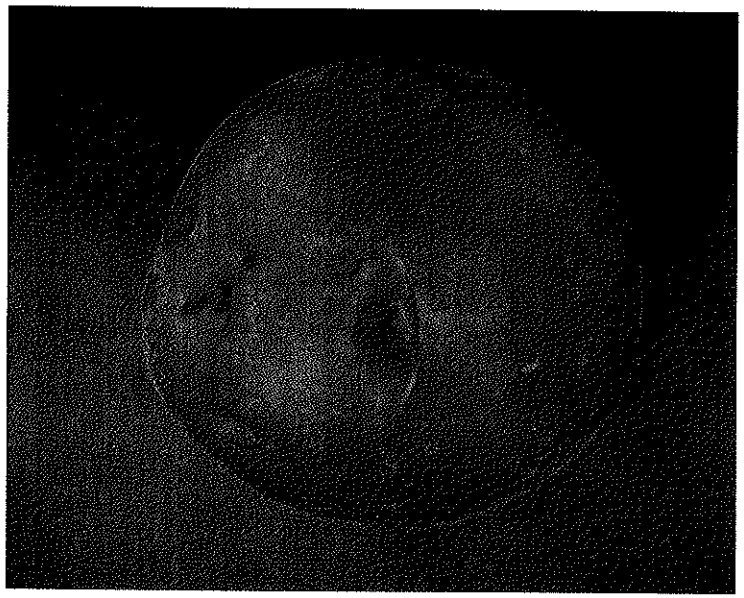
Leaf characteristics of IdaRose and Dark Red Norland.

IdaRose Leaf



Dark Red Norland Leaf

Tuber characteristics of IdaRose and Dark Red Norland.



IdaRose Tuber

Dark Red Norland Tuber

Flower characteristics of IdaRose and Dark Red Norland.

IdaRose Flower

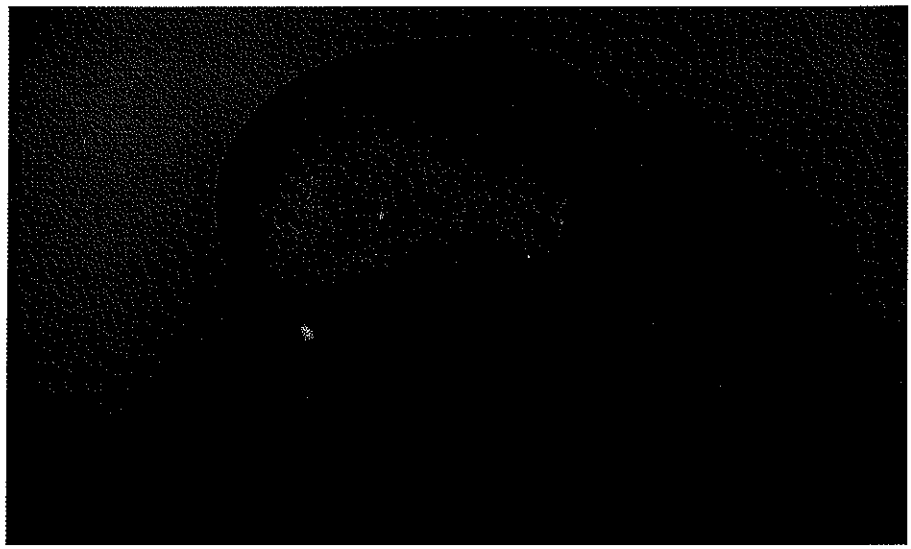
Dark Red Norland Flower

Light sprout characteristics of IdaRose and Dark Red Norland.

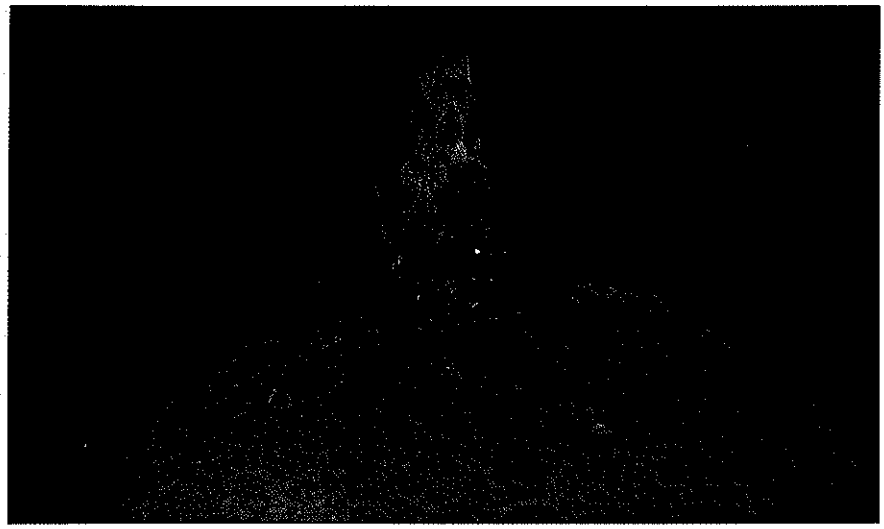
IdaRose Light sprout

Dark Red Norland Light Sprout

IdaRose



IdaRose Tuber



IdaRose Light Sprout

Plant characteristics of IdaRose and Dark Red Norland.

IdaRose Plant

Dark Red Norland Plant

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

OBJECTIVE DESCRIPTION OF VARIETY

POTATO (*Solanum tuberosum* L.)

INSTRUCTIONS

The Objective Description Form:

The objective description form lists characteristics to be used as the basis for developing the description of potato varieties. It is designed to guide the applicant in describing a variety in detail so a meaningful comparison with other potato varieties can be accomplished. It is recommended that this form be completed in as much detail as possible to ensure an accurate description. Please fill in the requested data and place the appropriate number that describes the varietal characters typical of this potato variety and the reference varieties in the respective boxes.

Test Guidelines:

Any statistical and trial (field test) data that may be necessary to support the variety description should be attached to this form. Please include for trial data the plot size, number of replications, number of plants, plant spacing, trial locations and growing periods. Trials should normally be conducted at one place, in the region that the variety has been adapted for, with a minimum of one growing period in the U.S.A. All comparative data should be determined from varieties entered in the same trials. The size of the plots should be such that plants or plant parts of plants may be removed for measuring and counting without prejudice to the observations which must be made at the end of the growing period. As a minimum, each test should include a total of 60 plants which should be divided between two or more replicates. Separate plots for observation and measuring can only be used if they have been subject to similar environmental conditions. To determine color for a plant or plant parts a recognized standard color chart must be used such as the Royal Horticultural Society (R.H.S.) Color Chart.

Reference Varieties:

The application variety should be compared to a set of reference varieties. The reference varieties should be market class standard varieties currently grown in the United States and the varieties most similar. The following varieties are recommended as market class standards to be used as reference varieties:

Yellow-flesh tablestock	**Yukon Gold**
Round-white tablestock	**Superior**
Chip-processing	**Atlantic, Snowden, Norchip**
Frozen-processing	**Russet Burbank**
Russet tablestock	**Russet Burbank, Russet Norkotah, Goldrush**
Red tablestock	**Red Pontiac, Red Norland, Red Lasoda**

Characteristics:

The plant type and growth habit characteristics are collected at early first bloom. Figure 1 is supplied to help visualize the growth habit. For this descriptor, look at the stems rather than the stems and foliage. Plant maturity is measured at natural vine senescence.

Stem characteristics are also collected at early bloom. Stem anthocyanin coloration is divided into two descriptors: Location and intensity. Figure 12 is supplied to give an example of stem wings.

Leaf characteristics are observed at early first bloom. Fully-developed leaves located on the middle third of the plant should be used. Leaf pubescence refers to general trichomes. Figure 2 is supplied for examples of leaf silhouette. Figure 3 should be used to describe terminal and primary leaflet shape. Figures 4 and 5 are used to describe the terminal and primary leaflet shape of tip and base, respectively. To measure the total number of primary leaflets pairs, collect 10 fully- developed petioles (with leaves attached from each replication and take the average number of secondary and tertiary leaflets. Figure 11 is supplied to define leaf characteristics. Glandular trichomes should be described through descriptor #12 (Additional Comments and Characteristics). Leaf stipules are shown in figure 13 for visual definition.

Inflorescence characteristics should be measured at early first bloom. Figures 6 and 7 are supplied to describe corolla and anther shape, respectively. Corolla, calyx, anther, stigma and pollen should be observed on newly opened flowers. Berry production should be based on field-grown plants rather than greenhouse plants.

Tuber characteristics should be observed following harvest. Figures 9 and 10 are available to describe distribution of secondary color and tuber shape, respectively.

Disease and pest reactions should be based upon specific tests rather than field observations. Other diseases or pests reactions not requested can be described if it is felt that it would be helpful to the description.

Quality characteristics should be described according to the market use.

If the plant is transgenic, this gene insertion(s) should be described.

Chemical identification and any other characteristics can be describe if they are helpful in distinguishing the variety.

A rating system of 1-9 provides a scale for describing most characteristics in this form. Characteristic may be rated with intermediate values where the characteristic grades gradually from one extreme to another. For example where the states for a characteristic are described as: 3 = Small; 5 = Medium; 7 = Large; the other values of 1, 2, 4, 6, 8, or 9 may be selected.

Legend:
V = Application Variety
R1-R4 = Reference Varieties

200100009

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

OBJECTIVE DESCRIPTION OF VARIETY

POTATO (*Solanum tuberosum* L.)

NAME OF APPLICANT(S)	FOR OFFICIAL USE ONLY
Idaho Agricultural Experimental Station	PVPO NUMBER 200100009
ADDRESS (*Street and No. or R.F.D. No., City, State, and Zip Code*) Agricultural Experiment Station University of Idaho Moscow, ID 83844	**VARIETY (V) NAME** IdaRose
	TEMPORARY OR EXPERIMENTAL DESIGNATION A A82705-1R

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

Reference Variety 1 (R1)	Reference Variety 2 (R2)	Reference Variety 3 (R3)	Reference Variety 4 (R4)
Dark Red Norland			

1. MARKET CHARACTERISTICS:

MARKET CLASS:

1 = Yellow-flesh tablestock; 2 = Round-white tablestock; 3 = Chip-processing; 4 = Frozen-processing; 5 = Russet tablestock; 6 = Other Red tablestock.

V	R1	R2	R3	R4
6	6			

2. PLANT CHARACTERISTICS:

GROWTH HABIT: *(See figure 1)*

3 = Erect (>45° with ground); 5 = Semi-erect (30-45° with ground); 7 = Spreading.

V	R1	R2	R3	R4
2	4			

TYPE:

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

V	R1	R2	R3	R4
2	3			

MATURITY: Days after planting (DAP) at vine senescence

V	R1	R2	R3	R4
140	110			

PLANTING DATE:

V	R1	R2	R3	R4
28 Apr 97-98	28 Apr 97-98			

REGION/AREA:

V	R1	R2	R3	R4
Aberdeen, ID	Aberdeen, ID			

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
5	2			

3. STEM CHARACTERISTICS: *Measure at early first bloom*

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

V	R1	R2	R3	R4
3	4			

STEM WINGS: *(See figure 12)*
1 = Absent; 3 = Weak; 5 = Medium; 7 = Strong; 9 = Very Strong

V	R1	R2	R3	R4
4	3			

4. LEAF CHARACTERISTICS:

LEAF COLOR: *Observe fully developed leaves located on middle $^1/_3$ of plant*
1 = Yellowish-green; 2 = Olive-green; 3 = Medium green; 4 = Dark green; 5 = Grey-green; 6 = Other_____

V	R1	R2	R3	R4
3	3			

LEAF COLOR: *Observe fully developed leaves located on middle $^1/_3$ of plant and circle the appropriate color chart*
Royal Horticulture Society Color Chart value or Munsell Color Chart value

V	R1	R2	R3	R4
Green 137B	Green 137B			

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

V	R1	R2	R3	R4
2	2			

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

V	R1	R2	R3	R4
2	2			

(Note: Descriptor #19 can be used to describe the type and length of the glandular trichomes observed.)

LEAF SILHOUETTE: *(See figure 2)*
1 = Closed; 3 = Medium; 5 = Open

V	R1	R2	R3	R4
4	2			

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

V	R1	R2	R3	R4
7	5			

LEAF STIPULES SIZE: *(See figure 13)*
1 = Absent; 3 = Small; 5 = Medium; 7 = Large

V	R1	R2	R3	R4
3	7			

TERMINAL LEAFLET SHAPE: *(See figure 3 & 11)*
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	3			

TERMINAL LEAFLET TIP SHAPE: *(See figure 4 & 11)*
1 = Acute; 2 = Cuspidate; 3 = Acuminate; 4 = Obtuse; 5 = Other_____

V	R1	R2	R3	R4
3	2			

TERMINAL LEAFLET BASE SHAPE: *(See figure 5 & 11)*
1 = Cuneate; 2 = Acute; 3 = Obtuse; 4 = Cordate; 5 = Truncate; 6 = Lobed; 7 = Other_____

V	R1	R2	R3	R4
3	4			

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

V	R1	R2	R3	R4
2	3			

NUMBER OF PRIMARY LEAFLET PAIRS: *(See figure 11)*

AVERAGE:

V	R1	R2	R3	R4
4.8	4.7			

RANGE:

V	R1	R2	R3	R4
4 to 6	3 to 6	to	to	to

PRIMARY LEAFLET TIP SHAPE: *(See figure 4 & 11)*
1 = Acute; 2 = Cuspidate; 3 = Acuminate; 4 = Obtuse; 5 = Other_____

V	R1	R2	R3	R4
3	2			

OBJECTIVE DESCRIPTION OF VARIETY

PRIMARY LEAFLET SHAPE: *(See figure 3 & 11)*
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	3			

PRIMARY LEAFLET BASE SHAPE: *(See figure 5 & 11)*
1 = Cuneate; 2 = Acute; 3 = Obtuse; 4 = Cordate; 5 = Truncate; 6 = Lobed; 7 = Other_____

V	R1	R2	R3	R4
3	4			

NUMBER OF SECONDARY AND TERTIARY LEAFLET PAIRS: *(See figure 11)*

AVERAGE:

V	R1	R2	R3	R4
6.7	7.4			

RANGE:

V	R1	R2	R3	R4
0 to 9	0 to 11	to	to	to

5. INFLORESCENCE CHARACTERISTICS:

NUMBER OF INFLORESCENCE / PLANT:

AVERAGE:

V	R1	R2	R3	R4
2.6	1.5			

RANGE:

V	R1	R2	R3	R4
1 to 5	0 to 5	to	to	to

NUMBER OF FLORETS / INFLORESCENCE:

AVERAGE:

V	R1	R2	R3	R4
14.6	4.5			

RANGE:

V	R1	R2	R3	R4
10 to 26	0 to 14	to	to	to

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

V	R1	R2	R3	R4
PV 80C	V 84B			

PURPLE VIOLET - White below
Violet White 3:1
Per letter 10-24-2006 LMC

COROLLA OUTER SURFACE COLOR: *Circle the appropriate color chart*
Royal Horticulture Society Color Chart value or Munsell Color Chart value

V	R1	R2	R3	R4
~~80D~~ 8D	V 85C			

per letter 10-24-2006 LMC

OBJECTIVE DESCRIPTION OF VARIETY

COROLLA SHAPE: *(See figure 6)*
1 = Very rotate; 2 = Rotate; 3 = Pentagonal; 4 = Semi-stellate; 5 = Stellate

V	R1	R2	R3	R4
2	3			

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

V	R1	R2	R3	R4
4	5			

ANTHER COLOR: *Measure when newly opened flower is fully expanded and circle the appropriate color chart*
Royal Horticulture Society Color Chart value or Munsell Color Chart value

V	R1	R2	R3	R4
Y 13A	Y 14A			

ANTHER SHAPE: *(See figure 7)*
1 = Broad cone; 2 = Narrow cone; 3 = Pear shape cone; 4 = Loose; 5 = Other_____

V	R1	R2	R3	R4
2	2			

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

V	R1	R2	R3	R4
3	3			

STIGMA SHAPE: *(See figure 8)*
1 = Capitate; 2 = Clavate; 3 = Bi-lobed

V	R1	R2	R3	R4
1	2			

STIGMA COLOR: *Circle the appropriate color chart*
Royal Horticulture Society Color Chart value or Munsell Color Chart value

V	R1	R2	R3	R4
Y-G 146B	Y-G 144A			

BERRY PRODUCTION: *Under field conditions*
1 = None; 3 = Low; 5 = Moderate; 7 = Heavy; 9 = Very heavy

V	R1	R2	R3	R4
3	2			

OBJECTIVE DESCRIPTION OF VARIETY

5. 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
9	8			

GIVE COLOR CHART VALUE AND CIRCLE THE APPROPRIATE COLOR CHART
Royal Horticulture Society Color Chart value or Munsell Color Chart value

V	R1	R2	R3	R4
G-P 185B	G-P 180B			

SECONDARY SKIN COLOR:
1 = Absent; 2 = Present, please describe_____

V	R1	R2	R3	R4

IF PRESENT, GIVE COLOR CHART VALUE AND CIRCLE THE APPROPRIATE COLOR CHART
Royal Horticulture Society Color Chart value or Munsell Color Chart value

V	R1	R2	R3	R4

SECONDARY SKIN COLOR DISTRIBUTION: *If present*
1 = Eyes; 2 = Eyebrows; 3 = Splashed; 4 = Scattered; 5 = Spectacled; 6 = Stippled; 7 = Other_____

V	R1	R2	R3	R4

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

V	R1	R2	R3	R4
1	1			

TUBER SHAPE: *(See figure 10)*
1 = Compressed; 2 = Round; 3 = Oval; 4 = Oblong; 5 = Long; 6 = Other_____

V	R1	R2	R3	R4
2	3			

TUBE THICKNESS:
1 = Round; 2 = Medium thick; 3 = Slightly flatted; 4 = Flatted; 5 = Other_____

V	R1	R2	R3	R4
3	3			

TUBER LENGTH (mm):

AVERAGE:

V	R1	R2	R3	R4
89	92			

RANGE:

V	R1	R2	R3	R4
70 to 124	75 to 114	to	to	to

STANDARD DEVIATION:

V	R1	R2	R3	R4
9	8			

AVERAGE WEIGHT OF SAMPLE TAKEN:

V	R1	R2	R3	R4
225g	225g			

TUBER WIDTH (mm):

AVERAGE:

V	R1	R2	R3	R4
75	72			

RANGE:

V	R1	R2	R3	R4
60 to 90	61 to 85	to	to	to

STANDARD DEVIATION:

V	R1	R2	R3	R4
5	4			

AVERAGE WEIGHT OF SAMPLE TAKEN:

V	R1	R2	R3	R4
225g	225g			

TUBER THICKNESS (mm):

AVERAGE:

V	R1	R2	R3	R4
59	59			

RANGE:

V	R1	R2	R3	R4
50 to 68	47 to 72	to	to	to

STANDARD DEVIATION:

V	R1	R2	R3	R4
4	4			

AVERAGE WEIGHT OF SAMPLE TAKEN:

V	R1	R2	R3	R4
225g	225g			

TUBER EYE DEPTH:

1 = Protruding; 2 = Shallow; 3 = Intermediate; 4 = Deep; 5 = Very deep

V	R1	R2	R3	R4
2	3			

OBJECTIVE DESCRIPTION OF VARIETY

TUBER LATERAL EYES
1 = Protruding; 2 = Shallow; 3 = Intermediate; 4 = Deep; 5 = Very deep

V	R1	R2	R3	R4
2	2			

NUMBER EYE / TUBER:
AVERAGE:

V	R1	R2	R3	R4
8.3	11.9			

RANGE:

V	R1	R2	R3	R4
6 to 12	8 to 15	to	to	to

DISTRIBUTION OF TUBER EYES:
1 = Predominantly apical; 2 = Evenly distributed

V	R1	R2	R3	R4
1	1			

PROMINENCE OF TUBER EYEBROWS:
1 = Not prominent; 2 = Slight prominence; 3 = Medium prominence; 4 = Very prominence; 5 = Other_____

V	R1	R2	R3	R4
1	2			

PRIMARY TUBER FLESH COLOR: *Circle the appropriate color chart*
Royal Horticulture Society Color Chart value or Munsell Color Chart value

V	R1	R2	R3	R4
Y-W 158D	Y-W 158D			

SECONDARY TUBER FLESH COLOR:
1 = Absent; 2 = Present, please describe_____

V	R1	R2	R3	R4

IF PRESENT, CIRCLE THE APPROPRIATE COLOR CHART:
Royal Horticulture Society Color Chart value or Munsell Color Chart value

V	R1	R2	R3	R4

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

V	R1	R2	R3	R4
1	1			

OBJECTIVE DESCRIPTION OF VARIETY

6. DISEASES CHARACTERISTICS:

DISEASES REACTION: 0 = NOT TESTED; 1 = RESISTANT; 3 = MODERATELY RESISTANT; 5 = MODERATELY SUSCEPTIBLE; 7=SUSCEPTIBLE; 9=HIGHLY SUSCEPTIBLE

	V	R1	R2	R3	R4
BACTERIAL RING ROT: Foliar reaction	0	0			
BACTERIAL RING ROT: Tuber reaction	0	0			
LATE BLIGHT	7	8			
PLRV (leaf roll)	7	7			
PVX	1	7			
PVY	7	7			
OTHER: Verticillium wilt	3	7			
OTHER:					

7. PESTS CHARACTERISTICS:

PEST REACTION: 0 = NOT TESTED; 1 = RESISTANT; 3 = MODERATELY RESISTANT; 5 = MODERATELY SUSCEPTIBLE; 7=SUSCEPTIBLE; 9=HIGHLY SUSCEPTIBLE

	V	R1	R2	R3	R4
GOLDEN NEMATODE	7	7			
OTHER:					

8. GENE TRAITS:

INSERTION OF GENES: ☐ YES ☒ NO

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

9. QUALITY CHARACTERISTICS:

CHIEF MARKET: Red tablestock

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	3	R1	2	R2		R3		R4	

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

V	2.4	R1	2.6	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.

11. CHEMICAL IDENTIFICATION:

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

12. ADDITIONAL COMMENTS AND CHARACTERISTICS:

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

NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME
Idaho Agricultural Experiment Station	A82705-1R	IdaRose

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

University of Idaho
PO Box 442337
Moscow, ID 83844-2337

FOR OFFICIAL USE ONLY

PVPO NUMBER

200100009

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)
IdaRose	Dark Red Norland			

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
6	6			

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
2	1			

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

V	R1	R2	R3	R4
3	3			

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

V	R1	R2	R3	R4
2	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	4			

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

V	R1	R2	R3	R4
1	1			

2. **LIGHT SPROUT CHARACTERISTICS:** (continued)

200100009

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

V	R1	R2	R3	R4
4	2			

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

V	R1	R2	R3	R4
2	2			

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

V	R1	R2	R3	R4
3	3			

LIGHT SPROUT ROOT INITIALS: FREQUENCY
1 = Short 2 = Medium 3 = Long

V	R1	R2	R3	R4
1	2			

3. **PLANT CHARACTERISTICS:**

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

V	R1	R2	R3	R4

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

V	R1	R2	R3	R4

MATURITY: Days after planting (DAP) at vine senescence

V	R1	R2	R3	R4

PLANTING DATE:

V	R1	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	R1	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	R1	R2	R3	R4

200100009

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

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 APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Idaho Agricultural Experiment Station	A82705-1R	IdaRose

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)*
University of Idaho Moscow, ID 83844	(208) 397-4181	(208) 397-4311

7. PVPO NUMBER

200100009

8. Does the applicant own all rights to the variety? *Mark an "X" in appropriate block.* If no, please explain. [X] YES [ ] NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company? [X] YES [ ] NO
If no, give name of country

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

a. If 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 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 *(if needed, use reverse for extra space)*:

The Idaho Agricultural Experiment Station is associated with a Tri-State Variety release agreement. In order to mee the specifications of this agreement, it is necessary to use language indicating the Idaho Agricultural Experiment Station is representing the interests of the other parties, although IAES will be the legal owner.

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of 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 final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

STD-470-E (07-97) *(Destroy previous editions).*
Electronic version designed using WordPerfect InForms by USDA-AMS-IMB.

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
Idaho Agricultural Experiment Station	University of Idaho PO Box 442337 Moscow, ID 83844-2337	A82705-1R
		VARIETY NAME: IdaRose
NAME OF OWNER REPRESENTATIVE (S)	ADDRESS *(Street and No. or RD No., City, State, and Zip Code and Country)*	FOR OFFICIAL USE ONLY
Stephen L. Love	Aberdeen R&E Center 1693 S 2700 W Aberdeen, ID 83210	PVPO NUMBER: 200100009

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.

Propagation sample of IdaRose will be maintained at the University of Idaho potato propagation laboratory for the life of the certificate.

Signature

6 Oct 06
Date