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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

Exhibit C

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 United States. All comparative data should be determined from varieties entered in the same trials. The size of the plots should be such that plants or 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 at least one reference variety preferably a set of reference varieties. The reference varieties should be market class standard varieties currently grown in the United States and or the variety (ies) most similar. The following varieties are recommended as market class standards to be used as reference varieties:

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

If the applicant does not use one of the recommended reference varieties the PVP office may not have a complete description for the reference variety used; therefore, the applicant may have to supply this description by completing an Exhibit C form for the reference variety.

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 described 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, if the character states 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

* = Both the reference variety (ies) and application variety must be described for characteristics designated with an asterisk.

NAME OF APPLICANT (S)

TEMPORARY OR EXPERIMENTAL DESIGNATION

VARIETY NAME

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

FOR OFFICIAL USE ONLY

PVPO NUMBER

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)

1. MARKET CHARACTERISTICS:**MARKET CLASS:**

1 = Yellow-Flesh Table Stock 2 = Round-White Table stock 3 = Chip-Processing 4 = Frozen-Processing

5 = Russet Table

stock 6 = Other _____

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

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	
---	--	----	--	----	--	----	--	----	--

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:

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	
---	--	----	--	----	--	----	--	----	--

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	
---	--	----	--	----	--	----	--	----	--

STEM WINGS: (See Figure 12)

1 = Absent 3 = Weak 5 = Medium 7 = Strong 9 = Very Strong

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

4. 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	
---	--	----	--	----	--	----	--	----	--

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	
---	--	----	--	----	--	----	--	----	--

LEAF PUBESCENCE DENSITY:

1 = Absent 2 = Sparse 3 = Medium 4 = Thick 5 = Heavy

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

LEAF PUBESCENCE LENGTH:

1 = None 2 = Short 3 = Medium 4 = Long 5 = Very Long

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

(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	
---	--	----	--	----	--	----	--	----	--

PETIOLES ANTHOCYANIN COLORATION:

1 = Absent 3 = Weak 5 = Medium 7 = Strong 9 = Very Strong

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

LEAF STIPULES SIZE: (See Figure 13)

1 = Absent 3 = Small 5 = Medium 7 = Large

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

TERMINAL LEAFLET SHAPE (See Figures 3 and 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	
---	--	----	--	----	--	----	--	----	--

4. LEAF CHARACTERISTICS: (continued)

TERMINAL LEAFLET TIP SHAPE: (See Figures 4 and 11)

1 = Acute 2 = Cuspidate 3 = Acuminate 4 = Obtuse 5 = Other

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

* **TERMINAL LEAFLET BASE SHAPE:** (See Figures 5 and 11)

1 = Cuneate 2 = Acute 3 = Obtuse 4 = Cordate 5 = Truncate 6 = Lobed 7 = Other

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

* **TERMINAL LEAFLET MARGIN WAVINESS:**

1 = Absent 2 = Slight 3 = Weak 4 = Medium 5 = Strong

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

NUMBER OF PRIMARY LEAFLET PAIRS: (See Figure 11)

AVERAGE:

V		R1		R2		R3		R4	

RANGE:

V		to	R1		to	R2		to	R3		to	R4		to
---	--	----	----	--	----	----	--	----	----	--	----	----	--	----

PRIMARY LEAFLET TIP SHAPE: (See Figures 4 and 11)

1 = Acute 2 = Cuspidate 3 = Acuminate 4 = Obtuse 5 = Other

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

* **PRIMARY LEAFLET SIZE:**

1 = Very Small 2 = Small 3 = Medium 4 = Large 5 = Very Large

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

PRIMARY LEAFLET SHAPE: (See Figures 3 and 11)

1 = Narrowly Ovate 2 = Medium Ovate 3 = Broadly Ovate 4 = Lanceolate 5 = Elliptical 6 = Ovate 7 = Oblong 8 = Other

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

PRIMARY LEAFLET BASE SHAPE: (See Figures 5 and 11)

1 = Cuneate 2 = Acute 3 = Obtuse 4 = Cordate 5 = Truncate 6 = Lobed 7 = Other

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

4. LEAF CHARACTERISTICS: (continued)

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

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

RANGE:

V		to	R1		to	R2		to	R3		to	R4		to
---	--	----	----	--	----	----	--	----	----	--	----	----	--	----

NUMBER OF INFLORESCENCE/PLANT:**AVERAGE:**

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

RANGE:

V		to	R1		to	R2		to	R3		to	R4		to
---	--	----	----	--	----	----	--	----	----	--	----	----	--	----

NUMBER OF FLORETS/INFLORESCENCE:**AVERAGE:**

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

RANGE:

V		to	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		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		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

COROLLA INNER SURFACE COLOR: (Measure predominant color of newly open flower)

1 = White 2 = Red-violet 3 = Blue-violet 4 = Other

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

COROLLA SHAPE: (See Figure 6)

1 = Very rotate 2 = Rotate 3 = Pentagonal 4 = Semi-stellate 5 = Stellate

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

5. INFLORESCENCE CHARACTERISTICS:

NUMBER OF INFLORESCENCE/PLANT:

AVERAGE:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

RANGE:

V	to	R1	to	R2	to	R3	to	R4	to
---	----	----	----	----	----	----	----	----	----

NUMBER OF FLORETS/INFLORESCENCE:

AVERAGE:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

RANGE:

V	to	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		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		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

* **COROLLA INNER SURFACE COLOR:** (Measure predominant color of newly open flower)

1 = White 2 = Red-violet 3 = Blue-violet 4 = Other

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

COROLLA SHAPE: (See Figure 6)

1 = Very rotate 2 = Rotate 3 = Pentagonal 4 = Semi-stellate 5 = Stellate

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

CALYX ANTHOCYANIN COLORATION:

1 = Absent 3 = Weak 5 = Medium 7 = Strong 9 = Very strong

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

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

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

ANTHER SHAPE: (See Figure 7)

1 = Broad cone 2 = Narrow cone 3 = Pear-shaped cone 4 = Loose 5 = Other

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

5. INFLORESCENCE CHARACTERISTICS: (continued)**POLLEN PRODUCTION:**

1 = None 3 = Some 5 = Abundant

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

STIGMA SHAPE: (See Figure 8)

1 = Capitate 2 = Clavate 3 = Bi-lobed

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

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

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

BERRY PRODUCTION: (Under field conditions)

1 = None 3 = Low 5 = Moderate 7 = Heavy 9 = Very Heavy

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

6. 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	
---	--	----	--	----	--	----	--	----	--

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

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

SECONDARY SKIN COLOR:

1 = Absent 2 = Present (please describe)

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

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

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

SECONDARY SKIN COLOR DISTRIBUTION:

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	
---	--	----	--	----	--	----	--	----	--

6. TUBER CHARACTERISTICS: (continued)

* TUBER SHAPE: (See Figure 10)

1 = Compressed 2 = Round 3 = Oval 4 = Oblong 5 = Long 6 = Other

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

TUBER THICKNESS:

1 = Round 2 = Medium thick 3 = Slightly flattened 4 = Flattened 5 = Other

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

TUBER LENGTH (mm):

AVERAGE:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

RANGE:

V		to	R1		to	R2		to	R3		to	R4		to
---	--	----	----	--	----	----	--	----	----	--	----	----	--	----

STANDARD DEVIATION:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

AVERAGE WEIGHT OF SAMPLE TAKEN:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

TUBER WIDTH (mm):

AVERAGE:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

RANGE:

V		to	R1		to	R2		to	R3		to	R4		to
---	--	----	----	--	----	----	--	----	----	--	----	----	--	----

STANDARD DEVIATION:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

AVERAGE WEIGHT OF SAMPLE TAKEN:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

6. TUBER CHARACTERISTICS: (continued)**TUBER THICKNESS (mm):****AVERAGE:**

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

RANGE:

V	to	R1	to	R2	to	R3	to	R4	to
---	----	----	----	----	----	----	----	----	----

STANDARD DEVIATION:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

AVERAGE WEIGHT OF SAMPLE TAKEN:

V		R1		R2		R3		R4	

TUBER EYE DEPTH:

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

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

TUBER LATERAL EYES:

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

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

NUMBER EYE/TUBER:**AVERAGE:**

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

RANGE:

V	to	R1	to	R2	to	R3	to	R4	to
---	----	----	----	----	----	----	----	----	----

DISTRIBUTION OF TUBER EYES:

1 = Predominantly apical 2 = Evenly distributed

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

PROMINENCE OF TUBER EYEBROWS:

1 = Not prominent 2 = Slight prominence 3 = Medium prominence 4 = Very prominent 5 = Other

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

6. TUBER CHARACTERISTICS: (continued)

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

V		R1		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 of Munsell Color Chart (Circle the appropriate color chart)

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

7. DISEASES CHARACTERISTICS:

DISEASES REACTION: 0 = Not Tested 1 = Resistant 3 = Moderately Resistant 5 = Moderately Susceptible
7 = Susceptible 9 = Highly Susceptible

BACTERIAL RING ROT, FOLIAR REACTION:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

BACTERIAL RING ROT, TUBER REACTION:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

LATE BLIGHT:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

PLRV (LEAF ROLL):

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

PVX:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

PVY:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

OTHER:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

OTHER:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

8. PESTS CHARACTERISTICS:

PEST REACTION: 0 = Not Tested 1 = Resistant 3 = Moderately Resistant 5 = Moderately Susceptible
7 = Susceptible 9 = Highly Susceptible

GOLDEN NEMATODE:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

OTHER:

V		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

9. GENE TRAITS:

INSERTION OF GENES:

 YES

 NO

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

10. 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		R1		R2		R3		R4	
---	--	----	--	----	--	----	--	----	--

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

V		R1		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 DSN 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.

Figure 1: Growth Habit

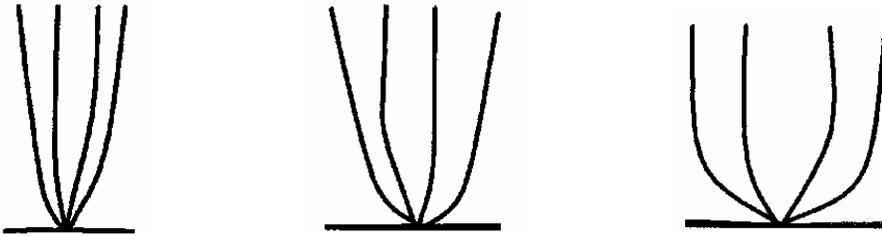


Figure 2: Leaf Silhouette

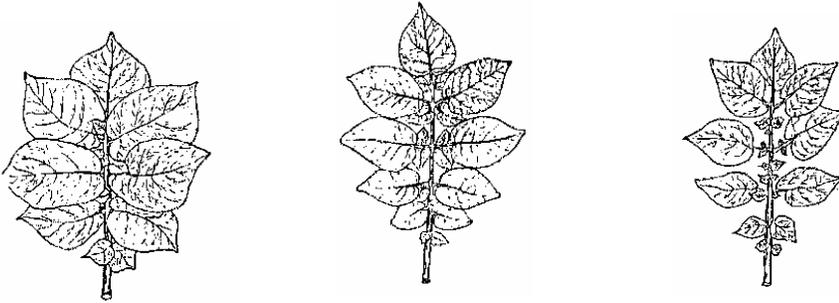


Figure 3: Terminal Leaflet Shape/Primary Leaflet Shape

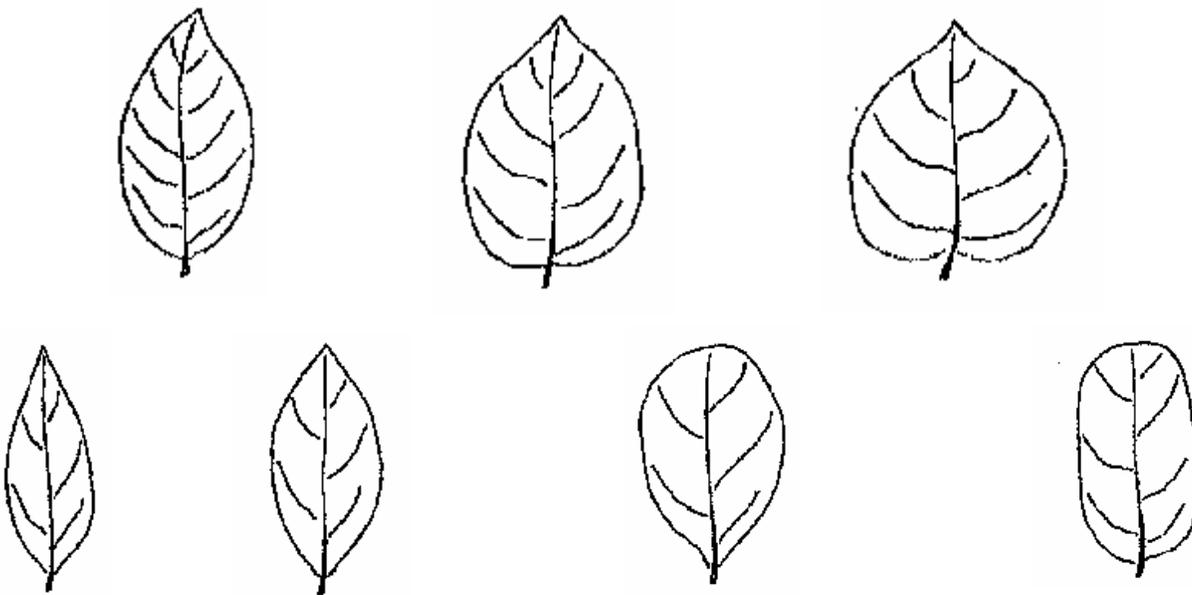


Figure 4: Terminal Leaflet Shape of Tip/Primary Leaflet Shape of Tip



Figure 5: Terminal Leaflet Shape of Base/Primary Leaflet Shape of Base

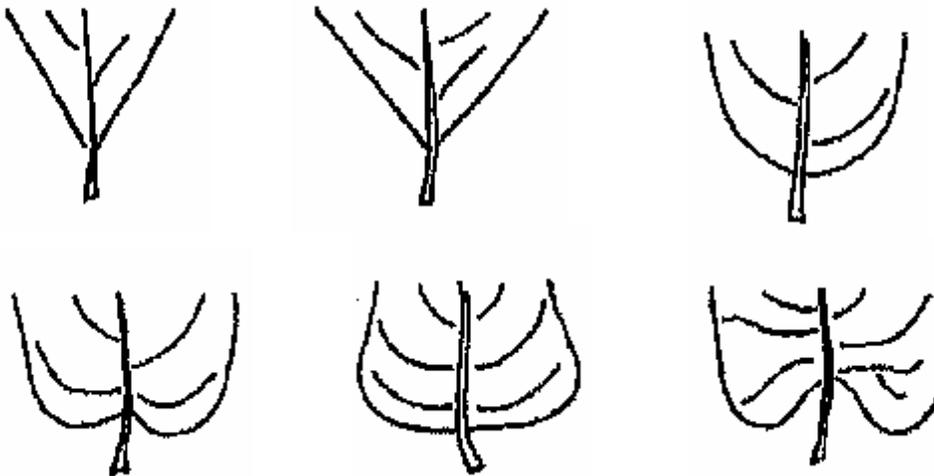
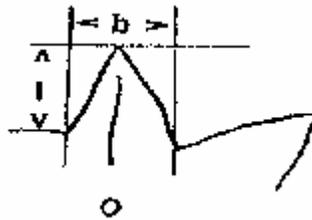


Figure 6: Corolla Shape



Stellate
 $1 > b$



Semi-stellate
 $1 = b$



Pentagonal
 $1 < b$



Rotate
 $1 \ll b$



Very rotate
 $1 \lll b$

Figure 7: Anther Shape



Figure 8: Stigma Shape

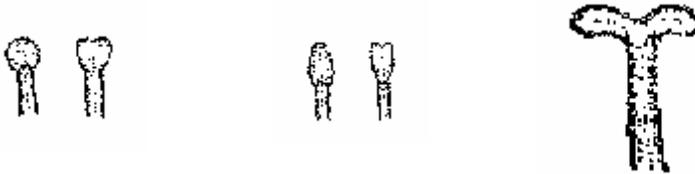


Figure 9: Distribution of Secondary Tuber Color



Figure 10: Tuber Shape

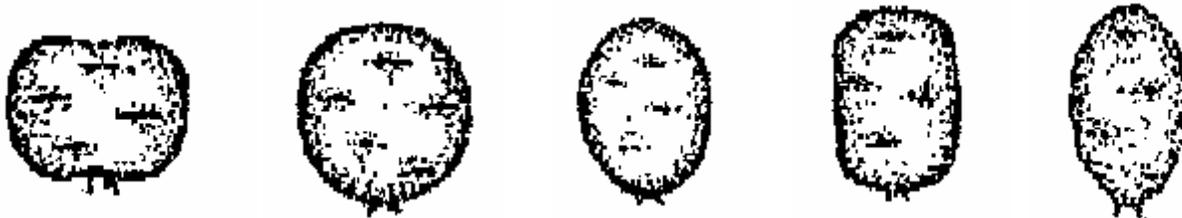


Figure 11: Leaf Dissection

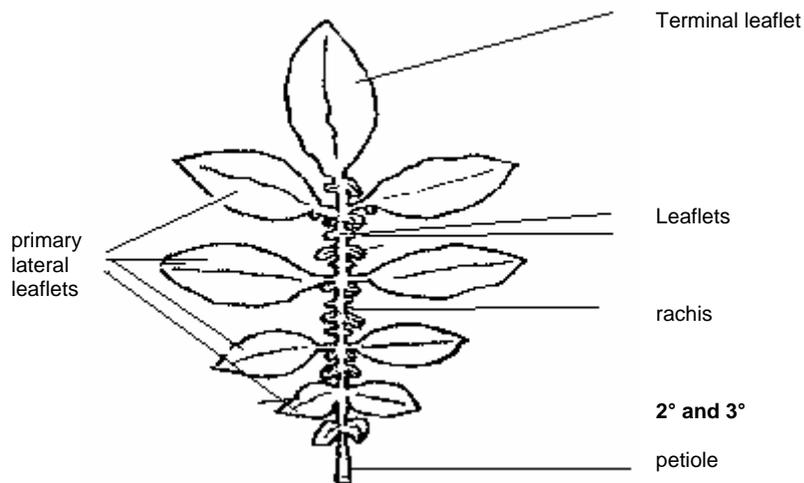


Figure 12: Stem Wings

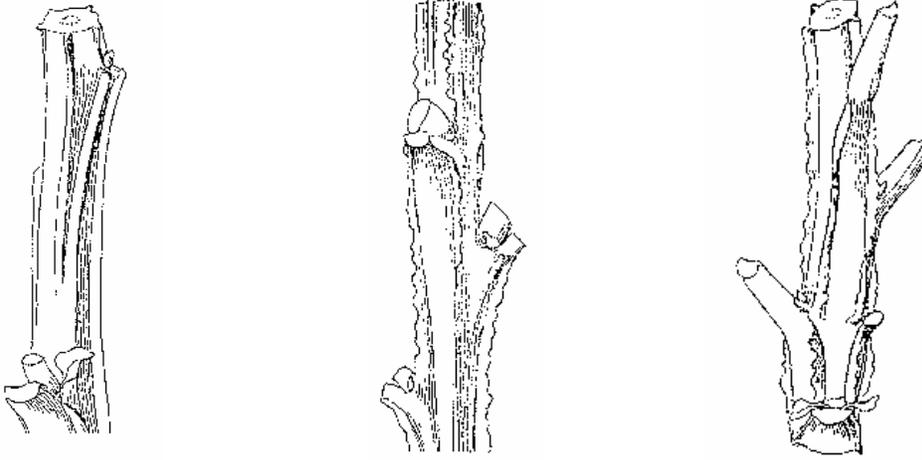
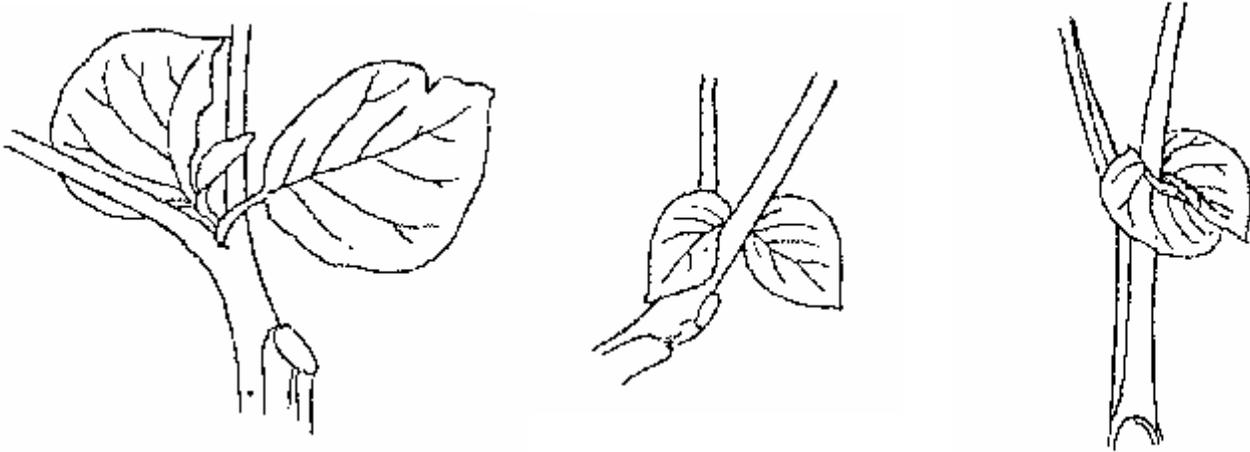


Figure 13: Leaf Stipules



LIGHT SPROUT CHARACTERISTICS:

1. Light sprout: general shape

		V	R1	R2	R3	R4
Spherical	1					
Ovoid	2					
Conical	3					
Broad cylindrical	4					
Narrow cylindrical	5					
Other (describe)	6					

2. Light sprout base: pubescence

		V	R1	R2	R3	R4
Absent	1					
Weak	3					
Medium	5					
Strong	7					
Very Strong	9					

3. Light sprout base: anthocyanin colouration

		V	R1	R2	R3	R4
Green	1					
Red-violet	2					
Blue-violet	3					
Other (describe)	4					

4. Light sprout base: intensity of anthocyanin colouration (if present)

		V	R1	R2	R3	R4
Absent	1					
Weak	3					
Medium	5					
Strong	7					
Very strong	9					

5. Light sprout tip: habit

		V	R1	R2	R3	R4
Closed	3					
Medium	5					
Open	7					

LIGHT SPROUT CHARACTERISTICS (continued)

		V	R1	R2	R3	R4
Absent	1					
Weak	3					
Medium	5					
Strong	7					
Very strong	9					

7. Light sprout tip anthocyanin colouration

		V	R1	R2	R3	R4
Green	1					
Red-violet	2					
Blue-violet	3					
Other (describe)	4					

8. Light sprout tip: intensity of anthocyanin colouration (if present)

		V	R1	R2	R3	R4
Absent	1					
Weak	3					
Medium	5					
Strong	7					
Very strong	9					

9. Light sprout root initials: frequency

		V	R1	R2	R3	R4
Low	3					
Medium	5					
High	7					