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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

PORTULACA *

UPOV Code(s):

PORTU_GRA; PORTU_OLE;
PORTU_UMB

Portulaca grandiflora Hook.;
Portulaca oleracea L.;
Portulaca umbraticola Kunth

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by experts from Germany
to be considered by the
Technical Working Party for Ornamental Plants and Forest Trees
at its fifty-first session, to be held in Christchurch, New Zealand,
from 2019-02-18 to 2019-02-22

Alternative names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Portulaca grandiflora Hook.				
Portulaca oleracea L.	Portulaca	Pourpier	Portulak	Verdolaga
Portulaca umbraticola Kunth				

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

These Test Guidelines apply to all varieties of *Portulaca grandiflora* Hook., *Portulaca oleracea* L.and *Portulaca umbraticola* Kunth and hybrids between these species and other species of *Portulaca* L..

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 rooted cuttings or seeds.

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

vegetatively propagated varieties: 15 rooted cuttings
seed-propagated varieties: a sufficient quantity of seed to produce 40 plants.

In the case of seed, the seed should meet the minimum requirements for germination, species and analytical purity, health and moisture content, specified by the competent authority.

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 a single 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

3.3.1 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.

3.3.2 Because daylight varies, color determinations made against a color chart should be made either in a suitable cabinet providing artificial daylight or in the middle of the day in a room without direct sunlight. The spectral distribution of the illuminant for artificial daylight should conform with the CIE Standard of Preferred Daylight D 6500 and should fall within the tolerances set out in the British Standard 950, Part I. These determinations should be made with the plant part placed against a white background. The color chart and version used should be specified in the variety description.

3.4 Test Design

3.4.1 In the case of vegetatively propagated varieties, each test should be designed to result in a total of at least 15 plants.

3.4.2 In the case of seed-propagated varieties, each test should be designed to result in a total of at least 40 plants.

3.4.3 The design of the tests should be such that plants or parts of plants may be removed for measurement or counting without prejudice to the observations which must be made up to the end of the growing cycle.

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 at least two independent growing cycles.

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 or Parts of Plants to be Examined

In the case of vegetatively propagated varieties, unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 10 plants or parts taken from each of 10 plants and any other observation made on all plants in the test, disregarding any off-type plants.

In the case of seed-propagated varieties, unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 20 plants or parts taken from each of 20 plants and any other observation made on all plants in the test, disregarding any off-type plants.

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 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 These Test Guidelines have been developed for the examination of vegetatively propagated varieties. For varieties with other types of propagation the recommandation in the General Introduction and document TGP/13 "Guidance for new types and species". Section 4.5 Testing Uniformity should be followed.

4.2.2 The assessment of uniformity for seed-propagated varieties should be according to the recommendations for cross-pollinated varieties in the General Introduction.

4.2.3 For the assessment of uniformity in a sample of 15 plants, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 15 plants, 1 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 seed or 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) Shoot: attitude (characteristic 2)
(b) Flower: type (characteristic 11)
(c) Flower: diameter (characteristic 13)
(d) Petal: main color (characteristic 17)
Gr. 1: white
Gr. 2: yellow
Gr. 3: yellow orange
Gr. 4: orange
Gr. 5: pink
Gr. 6: red
Gr. 7: purple
Gr. 8: violet
(e) Petal: secondary color (characteristic 18)
Gr. 1: white
Gr. 2: yellow
Gr. 3: orange
Gr. 4: orange brown
Gr. 5: pink
Gr. 6: red
Gr. 7: purple
Gr. 8: violet
(f) Petal: distribution of secondary color (characteristic 19)

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.

6.5 Legend

		English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1	**2**	**3**	**4**	**5**	**6**	**7**			
		Name of characteristics in English		**Nom du caractère en français**		**Name des Merkmals auf Deutsch**	**Nombre del carácter en español**		
		states of expression		types d’expression		Ausprägungsstufen	tipos de expresión		

1 Characteristic number

2 (*) Asterisked characteristic – see Chapter 6.1.2

3 Type of expression
QL Qualitative characteristic – see Chapter 6.3
QN Quantitative characteristic – see Chapter 6.3
PQ Pseudo-qualitative characteristic – see Chapter 6.3

4 Method of observation (and type of plot, if applicable)
MG, MS, VG, VS – see Chapter 4.1.5

5 (+) See Explanations on the Table of Characteristics in Chapter 8.2

6 (a)-(c) See Explanations on the Table of Characteristics in Chapter 8.1

7 Not applicable

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

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1.	**(*)**	**QN VG**					
		Plant: number of shoots					
		few				LAZPRT 1502	3
		medium				Cindy	5
		many				LAZZDU 0807	7
2.	**(*)**	**QN VG**	**(+)**				
		Shoot: attitude					
		upright				Sunseeker Orange	1
		semi-upright				Pazzaz Deep Pink	3
		horizontal					5
		semi-trailing				LAZPRT 1703	7
		trailing				LAZPRT 1502	9
3.		**QN MS/VG**					
		Shoot: length					
		short				Sunseeker Orange	3
		medium					5
		long				LAZPRT 1502	7
4.	**(*)**	**PQ VG**					
		Shoot: color					
		light green				Cindy	1
		medium green					2
		dark green					3
		light reddish brown					4
		medium reddish brown				Sunseeker Orange	5
		dark reddish brown				LAZZDU 1112	6
5.		**QN MS/VG**	**(a)**				
		Leaf: length					
		short					3
		medium				LAZZDU 1112	5
		long				LAZPRT 1507	7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
6.	**(*)**	**QN MS/VG**	**(a)**				
		Leaf: width					
		narrow					3
		medium				LAZPRT 1507	5
		broad				LAZPRT 1502	7
7.	**(*)**	**QL VG**	**(a)**				
		Leaf: variegation					
		absent				LAZPRT 1507	1
		present				Flare Cherry	9
8.		**QN VG**	**(a)**				
		Leaf: intensity of green color					
		light					1
		medium				LAZZDU 1112	2
		dark				Pazzaz Deep Pink	3
9.	**(*)**	**QN VG**	**(+)** **(a)**				
		Leaf: width of reddish brown coloration on margin					
		absent or very narrow					1
		narrow					2
		medium					3
		broad					4
		very broad					5
10.		**QN VG**	**(a)**				
		Leaf: intensity of reddish brown coloration on margin					
		absent or very weak				DPAZORFLAR	1
		weak				LAZPRT 1502	2
		medium				LAZPRT 1507	3
		strong				Pazzaz Deep Pink	4
		very strong					5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
11.	**(*)**	**PQ VG**	**(+) (b)**				
		Flower: type					
		single				LAZZDU 1112	1
		double				Sunseeker Orange	2
		single with petaloid staminodes				Cindy	3
12.		**PQ VG**	**(+) (b)**				
		Only varieties with Flower: type single: Flower: shape in lateral view					
		flat or slightly concave					1
		moderately concave					2
		strongly concave					3
13.	**(*)**	**QN MS/VG**	**(b)**				
		Flower: diameter					
		small				LAZPRT 1502	3
		medium				Pazzaz Deep Pink	5
		large				KLEPO 12820	7
14.	**(*)**	**QN VG**	**(+) (b)**				
		Only varieties with Flower: type: single: Flower: overlapping of petals					
		absent or weak					1
		medium					2
		strong					3
15.		**QN VG**	**(+) (b)**				
		Excluding varieties with Flower: type: single with petaloid staminodes: Flower: conspicuousness of color at base					
		absent or very weak				LAZZDU 1112	1
		weak					2
		medium				DPAZORFLAR	3
		strong					4
		very strong				LAZPRT 1707	5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
16.		**PQ** **VG**	**(b)**				
		Flower: color at base					
		yellowish					1
		yellowish with dark margin					2
		reddish					3
		brownish					4
17.	**(*)**	**PQ** **VG**	**(+)** **(c)**				
		Petal: main color					
		RHS Colour Chart (indicate reference number)					
18.	**(*)**	**PQ** **VG**	**(+)**				
		Petal: secondary color					
		RHS Colour Chart (indicate reference number)					
19.	**(*)**	**PQ** **VG**	**(+)**				
		Petal: distribution of secondary color					
		mainly at apex					1
		at upper third					2
		irregular along marginal zone					3
		on lateral marginal zone					4
		central					5
		throughout					6
20.		**PQ** **VG**	**(+)**				
		Petal: tertiary color					
		RHS Colour Chart (indicate reference number)					
21.		**QN** **MS/VG**					
		Petal: length					
		short				LAZPRT 1607	3
		medium				Pazzaz Deep Pink	5
		long				KLEPO 12820	7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
22.		**QN MS/VG**					
		Petal: width					
		narrow				LAZPRT 1502	3
		medium				Pazzaz Deep Pink	5
		broad				KLEPO 12820	7
23.	**(*)**	**QN VG**	**(+)**				
		Petal: emargination					
		absent or shallow					1
		medium					2
		deep					3
24.	**(*)**	**PQ VG**					
		Petaloid staminodes: color of outer staminodes					
		RHS Colour Chart (indicate reference number)					
25.		**PQ VG**	**(+)**				
		Petal staminodes: color of inner staminodes					
		RHS Colour Chart (indicate reference number)					

8. Explanations on the Table of Characteristics

8.1 Explanations covering several characteristics

Unless otherwise indicated, observations should be made one month after first flowering.

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

(a) Observations on the leaf should be made on the upper side of fully developed leaves from the middle part of a plant.
(b) Observations on the flower should be made on the inner side of a fully open flower.
(c) Observations on the petal should be made on the inner side. Unless otherwise indicated observations on the petal of double flowers should be made on the outermost whirl of petals.

8.2 Explanations for individual characteristics

Ad. 2: Shoot: attitude

1
upright

3
semi-upright

5
horizontal

7
semi-trailing

9
trailing

Ad. 9: Leaf: width of reddish brown coloration on margin

1
absent or very narrow

3
medium

4
broad

Ad. 11: Flower: type

A single flower has 4 to 6 petals and no petaloid staminodes. A double flower has more than 6 petals and no petaloid staminodes. For flowers with petaloid staminodes the number of petals is irrespective.


1
single


2
double


3
with petaloid staminodes

Ad. 12: Only varieties with Flower: type single: Flower: shape in lateral view


1
flat or slightly concave


2
moderately concave


3
strongly concave

Ad. 14: Only varieties with Flower: type: single: Flower: overlapping of petals


1
absent or weak


2
medium


3
strong

Ad. 15: Excluding varieties with Flower: type: single with petaloid staminodes: Flower: conspicuousness of color at base

For varieties with Flower: type: double the inner petals are observed.

The conspicuousness is determined by the color contrast and the width of the contrasting ring. The innermost center of the flower is not observed.

1
absent or very weak

2
weak

3
medium

4
strong

5
very strong

Ad. 17: Petal: main color

The main color is the color with the largest surface area excluding the color at base. In cases where the areas of the main and the secondary color are too similar to reliably decide which color as the larger area, the darker color is considered to be the main color. The tertiary color is the color with the third largest area. In cases where the areas of the secondary and the tertiary color are too similar to decide which has the smaller area, the lighter color is considered to be the tertiary color.

Ad. 18: Petal: secondary color

See Ad. 17.

Ad. 19: Petal: distribution of secondary color

In Portulac varieties with bi- or multi-colored flowers the proportion of the main and the secondary colour can change due to environmental conditions. Therefore those flowers should be described which have the predominant distribution.

Arrow points to the secondary colour:

1
mainly at apex

2
at upper third

3
irregular along marginal zone

4
on lateral marginal zone

5
central

6
throughout

Ad. 20: Petal: tertiary color

See Ad. 17.

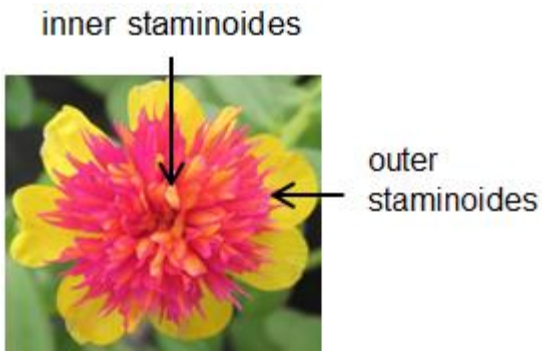
Ad. 23: Petal: emargination

1
absent or shallow

2
medium

3
deep

Ad. 25: Petal staminodes: color of inner staminodes



9. Literature

No specific literature.

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

1.1.1	Botanical name	*Portulaca grandiflora* Hook.	[ ]
1.1.2	Common name		
1.2.1	Botanical name	*Portulaca oleracea* L.	[ ]
1.2.2	Common name	Portulaca	
1.3.1	Botanical name	*Portulaca umbraticola* Kunth	[ ]
1.3.2	Common name		
1.4.1	Botanical name (please specify)		[ ]
1.4.2	Common name		

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))

(please state known parent varieties)
(……..……..…) 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 Seed-propagated varieties

(a) Self-pollination [ ]
(b) Other (please provide details) [ ]

4.2.2 Vegetative propagation

(a) Cuttings [ ]
(b) *In vitro* propagation [ ]
(c) Other (state method) [ ]

4.2.3 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 (2)	**Shoot: attitude**		
	upright	Sunseeker Orange	1 [ ]
	upright to semi-upright		2 [ ]
	semi-upright	Pazzaz Deep Pink	3 [ ]
	semi-upright to horizontal		4 [ ]
	horizontal		5 [ ]
	horizontal to semi-trailing		6 [ ]
	semi-trailing	LAZPRT 1703	7 [ ]
	semi-trailing to trailing		8 [ ]
	trailing	LAZPRT 1502	9 [ ]
5.2 (11)	**Flower: type**		
	single	LAZZDU 1112	1 [ ]
	double	Sunseeker Orange	2 [ ]
	single with petaloid staminodes	Cindy	3 [ ]
5.3 (13)	**Flower: diameter**		
	very small		1 [ ]
	very small to small		2 [ ]
	small	LAZPRT 1502	3 [ ]
	small to medium		4 [ ]
	medium	Pazzaz Deep Pink	5 [ ]
	medium to large		6 [ ]
	large	KLEPO 12820	7 [ ]
	large to very large		8 [ ]
	very large		9 [ ]

	Characteristics	Example Varieties	Note
5.4(i) (17)	**Petal: main color**		
	RHS Colour Chart (indicate reference number)		
5.4(ii) (17)	**Petal: main color**		
	white		1 [ ]
	yellow		2 [ ]
	yellow orange		3 [ ]
	orange		4 [ ]
	pink		5 [ ]
	red		6 [ ]
	purple		7 [ ]
	violet		8 [ ]
	other color (indicate)		9 [ ]
5.5(i) (18)	**Petal: secondary color**		
	RHS Colour Chart (indicate reference number)		
5.5(ii) (18)	**Petal: secondary color**		
	white		1 [ ]
	yellow		2 [ ]
	orange		3 [ ]
	orange brown		4 [ ]
	red		5 [ ]
	purple		6 [ ]
	violet		7 [ ]
	other color (indicate)		8 [ ]
5.6 (19)	**Petal: distribution of secondary color**		
	mainly at apex		1 [ ]
	at upper third		2 [ ]
	irregular along marginal zone		3 [ ]
	on lateral marginal zone		4 [ ]
	central		5 [ ]
	throughout		6 [ ]

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	*Flower: diameter*	*small*	*medium*

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

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:

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.

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”.

.....

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]