200200116

No.

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Saka - Ragis Pflanzenzucht GbR

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 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

'ASTORIA'

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 fifth day of June, in the year two thousand and eight.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION - 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 1974 (5 U.S.C. 552a).

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) *(as it is to appear on the Certificate)*: Saka-Ragis Pflanzenzucht GbR

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER: 89-032-3

3. VARIETY NAME: ASTORIA

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*:
Pickhuben 2
D-20457 Hamburg
Federal Republic of Germany

5. TELEPHONE *(include area code)*: (++49)-40-414240-0

6. FAX *(include area code)*: (++49)-40-417716

FOR OFFICIAL USE ONLY
PVPO NUMBER: 200200116
FILING DATE: 03/18/2002
FILING AND EXAMINATION FEE: $ 2705.21
DATE: 03/18/2002
CERTIFICATION FEE: $ 768.00
DATE: 9/27/07

7. GENUS AND SPECIES NAME: Solanum tuberosum L.

8. FAMILY NAME *(Botanical)*: Solanacea

9. CROP KIND NAME *(Common name)*: potato

10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.) (Common name)*: partnership

11. IF INCORPORATED, GIVE STATE OF INCORPORATION: no

12. DATE OF INCORPORATION:

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS:
Mr. John Thomas Dusing
Hanse Seed Corp.
803 Nadina Dr.
Weston, FL 33327
per letter 04-15-2005 LMC

14. TELEPHONE *(include area code)*: (612)-445-8090

15. FAX *(include area code)*: (612)-496-0205

16. 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 the Variety
- d. ☒ Exhibit D. Additional Description of the Variety
- e. ☒ Exhibit E. Statement of the Basis of the Applicant'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 a public repository)*
- g. ☒ Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" *(Mail to PVPO)*

17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)?*
☐ YES *(If "yes," answer items 18 and 19 below)* ☒ NO *(If "no," go to item 20)*

18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO

19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
☒ YES *(If "yes," give names of countries and dates)* ☐ NO
offered for sale first: Germany, spring 2000 04-10-2000
per letter 2-27-07 LMC

21. The applicant(s) 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 applicant(s) is(are) the owner(s) 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 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

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

SIGNATURE OF APPLICANT *(Owner(s))*		SIGNATURE OF APPLICANT *(Owner(s))*	
SAKA-RAGIS PFLANZENZUCHT GbR			
NAME *(Please print or type)*: Wolfgang Philipp		NAME *(Please print or type)*	
CAPACITY OR TITLE: Managing Director	DATE: 2002/02/22	CAPACITY OR TITLE	DATE

#200200116

INSTRUCTIONS

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.

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.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Washington, DC 20250; and to the Office of Management and Budget, Paperwork Reduction Project (OMB No. 0581-0055), Washington, DC 20503.

200200116

Exhibit A.

Origin and Breeding History
Potato Variety ASTORIA

Breeding history:
ASTORIA was bred at our breeding station in Windeby, Schleswig-Holstein, Germany by cross breeding.

Steffi x Taiga Gelda x Hirta

Gesa x Cilena

ASTORIA

Last crossing was in 1988.

ASTORIA is listed at the German Bundessortenamt under reference number K 3219 and is protected in Europe at the Community Plant Variety Office under reference number EU2671.

Number of Generations over which stability and uniformity have been observed:
Stability and uniformity of potato variety ASTORIA have been officially proved at the Bundessortenamt, Hannover, annually proved since the first DUS trial in 1995 (until today February 2002, seven generations).

Off-types and variants:
The variety ASTORIA is stable and uniform without showing any variants and off-types.

Selection criteria:
Extra early table potato variety with superior cooking quality, deep yellow flesh colour, firm cooking salad variety, no after cooking darkening and good agronomic characteristics, resistance to PCN races 1 and 4, good tolerance against PVY

SAKA-RAGIS
PFLANZENZUCHT GbR

Signature _____
Wolfgang Philipp, Managing Director

Hamburg, 2002-02-22

Saka-Ragis Pflanzenzucht GbR
Pickhuben 2
D-20457 Hamburg
Tel.: (+49) – 40 – 414240 0
Fax.: (+49) – 40 – 417716
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200200116

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Fax +49(0)40 448585
info@saka-ragis.de
www.saka-ragis.de

Exhibit B.
Statement of distinctness

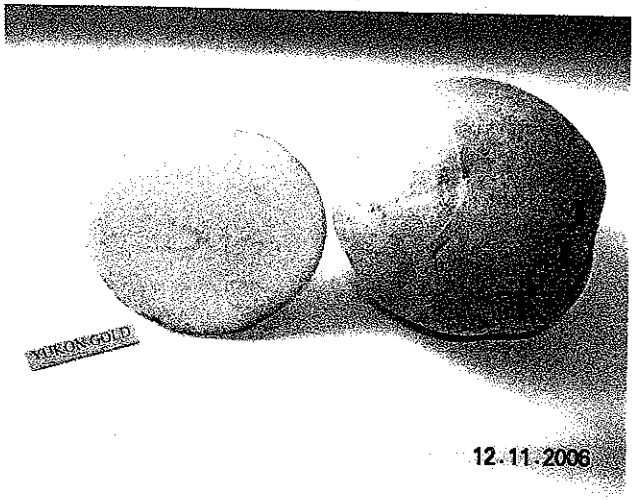
Application No. 200200116, Potato variety ASTORIA

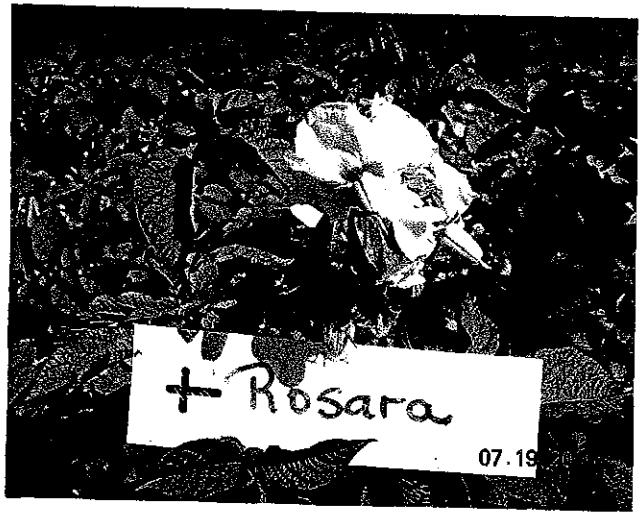
Astoria is distinct from the most similar varieties Yukon Gold and Rosara by:

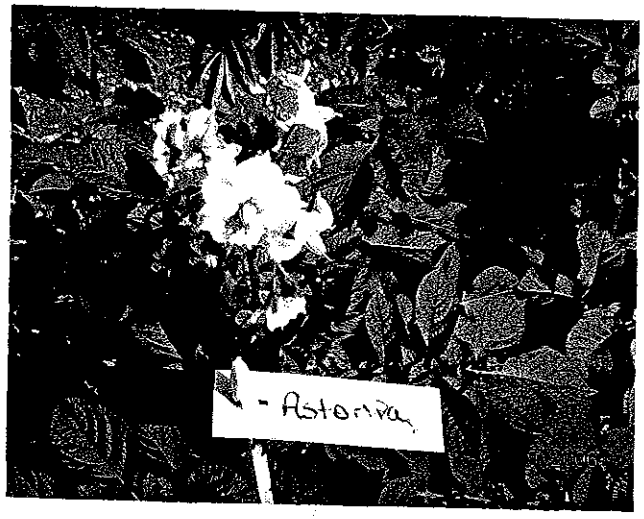
varieties	Descriptions	
	Light Sprout Base Intensity of Anthocyanin Coloration	Corola Inner Surface Color
Astoria	weak	white (157D)
Yukon Gold	strong	purple (76A)
Rosara	strong	violet (85A)

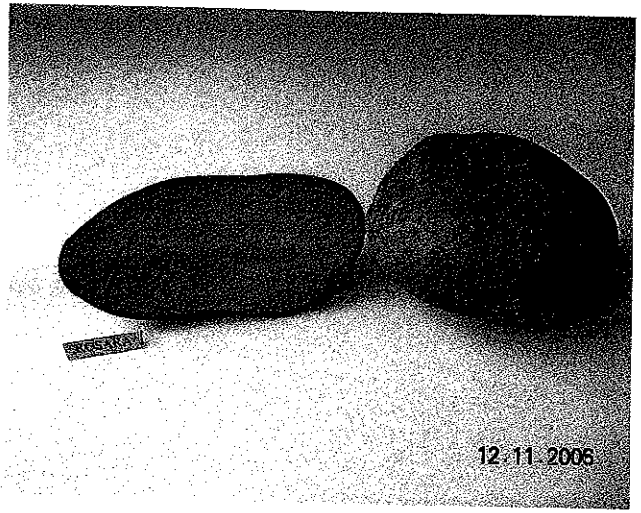
The colour chart values refer to the „Royal Horticultural Society Colour Chart.

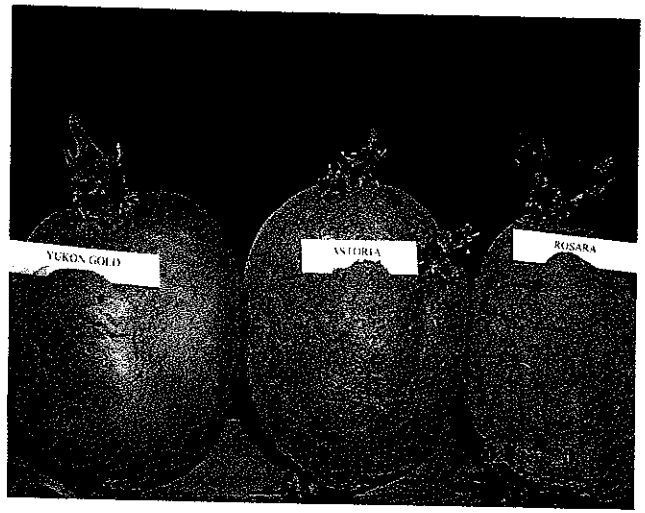
Saka-Ragis Pflanzenzucht GbR
Pickhuben 2
D-20457 Hamburg
Tel.: (+49) – 40 – 414240 0
Fax.: (+49) – 40 – 417716
E-mail: info@saka-ragis.de

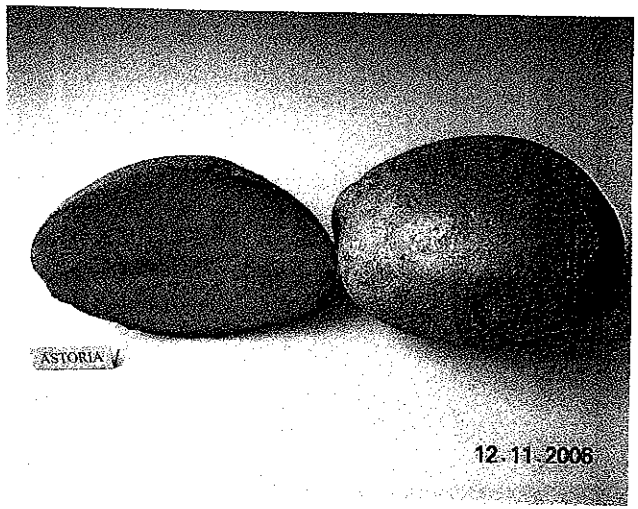

YUKON GOLD
12.11.2006


+ Rosara
07.19


- Astoria


ROSARA
12.11.2006


YUKON GOLD
ASTORIA
ROSARA


ASTORIA
12.11.2006

#20020011 6

G

#200200116

Potato Objective Description

ASTORIA

Global Agri Services Inc.

6

Exhibit C (*Potato*)

OBJECTIVE DESCRIPTION OF VARIETY
POTATO (*Solanum tuberosum L.*)

NAME OF APPLICANT(S)
Saka-Ragis Pflanzenzucht GbR

PVPO NUMBER
200200116

#200200116

ADDRESS
Pickhuben 2
D-20457, Hamburg
Germany

VARIETY NAME
Astoria

R1 = **Rosara** R2 = **Yukon Gold** R3 = R4 = R5 =

TEMPORARY OR EXPERIMENTAL DESIGNATION
89-032-3

1. MARKET CHARACTERISTICS:

MARKET CLASS:
1 = Yellow-flesh tablestock; 2 = Round-white tablestock; 3 = Chip-processing; 4 = Frozen-processing
5 = Russet tablestock; 6 = other _____

1

2. LIGHT SPROUT CHARACTERISTICS

		VARIETY	R1	R2	R3	R4	R5
2.1 Light Sprout General Shape							
Spherical	1	1	1	1			
Ovoid	2						
Conical	3						
Broad Cylindrical	4						
Narrow Cylindrical	5						
Other	6						
2.2 Light Sprout Base Pubescence							
Absent	1	2	2	3			
Weak	2						
Medium	3						
Strong	4						
Very Strong	5						
2.3 Light Sprout Base Anthocyanin Coloration							
Green	1	2	2	2			
Red-Violet	2						
Blue-Violet	3						
Other	4						
2.4 Light Sprout Base Intensity of Anthocyanin Coloration							
Absent	1	2	4	4			
Weak	2						
Medium	3						
Strong	4						
Very Strong	5						
2.5 Light Sprout Tip Habit							
Closed	1	1	1	1			
Medium	2						
Open	3						

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2.6 Light Sprout Tip Pubescence

Absent	1	2	2	2
Weak	2			
Medium	3			
Strong	4			
Very Strong	5			

2.7 Light Sprout Tip Anthocyanin Coloration

Green	1	1	2	1
Red-Violet	2			
Blue-Violet	3			
Other	4			

2.8 Light Sprout Tip Intensity of Anthocyanin

Absent	1	2	4	1
Weak	2			
Medium	3			
Strong	4			
Very Strong	5			

2.9 Light Sprout Root Initial Frequency

Low	1	2	1	1
Medium	2			
High	3			

3. PLANT CHARACTERISTICS

3.1 Growth Habit:

erect	1	5	5	1
semi-erect	5			
spreading	7			

3.2 Foliage Type

stem	1	2	2	1
intermediate	2			
leaf	3			

3.3 Maturity (DAP at vine senescence)

3.4 Planting Date

June 1, 2006

3.5 Regional Area

Canada 6 New Brunswick, Canada

3.6 Maturity Class

very early <100	1
early 100-110	2
mid-season 111-120	3
late 121-130	4
very late >130	5

4. STEM CHARACTERISTICS

4.1 Stem Anthocyanin Coloration

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

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4.2 Stem Wings

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

5. LEAF CHARACTERISTICS

5.1 Leaf Color

Yellowish-Green	1	3	3	1
Olive-Green	2			
Medium Green	3			
Dark Green	4			
Grey Green	5			
Other	6			

5.2 Leaf Color (RHS)

RHSCC	146A	147B	147A

5.3 Leaf Pubescence Density

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

5.4 Leaf Pubescence Length

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

5.5 Leaf Silhouette

Closed	1	3	3	5
Medium	3			
Open	5			

5.6 Petioles Anthocyanin Coloration

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

5.7 Leaf Stipules Size

Absent	1	5	5	5
Small	3			
Medium	5			
Large	7			

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5.8 Termnial Leaflet Shape

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

5.9 Terminal Leaflet Tip Shape

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

5.10 Terminal Leaflet Base Shape

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

5.11 Terminal Leaflet Margin Waviness

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

5.12 Number of Primary Leaflet Pairs

Average	5.2	5.4	6
Range	5-6	5-6	6-6

5.13 Primary Leaflet Size

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

5.14 Primary Leaflet Shape

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

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5.15 Primary Leaflet Tip Shape

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

5.16 Primary Leaflet Base Shape

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

5.17 Number of Secondary and Tertiary Leaflet Pairs

Average	8.6	13	9.2
Range	5-12	9-18	9-10

6. INFLORESCENCE CHARACTERISTICS

6.1 Number of Inflorescence/Plant

Average	3.2	4.6	4.8
Range	2-6	3-6	3-6

6.2 Number of Florets/Inflorescence

Average	10.4	14.6	12.2
Range	5-19	13-20	9-20

6.3 Corolla Inner Surface Color

RHSCC	157D	85A	76A

6.4 Corolla Outer Surface Color

RHSCC	157D	85C	76C

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6.5 Corolla Inner Surface Color

White	1	1	10	9
Red-Violet	2			
Blue-Violet	3			
Cream	4			
Red-Purple	5			
Blue	6			
Pink	7			
Pink-White	8			
Purple	9			
Violet	10			
Purple-Violet	11			
Violet-White 1:1	12			
Violet-White 1:3	14			
Violet-White 3:1	15			
Violet-White Halo	16			
Pink-White 1:1	17			
Pink-White 1:3	18			
Pink-White 3:1	19			
Pink-White Halo	20			
RedViolet White 1:1	21			
RedViolet-White 1:3	22			
RedViolet-White 3:1	23			
RedViolet-White Halo	24			
BlueViolet-White 1:1	25			
BlueViolet-White 1:3	26			
BlueViolet-White 3:1	27			
BlueViolet-White Halo	28			
Other	12			

6.6 Corolla Shape

Very Rotate	1	3	3	3
Rotate	2			
Pentagonal	3			
Semi-Stellate	4			
Stellate	5			

6.7 Calyx Anthocyanin Coloration

Absent	1	1	3	3
Weak	3			
Medium	5			
strong	7			
very strong	9			

6.8 Anther Color

RHSCC	17A	17B	17C

6.9 Anther Shape

Broad Cone	1	2	2	1
Narrow Cone	2			
Pear Shape Cone	3			
Loose	4			
Other	5			

6.10 Pollen Production

None	1
Some	3
Abundant	5

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6.11 Stigma Shape

Capitate	1	1	1	1
Clavate	2			
Bi-Lobed	3			

6.12 Stigma Color

RHSCC	146A	137C	147B

6.13 Berry Production

None	1
Low	3
Moderate	5
Heavy	7
Very Heavy	9

7. TUBER CHARACTERISTICS

7.1 Predominant Skin Color

White	1	3	8	3
Light Yellow	2			
Yellow	3			
Buff	4			
Tan	5			
Brown	6			
Pink	7			
Red	8			
Purplish-Red	9			
Purple	10			
Dark Purple-Black	11			
Other	12			

RHSCC	161C	60C	164C

7.2 Secondary Skin Color

Absent	1	1	1	2
Present (describe)	2			

RHSCC	NA	NA	62A

7.3 Secondary Skin Color Distribution

Eyes	1	NA	NA	1
Eyesbrows	2			
Splashed	3			
Scattered	4			
Spectacled	5			
Stippled	6			
Other	7			

7.4 Skin Texture

Smooth	1	1	1	1
Rough	2			
Netted	3			
Russetted	4			
Heavily Russetted	5			
Other	6			

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7.5 Tuber Shape

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

7.6 Tuber Thickness

Round	1	3	3	2
Medium Thick	2			
Slightly Flattened	3			
Flattened	4			
Other	5			

7.7 Tuber Length (mm)

Average	85.4	85.7	75.7
Range	75-90	80-100	62-90
Standard Deviation	5.9	14.1	9.5
Average Weight of Sample	161.4	155.6	155.4

7.8 Tuber Width (mm)

Average	64.9	62.6	67.7
Range	60-72	55-70	62-75
Standard Deviation	4.5	4.0	4.4
Average Weight of Sample	161.4	155.6	155.4

7.9 Tuber Thickness (mm)

Average	47.7	49.5	53.1
Range	45-52	45-55	51-55
Standard Deviation	2.7	3.3	1.9
Average Weight of Sample	161.4	155.6	155.4

7.10 Tuber Eyes Depth

Protuding	1	2	3	3
Shallow	3			
Intermediate	5			
Deep	7			
Very Deep	9			

7.11 Tuber Lateral Eyes Depth

Protuding	1	2	2	2
Shallow	3			
Intermediate	5			
Deep	7			
Very Deep	9			

7.12 Number of Eyes Per Tuber

Average	6.7	9.2	7.4
Range	5-9	7-11	6-9

7.13 Distribution of Tuber Eyes

Predominantly Apical	1	2	2	2
Evenly Distributed	2			

7.14 Prominence of Tuber Eyebrows

Not Prominant	1	2	2	2
Slight Prominence	2			
Medium Prominence	3			
Very Prominence	4			
Other	5			

7.15 Primary Tuber Flesh Color

White	1	3	3	3
Light Yellow	2			
Yellow	3			
Buff	4			
Tan	5			
Brown	6			
Pink	7			
Red	8			
Purple Red	9			
Purple	10			
Dark-Purple Black	11			
0ther	12			
RHSCC		11A	162C	12C

7.16 Secondary Flesh Color

Absent	1	1	1	1
Present (describe)	2			
RHSCC		NA	NA	NA

7.17 Number of Tuber/Plant

Low (<8)	1	2	2	1
Medium (8-15)	2			
High (>15)	3			

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I. 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
5	4			

EARLY BLIGHT: (Alternaria)

V	R1	R2	R3	R4

SOFT ROT (Erwinia)

V	R1	R2	R3	R4

COMMON SCAB (Streptomyces)

V	R1	R2	R3	R4

POWDERY SCAB (Spongospora)

V	R1	R2	R3	R4

DRY ROT (Fusarium)

V	R1	R2	R3	R4

POTATO LEAF ROLL VIRUS (PLRV)

V	R1	R2	R3	R4
6	3			

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I. DISEASES CHARACTERISTICS: (continued)

POTATO VIRUS X (PVX)

V		R1		R2		R3		R4	

POTATO VIRUS Y (PVY)

V	2	R1	7	R2		R3		R4	

POTATO VIRUS M (PVM)

V		R1		R2		R3		R4	

POTATO VIRUS A (PVA)

V		R1		R2		R3		R4	

GOLDEN NEMATODE (Globodera) (Pathotype 1)

V	1	R1	1	R2		R3		R4	

ROOT – KNOT NEMATODE (Meloidogyne)

V		R1		R2		R3		R4	

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	

I. 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	

GREEN PEACH APHID (*Myzus*)

V		R1		R2		R3		R4	

OTHER:

V		R1		R2		R3		R4	

OTHER:

V		R1		R2		R3		R4	

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0. GENE TRAITS:

INSERTION OF GENES: 1 = YES 2 = NO ☑

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

1. 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	3	R1	3	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.

2. 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.

3. FINGER PRINTING MARKERS:

ISOZYMES 1 = YES 2 = NO ☐

IF YES, attach information

4. DNA PROFILE: 1 = YES 2 = NO ☐

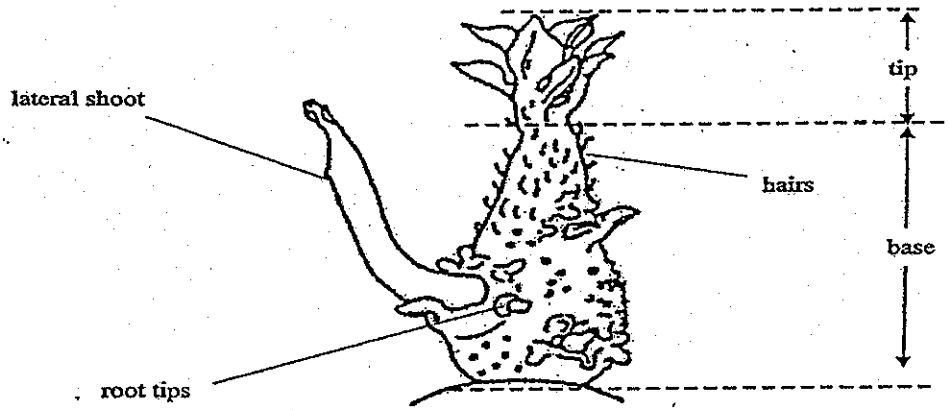
IF YES, attach information

5. ADDDITIONAL COMMENTS AND CHARACTERISTICS:

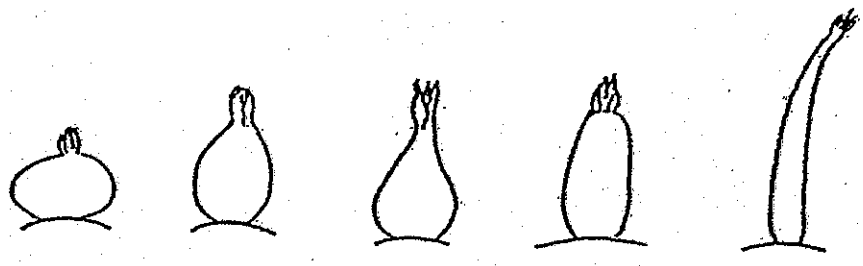
Include any additional descriptors that would be useful in distringuishing the candidate variety.

Figure 1: Light sprout

Light sprout dissection

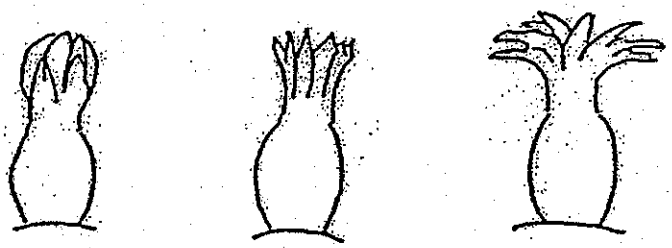


Light sprout shape



1 spherical | 2 ovoid | 3 conical | 4 broad cylindrical | 5 narrow cylindrical

Light sprout tip habit



1 closed | 2 intermediate | 3 open

The characteristic should be observed after about 10 weeks to obtain a good differentiation in the collection.

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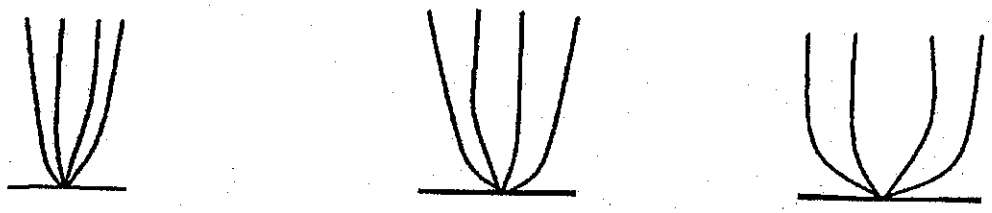
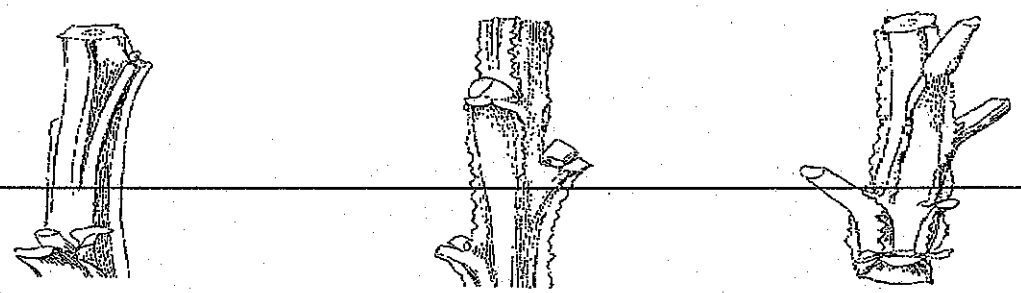
Figure 2: Growth Habit



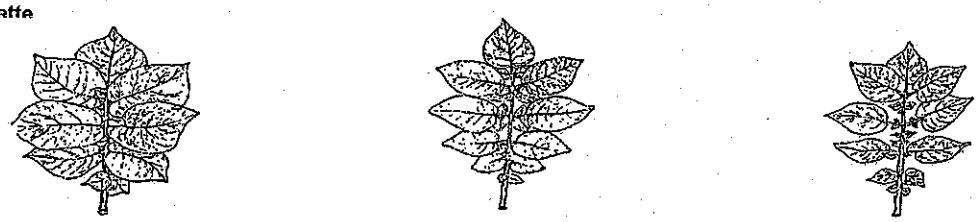
Erect | Semi Erect | Spreading

Figure 3: Stem Wings



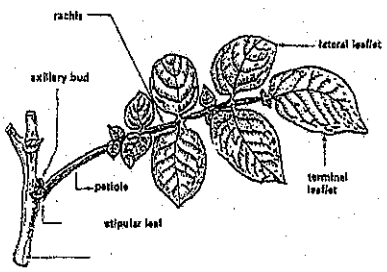
Weak | Medium | Strong

Figure 4: Leaf Sillhouette

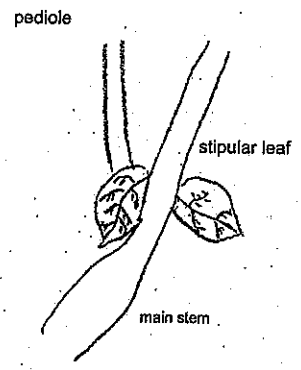


Closed | Medium | Open

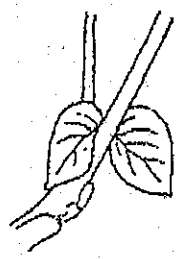
Figure 5: Leaf Stipules



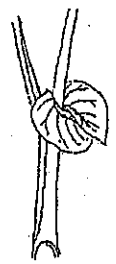
General structures



Small stipular leaf



Medium stipular leaf



Large stipular leaf

Figure 6: Leaf Dissection

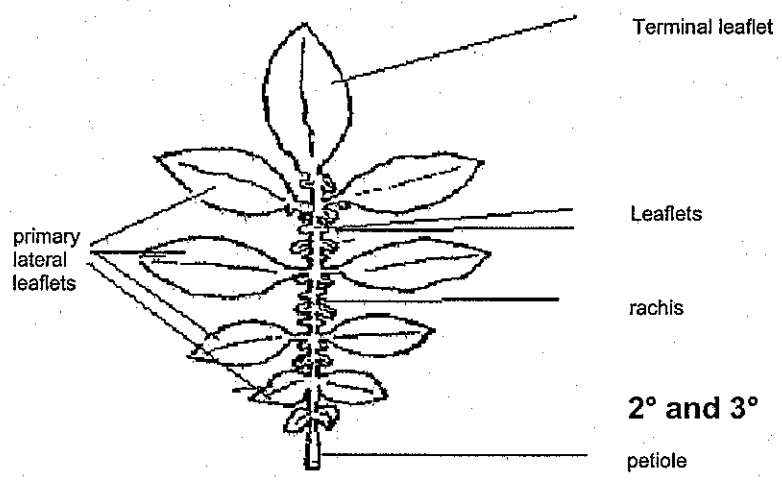
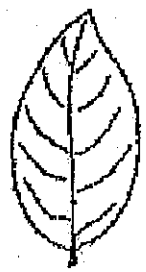
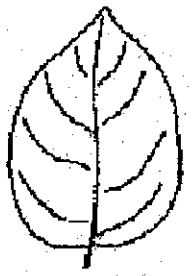


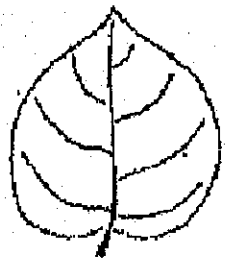
Figure 7: Terminal Leaflet Shape/Primary Leaflet Shape



Narrowly Ovate



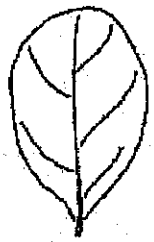
Medium Ovate



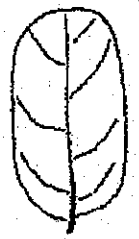
Broadly Ovate

Lanceolate

Elliptical



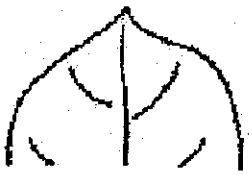
Obovate



Oblong

Figure 8: Terminal Leaflet Shape of Tip/Primary Leaflet Shape of Tip

Acute



Cuspidate

Acuminate

Obtuse

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Figure 9: Terminal Leaflet Shape of Base/Primary Leafelet Shape of Base

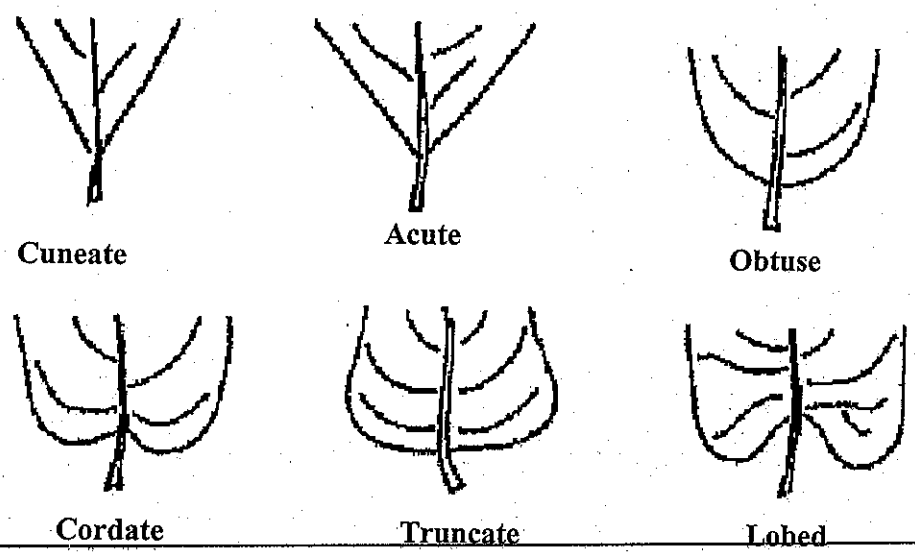


Figure 10: Corolla Shape

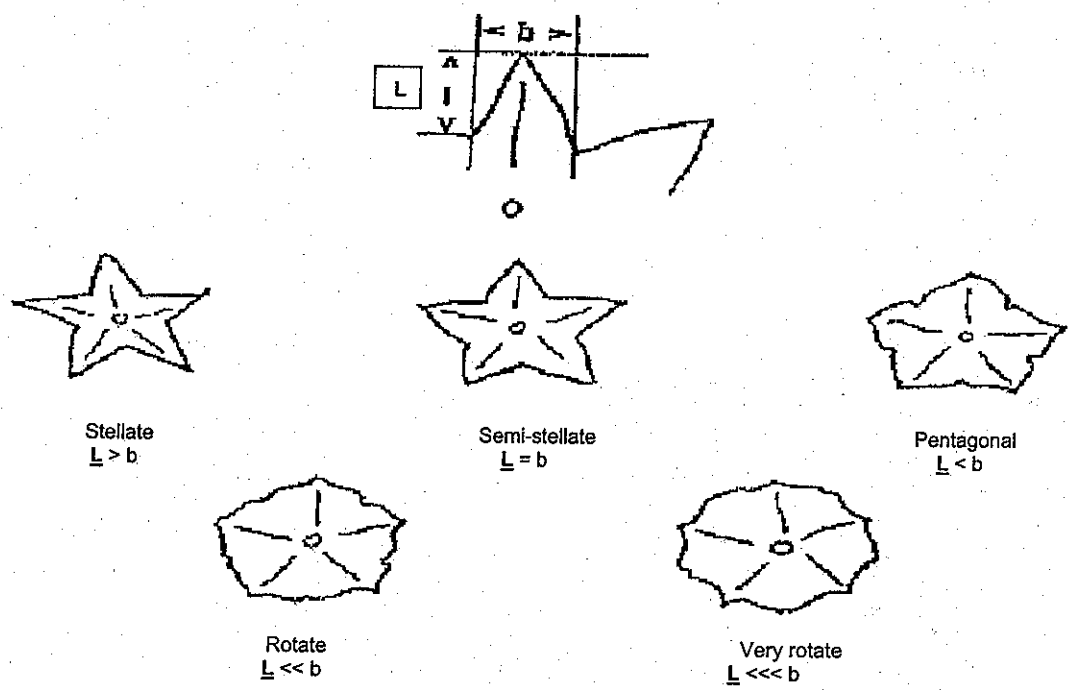


Figure 11: Anther Shape

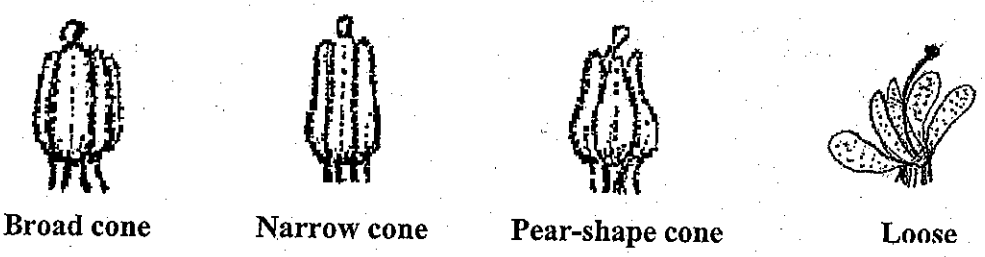
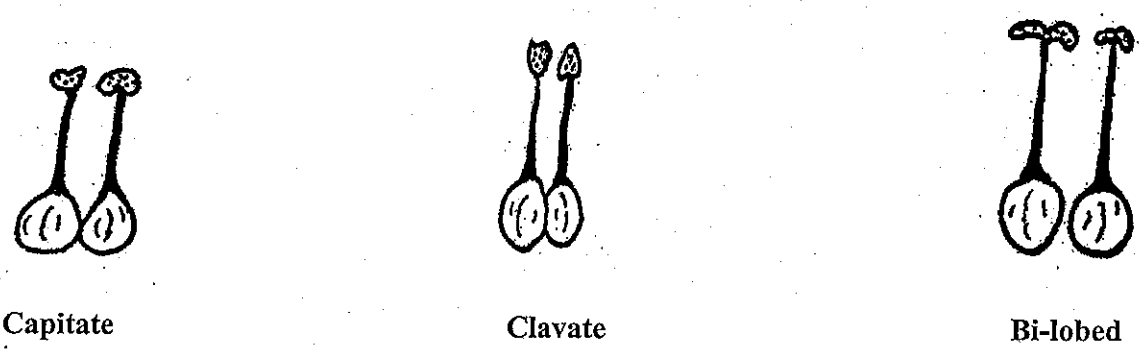
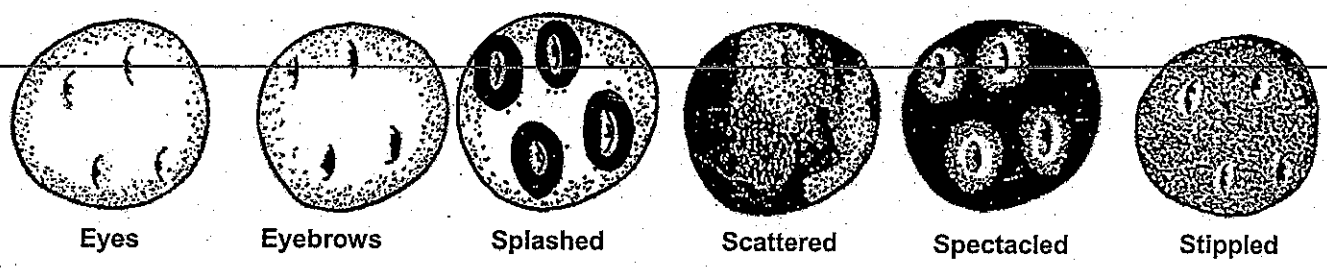


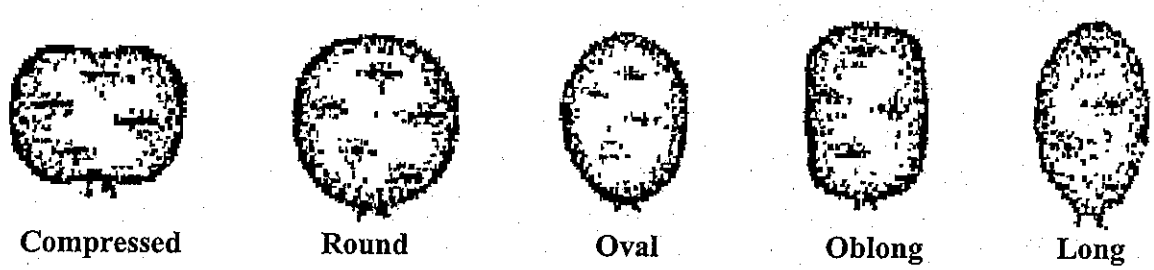
Figure 12: Stigma Shape



:igure 13: Distribution of Secondary Skin Tuber Color



:igure 14: Tuber Shape



eferences:

uaman, Z. 1986. Systematic botany and morphology of the potato. Technical information Bulletin 6. International ɔtato Center, Lima, Peru.

uaman, Z., Williams, J.T., Salhuana, W. and Vincent, L. Descriptors for the cultivated potato and the maintenance ıd distribution of germplasm collections. 1977. International Board for Plant Genetic Resources. Rome, Italy.

ɔtato (*Solanum tuberosum* L.) Guidelines for the conduct of tests for distinctness, uniformity and stability. ıternational union for the protection of new varieties of plants (UPOV). 2004-03-31.

Exhibit D.
200200116

TG/23/5
Original: English/anglais/englisch
Date/Datum: 1986-11-21

UPOV

INTERNATIONALER VERBAND ZUM SCHUTZ VON PFLANZENZÜCHTUNGEN | UNION INTERNATIONALE POUR LA PROTECTION DES OBTENTIONS VEGETALES | INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, HOMOGENEITY AND STABILITY

PRINCIPES DIRECTEURS

POUR LA CONDUITE DE L'EXAMEN

DES CARACTERES DISTINCTIFS, DE L'HOMOGENEITE ET DE LA STABILITE

RICHTLINIEN

FUER DIE DURCHFUEHRUNG DER PRUEFUNG

AUF UNTERSCHEIDBARKEIT, HOMOGENITAET UND BESTAENDIGKEIT

POTATO

POMME DE TERRE

KARTOFFEL

(*Solanum tuberosum* L.)

These Guidelines should be read in conjunction with document UPOV/TG/1/2, which contains explanatory notes on the general principles on which the Guidelines have been established.

Ces principes directeurs doivent être interprétés en relation avec le document UPOV/TG/1/2, qui contient des explications sur les principes généraux qui sont à la base de leur rédaction.

Diese Richtlinien sind in Verbindung mit dem Dokument UPOV/TG/1/2 zu sehen, das Erklärungen über die allgemeinen Grundsätze enthält, nach denen die Richtlinien aufgestellt wurden.

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[English]

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[français]

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[deutsch]

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#200200116

[English]

I. Subject of these Guidelines

These Test Guidelines apply to all varieties of *Solanum tuberosum* L.

II. Material Required

1. The competent authorities decide when, where and in what quantity and quality the plant material required for testing the variety is to be deliv- ered. Applicants submitting material from a State other than that in which the testing takes place must make sure that all customs formalities are complied with. As a minimum, the following quantity of plant material is recommended:

150 tubers in each year of testing, or
300 tubers in one delivery.

The diameter of the tubers to be delivered should be 35 to 50 mm. The plant material supplied should be visibly healthy, not lacking in vigor or affected by any important pest or disease.

2. The plant material must not have undergone any treatment unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

III. Conduct of Tests

1. The minimum duration of tests should be two similar growing periods.

2. The tests should normally be conducted at one place.

3. The field tests should be carried out under conditions ensuring normal growth. 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 up to 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 for measuring can only be used if they have been subject to similar environmental conditions.

4. Additional tests for special purposes may be established.

IV. Methods and Observations

Experience in testing homogeneity and stability has shown that, in the case of vegetatively propagated potato varieties, it is sufficient to determine whether the plant material supplied is uniform in the states of the characteristics observed and that neither mutations nor mixtures have occurred.

V. Grouping of Varieties

1. The collection to be grown should be divided into groups to facilitate the assessment of distinctness. Characteristics which are suitable for grouping purposes are those which are known from experience not to vary, or to vary only slightly, within a variety and which in their various states are fairly evenly distributed within the collection.

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2. It is recommended that the competent authorities use the following characteristics for grouping varieties:

(i) Lightsprout: anthocyanin coloration of base (characteristic 3)
(ii) Flower corolla: color of inner side (characteristic 38)
(iii) Tuber: color of skin (characteristic 47)

VI. Characteristics and Symbols

1. To assess distinctness, homogeneity and stability, the characteristics and their states as given in the three UPOV working languages in the Table of Characteristics should be used.

2. Notes (1 to 9), for the purposes of electronic data processing, are given opposite the states of the different characteristics.

3. Legend:

(*) Characteristics which should be used every growing period for the examination of all varieties and should always be included in the description of the variety, except when the state of expression of a preceding characteristic or regional environmental conditions render this impossible.

(+) See Explanations on the Table of Characteristics in chapter VIII.

1) Optimal stage of assessment of characteristics indicated by a number in the corresponding column. The reference to the stages of development is given at the end of chapter VIII.

* * * * * * *

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[français]

I. Objet de ces principes directeurs

Ces principes directeurs s'appliquent à toutes les variétés de Solanum tuberosum L.

II. Matériel requis

1. Les autorités compétentes décident de la quantité de matériel végétal nécessaire pour l'examen de la variété, de sa qualité ainsi que des dates et lieux d'envoi. Il appartient au demandeur qui soumet du matériel provenant d'un pays autre que celui où l'examen doit avoir lieu de s'assurer que toutes les formalités douanières ont été dûment accomplies. La quantité minimum recommandée de matériel végétal à fournir est de :

150 tubercules tous les ans, pendant la durée de l'examen, ou
300 tubercules en une seule fourniture.

Le diamètre des tubercules à fournir doit être 35 à 50 mm. Le matériel végétal doit être manifestement sain, vigoureux et indemne de tous parasites ou maladies importants.

2. Le matériel végétal ne doit pas avoir subi de traitement, sauf autorisation ou demande expresse des autorités compétentes. S'il a été traité, le traitement appliqué doit être indiqué en détail.

III. Conduite de l'examen

1. La durée minimum d'examen est de deux cycles similaires de végétation.

2. Les essais doivent être conduits en un seul lieu.

3. Les essais en plein air doivent être conduits dans des conditions normales de culture. La taille des parcelles doit être telle que des plantes ou parties de plantes puissent être prélevées pour effectuer des mesures ou des dénombrements sans nuire aux observations ultérieures qui doivent se poursuivre jusqu'à la fin de la période de végétation. Chaque essai doit porter sur au moins 60 plantes, qui doivent être réparties en deux ou plusieurs répétitions. On ne peut utiliser des parcelles séparées, destinées l'une aux observations et l'autre aux mesures, que si elles sont soumises à des conditions de milieu similaires.

4. Des essais additionnels peuvent être établis pour certaines déterminations.

IV. Méthodes et observations

Pour l'examen de l'homogénéité et de la stabilité, l'expérience a montré qu'il suffisait, dans le cas des variétés de pomme de terre multipliées par voie végétative, de vérifier que le matériel végétal est homogène quant à l'expression des caractères observés et qu'il ne présente ni mutations ni mélange avec d'autres variétés.

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V. Groupement des variétés

1. La collection à cultiver doit être divisée en groupes pour faciliter la détermination des caractères distinctifs. Les caractères à utiliser pour définir les groupes sont ceux dont on sait par expérience qu'ils ne varient pas, ou qu'ils varient peu, à l'intérieur d'une variété et dont les différents niveaux d'expression sont assez uniformément répartis dans la collection.

2. Il est recommandé aux autorités compétentes d'utiliser les caractères ci-après pour le groupement des variétés:

(i) Germe: pigmentation anthocyanique de la base (caractère 3)
(ii) Corolle de la fleur: couleur de l'intérieur (caractère 38)
(iii) Tubercule: couleur de la peau (caractère 47)

VI. Caractères et symboles

1. Pour évaluer les possibilités de distinction, l'homogénéité et la stabilité, on doit utiliser les caractères indiqués dans le tableau des caractères, avec leurs différents niveaux d'expression, dans les trois langues de travail de l'UPOV.

2. En regard des différents niveaux d'expression des caractères, sont indiquées des notes (1 à 9) destinées au traitement électronique des données.

3. Légende:

(*) Caractères qui doivent, à chaque cycle de végétation, pendant la durée des essais, être utilisés pour l'examen de toutes les variétés et qui doivent toujours figurer dans la description de la variété, sauf si le niveau d'expression d'un caractère précédent ou les conditions de milieu régionales le rendent impossible.

(+) Voir l'explication du tableau des caractères au chapitre VIII.

1) Stade optimal pour l'observation des caractères indiqué par un nombre dans le colonne correspondante. La correspondance avec les stades de devéloppement figure à la fin du chapitre VIII.

* * * * * * *

#200200116

[deutsch]

I. Anwendung dieser Richtlinien

Diese Richtlinien gelten für alle Sorten von Solanum tuberosum L.

II. Anforderungen an das Vermehrungsmaterial

1. Die zuständigen Behörden bestimmen, wann, wohin und in welcher Menge und Beschaffenheit das für die Prüfung der Sorte erforderliche Vermehrungsmaterial zu liefern ist. Anmelder, die Material von außerhalb des Staates, in dem die Prüfung vorgenommen wird, einreichen, müssen sicherstellen, daß alle Zollvorschriften erfüllt sind. Folgende Mindestmenge an Vermehrungsmaterial wird empfohlen:

150 Knollen jährlich während der Dauer der Prüfung, oder
300 Knollen in einer Lieferung.

Der Durchmesser der zu liefernden Knollen sollte 35 bis 50 mm betragen. Das eingesandte Vermehrungsmaterial sollte sichtbar gesund sein, keine Wuchsmängel aufweisen und nicht von irgendeiner wichtigen Krankheit oder einem wichtigen Schädling befallen sein.

2. Das Vermehrungsmaterial darf keiner Behandlung unterzogen worden sein, es sei denn, daß die zuständigen Behörden eine solche Behandlung gestatten oder vorschreiben. Soweit es behandelt worden ist, müssen die Einzelheiten der Behandlung angegeben werden.

III. Durchführung der Prüfung

1. Die Mindestprüfungsdauer sollte zwei gleichartige Wachstumsperioden betragen.

2. Die Prüfungen sollten in der Regel an einer Stelle durchgeführt werden.

3. Die Prüfungen im Freien sollten unter Bedingungen durchgeführt werden, die eine normale Pflanzenentwicklung sicherstellen. Die Parzellengrösse ist so zu bemessen, daß den Beständen die für Messungen und Zählungen benötigten Pflanzen oder Pflanzenteile entnommen werden können, ohne daß dadurch die Beobachtungen, die bis zum Abschluß der Vegetationsperiode durchzuführen sind, beeinträchtigt werden. Jede Prüfung sollte insgesamt wenigstens 60 Pflanzen umfassen, die auf zwei oder mehrere Wiederholungen verteilt werden sollten. Getrennte Parzellen für Beobachtungen einerseits und Messungen andererseits können nur bei Vorliegen ähnlicher Umweltbedingungen verwendet werden.

4. Zusätzliche Prüfungen für besondere Erfordernisse können durchgeführt werden.

IV. Methoden und Erfassungen

Was die Homogenität und Beständigkeit betrifft, so genügt es erfahrungsgemäß bei vegetativ vermehrten Sorten von Kartoffel festzustellen, daß das eingesandte Pflanzenmaterial in den Ausprägungen der festgestellten Merkmale homogen ist und weder Mutationen noch Vermischungen aufgetreten sind.

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V. Gruppierung der Sorten

1. Das Prüfungssortiment ist zur leichteren Herausarbeitung der Unterscheidbarkeit in Gruppen zu unterteilen. Für die Gruppierung sind solche Merk- male geeignet, die erfahrungsgemäß innerhalb einer Sorte nicht oder nur wenig variieren und die in ihren verschiedenen Ausprägungsstufen in der Vergleichssammlung ziemlich gleichmäßig verteilt sind.

2. Den zuständigen Behörden wird empfohlen, die nachstehenden Merkmale für die Gruppierung der Sorten heranzuziehen:

(i) Lichtkeim: Anthocyanfärbung des Unterteils (Merkmal 3)
(ii) Blütenkrone: Farbe der Innenseite (Merkmal 38)
(iii) Knolle: Farbe der Schale (Merkmal 47)

VI. Merkmale und Symbole

1. Zur Beurteilung der Unterscheidbarkeit, Homogenität und Beständigkeit sollten die Merkmale mit ihren Ausprägungsstufen, wie sie in der Merkmals- tabelle in den drei UPOV-Arbeitssprachen aufgeführt sind, verwendet werden.

2. Hinter den Merkmalsausprägungen stehen Noten (von 1 bis 9) für eine elektronische Datenverarbeitung.

3. Legende:

(*) Merkmale, die in jedem Prüfungsjahr zur Prüfung aller Sorten herangezogen werden und in jeder Sortenbeschreibung enthalten sein sollten, sofern die Ausprägungsstufe eines vorausgehenden Merkmals oder regionale Umweltbedingungen dies nicht ausschließen.

(+) Siehe Erklärungen zu der Merkmalstabelle in Kapitel VIII.

1) Optimales Stadium der Merkmalserfassung, das durch eine Ziffer in der entsprechenden Spalte angegeben ist. Die Ziffer führt zu Entwicklungs- stadien, die am Ende des Kapitels VIII wiedergegeben sind.

* * * * * * *

VII. Table of Characteristics/Tableau des caractères/Merkmalstabelle

	Characteristics Caractères Merkmale	Stage[1)] Stade[1)] Stadium[1)]	English	français	deutsch	Example Varieties Exemples Beispielssorten	Note
1. (+)	Lightsprout: size Germe: taille Lichtkeim: Grösse	1	small	petite	klein	Golden Wonder, Resident	3
			medium	moyenne	mittel	Pentland Dell	5
			large	grande	gross	Home Guard, Palma	7
(*) 2. (+)	Lightsprout: shape Germe: forme Lichtkeim: Form	1	spherical	sphérique	kugelförmig	Alpha, Armen	1
			ovoid	ovoïde	eiförmig	Tylva	2
			conical	conique	kegelförmig	Pentland Dell	3
			broad cylindrical	cylindrique large	breit zylindrisch	Pepita, Arran Victory	4
			narrow cylindrical	cylindrique étroite	schmal zylindrisch	Spunta, Pentland Squire	5
(*) 3.	Lightsprout: anthocyanin coloration of base Germe: pigmentation anthocyanique de la base Lichtkeim: Anthocyanfärbung des Unterteils	1	red-violet	violet-rouge	rot-violett	Sirtema	1
			blue-violet	violet-bleu	blau-violett	Bintje	2
(*) 4.	Lightsprout: intensity of anthocyanin coloration of base Germe: intensité de la pigmentation anthocyanique de la base Lichtkeim: Stärke der Anthocyanfärbung des Unterteils	1	very weak	très faible	sehr gering	Estima	1
			weak	faible	gering	Kennebec	3
			medium	moyenne	mittel	Désirée	5
			strong	forte	stark	Kerr's Pink, Nicola	7
			very strong	très forte	sehr stark	Montana	9
(*) 5.	Lightsprout: pubescence of base Germe: pilosité de la base Lichtkeim: Behaarung des Unterteils	1	very weak	très faible	sehr gering	Croft	1
			weak	faible	gering	Pentland Dell	3
			medium	moyenne	mittel	Claustar	5
			strong	forte	stark	Eersteling	7
			very strong	très forte	sehr stark	Dunluce Revelino	9
6.	Lightsprout: size of tip Germe: taille du sommet Lichtkeim: Grösse des Oberteils	1	very small	très petit	sehr klein	Allerfrüheste Gelbe, Maris Piper	1
			small	petit	klein	Famosa	3
			medium	moyen	mittel	Regale	5
			large	grand	gross	Marlene	7
			very large	très grand	sehr gross	Home Guard, Prumex	9

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	Characteristics Caractères Merkmale	Stage[1] Stade[1)] Stadium[1)]	English	français	deutsch	Example Varieties Exemples Beispielssorten	Note
7. (+)	Lightsprout: habit of tip Germe: aspect du sommet Lichtkeim: Form des Oberteils	1	closed	fermé	geschlossen	Désirée, Estima	3
			medium	moyen	mittel	Catriona, Eersteling	5
			open	ouvert	offen	Arran Pilot	7
8.	Lightsprout: intensity of anthocyanin coloration of tip Germe: intensité de la pigmentation anthocyanique du sommet Lichtkeim: Stärke der Anthocyanfärbung des Oberteils	1	very weak	très faible	sehr gering	Estima	1
			weak	faible	gering	Maris Piper	3
			medium	moyenne	mittel	Désirée	5
			strong	forte	stark	Maris Peer	7
			very strong	très forte	sehr stark	Montana, Red Craig's Royal	9
9.	Lightsprout: pubescence of tip Germe: pilosité du sommet Lichtkeim: Behaarung des Oberteils	1	absent or very weak	nulle ou très faible	fehlend oder sehr gering	Maris Piper, Resident	1
			weak	faible	gering	Ulster Sceptre	3
			medium	moyenne	mittel	Bintje	5
			strong	forte	stark	Vanessa	7
			very strong	très forte	sehr stark	Alcmaria, Sientje	9
10.	Lightsprout: number of root tips Germe: nombre des radicelles Lichtkeim: Anzahl der Wurzelhöcker	1	few	petit	gering	Red Craigs Royal	3
			medium	moyen	mittel	Apollo	5
			many	grand	gross	Mentor, Ulster Premier	7
11.	Lightsprout: protrusion of lenticels Germe: protubérance des lenticelles Lichtkeim: Herausragen der Lentizellen	1	weak	faible	gering	Resonant	3
			medium	moyenne	mittel	Gloria	5
			strong	forte	stark	Tertus	7
12. (+)	Lightsprout: length of lateral shoots Germe: longueur des ramifications latérales Lichtkeim: Länge der Seitentriebe	1	short	courtes	kurz	Marlene, Record	3
			medium	moyennes	mittel	Kerr's Pink, Nicola	5
			long	longues	lang	Stella, Ulster Sceptre	7
13.	Plant: height Plante: hauteur Pflanze: Höhe	2	very short	très basse	sehr niedrig	Civa	1
			short	basse	niedrig	Arran Pilot	3
			medium	moyenne	mittel	Bintje, Désirée	5
			tall	haute	hoch	King Edward	7
			very tall	très haute	sehr hoch	Kerr's Pink	9

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	Characteristics Caractères Merkmale	Stage[1] Stade[1] Stadium[1]	English	français	deutsch	Example Varieties Exemples Beispielssorten	Note
14. (+)	Plant: type Plante: type Pflanze: Typ	2	stem-type	rameux	Stengeltyp	Baraka, Pentland Dell	1
			intermediate type	intermédiaire	Zwischentyp	Apollo, Désirée	2
			leaf-type	feuillu	Blattyp	Corine, Record	3
15. (+)	Plant: growth habit Plante: port Pflanze: Wuchsform	2	erect	dressé	aufrecht	Kerr's Pink, Radosa	3
			semi-erect	demi-dressé	halbaufrecht	Danae, King Edward	5
			spreading	étalé	breitwüchsig	Arran Banner, Delica	7
16.	Stem: thickness of main stem Tige: épaisseur de la tige principale Stengel: Dicke des Hauptstengels	2	thin	mince	dünn	Home Guard	3
			medium	moyenne	mittel	Désirée	5
			thick	épaisse	dick	Dunbar Standard, Thomana	7
(*)17.	Stem: extension of anthocyanin coloration Tige: extension de la pigmentation anthocyanique Stengel: Ausbreitung der Anthocyanfärbung	2	absent or very weak	nulle ou très faible	fehlend oder sehr gering	Famosa	1
			weak	faible	gering	Pentland Crown	3
			medium	moyenne	mittel	Bintje, Pentland Dell	5
			strong	forte	stark		7
			very strong	très forte	sehr stark	Arran Victory	9
18. (+)	Leaf: size Feuille: taille Blatt: Grösse	2	very small	très petite	sehr klein	Cara	1
			small	petite	klein	Allerfrüheste Gelbe, Kingston	3
			medium	moyenne	mittel	Majestic	5
			large	grande	gross	Kennebec, Manna	7
			very large	très grande	sehr gross	Up-to-Date	9
19. (+)	Leaf: silhouette Feuille: silhouette Blatt: Silhouette	2	closed	fermée	geschlossen	Record	3
			medium	moyenne	mittel	Armen, Majestic	5
			open	ouverte	offen	Arran Consul	7
20.	Leaf: intensity of green color Feuille: intensité de la couleur verte Blatt: Stärke der Grünfärbung	2	light	claire	hell	Birgit, Estima	3
			medium	moyenne	mittel	King Edward	5
			dark	foncée	dunkel	Claustar, Di Vernon	7

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	Characteristics Caractères Merkmale	Stage[1] Stade[1)] Stadium[1)]	English	français	deutsch	Example Varieties Exemples Beispielssorten	Note
21.	Leaf: extension of anthocyanin coloration of midrib Feuille: extension de la pigmentation anthocyanique sur la nervure mediane Blatt: Ausbreitung der Anthocyanfärbung der Mittelrippe	2	absent or very weak	nulle ou très faible	fehlend oder sehr gering	Famosa	1
			weak	faible	gering		3
			medium	moyenne	mittel	Bintje	5
			strong	forte	stark		7
			very strong	très forte	sehr stark		9
(*)22.	Leaflet: size Foliole: taille Fiederblatt: Grösse	2	very small	très petite	sehr klein	Fox	1
			small	petite	klein	Cara, Kerpondy	3
			medium	moyenne	mittel	Majestic	5
			large	grande	gross	Romano	7
			very large	très grande	sehr gross	Draga, Kennebec	9
23. (+)	Leaflet: width Foliole: largeur Fiederblatt: Breite	2	narrow	étroite	schmal	Arran Consul	3
			medium	moyenne	mittel	Majestic, Tertus	5
			broad	large	breit	Aniel, Romano	7
24. (+)	Leaflet: frequency of coalescence Foliole: fréquence de la coalescence Fiederblatt: Häufigkeit der Verwachsung	2	low	faible	gering	Alpha	3
			medium	moyenne	mittel	British Queen	5
			high	élevée	hoch	Claustar, Gloria	7
(*)25.	Leaflet: waviness of margin Foliole: ondulation du bord Fiederblatt: Randwellung	2	none or very weak	nulle ou très faible	fehlend oder sehr gering	Majestic	1
			weak	faible	gering	Arran Comet	3
			medium	moyenne	mittel	Aminca, Home Guard	5
			strong	forte	stark	Irene	7
			very strong	très forte	sehr stark	Juliver	9
26.	Leaflet: depth of veins Foliole: profondeur des nervures Fiederblatt: Tiefe der Adern	2	shallow	peu profonde	flach	Colmo, Home Guard	3
			medium	moyenne	mittel	Arren Banner, Hansa	5
			deep	profonde	tief	Bea	7

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	Characteristics Caractères Merkmale	Stage[1] Stade[1)] Stadium[1)]	English	français	deutsch	Example Varieties Exemples Beispielssorten	Note
27.	Leaflet: anthocyanin pigmentation of blade of young leaflets at apical rosette Foliole: pigmentation anthocyanique des folioles jeunes du limbe à la rosette apicale Fiederblatt: Anthocyanfärbung der Spreite junger Fiederblättchen an der Spitzenrosette	2	absent	absente	fehlend	Bintje, Estima	1
			present	présente	vorhanden	Romano, Taiga	9
28.	Leaflet: glossiness of the upperside Foliole: brillance de la face supérieure Fiederblatt: Glanz der Oberseite	2	dull	mâte	matt	Pentland Crown	3
			medium	moyenne	mittel	Désirée	5
			glossy	brillante	glänzend	BF 15, Catriona	7
29. (+)	Leaf (midrib): frequency of secondary leaflets Feuille (nervure médiane): fréquence des folioles secondaires Blatt (Mittelrippe): Häufigkeit von sekundären Fiederblättern	2	nil or very low	nulle ou très faible	fehlend oder sehr gering	Arren Pilot, Juliver	1
			low	faible	gering	Désirée	3
			medium	moyenne	mittel		5
			high	élevée	hoch	Home Guard	7
			very high	très élevée	sehr hoch	Sharpe's Express	9
30. (+)	Terminal leaflet: frequency of secondary leaflets Foliole terminale: fréquence des folioles secondaires Endfiederblatt: Häufigkeit von Doppelfiederblättern	2	nil or very low	nulle ou très faible	fehlend oder sehr gering	Arran Pilot, Univita	1
			low	faible	gering		3
			medium	moyenne	mittel	Bintje	5
			high	élevée	hoch	Etoile du Léon, Foxton	7
			very high	très élevée	sehr hoch	Danai	9
31. (+)	Lateral leaflet: frequency of secondary leaflets Foliole latérale: fréquence des folioles secondaires Seitenfiederblatt: Häufigkeit von Doppelfiederblättern	2	nil or very low	nulle ou très faible	fehlend oder sehr gering	Arran Pilot	1
			low	faible	gering	Eersteling, Foremost	3
			medium	moyenne	mittel	Prominent	5
			high	élevée	hoch	Cara, Doré	7
			very high	très élevée	sehr hoch		9

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	Characteristics Caractères Merkmale	Stage[1] Stade[1)] Stadium[1)]	English	français	deutsch	Example Varieties Exemples Beispielssorten	Note
32.	Lateral leaflet: size of secondary leaflet Foliole latérale: taille de la foliole secondaire Seitenfiederblatt: Grösse des Doppelfiederblatts	2	small	petite	klein	Cara, Stella	3
			medium	moyenne	mittel	Sharpe's Express	5
			large	grande	gross	Arren Banner, Doré	7
33.	Inflorescence: size Inflorescence: taille Blütenstand: Grösse	3	small	petite	klein	Estima	3
			medium	moyenne	mittel	Désirée	5
			large	grande	gross		7
34.	Inflorescence: anthocyanin coloration of peduncle Inflorescence: pigmentation anthocyanique du pédoncule Blütenstand: Anthocyanfärbung des Stieles	3	absent or very weak	nulle ou très faible	fehlend oder sehr gering	Estima	1
			weak	faible	gering	Pentland Ivory, Tasso	3
			medium	moyenne	mittel	Alcmaria	5
			strong	forte	stark	Maris Piper	7
			very strong	très forte	sehr stark		9
35.	Plant: frequency of flowers Plante: fréquence des fleurs Pflanze: Häufigkeit von Blüten	3	nil or very low	nulle ou très faible	fehlend oder sehr gering	King Edward, Stella	1
			low	faible	gering	Eersteling	3
			medium	moyenne	mittel	Home Guard	5
			high	élevée	hoch	Kerpondy, Keer's Pink	7
			very high	très élevée	sehr hoch	Maris Piper	9
36.	Flower: anthocyanin coloration of bud Fleur: pigmentation anthocyanique du bouton Blüte: Anthocyanfärbung der Knospe	3	absent or very weak	nulle ou très faible	fehlend oder sehr gering	Famosa, Pentland Ivory	1
			weak	faible	gering	Dani, Dunbar Rover	3
			medium	moyenne	mittel	Maris Piper	5
			strong	forte	stark		7
			very strong	très forte	sehr stark	British Queen	9
37.	Flower corolla: size Corolle de la fleur: taille Blütenkrone: Grösse	3	very small	très petite	sehr klein	Cosima	1
			small	petite	klein	Pentland Javelin	3
			medium	moyenne	mittel	Arran Comet	5
			large	grande	gross		7
			very large	très grande	sehr gross		9

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	Characteristics Caractères Merkmale	Stage[1] Stade[1)] Stadium[1)]	English	français	deutsch	Example Varieties Exemples Beispielssorten	Note
(*)38.	Flower corolla: color of inner side	3	white	blanche	weiss	Bintje, Pentland Dell	1
	Corolle de la fleur: couleur de la face intérieure		red-violet	violet-rouge	rotviolett	Alpha, Maris Piper	2
	Blütenkrone: Farbe der Innenseite		blue-violet	violet-bleu	blauviolett	Alava, Exodus, Ragna	3
(*)39.	Flower corolla: intensity of anthocyanin coloration of inner side in colored flower	3	very weak	très faible	sehr gering		1
	Corolle de la fleur: intensité de la pigmentation anthocyanique de la face intérieure de la fleur colorée		weak	faible	gering	Désirée	3
	Blütenkrone: Stärke der Anthocyanfärbung der Innenseite der gefärbten Blüte		medium	moyenne	mittel	Up-to-Date	5
			strong	forte	stark	Cardinal, Maris Piper	7
			very strong	très forte	sehr stark	Pansta	9
(*)40.	Flower corolla: anthocyanin coloration of outer side in white flower	3	absent	absente	fehlend	Hansa, British Queen	1
	Corolle de la fleur: pigmentation anthocyanique de la face extérieure de la fleur blanche		present	présente	vorhanden	Claudia, Pentland Dell	9
	Blütenkrone: Anthocyanfärbung der Aussenseite der weissen Blüte						
41.	Flower corolla: size of white tips in colored flower	3	small	faible	klein	Exodus	3
	Corolle de la fleur: taille des pointes blanches dans la fleur colorée		medium	moyenne	mittel	Maris Piper, Pansta	5
	Blütenkrone: Grösse der weissen Spitzen in der gefärbten Blüte		large	grande	gross	Arren Comet, Radosa	7
42.	Plant: frequency of fruits	4	absent or very few	nulle ou très faible	fehlend oder sehr gering	Bintje, Pentland Crown	1
	Plante: fréquence des fruits		few	faible	gering	Amigo	3
	Pflanze: Häufigkeit von Beeren		medium	moyenne	mittel	Arka	5
			many	forte	stark	Pentland Dell	7
			very many	très forte	sehr stark	Dr. McIntosh, Posmo	9

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	Characteristics Caractères Merkmale	Stage[1)] Stade[1)] Stadium[1)]	English	français	deutsch	Example Varieties Exemples Beispielssorten	Note
43.	Plant: time of maturity Plante: époque de la maturité Pflanze: Zeitpunkt der Reife	4	very early	très précoce	sehr früh	Eersteling	1
			early	précoce	früh	Home Guard, Sirtema	3
			medium	moyenne	mittel	Bintje, Maris Piper	5
			late	tardive	spät	Alpha, Pentland Crown	7
			very late	très tardive	sehr spät	Cara	9
(*)44. (+)	Tuber: shape Tubercule: forme Knolle: Form	5	round	arrondie	rund		1
			short-oval	oblongue courte	rundoval		2
			oval	oblongue	oval		3
			long-oval	oblongue allongée	langoval		4
			long	allongée	lang		5
			very long	très allongée	sehr lang		6
45.	Tuber: depth of eyes Tubercule: profondeur des yeux Knolle: Augentiefe	5	very shallow	très peu profonde	sehr flach	Bea, Pentland Dell	1
			shallow	peu profonde	flach	Pentland Crown	3
			medium	moyenne	mittel	Kerr's Pink, Sirtema	5
			deep	profonde	tief	Epicure	7
			very deep	très profonde	sehr tief	Krostar	9
46.	Tuber: smoothness of skin Tubercule: aspect de la peau Knolle: Glattheit der Schale	5	smooth	lisse	glatt	Manna, Pentland Ivory	3
			medium	moyenne	mittel	Record	5
			rough	rugueuse	rauh	Golden Wonder	7
(*)47.	Tuber: color of skin Tubercule: couleur de la peau Knolle: Farbe der Schale	5	yellow	jaune	gelb	Bintje	1
			red	rouge	rot	Désirée	2
			blue	violette	blau	Arran Victory, Edzell Blue	3
			red parti-colored	panachée rouge	rot gescheckt	King Edward	4
			blue parti-colored	panachée bleue	blau gescheckt	Catriona	5

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	Characteristics Caractères Merkmale	Stage[1)] Stade[1)] Stadium[1)]	English	français	deutsch	Example Varieties Exemples Beispielssorten	Note
48.	Tuber: color of base of eye Tubercule: coloration de la base de l'oeil Knolle: Farbe des Augengrundes	5	yellow	jaune	gelb	Sirtema	1
			red	rouge	rot	Cara, Pinki	2
			blue	violette	blau	Catriona	3
(*)49.	Tuber: color of flesh Tubercule: couleur de la chair Knolle: Farbe des Fleisches	5	white	blanche	weiss	Arran Banner, Pentland Javelin	1
			cream	blanc jaunâtre	gelbweiss	Kerr's Pink, Romano	2
			light yellow	jaune pâle	hellgelb	Claustar	3
			yellow	jaune	gelb	Gloria, Record	4
			dark yellow	jaune foncé	dunkelgelb	Danae, Saturna	5
50. (+)	<u>Yellow skinned varities only</u>: Tuber: anthocyanin coloration of skin in reaction to light <u>Variétés à peau jaune seulement</u>: Tubercule: pigmentation anthocyanique de la peau en réaction à la lumière <u>Nur gelbschalige Sorten</u>: Knolle: Anthocyanfärbung der Schale nach Lichteinfluss	5	absent or very weak	nulle ou très faible	fehlend oder sehr gering		1
			weak	faible	gering	Corine, Pentland Ivory	3
			medium	moyenne	mittel	Pentland Dell	5
			strong	forte	stark	Record, Sieglinde	7
			very strong	très forte	sehr stark		9

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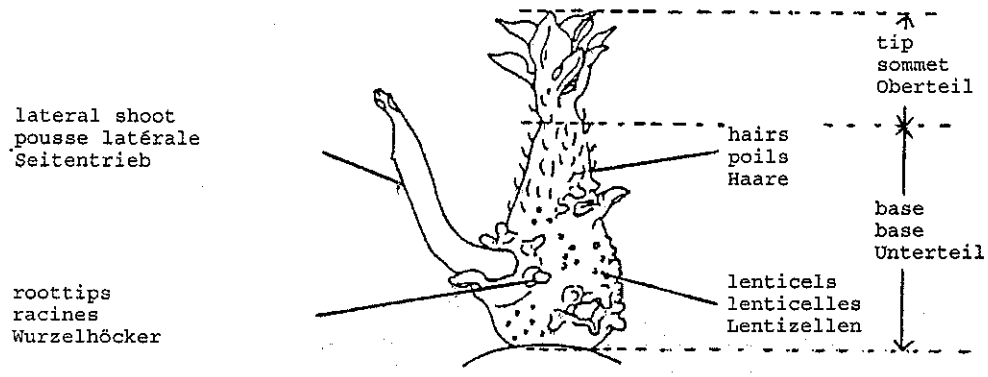
VIII. Explanations on the Table of Characteristics/Explications du tableau des caractères/Erklärungen zu der Merkmalstabelle

Ad/Add./Zu 1 -12

Lightsprout

Germe

Lichtkeim



The spectrum of the light source is the most determining factor for the expression of characteristics of lightsprouts. This spectrum is unambiguously defined by the type of lamps and the voltage used. When extremes are avoided the influence of the temperature on the speed of development is small. A good expression of characteristics is obtained with lightsprouts growing in a cabinet at room temperature under exclusion of day light and under continuous light of small incandescent bulbs (6V AC / 0.05 A, 8 pro square meter, 25-40 cm above the tubers).

Le spectre de la source de lumière est le facteur le plus déterminant pour l'expression des caractères des germes de tubercules. Ce spectre est défini sans ambiguïté par le type des ampoules et le voltage utilisé. Si des extrêmes sont évités, l'influence de la température sur la vitesse du développement est peu important. Une bonne extériorisation des caractères est obtenue avec des germes de tubercules croissant dans une armoire à température ambiante, la lumière de jour exclue, sous lumière continue de petites ampoules incandescentes (6V / 0.05 A), à raison de 8 au mètre carré, placées à 25-40 cm au dessus des tubercules.

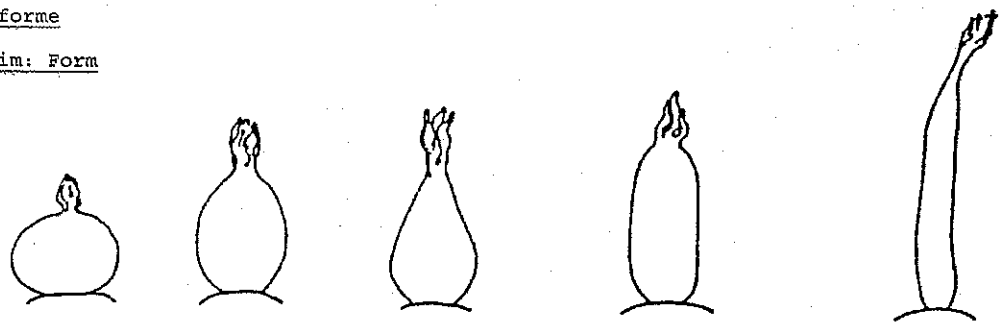
Das Spektrum der Lichtquelle ist der wichtigste Faktor für die Merkmalsausprägung der Lichtkeime. Dieses Spektrum ist unzweideutig definiert durch den Typ der Lampen und die verwendete Voltzahl. Wenn Extreme vermieden werden, ist der Einfluß der Temperatur auf die Entwicklungsgeschwindigkeit gering. Eine gute Merkmalsausprägung wird mit Lichtkeimen erreicht, die bei Zimmertemperatur in einem Schrank unter Ausschluß des Tageslichts und mit Dauerlicht von kleinen Glühlampen wachsen (6 V AC / 0.05 A, 8 pro Quadratmeter, 25-40 cm über den Knollen).

Ad/Add./Zu 2

Lightsprout: shape

Germe: forme

Lichtkeim: Form



1	2	3	4	5
spherical sphérique kugelförmig	ovoid ovoïde eiförmig	conical conique kegelförmig	broad cylindrical cylindrique large breit zylindrisch	narrow cylindrical cylindrique étroite schmal zylindrisch

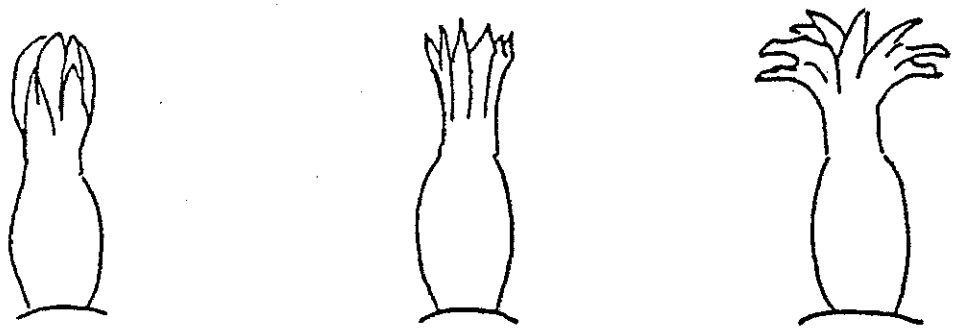
#200200116

Ad/Add./Zu 7

Lightsprout: habit of tip

Germe: aspect du sommet

Lichtkeim: Form des Oberteils



3	5	7
closed fermé geschlossen	medium moyen mittel	open ouvert offen

Ad/Add./Zu 12

Lightsprout: length of lateral shoots

Germe: longueur des ramifications latérales

Lichtkeim: Länge der Seitentriebe

3	5	7
short courtes kurz	medium moyennes mittel	long longues lang

Ad/Add./Zu 14

Plant: type

Plante: type

Pflanze: Typ

Stem-type: foliage open, stems clearly visible
Intermediate: foliage half open, stems partly visible
Leaf-type: foliage closed, stems not or hardly visible

Rameux: feuillage ouvert, tiges clairement visibles
Intermédiaire: feuillage demi-ouvert, tiges partiellement visibles
Feuillu: feuillage fermé, tiges pas ou très peu visibles

Stengeltyp: Laub offen, Stengel deutlich sichtbar
Zwischentyp: Laub halboffen, Stengel teilweise sichtbar
Blattyp: Laub geschlossen, Stengel nicht oder kaum sichtbar

42

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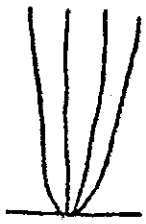
Ad/Add./Zu 15

Plant: growth habit

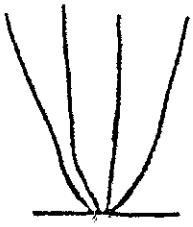
Plante: port

Pflanze: Wuchsform



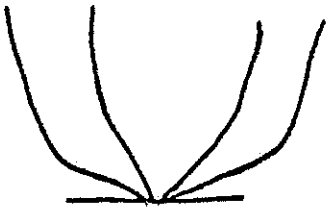
3

erect
dressé
aufrecht



5

semi-erect
demi-dressé
halbaufrecht



7

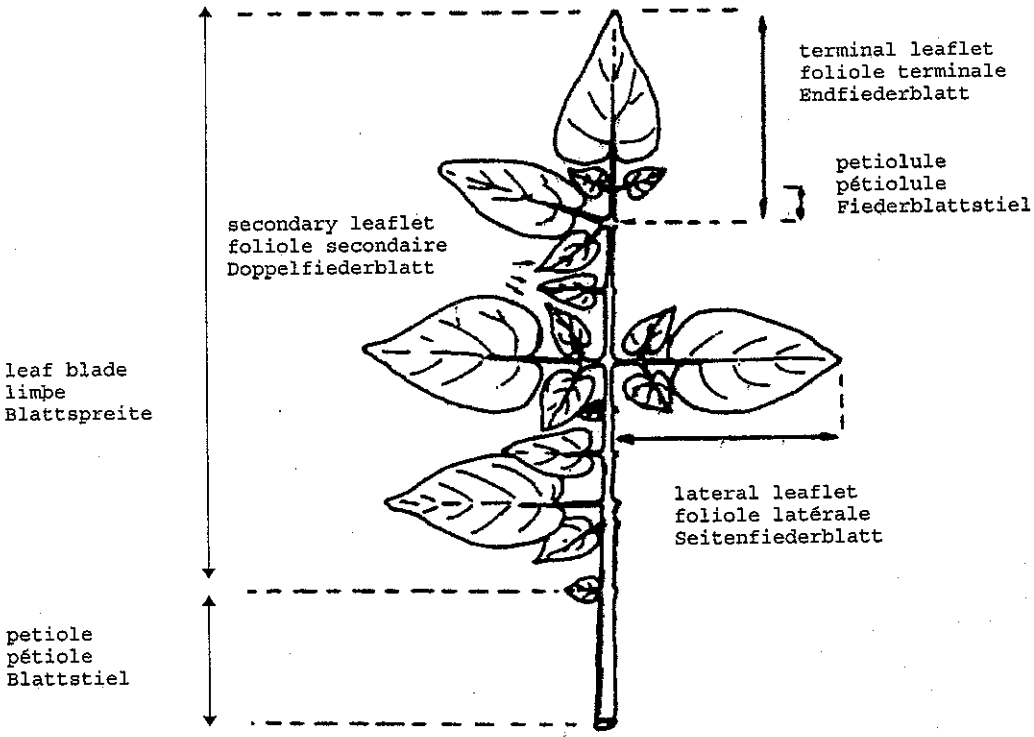
spreading
étalé
breitwüchsig

Ad/Add./Zu 18 - 32

Leaf

Feuille

Blatt



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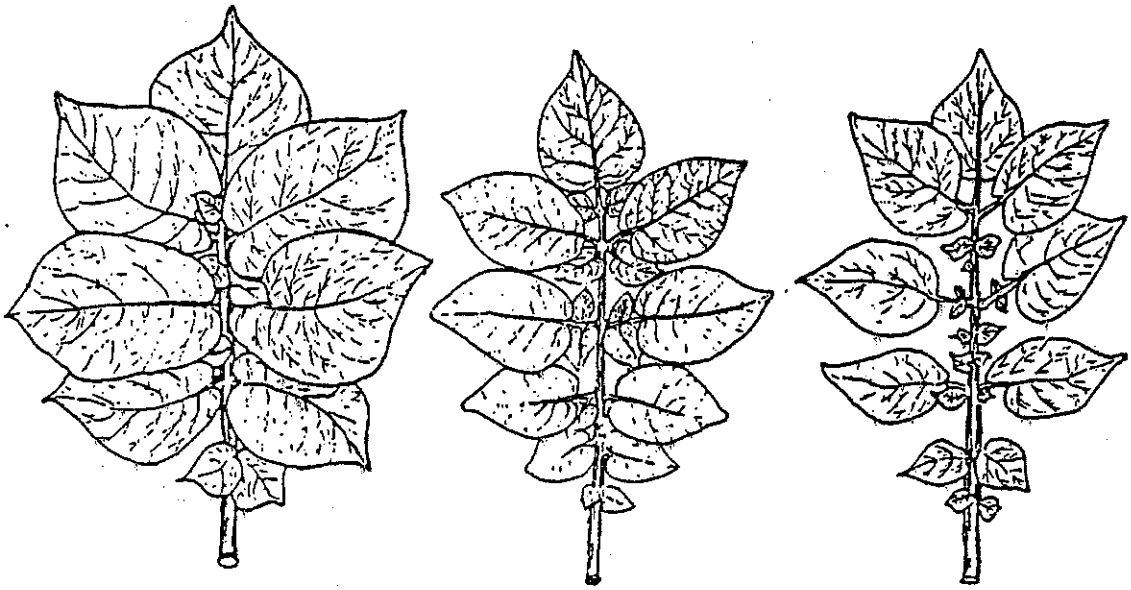
Ad/Add./Zu 19

Leaf: silhouette

Feuille: silhouette

Blatt: Silhouette



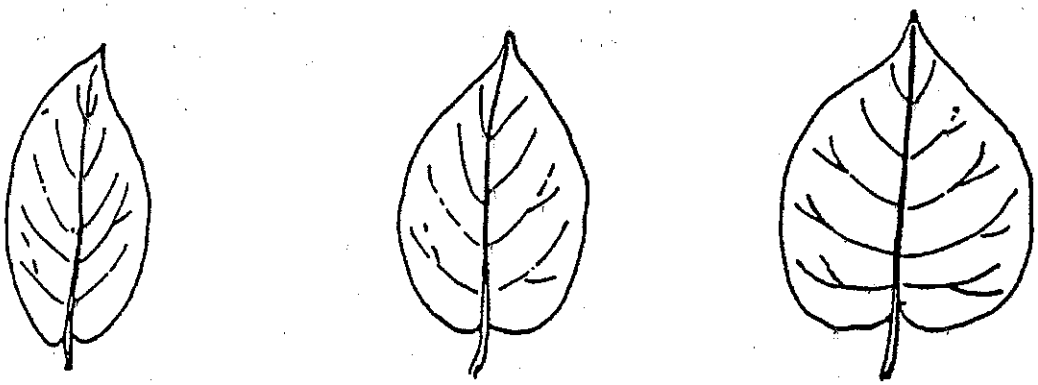
3	5	7
closed fermée geschlossen	medium moyenne mittel	open ouverte offen

Ad/Add./Zu 23

Leaflet: width

Foliole: largeur

Fiederblatt: Breite



3	5	7
narrow étroite schmal	medium moyenne mittel	broad large breit

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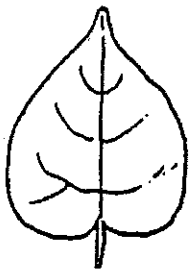
#200200116

Ad/Add./Zu 24

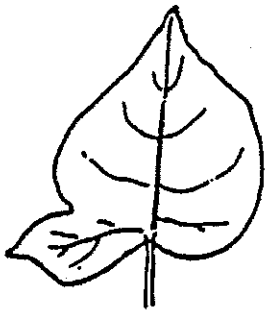
Leaflet: frequency of coalescence

Foliole: fréquence de la coalescence

Fiederblatt: Häufigkeit der Verwachsung



coalescence absent
coalescence absente
Verwachsung fehlend



coalescence
coalescence
Verwachsung

Ad/Add./Zu 44

Tuber: shape (100 x length/width)

Tubercule: forme (100 x longueur/largeur)

Knolle: Form (100 x Länge/Breite)

1	round/arrondie/rund	≤ 109
2	short-oval/oblongue courte/rundoval	110 - 129
3	oval/oblongue/oval	130 - 149
4	long-oval/oblongue allongée/langoval	150 - 196
5	long/allongée/lang	170 - 199
6	very long/très allongée/sehr lang	≥ 200

Ad/Add./Zu 50

Yellow skinned varieties only:
Tuber: anthocyanin coloration of skin in reaction to light

Variétés à peau jaune seulement:
Tubercule: pigmentation anthocyanique de la peau en réaction à la lumière

Nur gelbschalige Sorten:
Knolle: Anthocyanfärbung der Schale nach Lichteinfluss

The anthocyanin development in the skin of yellow skinned varieties should be assessed after 10 days of exposure to full daylight or after 150 hours of exposure to artificial light.

Le développement de la pigmentation anthocyanique dans la peau des variétés à peau jaune doit être observé après 10 jours d'exposition à la lumière naturelle ou après 150 heures d'exposition à la lumière artificielle.

Die Anthocyanentwicklung in der Schale der gelbschaligen Sorten sollte nach 10 Tagen unter Tageslicht oder nach 150 Stunden unter Kunstlicht erfaßt werden.

#200200116

OPTIMAL STAGE OF ASSESSMENT OF CHARACTERISTICS

STADE OPTIMAL D'OBSERVATION DES CARACTERES

OPTIMALES STADIUM DER MERKMALSERFASSUNG

1 = about 12 weeks after starting (in December [Northern Hemisphere])
environ 12 semaines après le début du développement (en décembre [hémisphère nord])
etwa 12 Wochen nach dem Ansetzen (im Dezember [Nördliche Hemisphäre])

2 = bud stage
stade bouton
Knospenstadium

3 = flowering stage
floraison
Blühstadium

4 = ripening stage
maturité
Reifestadium

5 = after harvest
après récolte
nach der Ernte

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#200200116

IX. Literature/Littérature/Literatur

International Board for Plant Genetic Resources (IBPGR), 1977: "Descriptors for the Cultivated Potato," IBPGR/77/32, Rome, Italy

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FORM APPROVED - OMB NO. 0581-0055

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
Saka-Ragis Pflanzenzucht GbR	89-032-3	ASTORIA

4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)	5. TELEPHONE (include area code)	6. FAX (include area code)
Pickhuben 2 D-20457 Hamburg Federal Republic of Germany	++49-40-414240-0	--49-40-417716
	7. PVPO NUMBER #200200116	

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? [ ] YES [X] NO
If no, give name of country Federal Republic of Germany

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

Breeding work was conducted by a team of various employees and within the facilities of Saka-Ragis in Germany. Saka-Ragis owns all rights to the variety.

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.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call 1-800-245-6340 (voice) or

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ille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

Ie a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TI
VA is an equal opportunity provider and employer.

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

EXHIBIT F
DECLARATION REGARDING DEPOSIT

ME OF OWNER (S)	ADDRESS *(Street and No. or RD No., City, State, and Zip Code and Country)*	TEMPORARY OR EXPERIMENTAL DESIGNATION
Saka Ragis Pflanzenzucht GBR	803, Nadina Dr., Weston Fl 33327	VARIETY NAME Astoria
ME OF OWNER REPRESENTATIVE (S)	ADDRESS *(Street and No. or RD No., City, State, and Zip Code and Country)*	FOR OFFICIAL USE ONLY
John Thomas Duesing	803, Nadina Dr., Weston Fl 33327	PVPO NUMBER 2002 00116

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.

SAKA-RAGIS
PFLANZENZUCHT GBR

Signature

Hamburg, June 30, 2006
Date