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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

AVOCADO ROOTSTOCKS *

UPOV Code: PERSEA

Persea Mill.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by experts from Mexico

to be considered by the

Technical Working Party for Fruit Crops
at its forty-fifth session, to be held in Marrakesh, Morocco, from May 26 to 30, 2014

Disclaimer: this document does not represent UPOV policies or guidance

Alternative Names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Persea Mill.	Avocado Rootstocks	Porte-greffe de avocatier	Avocado-Unterlagen	Portainjertos de aguacate, portainjertos de palta

The purpose of these guidelines ("Test Guidelines") is to elaborate the principles contained in the General Introduction (document TG/1/3), and its associated TGP documents, into detailed practical guidance for the harmonized examination of distinctness, uniformity and stability (DUS) and, in particular, to identify appropriate characteristics for the examination of DUS and production of harmonized variety descriptions.

ASSOCIATED DOCUMENTS

These Test Guidelines should be read in conjunction with the General Introduction and its associated TGP documents.

* These names were correct at the time of the introduction of these Test Guidelines but may be revised or updated. [Readers are advised to consult the UPOV Code, which can be found on the UPOV Website (www.upov.int), for the latest information.]

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1. Subject of these Test Guidelines

1.1 These Test Guidelines apply to all varieties used as rootstocks of all species of *Persea*.

1.2 If characteristics of the flower, the fruit or the seed are necessary to examine the varieties, the Test Guidelines for Avocado (TG/97/4) should be used for those characteristics, as appropriate.

2. Material Required

2.1 The competent authorities decide on the quantity and quality of the plant material required for testing the variety and when and where it is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must ensure that all customs formalities and phytosanitary requirements are complied with.

2.2 The material is to be supplied in the form of vegetatively propagated trees on their own roots.

2.3 The minimum quantity of plant material, to be supplied by the applicant, should be:

5 vegetatively propagated trees.

2.4 The plant material supplied should be visibly healthy, not lacking in vigor, nor affected by any important pest or disease.

2.5 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

3. Method of Examination

3.1 Number of Growing Cycles

The minimum duration of tests should normally be one growing cycle.

3.2 Testing Place

Tests are normally conducted at one place. In the case of tests conducted at more than one place, guidance is provided in TGP/9 “Examining Distinctness”.

3.3 Conditions for Conducting the Examination

The tests should be carried out under conditions ensuring satisfactory growth for the expression of the relevant characteristics of the variety and for the conduct of the examination.

3.4 Test Design

Each test should be designed to result in a total of at least 5 trees.

3.5 Additional Tests

Additional tests, for examining relevant characteristics, may be established.

4. Assessment of Distinctness, Uniformity and Stability

4.1 Distinctness

4.1.1 General Recommendations

It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding distinctness. However, the following points are provided for elaboration or emphasis in these Test Guidelines.

4.1.2 Consistent Differences

The differences observed between varieties may be so clear that more than one growing cycle is not necessary. In addition, in some circumstances, the influence of the environment is not such that more than a single growing cycle is required to provide assurance that the differences observed between varieties are sufficiently consistent. One means of ensuring that a difference in a characteristic, observed in a growing trial, is sufficiently consistent is to examine the characteristic in one growing cycle.

4.1.3 Clear Differences

Determining whether a difference between two varieties is clear depends on many factors, and should consider, in particular, the type of expression of the characteristic being examined, i.e. whether it is expressed in a qualitative, quantitative, or pseudo-qualitative manner. Therefore, it is important that users of these Test Guidelines are familiar with the recommendations contained in the General Introduction prior to making decisions regarding distinctness.

4.1.4 Number of Plants / Parts of Plants to be Examined

4.1.4.1 In the case of vegetatively propagated trees, unless otherwise indicated, for the purposes of distinctness, all observations on single trees should be made on 5 trees or parts taken from each of 5 trees and any other observations made on all trees in the test, disregarding any off-type trees.

4.1.5 Method of Observation

The recommended method of observing the characteristic for the purposes of distinctness is indicated by the following key in the second column of the Table of Characteristics (see document TGP/9 “Examining Distinctness”, Section 4 “Observation of characteristics”):

MG: single measurement of a group of plants or parts of plants
MS: measurement of a number of individual plants or parts of plants
VG: visual assessment by a single observation of a group of plants or parts of plants
VS: visual assessment by observation of individual plants or parts of plants

Type of observation: visual (V) or measurement (M)

“Visual” observation (V) is an observation made on the basis of the expert’s judgment. For the purposes of this document, “visual” observation refers to the sensory observations of the experts and, therefore, also includes smell, taste and touch. Visual observation includes observations where the expert uses reference points (e.g. diagrams, example varieties, side-by-side comparison) or non-linear charts (e.g. color charts). Measurement (M) is an objective observation against a calibrated, linear scale e.g. using a ruler, weighing scales, colorimeter, dates, counts, etc.

Type of record: for a group of plants (G) or for single, individual plants (S)

For the purposes of distinctness, observations may be recorded as a single record for a group of plants or parts of plants (G), or may be recorded as records for a number of single, individual plants or parts of plants (S). In most cases, “G” provides a single record per variety and it is not possible or necessary to apply statistical methods in a plant-by-plant analysis for the assessment of distinctness.

In cases where more than one method of observing the characteristic is indicated in the Table of Characteristics (e.g. VG/MG), guidance on selecting an appropriate method is provided in document TGP/9, Section 4.2.

4.2 Uniformity

4.2.1 It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding uniformity. However, the following points are provided for elaboration or emphasis in these Test Guidelines:

4.2.2 For the assessment of uniformity, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 5 plants, no off-type is allowed.

4.3 Stability

4.3.1 In practice, it is not usual to perform tests of stability that produce results as certain as those of the testing of distinctness and uniformity. However, experience has demonstrated that, for many types of variety, when a variety has been shown to be uniform, it can also be considered to be stable.

4.3.2 Where appropriate, or in cases of doubt, stability may be further examined by testing a new plant stock to ensure that it exhibits the same characteristics as those shown by the initial material supplied.

5. Grouping of Varieties and Organization of the Growing Trial

5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness are aided by the use of grouping characteristics.

5.2 Grouping characteristics are those in which the documented states of expression, even where produced at different locations, can be used, either individually or in combination with other such characteristics: (a) to select varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness; and (b) to organize the growing trial so that similar varieties are grouped together.

5.3 The following have been agreed as useful grouping characteristics:

(a) Plant: vigor (characteristic 1)
(b) Shoot: length of internode (characteristic 5)
(c) Shoot: pubescence of apex vegetative bud (characteristic 14)
(d) Young leaf: color (characteristic 18)
(e) Leaf blade: length (characteristic 20)
(f) Leaf blade: pubescence of lower surface of principal vein (characteristic 32)

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction and document TGP/9 “Examining Distinctness”.

6. Introduction to the Table of Characteristics

6.1 Categories of Characteristics

6.1.1 Standard Test Guidelines Characteristics

Standard Test Guidelines characteristics are those which are approved by UPOV for examination of DUS and from which members of the Union can select those suitable for their particular circumstances.

6.1.2 Asterisked Characteristics

Asterisked characteristics (denoted by *) are those included in the Test Guidelines which are important for the international harmonization of variety descriptions and should always be examined for DUS

and included in the variety description by all members of the Union, except when the state of expression of a preceding characteristic or regional environmental conditions render this inappropriate.

6.2 States of Expression and Corresponding Notes

6.2.1 States of expression are given for each characteristic to define the characteristic and to harmonize descriptions. Each state of expression is allocated a corresponding numerical note for ease of recording of data and for the production and exchange of the description.

6.2.2 In the case of qualitative and pseudo-qualitative characteristics (see Chapter 6.3), all relevant states of expression are presented in the characteristic. However, in the case of quantitative characteristics with 5 or more states, an abbreviated scale may be used to minimize the size of the Table of Characteristics. For example, in the case of a quantitative characteristic with 9 states, the presentation of states of expression in the Test Guidelines may be abbreviated as follows:

State	Note
small	3
medium	5
large	7

However, it should be noted that all of the following 9 states of expression exist to describe varieties and should be used as appropriate:

State	Note
very small	1
very small to small	2
small	3
small to medium	4
medium	5
medium to large	6
large	7
large to very large	8
very large	9

6.2.3 Further explanation of the presentation of states of expression and notes is provided in document TGP/7 “Development of Test Guidelines”.

6.3 Types of Expression

An explanation of the types of expression of characteristics (qualitative, quantitative and pseudo-qualitative) is provided in the General Introduction.

6.4 Example Varieties

Where appropriate, example varieties are provided to clarify the states of expression of each characteristic (see explanations on the example varieties under Chapter 8.3).

6.5 Legend

(*) Asterisked characteristic – see Chapter 6.1.2

QL Qualitative characteristic – see Chapter 6.3
QN Quantitative characteristic – see Chapter 6.3
PQ Pseudo-qualitative characteristic – see Chapter 6.3

MG, MS, VG, VS – see Chapter 4.1.5

(a)-(c) See Explanations on the Table of Characteristics in Chapter 8.1
(+) See Explanations on the Table of Characteristics in Chapter 8.2.

7. Table of Characteristics/Tableau des caractères/Merkmalstabelle/Tabla de caracteres

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. **(*)** **(+)**	**VG**	**Plant: vigor**					
QN		weak					1
		medium				Merensky 2	3
		strong				G 755c	5
2. **(*)** **(+)**	**VG**	**Plant: habit**					
QN		upright				Bounty	1
		spreading				Merensky 2	3
		drooping					5
3.	**VG**	**Plant: branching**					
QN		weak					1
		medium					3
		strong					5
4.	**VG**	**Shoot: thickness**					
QN	**(a)**	thin					1
		medium					3
		thick				G 755c	5
5. **(*)**	**VG/** **MS**	**Shoot: length of internode**					
QN	**(a)**	short					1
		medium				Merensky 2	3
		long					5
6.	**VG**	**Shoot: pubescence**					
(+)							
QL	**(a)**	absent					1
	(c)	present					9
7.	**VG**	**Shoot: number of lenticels**					
QN	**(a)**	few					1
		medium					2
		many					3
8.	**VG**	**Shoot: color of lenticels**					
QL	**(a)**	yellow					1
		green				G-22	2
		red				Bounty, Duke 6	3
		purple				Merensky 2	4

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
9. **(*)** **(+)**	**VG**	**Shoot: position of vegetative lateral bud in relation to shoot**					
QN	**(a)**	adpressed					1
		slightly held out					2
		markedly held out					3
10.	**VG**	**Shoot: size of lateral vegetative bud**					
QN	**(a)**	small					1
		medium					3
		large					5
11. **(+)**	**VG**	**Shoot: shape of lateral vegetative bud**					
PQ	**(a)**	acute					1
		obtuse					2
		rounded					3
12. **(+)**	**VG**	**Shoot: size of apex vegetative bud**					
QN	**(a)**	small					1
		medium					2
		large					3
13. **(+)**	**VG**	**Shoot: shape of apex vegetative bud**					
PQ	**(a)**	acute					1
		obtuse					2
		rounded					3
14. **(*)** **(+)**	**VG**	**Shoot: pubescence of apex vegetative bud**					
QN	**(a)**	absent or very weak					1
	(c)	medium					3
		very strong					5
15.	**VG**	**Shoot: feathering**					
QN		weak					1
		medium					3
		strong					5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
16. **(*)** **(+)**	**VG**	**Young shoot: anthocyanin coloration of stem apex**					
QN	**(b)**	absent or very weak					1
		medium					3
		very strong					5
17.	**VG**	**Young leaf: coloration of pubescence of petiole**					
PQ	**(b)**	white				Bounty	1
	(c)	yellow				Duke 6, Merensky 2	2
		brown					3
		red brown					4
18. **(*)**	**VG**	**Young leaf: color**					
PQ	**(b)**	yellow green					1
		green				G-22	2
		reddish				Duke 6	3
19.	**VG/ MS**	**Leaf: attitude relative to shoot**					
QN	**(a)**	upwards				Duke 7, G-6	1
		outwards				Bounty, Merensky 2	2
		downwards					3
20. **(*)**	**VG/ MS**	**Leaf blade: length**					
QN	**(a)**	short				Duke 7	3
		medium				Merensky 2	5
		long					7
21.	**VG/ MS**	**Leaf blade: width**					
QN	**(a)**	very narrow				Duke 7	1
		narrow				Thomas	3
		medium				Merensky 2	5
		broad				Bounty	7
		very broad				G 755c	9
22. **(+)**	**VG/ MS**	**Leaf blade: ratio length/width**					
QN	**(a)**	small				G 755c	3
		medium				Merensky 2	5
		large					7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
23. **(*)** **(+)**	**VG**	**Leaf blade: shape**					
PQ	**(a)**	lanceolate				Filtro 7	1
		ovate				G 755c	2
		narrow elliptic				Thomas	3
		medium elliptic				Merensky 2	4
		circular					5
		obovate				Velvick	6
24. **(+)**	**VG**	**Leaf blade: shape of apex**					
QN	**(a)**	acuminate				Day, Velvick	1
		acute				Duke 7, G 755c, Thomas	2
		rounded					3
25. **(*)** **(+)**	**VG**	**Leaf blade: length of tip**					
QN	**(a)**	very short					1
		short					2
		medium					3
		long					4
26. **(+)**	**VG**	**Leaf blade: shape of base**					
PQ	**(a)**	acute				Duke 7, Thomas, Velvick	1
		obtuse				Filtro 7	2
		rounded				G 755c	3
		truncate					4
27. **(*)** **(+)**	**VG**	**Leaf blade: twisting along whole length**					
QL	**(a)**	absent				Duke 7, Thomas	1
		present					9
28. **(+)**	**VG**	**Leaf blade: twisting of tip**					
QL	**(a)**	absent				Duke 7, Thomas	1
		present				Bounty	9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
29. **(+)**	**VG**	**Leaf blade: undulation of margin**					
QN	**(a)**	absent or very weak				Duke 7, Thomas	1
		weak					3
		medium					5
		strong				Filtro 7	7
		very strong					9
30.	**VG**	**Leaf blade: relief of venation on upper side**					
QN	**(a)**	sunken				ComCar, G 755c	1
		level				Duke 7, Merensky 2	2
		raised				Merensky 2	3
31. **(*)**	**VG**	**Leaf blade: number of secondary veins**					
QN	**(a)**	few				Velvick	1
		intermediate				Duke 7, Thomas	2
		many				ComCar, G 755c	4
32. **(*)**	**VG**	**Leaf blade: pubescence of lower surface of principal vein**					
QN	**(a)**	absent or sparse				Day	1
	(c)	medium				G 755c, Velvick	2
		dense				Thomas	3
33. **(*)**	**VG**	**Leaf blade: anise aroma**					
QN	**(a)**	absent or weak				Day	1
		medium				Duke 7, Merensky 2	2
		dense				Thomas	3
34. **(*)**	**VG/** **MS**	**Petiole: length**					
QN	**(a)**	short				Duke 7, Merensky 2	3
		medium				Bounty, G 755c	5
		long					7
35. **(*)**	**VG**	**Petiole: pubescence on upper side**					
QN	**(a)**	absent or very sparse				Day	1
	(c)	sparse				Duke 7	2
		dense				Thomas	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
36.	**VG**	**Petiole: upper surface**					
(+)							
QN	**(a)**	shallow					1
	(c)	medium				Day	2
		deep				Velvick	3
37.	**VG/ MS**	**Petiole: general shape in cross section**					
(+)							
PQ	**(a)**	oblate					1
	(c)	circular				Duke 7	2
		elliptic				ComCar	3
38.	**VG/ MS**	**Leaf blade: length relative to petiole length**					
QN	**(a)**	short					1
		medium				Duke 7	3
		long					5

8. Explanations on the Table of Characteristics

8.1 Explanations covering several characteristics

Characteristics containing the following key in the second column of the Table of Characteristics should be examined as indicated below:

(a) Shoot / leaf: Unless otherwise indicated, observations on mature leaves and shoots should be made on from branches or stem which are not showing signs of new flush on the outside of the tree. They should be made in the middle third of the last current season's growth and close to next budbreak.

(b) Young shoot / Young leaf: Observations on the young shoot and young leaf should be made on the current season's growth, during a period of active growth (flush).

(c) Pubescence and transverse section of petiole: Observations on pubescence and transverse section of petiole should be made with the aid of a magnifying glass.

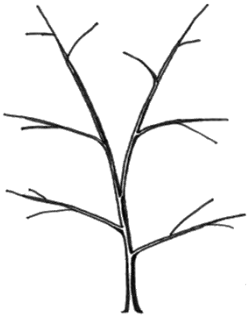
8.2 Explanations for individual characteristics

Ad. 1: Plant: vigor

The vigor of the plant should be considered as the overall abundance of vegetative growth.

Ad. 2: Plant: habit

1
upright



3
spreading

5
drooping

Ad. 6: Shoot: pubescence

Should be assessed at the upper third of the shoot.

Ad. 9: Shoot: position of vegetative bud in relation to shoot

1
adpressed

2
slightly held out

3
markedly held out

Ad. 11: Shoot: shape of lateral vegetative bud

1
acute

2
obtuse

3
rounded

Ad. 12: Shoot: size of apex vegetative bud
Ad. 13: Shoot: shape of apex vegetative bud
Ad. 14: Shoot: pubescence of apex vegetative bud

Should be assessed at the upper third of the shoot.

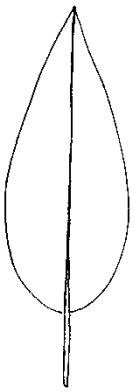
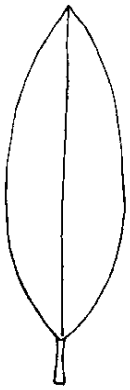
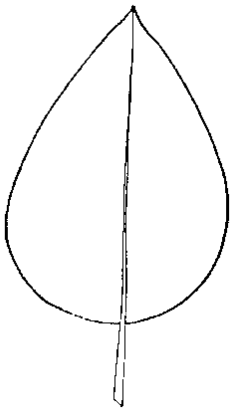
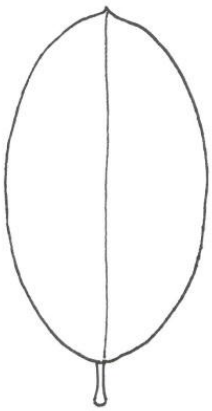
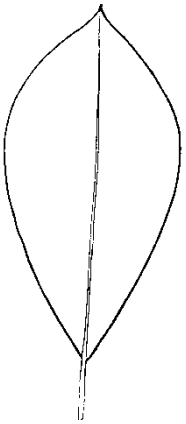
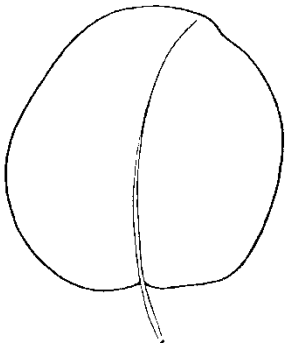
Ad. 15: Shoot: feathering

Feathering is the presence of secondary shoots on current year shoots.

Ad. 16: Young shoot: anthocyanin coloration of stem apex

Should be assessed upper third of the shoot and without considering the color of lenticels of the stem.

Ad. 22: Leaf blade: ratio length/width
Ad. 23: Leaf blade: shape

width (ratio length/width) ↓ broad (low) ↑ narrow (high)	← broadest part →		
	(below middle)	at middle	(above middle)
	 1 lanceolate	 3 narrow elliptic	
	 2 ovate	 4 medium elliptic	 6 obobate
		 5 circular	

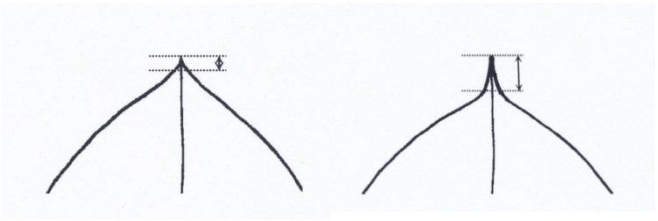
Ad. 24: Leaf blade: shape of apex

1
acuminate

2
acute

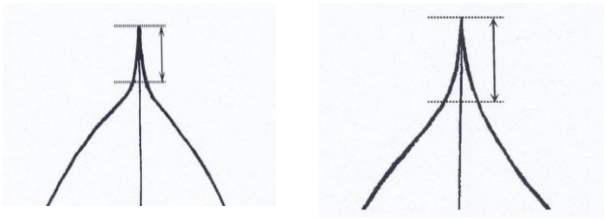
3
rounded

Ad. 25: Leaf blade: length of tip



1
very short

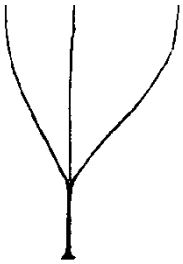
2
short



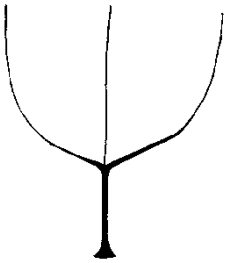
3
medium

4
long

Ad. 26: Leaf blade: shape of base

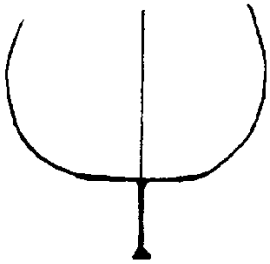


1
acute



2
obtuse

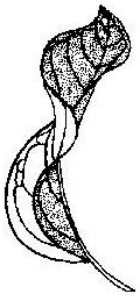
3
rounded



4
truncate

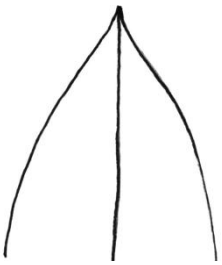
Ad. 27: Leaf blade: twisting along whole length

1
absent

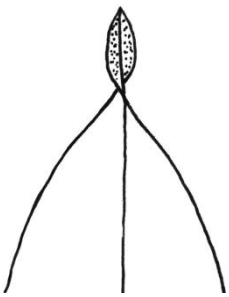


9
present

Ad. 28: Leaf blade: twisting of tip



1
absent



9
present

Ad. 29: Leaf blade: undulation of margin

1
absent or very weak

3
weak

5
medium

7
strong

9
very strong

Ad. 36: Petiole: upper surface

1
shallow

2
medium

3
deep

Ad. 37: Petiole: general shape in cross section

1
oblate

2
circular

3
elliptic

9. Literature

UPOV, 2006: Test guideline for avocado. UPOV. Geneva, Switzerland, 39 p.

10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:

	Application date: (not to be filled in by the applicant)

TECHNICAL QUESTIONNAIRE
to be completed in connection with an application for plant breeders' rights

1. Subject of the Technical Questionnaire

1.1	Genus	
1.2	Botanical name	*Persea americana* Mill.
1.3	Common name	Avocado Rootstock

2. Applicant

Name	
Address	
Telephone No.	
Fax No.	
E-mail address	
Breeder (if different from applicant)	

3. Proposed denomination and breeder's reference

Proposed denomination (if available)	
Breeder's reference	

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:

[#]4. Information on the breeding scheme and propagation of the variety

4.1 Breeding scheme

Variety resulting from:

4.1.1 Crossing

(a) controlled cross [ ]
(please state parent varieties)

(……..……..…) x (……..……..…)
female parent male parent

(b) partially known cross [ ]
(please state known parent variety(ies))

(……..……..…) x (……..……..…)
female parent male parent

(c) unknown cross [ ]

4.1.2 Mutation [ ]
(please state parent variety)

4.1.3 Discovery and development [ ]
(please state where and when discovered and how developed)

4.1.4 Other [ ]
(please provide details)

[#] Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:

4.2 Method of propagating the variety

4.2.1 Vegetative propagation

(a) cuttings [ ]

(b) etiolated layering [ ]

(c) other (state method) [ ]

4.2.2 Other [ ]”
(please provide details)

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:

5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the note which best corresponds).

	Characteristics	Example Varieties	Note
5.1 (1)	**Plant: vigor**		
	weak		1[ ]
	weak to medium		2[ ]
	medium	Merensky 2	3[ ]
	medium to strong		4[ ]
	strong	G755c	5[ ]
5.2 (5)	**Shoot: length of internode**		
	short		1[ ]
	short to medium		2[ ]
	medium	Merensky 2	3[ ]
	medium to long		4[ ]
	long		5[ ]
5.3 (14)	**Shoot: pubescence of apex vegetative bud**		
	absent or very weak		1[ ]
	weak		2[ ]
	medium		3[ ]
	strong		4[ ]
	very strong		5[ ]
5.4 (18)	**Young leaf: color**		
	yellow green		1[ ]
	green	G-22	2[ ]
	reddish	Duke 6	3[ ]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:

	Characteristics	Example Varieties	Note
5.5 (20)	**Leaf blade: length**		
	very short		1[ ]
	very short to short		2[ ]
	short	Duke 7	3[ ]
	short to medium		4[ ]
	medium	Merensky 2	5[ ]
	medium to long		6[ ]
	long		7[ ]
	long to very long		8[ ]
	very long		9[ ]
5.6 (32)	**Leaf blade: pubescence of lower surface of principal vein**		
	absent or sparse	Day	1[ ]
	medium	G755c,Velvick	2[ ]
	dense	Thomas	3[ ]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:

6. Similar varieties and differences from these varieties

Please use the following table and box for comments to provide information on how your candidate variety differs from the variety (or varieties) which, to the best of your knowledge, is (or are) most similar. This information may help the examination authority to conduct its examination of distinctness in a more efficient way.

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the **similar** variety(ies)	Describe the expression of the characteristic(s) for **your** candidate variety
Example	*Shoot: thickness*	*thin*	*thick*

Comments:

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:

[#]7. Additional information which may help in the examination of the variety

7.1 In addition to the information provided in sections 5 and 6, are there any additional characteristics which may help to distinguish the variety?

Yes [ ] No [ ]

(If yes, please provide details)

7.2 Are there any special conditions for growing the variety or conducting the examination?

Yes [ ] No [ ]

(If yes, please provide details)

7.3 Other information

A representative color image of the variety should accompany the Technical Questionnaire.

8. Authorization for release

(a) Does the variety require prior authorization for release under legislation concerning the protection of the environment, human and animal health?

Yes [ ] No [ ]

(b) Has such authorization been obtained?

Yes [ ] No [ ]

If the answer to (b) is yes, please attach a copy of the authorization.

[#] Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:

9. Information on plant material to be examined or submitted for examination.

9.1 The expression of a characteristic or several characteristics of a variety may be affected by factors, such as pests and disease, chemical treatment (e.g. growth retardants or pesticides), effects of tissue culture, different rootstocks, scions taken from different growth phases of a tree, etc.

9.2 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If the plant material has undergone such treatment, full details of the treatment must be given. In this respect, please indicate below, to the best of your knowledge, if the plant material to be examined has been subjected to:

(a)	Microorganisms (e.g. virus, bacteria, phytoplasma)	Yes [ ]	No [ ]
(b)	Chemical treatment (e.g. growth retardant, pesticide)	Yes [ ]	No [ ]
(c)	Tissue culture	Yes [ ]	No [ ]
(d)	Other factors	Yes [ ]	No [ ]

Please provide details for where you have indicated “yes”.

……

9.3 Has the plant material to be examined been tested for the presence of virus or other pathogens?

Yes [ ]
(please provide details as specified by the Authority)

No [ ]

10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:

Applicant’s name

Signature Date

[End of document]