



TG/334/1

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## INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

<p><b>RANUNCULUS</b></p> <p>UPOV Code(s): RANUN_ASI; RANUN_COR; RANUN_ACO</p> <p><i>Ranunculus asiaticus</i> L.; <i>Ranunculus cortusifolius</i> Willd.; Hybrids between <i>Ranunculus asiaticus</i> L. and <i>Ranunculus cortusifolius</i> Willd.</p>
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## GUIDELINES

## FOR THE CONDUCT OF TESTS

## FOR DISTINCTNESS, UNIFORMITY AND STABILITY

Alternative names:\*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Ranunculus asiaticus</i> L.	Garden Ranunculus	Renoncule des jardins	Ranunkel	Ranúnculo
<i>Ranunculus cortusifolius</i> Willd.				
Hybrids between <i>Ranunculus asiaticus</i> L. and <i>Ranunculus cortusifolius</i> Willd.	Hybrids between <i>Ranunculus asiaticus</i> L. and <i>Ranunculus cortusifolius</i> Willd.	Hybrides entre <i>Ranunculus asiaticus</i> L. et <i>Ranunculus cortusifolius</i> Willd.	Hybriden zwischen <i>Ranunculus asiaticus</i> L. und <i>Ranunculus cortusifolius</i> Willd.	Híbridos entre <i>Ranunculus asiaticus</i> L. y <i>Ranunculus cortusifolius</i> Willd.

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](http://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 *Ranunculus asiaticus* L., *Ranunculus cortusifolius* Willd. and hybrids between *Ranunculus asiaticus* L. and *Ranunculus cortusifolius* Willd.

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 corms or young plants.
- 2.3 The minimum quantity of plant material, to be supplied by the applicant, should be:
- 15 corms or 15 young plants
- 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*

- 3.1.1 The minimum duration of tests should normally be a single growing cycle.
- 3.1.2 The testing of a variety may be concluded when the competent authority can determine with certainty the outcome of the test.

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 Each test should be designed to result in a total of at least 15 plants.
- 3.4.2 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

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 10 plants or parts of plants taken from each of 10 plants and any other observations 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 recommendations in the General Introduction and document TGP/13 "Guidance for new types and species" Section 4.5 "Testing Uniformity" should be followed.
- 4.2.3 For the assessment of uniformity of vegetatively propagated varieties, 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) Plant: height (characteristic 1)
  - (b) Basal leaf: type (characteristic 2)
  - (c) Cauline leaf: type (characteristic 6)
  - (d) Flower: type (characteristic 15)
  - (e) Flower: diameter (characteristic 16)
  - (f) Petal: main color of inner side (characteristic 22) with the following groups:
    - Group 1: white
    - Group 2: green
    - Group 3: yellow
    - Group 4: orange
    - Group 5: pink
    - Group 6: red
    - Group 7: purple
    - Group 8: violet
  - (g) Petal: secondary color of inner side (characteristic 23) with the following groups:
    - Group 1: absent
    - Group 2: white
    - Group 3: green
    - Group 4: yellow
    - Group 5: orange
    - Group 6: pink
    - Group 7: red
    - Group 8: purple
    - Group 9: violet

- (h) Petal: distribution of secondary color of inner side (characteristic 24)
- (i) Petal: tertiary color of inner side (characteristic 26) with the following groups:
  - Group 1: absent
  - Group 2: white
  - Group 3: green
  - Group 4: yellow
  - Group 5: orange
  - Group 6: pink
  - Group 7: red
  - Group 8: purple
  - Group 9: violet
- (j) Petal: main color of outer side (characteristic 29) with the following groups:
  - Group 1: white
  - Group 2: green
  - Group 3: yellow
  - Group 4: orange
  - Group 5: pink
  - Group 6: red
  - Group 7: purple
  - Group 8: violet
- (k) Petal: secondary color of outer side (characteristic 30) with the following groups:
  - Group 1: absent
  - Group 2: white
  - Group 3: green
  - Group 4: yellow
  - Group 5: orange
  - Group 6: pink
  - Group 7: red
  - Group 8: purple
  - Group 9: violet
- (l) Petal: tertiary color of outer side (characteristic 33) with the following groups:
  - Group 1: absent
  - Group 2: white
  - Group 3: green
  - Group 4: yellow
  - Group 5: orange
  - Group 6: pink
  - Group 7: red
  - Group 8: purple
  - Group 9: violet

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 All relevant states of expression are presented in the characteristic.

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			
	<b>Name of characteristics in English</b>			<b>Nom du caractère en français</b>		<b>Name des Merkmals auf Deutsch</b>		<b>Nombre del carácter en español</b>	
	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)-(d) 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
<b>1. (*)</b>	<b>QN</b>	<b>MG/MS/VG</b>	<b>(+)</b>			
	<b>Plant: height</b>	<b>Plante : hauteur</b>	<b>Pflanze: Höhe</b>	<b>Planta: altura</b>		
	very short	très basse	sehr niedrig	muy baja		1
	very short to short	très basse à basse	sehr niedrig bis niedrig	muy baja a baja		2
	short	basse	niedrig	baja	Salonica No Niji	3
	short to medium	basse à moyenne	niedrig bis mittel	baja a media		4
	medium	moyenne	mittel	media	Ableigong	5
	medium to tall	moyenne à haute	mittel bis hoch	media a alta		6
	tall	haute	hoch	alta	Rax Artemis	7
	tall to very tall	haute à très haute	hoch bis sehr hoch	alta a muy alta		8
	very tall	très haute	sehr hoch	muy alta		9
<b>2. (*)</b>	<b>QL</b>	<b>VG</b>	<b>(+)</b>			
	<b>Basal leaf: type</b>	<b>Feuille basale : type</b>	<b>Basalblatt: Typ</b>	<b>Hoja basal: tipo</b>		
	simple	simple	einfach	simple	Seiren	1
	ternate	ternaire	dreizählig	ternada	Abtanatos	2
	biterbate	biternaire	doppelt dreizählig	biterbada	Rocyellow	3
	triterbate	triternaire	dreifach dreizählig	triterbada		4
<b>3.</b>	<b>QN</b>	<b>MG/MS/VG</b>	<b>(+)</b>			
	<b>Basal leaf: length of petiole</b>	<b>Feuille basale : longueur du pétiole</b>	<b>Basalblatt: Länge des Blattstiels</b>	<b>Hoja basal: longitud del pecíolo</b>		
	very short	très courte	sehr kurz	muy corta		1
	very short to short	très courte à courte	sehr kurz bis kurz	muy corta a corta		2
	short	courte	kurz	corta	Ableigong	3
	short to medium	courte à moyenne	kurz bis mittel	corta a media		4
	medium	moyenne	mittel	media	Abtanatos	5
	medium to long	moyenne à longue	mittel bis lang	media a larga		6
	long	longue	lang	larga	Abepona	7
	long to very long	longue à très longue	lang bis sehr lang	larga a muy larga		8
	very long	très longue	sehr lang	muy larga		9

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>4.</b>	<b>(*)</b>	<b>QN</b>	<b>MG/MS/VG</b>	<b>(+)</b>			
		<b>Basal leaf: length of leaf blade</b>	<b>Feuille basale : longueur du limbe</b>	<b>Basalblatt: Länge der Blattspreite</b>	<b>Hoja basal: longitud del limbo</b>		
		very short	très courte	sehr kurz	muy corta		1
		very short to short	très courte à courte	sehr kurz bis kurz	muy corta a corta		2
		short	courte	kurz	corta	Rocyellow	3
		short to medium	courte à moyenne	kurz bis mittel	corta a media		4
		medium	moyenne	mittel	media	Abtanatos	5
		medium to long	moyenne à longue	mittel bis lang	media a larga		6
		long	longue	lang	larga	Abizanagi	7
		long to very long	longue à très longue	lang bis sehr lang	larga a muy larga		8
		very long	très longue	sehr lang	muy larga		9
<b>5.</b>	<b>(*)</b>	<b>QN</b>	<b>MG/MS/VG</b>	<b>(+)</b>			
		<b>Basal leaf: width of leaf blade</b>	<b>Feuille basale : largeur du limbe</b>	<b>Basalblatt: Breite der Blattspreite</b>	<b>Hoja basal: anchura del limbo</b>		
		very narrow	très étroite	sehr schmal	muy estrecha		1
		very narrow to narrow	très étroite à étroite	sehr schmal bis schmal	muy estrecha a estrecha		2
		narrow	étroite	schmal	estrecha	Rocyellow	3
		narrow to medium	étroite à moyenne	schmal bis mittel	estrecha a media		4
		medium	moyenne	mittel	media	Abtanatos	5
		medium to broad	moyenne à large	mittel bis breit	media a ancha		6
		broad	large	breit	ancha	Ableigong	7
		broad to very broad	large à très large	breit bis sehr breit	ancha muy ancha		8
		very broad	très large	sehr breit	muy ancha		9
<b>6.</b>	<b>(*)</b>	<b>QL</b>	<b>VG</b>	<b>(+)</b>			
		<b>Cauline leaf: type</b>	<b>Feuille caulinaire : type</b>	<b>Stängelblatt: Typ</b>	<b>Hoja caulinar: tipo</b>		
		simple	simple	einfach	simple	Seiren	1
		ternate	ternaire	dreizählig	ternada	Ableigong	2
		bitermate	biteraie	doppelt dreizählig	bitermada	Abperkons	3
		tritermate	triteraie	dreifach dreizählig	tritermada	Rocyellow	4

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>7.</b>	<b>QN</b>	<b>MG/MS/VG</b>	<b>(+)</b>			
	<b>Cauline leaf: length of petiole</b>	<b>Feuille caulinaire : longueur du pétiole</b>	<b>Stängelblatt: Länge des Blattstiels</b>	<b>Hoja caulinar: longitud del peciolo</b>		
	very short	très courte	sehr kurz	muy corta		1
	very short to short	très courte à courte	sehr kurz bis kurz	muy corta a corta		2
	short	courte	kurz	corta	Rax Artemis	3
	short to medium	courte à moyenne	kurz bis mittel	corta a media		4
	medium	moyenne	mittel	media	Abizanagi	5
	medium to long	moyenne à longue	mittel bis lang	media a larga		6
	long	longue	lang	larga	Abperkons	7
	long to very long	longue à très longue	lang bis sehr lang	larga a muy larga		8
	very long	très longue	sehr lang	muy larga		9
<b>8. (*)</b>	<b>QN</b>	<b>MG/MS/VG</b>	<b>(+)</b>			
	<b>Cauline leaf: length of leaf blade</b>	<b>Feuille caulinaire : longueur du limbe</b>	<b>Stängelblatt: Länge der Blattspreite</b>	<b>Hoja caulinar: longitud del limbo</b>		
	very short	très courte	sehr kurz	muy corta		1
	very short to short	très courte à courte	sehr kurz bis kurz	muy corta a corta		2
	short	courte	kurz	corta	Ableigong	3
	short to medium	courte à moyenne	kurz bis mittel	corta a media		4
	medium	moyenne	mittel	media	M Pink	5
	medium to long	moyenne à longue	mittel bis lang	media a larga		6
	long	longue	lang	larga	Abperkons	7
	long to very long	longue à très longue	lang bis sehr lang	larga a muy larga		8
	very long	très longue	sehr lang	muy larga		9
<b>9. (*)</b>	<b>QN</b>	<b>MG/MS/VG</b>	<b>(+)</b>			
	<b>Cauline leaf: width of leaf blade</b>	<b>Feuille caulinaire : largeur du limbe</b>	<b>Stängelblatt: Breite der Blattspreite</b>	<b>Hoja caulinar: anchura del limbo</b>		
	very narrow	très étroite	sehr schmal	muy estrecha		1
	very narrow to narrow	très étroite à étroite	sehr schmal bis schmal	muy estrecha a estrecha		2
	narrow	étroite	schmal	estrecha		3
	narrow to medium	étroite à moyenne	schmal bis mittel	estrecha a media		4
	medium	moyenne	mittel	media	M Pink	5
	medium to broad	moyenne à large	mittel bis breit	media a ancha		6
	broad	large	breit	ancha	Rax Ariadne	7
	broad to very broad	large à très large	breit bis sehr breit	ancha muy ancha		8
	very broad	très large	sehr breit	muy ancha		9

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
10.	QN	VG					
	<b>Cauline leaf: intensity of green color on upper side</b>		<b>Feuille caulinaire : intensité de la couleur verte sur la face supérieure</b>	<b>Stängelblatt: Intensität der Grüfärbung an der Oberseite</b>	<b>Hoja caulinar: intensidad del color verde del haz</b>		
	light		claire	hell	clara	Aya Poissy	1
	medium		moyenne	mittel	media	Abperkons	2
	dark		foncée	dunkel	oscura	Rocyellow	3
11.	QN	VG					
	<b>Cauline leaf: glossiness on upper side</b>		<b>Feuille caulinaire : brillance sur la face supérieure</b>	<b>Stängelblatt: Glanz an der Oberseite</b>	<b>Hoja caulinar: brillo del haz</b>		
	absent or weak		absente ou faible	fehlend oder gering	ausente o débil	Abperkons	1
	medium		moyenne	mittel	medio	M Pink	2
	strong		forte	stark	fuerte	Rax Lycia	3
12. (*)	QN	MG/MS/VG					
	<b>Flowering stem: number of flowers</b>		<b>Tige florifère : nombre de fleurs</b>	<b>Blütentrieb: Anzahl Blüten</b>	<b>Tallo floral: número de flores</b>		
	very few		très petit	sehr wenige	muy bajo	Abumbreon	1
	few		petit	wenige	bajo	Abizanagi	2
	medium		moyen	mittel	medio	Abperkons	3
	many		grand	viele	alto	Rax Phytalos	4
	very many		très grand	sehr viele	muy alto	Rocyellow	5
13. (*)	QN	MG/MS/VG	(+)				
	<b>Flowering stem: thickness</b>		<b>Tige florifère : épaisseur</b>	<b>Blütentrieb: Dicke</b>	<b>Tallo floral: grosor</b>		
	very thin		très mince	sehr dünn	muy delgado		1
	thin		mince	dünn	delgado		2
	medium		moyenne	mittel	medio	M Pink	3
	thick		épaisse	dick	grueso	Abizanagi	4
	very thick		très épaisse	sehr dick	muy grueso	Abtanatos	5
14.	PQ	VG	(+)				
	<b>Flower bud: color</b>		<b>Bouton floral : couleur</b>	<b>Blütenknospe: Farbe</b>	<b>Botón floral: color</b>		
	light green		vert clair	hellgrün	verde claro	Abxocolt	1
	medium green		vert moyen	mittelgrün	verde medio	Abavesca	2
	dark green		vert foncé	dunkelgrün	verde oscuro	Abtanatos	3
	purple		pourpre	purpurn	púrpura	Abblackest	4
	green and purple		vert et pourpre	grün und purpurn	verde y púrpura	Rax Europe	5
	greyish purple		pourpre grisâtre	gräulichpurpurn	púrpura grisáceo	Abperkons	6

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>15. (*)</b>	<b>QL</b>	<b>VG</b>	<b>(+)</b>	<b>(a)</b>				
	<b>Flower: type</b>		<b>Fleur : type</b>		<b>Blüte: Typ</b>	<b>Flor: tipo</b>		
	single		simple		einfach	simple	Rax Lycia	1
	semi-double		semi-double		halbgefüllt	semidoble	Rax Ariadne	2
	double		double		gefüllt	doble	M White	3
<b>16. (*)</b>	<b>QN</b>	<b>MG/MS/VG</b>	<b>(+)</b>	<b>(a)</b>				
	<b>Flower: diameter</b>		<b>Fleur : diamètre</b>		<b>Blüte: Durchmesser</b>	<b>Flor: diámetro</b>		
	very small		très petit		sehr klein	muy pequenõ		1
	very small to small		très petit à petit		sehr klein bis klein	muy pequenõ a pequenõ		2
	small		petit		klein	pequenõ	Rax Hades	3
	small to medium		petit à moyen		klein bis mittel	pequenõ a medio		4
	medium		moyen		mittel	medio	Rax Lycia	5
	medium to large		moyen à grand		mittel bis groß	medio a grande		6
	large		grand		groß	grande	Rocyellow	7
	large to very large		grand à très grand		groß bis sehr groß	grande a muy grande		8
	very large		très grand		sehr groß	muy grande		9
<b>17.</b>	<b>QN</b>	<b>MG/MS/VG</b>	<b>(+)</b>	<b>(a)</b>				
	<b>Flower: height</b>		<b>Fleur : hauteur</b>		<b>Blüte: Höhe</b>	<b>Flor: altura</b>		
	very short		très basse		sehr niedrig	muy baja		1
	very short to short		très basse à basse		sehr niedrig bis niedrig	muy baja a baja		2
	short		basse		niedrig	baja	Rocyellow	3
	short to medium		basse à moyenne		niedrig bis mittel	baja a media		4
	medium		moyenne		mittel	media	Abperkons	5
	medium to tall		moyenne à haute		mittel bis hoch	media a alta		6
	tall		haute		hoch	alta	Ableigong	7
	tall to very tall		haute à très haute		hoch bis sehr hoch	alta a muy alta		8
	very tall		très haute		sehr hoch	muy alta		9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>18. (*)</b>	<b>QN</b> <b>MG/MS/VG</b>	<b>(a)</b>				
	<b><u>Only varieties with Flower: type: semi-double and double: Flower: number of petals</u></b>	<b><u>Seulement les variétés avec Fleur : type : semi-double et double: Fleur : nombre de pétales</u></b>	<b><u>Nur Sorten mit Blüte: Typ: halbgefüllt und gefüllt: Blüte: Anzahl Blütenblätter</u></b>	<b><u>Solo variedades con Flor: tipo: semidoble y doble: Flor: número de pétalos</u></b>		
	very few	très petit	sehr wenige	muy bajo	Rax Artemis	1
	very few to few	très petit à petit	sehr wenige bis wenige	muy bajo a bajo		2
	few	petit	wenige	bajo		3
	few to medium	petit à moyen	wenige bis mittel	bajo a medio		4
	medium	moyen	mittel	medio	Aya Poissy	5
	medium to many	moyen à grand	mittel bis viele	medio a alto		6
	many	grand	viele	alto	Abperkons	7
	many to very many	grand à très grand	viele bis sehr viele	alto a muy alto		8
	very many	très grand	sehr viele	muy alto		9
<b>19.</b>	<b>QN</b> <b>VG</b>	<b>(+) (a)</b>				
	<b>Flower: size of green colored part at center</b>	<b>Fleur : taille de la partie de couleur verte du centre</b>	<b>Blüte: Größe des grün gefärbten Teils in der Mitte</b>	<b>Flor: tamaño de la zona central de color verde</b>		
	absent or very small	absente ou très petite	fehlend oder sehr klein	ausente o muy pequeño		1
	small	petite	klein	pequeño		2
	medium	moyenne	mittel	medio		3
	large	grande	groß	grande		4
	very large	très grande	sehr groß	muy grande		5
<b>20.</b>	<b>QN</b> <b>MG/MS/VG</b>	<b>(+) (a), (b)</b>				
	<b>Petal: length</b>	<b>Pétale : longueur</b>	<b>Blütenblatt: Länge</b>	<b>Pétalo: longitud</b>		
	very short	très courte	sehr kurz	muy corta		1
	very short to short	très courte à courte	sehr kurz bis kurz	muy corta a corta		2
	short	courte	kurz	corta	Abperkons	3
	short to medium	courte à moyenne	kurz bis mittel	corta a media		4
	medium	moyenne	mittel	media	Rax Lycia	5
	medium to long	moyenne à longue	mittel bis lang	media a larga		6
	long	longue	lang	larga	Ableigong	7
	long to very long	longue à très longue	lang bis sehr lang	larga a muy larga		8
	very long	très longue	sehr lang	muy larga		9

	English		français		deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
<b>21.</b>	<b>QN</b>	<b>MG/MS/VG</b>	<b>(+)</b>	<b>(a), (b)</b>				
	<b>Petal: width</b>	<b>Pétale : largeur</b>	<b>Blütenblatt: Breite</b>	<b>Pétalo: anchura</b>				
	very narrow	très étroite	sehr schmal	muy estrecha				1
	very narrow to narrow	très étroite à étroite	sehr schmal bis schmal	muy estrecha a estrecha				2
	narrow	étroite	schmal	estrecha	Rax Lycia			3
	narrow to medium	étroite à moyenne	schmal bis mittel	estrecha a media				4
	medium	moyenne	mittel	media	M White			5
	medium to broad	moyenne à large	mittel bis breit	media a ancha				6
	broad	large	breit	ancha	Abizanagi			7
	broad to very broad	large à très large	breit bis sehr breit	ancha muy ancha				8
	very broad	très large	sehr breit	muy ancha				9
<b>22. (*)</b>	<b>PQ</b>	<b>VG</b>	<b>(a), (b), (c)</b>					
	<b>Petal: main color of <u>inner</u> side</b>	<b>Pétale : couleur principale de la face <u>interne</u></b>	<b>Blütenblatt: Hauptfarbe der <u>Innenseite</u></b>	<b>Pétalo: color principal de la cara <u>interna</u></b>				
	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)				
<b>23. (*)</b>	<b>PQ</b>	<b>VG</b>	<b>(a), (b), (c)</b>					
	<b>Petal: secondary color of <u>inner</u> side</b>	<b>Pétale : couleur secondaire de la face <u>interne</u></b>	<b>Blütenblatt: Sekundärfarbe der <u>Innenseite</u></b>	<b>Pétalo: color secundario de la cara <u>interna</u></b>				
	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)				
<b>24. (*)</b>	<b>PQ</b>	<b>VG</b>	<b>(+)</b>	<b>(a), (b), (c)</b>				
	<b>Petal: distribution of secondary color of <u>inner</u> side</b>	<b>Pétale : distribution de la couleur secondaire de la face <u>interne</u></b>	<b>Blütenblatt: Verteilung der Sekundärfarbe der <u>Innenseite</u></b>	<b>Pétalo: distribución del color secundario de la cara <u>interna</u></b>				
	none	aucune	keine	ausente				1
	at base	à la base	an der Basis	en la base	Seiren			2
	basal half	moitié basale	basale Hälfte	en la mitad basal	Abairesekui			3
	distal half	moitié distale	distale Hälfte	en la mitad distal				4
	at apex	à l'extrémité	an der Spitze	en el ápice				5
	marginal part	partie marginale	am Rand	en la zona del borde	Abepona			6
	central part	partie centrale	mittlerer Teil	en la zona central	Absalecami			7
	throughout	partout	überall	en la totalidad				8

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
25.	PQ	VG	(+)	(a), (b), (c)				
	<b>Petal: pattern of secondary color of <u>inner</u> side</b>		<b>Pétale : répartition de la couleur secondaire de la face <u>interne</u></b>		<b>Blütenblatt: Muster der Sekundärfarbe der <u>Innenseite</u></b>	<b>Pétalo: forma de disposición del color secundario de la cara <u>interna</u></b>		
	solid		uniforme		ganzflächig	uniforme		1
	flushed		diffuse		flächig	difusa		2
	striped		striée		gestreift	en rayas		3
	irregular		irrégulière		unregelmäßig	irregular		4
26. (*)	PQ	VG	(+)	(a), (b), (c)				
	<b>Petal: tertiary color of <u>inner</u> side</b>		<b>Pétale : couleur tertiaire de la face <u>interne</u></b>		<b>Blütenblatt: Tertiärfarbe der <u>Innenseite</u></b>	<b>Pétalo: color terciario de la cara <u>interna</u></b>		
	RHS Colour Chart (indicate reference number)		Code RHS des couleurs (indiquer le numéro de référence)		RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		
27. (*)	PQ	VG	(+)	(a), (b), (c)				
	<b>Petal: distribution of tertiary color of <u>inner</u> side</b>		<b>Pétale : distribution de la couleur tertiaire de la face <u>interne</u></b>		<b>Blütenblatt: Verteilung der Tertiärfarbe der <u>Innenseite</u></b>	<b>Pétalo: distribución del color terciario de la cara <u>interna</u></b>		
	none		aucune		keine	ausente		1
	at base		à la base		an der Basis	en la base		2
	basal half		moitié basale		basale Hälfte	en la mitad basal		3
	distal half		moitié distale		distale Hälfte	en la mitad distal		4
	at apex		à l'extrémité		an der Spitze	en el ápice		5
	marginal part		partie marginale		am Rand	en la zona del borde		6
	central part		partie centrale		mittlerer Teil	en la zona central		7
	throughout		partout		überall	en la totalidad		8
28.	PQ	VG	(+)	(a), (b), (c)				
	<b>Petal: pattern of tertiary color of <u>inner</u> side</b>		<b>Pétale : répartition de la couleur tertiaire de la face <u>interne</u></b>		<b>Blütenblatt: Muster der Tertiärfarbe der <u>Innenseite</u></b>	<b>Pétalo: forma de disposición del color terciario de la cara <u>interna</u></b>		
	solid		uniforme		ganzflächig	uniforme		1
	flushed		diffuse		flächig	difusa		2
	striped		striée		gestreift	en rayas		3
	irregular		irrégulière		unregelmäßig	irregular		4



	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>29. (*)</b>	<b>PQ</b>	<b>VG</b>	<b>(a), (b), (c)</b>				
	<b>Petal: main color of <u>outer</u> side</b>	<b>Pétale : couleur principale de la face <u>externe</u></b>	<b>Blütenblatt: Hauptfarbe der <u>Außenseite</u></b>	<b>Pétalo: color principal de la cara <u>externa</u></b>			
	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)			
<b>30. (*)</b>	<b>PQ</b>	<b>VG</b>	<b>(a), (b), (c)</b>				
	<b>Petal: secondary color of <u>outer</u> side</b>	<b>Pétale : couleur secondaire de la face <u>externe</u></b>	<b>Blütenblatt: Sekundärfarbe der <u>Außenseite</u></b>	<b>Pétalo: color secundario de la cara <u>externa</u></b>			
	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)			
<b>31.</b>	<b>PQ</b>	<b>VG</b>	<b>(+)</b>	<b>(a), (b), (c)</b>			
	<b>Petal: distribution of secondary color of <u>outer</u> side</b>	<b>Pétale : distribution de la couleur secondaire de la face <u>externe</u></b>	<b>Blütenblatt: Verteilung der Sekundärfarbe der <u>Außenseite</u></b>	<b>Pétalo: distribución del color secundario de la cara <u>externa</u></b>			
	none	aucune	keine	ausente			1
	at base	à la base	an der Basis	en la base			2
	basal half	moitié basale	basale Hälfte	en la mitad basal			3
	distal half	moitié distale	distale Hälfte	en la mitad distal			4
	at apex	à l'extrémité	an der Spitze	en el ápice			5
	marginal part	partie marginale	am Rand	en la zona del borde			6
	central part	partie centrale	mittlerer Teil	en la zona central			7
	longitudinal stripes	stries longitudinales	Längsstreifen	en rayas longitudinales			8
	throughout	partout	überall	en la totalidad			9
<b>32.</b>	<b>PQ</b>	<b>VG</b>	<b>(+)</b>	<b>(a), (b), (c)</b>			
	<b>Petal: pattern of secondary color of <u>outer</u> side</b>	<b>Pétale : répartition de la couleur secondaire de la face <u>externe</u></b>	<b>Blütenblatt: Muster der Sekundärfarbe der <u>Außenseite</u></b>	<b>Pétalo: forma de disposición del color secundario de la cara <u>externa</u></b>			
	solid	uniforme	ganzflächig	uniforme			1
	flushed	diffuse	flächig	difusa			2
	striped	striée	gestreift	en rayas			3
	irregular	irrégulière	unregelmäßig	irregular			4

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>33. (*)</b>	<b>PQ</b>	<b>VG</b>	<b>(a), (b), (c)</b>				
	<b>Petal: tertiary color of <u>outer</u> side</b>	<b>Pétale : couleur tertiaire de la face <u>externe</u></b>	<b>Blütenblatt: Tertiärfarbe der <u>Außenseite</u></b>	<b>Pétalo: color terciario de la cara <u>externa</u></b>			
	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)			
<b>34.</b>	<b>PQ</b>	<b>VG</b>	<b>(+)</b>	<b>(a), (b), (c)</b>			
	<b>Petal: distribution of tertiary color of <u>outer</u> side</b>	<b>Pétale : distribution de la couleur tertiaire de la face <u>externe</u></b>	<b>Blütenblatt: Verteilung der Tertiärfarbe der <u>Außenseite</u></b>	<b>Pétalo: distribución del color terciario de la cara <u>externa</u></b>			
	none	aucune	keine	ausente			1
	at base	à la base	an der Basis	en la base			2
	basal half	moitié basale	basale Hälfte	en la mitad basal			3
	distal half	moitié distale	distale Hälfte	en la mitad distal			4
	at apex	à l'extrémité	an der Spitze	en el ápice			5
	marginal part	partie marginale	am Rand	en la zona del borde			6
	central part	partie centrale	mittlerer Teil	en la zona central			7
	longitudinal stripes	stries longitudinales	Längsstreifen	en rayas longitudinales			8
	throughout	partout	überall	en la totalidad			9
<b>35.</b>	<b>PQ</b>	<b>VG</b>	<b>(+)</b>	<b>(a), (b), (c)</b>			
	<b>Petal: pattern of tertiary color of <u>outer</u> side</b>	<b>Pétale : répartition de la couleur tertiaire de la face <u>externe</u></b>	<b>Blütenblatt: Muster der Tertiärfarbe der <u>Außenseite</u></b>	<b>Pétalo: forma de disposición del color terciario de la cara <u>externa</u></b>			
	solid	uniforme	ganzflächig	uniforme			1
	flushed	diffuse	flächig	difusa			2
	striped	striée	gestreift	en rayas			3
	irregular	irrégulière	unregelmäßig	irregular			4
<b>36.</b>	<b>QN</b>	<b>VG</b>	<b>(+)</b>	<b>(a), (b)</b>			
	<b>Petal: incisions of margin</b>	<b>Pétale : incisions du bord</b>	<b>Blütenblatt: Randeinschnitte</b>	<b>Pétalo: incisiones del margen</b>			
	absent or weak	absentes ou faibles	fehlend oder gering	ausentes o débiles	M White		1
	medium	moyennes	mittel	medias	Abumbreon		2
	strong	fortes	stark	fuertes	Seiren		3

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>37. (*)</b>	<b>QN</b>	<b>VG</b>	<b>(+)</b>	<b>(a), (b)</b>				
	<b>Petal: undulation of margin</b>		<b>Pétale : ondulation du bord</b>		<b>Blütenblatt: Wellung des Randes</b>	<b>Pétalo: ondulación del margen</b>		
	absent or weak		absente ou faible		fehlend oder gering	ausente o débil	M White	1
	medium		moyenne		mittel	media	Abumbreon	2
	strong		forte		stark	fuerte	Abairesekui	3
<b>38.</b>	<b>QN</b>	<b>VG</b>	<b>(a), (b)</b>					
	<b>Petal: glossiness</b>		<b>Pétale : brillance</b>		<b>Blütenblatt: Glanz</b>	<b>Pétalo: brillo</b>		
	absent or weak		absente ou faible		fehlend oder gering	ausente o débil	Abavesca	1
	medium		moyenne		mittel	medio	M White	2
	strong		forte		stark	fuerte	Rax Europe	3
<b>39.</b>	<b>PQ</b>	<b>VG</b>	<b>(d)</b>					
	<b><u>Only varieties with Flower: type: single and semi-double:</u> Anther: color</b>		<b><u>Seulement les variétés avec Fleur : type : simple et semi-double:</u> Anthère : couleur</b>		<b><u>Nur Sorten mit Blüte: Typ: einfach und halbgefüllt:</u> Anthere: Farbe</b>	<b><u>Solo variedades con Flor: tipo: simple y semidoble:</u> Antera: color</b>		
	yellow		jaune		gelb	amarillo		1
	orange		orange		orange	naranja		2
	purple		pourpre		purpurn	púrpura		3
	violet		violet		violett	violeta		4
<b>40.</b>	<b>PQ</b>	<b>VG</b>	<b>(d)</b>					
	<b><u>Only varieties with Flower: type: single and semi-double:</u> Stigma: color</b>		<b><u>Seulement les variétés avec Fleur : type : simple et semi-double:</u> Stigmate : couleur</b>		<b><u>Nur Sorten mit Blüte: Typ: einfach und halbgefüllt:</u> Narbe: Farbe</b>	<b><u>Solo variedades con Flor: tipo: simple y semidoble:</u> Estigma: color</b>		
	green		vert		grün	verde		1
	yellow		jaune		gelb	amarillo		2
	purple		pourpre		purpurn	púrpura		3
	violet		violet		violett	violeta		4

8. Explanations on the Table of Characteristics

8.1 *Explanations covering several characteristics*

Unless otherwise indicated observations should be made at the time of full flowering.

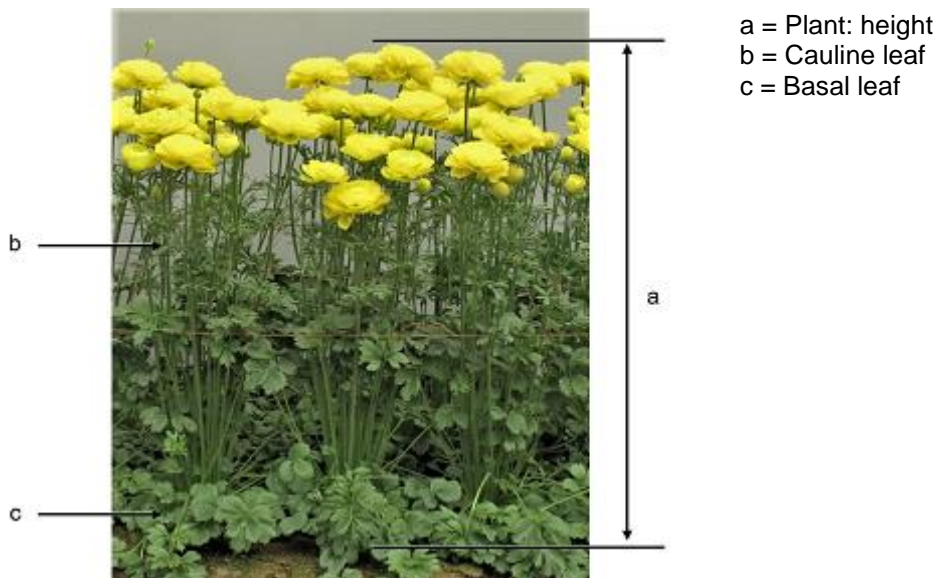
Characteristics containing the following key in the Table of Characteristics should be examined as indicated below:

- (a) Observations should be made on a fully opened flower at the time of anther dehiscence.
- (b) Observations should be made on:  
Semi-double flowers: on a petal from the middle whorl.  
Double flowers: on a petal from the 3rd outer whorl.
- (c) The main color is the color with the largest surface area. The color with the second largest area is the secondary color. In cases where the areas of the colors are too similar to reliably decide which color has the largest 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 reliably decide which color has the largest area, the lighter color is considered to be the tertiary color.
- (d) Observations should be made just before anthers opening.

8.2 *Explanations for individual characteristics*

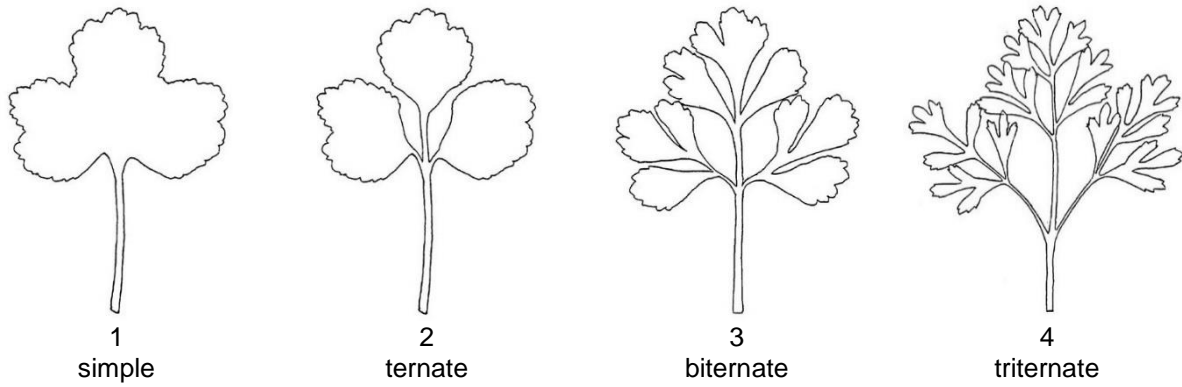
Ad. 1: Plant: height

Observations should be made from the surface of the growing medium to the top of the tallest flower.

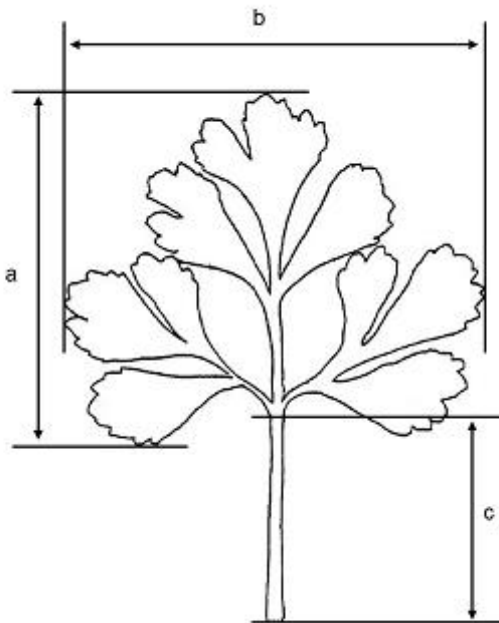


Ad. 2: Basal leaf: type

Observations should be made on the predominant leaf type.



Ad. 3: Basal leaf: length of petiole



a = Leaf blade: length  
b = Leaf blade: width  
c = Petiole: length

Ad. 4: Basal leaf: length of leaf blade

See Ad. 3

Ad. 5: Basal leaf: width of leaf blade

See Ad. 3

Ad. 6: Cauline leaf: type

Observations should be made on the predominant leaf type.

See Ad. 2

Ad. 7: Cauline leaf: length of petiole

See Ad. 3

Ad. 8: Cauline leaf: length of leaf blade

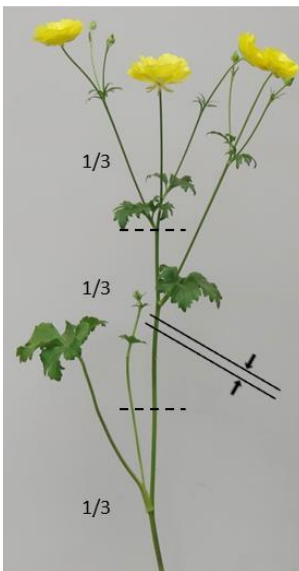
See Ad.3

Ad. 9: Cauline leaf: width of leaf blade

See Ad.3

Ad. 13: Flowering stem: thickness

The thickness should be observed on the middle third of a flowering stem.



Ad. 14: Flower bud: color

Observations should be made when the flower bud is fully formed.

Ad. 15: Flower: type



1  
single



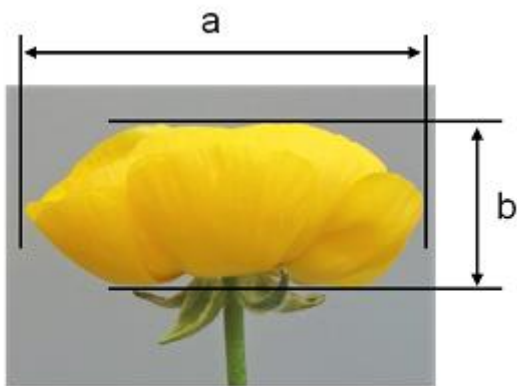
2  
semi-double



3  
double

1. Single: flowers with one row of petals.
2. Semi-double: flowers with more than one row of petals, and clearly visible pistils and stamens.
3. Double: double flowers where a pistil and stamen are not visible.

Ad. 16: Flower: diameter



a = Flower: diameter  
b = Flower: height

Ad. 17: Flower: height

See Ad. 16

Ad. 19: Flower: size of green colored part at center



1  
absent or  
very small



2  
small



3  
medium

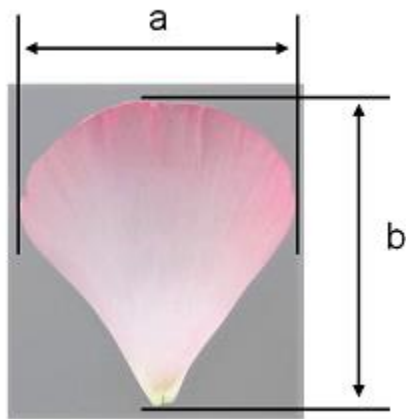


4  
large



5  
very large

Ad. 20: Petal: length

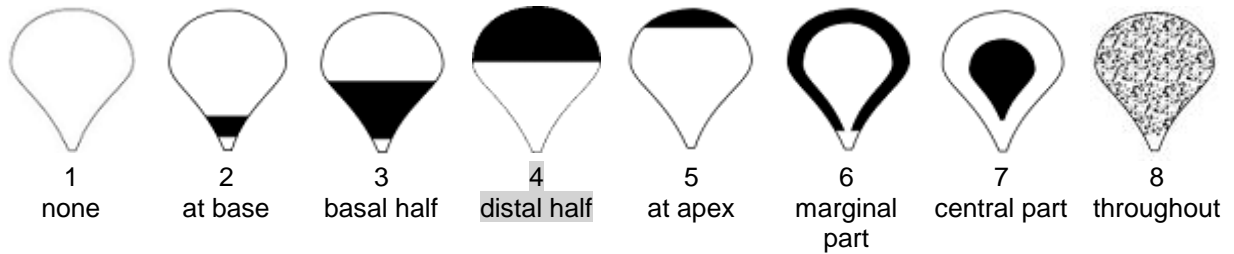


a = Petal: width  
b = Petal: length

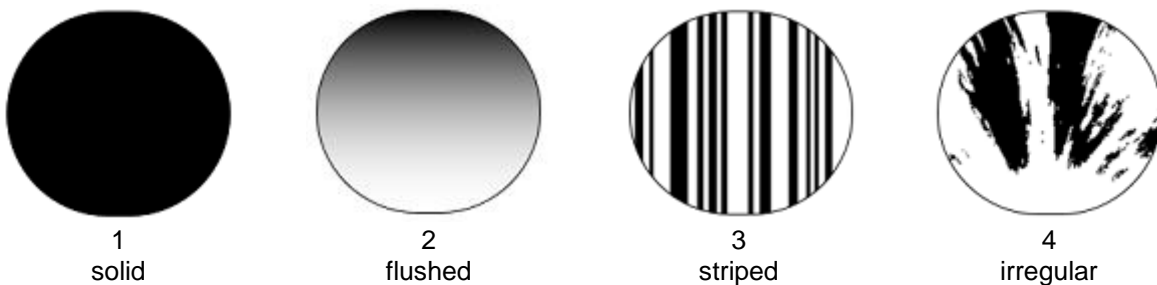
Ad. 21: Petal: width

See Ad. 20

Ad. 24: Petal: distribution of secondary color of inner side



Ad. 25: Petal: pattern of secondary color of inner side



Ad. 27: Petal: distribution of tertiary color of inner side

See Ad. 24

Ad. 28: Petal: pattern of tertiary color of inner side

See Ad. 25



Ad. 31: Petal: distribution of secondary color of outer side

See Ad. 24

Ad. 32: Petal: pattern of secondary color of outer side

See Ad. 25

Ad. 34: Petal: distribution of tertiary color of outer side

See Ad. 24

Ad. 35: Petal: pattern of tertiary color of outer side

See Ad. 25

Ad. 36: Petal: incisions of margin



1  
absent or weak



2  
medium



3  
strong

Ad. 37: Petal: undulation of margin



1  
absent or weak



2  
medium



3  
strong

9. Literature

Tsukamoto, Y., 1994: The Grand Dictionary of Horticulture, Volume 1. Shogakukan. Tokyo, JP, pp.692-696

10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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	Application date: (not to be filled in by the applicant)
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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	<input type="text" value="Ranunculus asiaticus L."/>	[ ]
1.1.2	Common name	<input type="text" value="Garden Ranunculus"/>	
1.2.1	Botanical name	<input type="text" value="Ranunculus cortusifolius Willd."/>	[ ]
1.2.2	Common name	<input type="text"/>	
1.3.1	Botanical name	<input type="text" value="Hybrids between Ranunculus asiaticus L. and Ranunculus cortusifolius Willd."/>	[ ]
1.3.2	Common name	<input type="text"/>	

2. Applicant

Name	<input type="text"/>
Address	<input type="text"/>
Telephone No.	<input type="text"/>
Fax No.	<input type="text"/>
E-mail address	<input type="text"/>
Breeder (if different from applicant)	<input type="text"/>

3. Proposed denomination and breeder's reference

Proposed denomination (if available)	<input type="text"/>
Breeder's reference	<input type="text"/>

#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 variety)  
(.....) 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)

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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4.2	Method of propagating the variety	
4.2.1	Vegetative propagation	
(a)	Corms	[ ]
(b)	<i>In vitro</i> propagation	[ ]
(c)	Other (state method)	[ ]
	<input type="text"/>	
4.2.2	Other (Please provide details)	[ ]
	<input type="text"/>	

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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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
<b>5.1 Plant: height (1)</b>		
very short		1 [ ]
very short to short		2 [ ]
short	Salonica No Niji	3 [ ]
short to medium		4 [ ]
medium	Ableigong	5 [ ]
medium to tall		6 [ ]
tall	Rax Artemis	7 [ ]
tall to very tall		8 [ ]
very tall		9 [ ]
<b>5.2 Basal leaf: type (2)</b>		
simple	Seiren	1 [ ]
ternate	Abtanatos	2 [ ]
biterminate	Rocyellow	3 [ ]
triterminate		4 [ ]
<b>5.3 Cauline leaf: type (6)</b>		
simple	Seiren	1 [ ]
ternate	Ableigong	2 [ ]
biterminate	Abperkons	3 [ ]
triterminate	Rocyellow	4 [ ]
<b>5.4 Flowering stem: number of flowers (12)</b>		
very few	Abumbreon	1 [ ]
few	Abizanagi	2 [ ]
medium	Abperkons	3 [ ]
many	Rax Phytalos	4 [ ]
very many	Rocyellow	5 [ ]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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Characteristics	Example Varieties	Note
<b>5.5 Flower: type</b> <b>(15)</b>		
single	Rax Lycia	1 [ ]
semi-double	Rax Ariadne	2 [ ]
double	M White	3 [ ]
<b>5.6 Flower: diameter</b> <b>(16)</b>		
very small		1 [ ]
very small to small		2 [ ]
small	Rax Hades	3 [ ]
small to medium		4 [ ]
medium	Rax Lycia	5 [ ]
medium to large		6 [ ]
large	Rocyellow	7 [ ]
large to very large		8 [ ]
very large		9 [ ]
<b>5.7(i) Petal: main color of <u>inner</u> side</b> <b>(22)</b>		
RHS Colour Chart (indicate reference number)		
<b>5.7(ii) Petal: main color of <u>inner</u> side</b> <b>(22)</b>		
white		1 [ ]
green		2 [ ]
yellow		3 [ ]
orange		4 [ ]
pink		5 [ ]
red		6 [ ]
purple		7 [ ]
violet		8 [ ]
other (indicate)		9 [ ]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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Characteristics	Example Varieties	Note
<b>5.8(i) Petal: secondary color of <u>inner</u> side</b> <b>(23)</b>		
RHS Colour Chart (indicate reference number)		
<b>5.8(ii) Petal: secondary color of <u>inner</u> side</b> <b>(23)</b>		
absent		1 [ ]
white		2 [ ]
green		3 [ ]
yellow		4 [ ]
orange		5 [ ]
pink		6 [ ]
red		7 [ ]
purple		8 [ ]
violet		9 [ ]
other (indicate)		10 [ ]
<b>5.9 Petal: distribution of secondary color of <u>inner</u> side</b> <b>(24)</b>		
none		1 [ ]
at base	Seiren	2 [ ]
basal half	Abairesekui	3 [ ]
distal half		4 [ ]
at apex		5 [ ]
marginal part	Abepona	6 [ ]
central part	Absalecami	7 [ ]
throughout		8 [ ]
<b>5.10(i) Petal: tertiary color of <u>inner</u> side</b> <b>(26)</b>		
RHS Colour Chart (indicate reference number)		
<b>5.10(ii) Petal: tertiary color of <u>inner</u> side</b> <b>(26)</b>		
absent		1 [ ]
white		2 [ ]
green		3 [ ]
yellow		4 [ ]
orange		5 [ ]
pink		6 [ ]
red		7 [ ]
purple		8 [ ]
violet		9 [ ]
other (indicate)		10 [ ]



TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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Characteristics	Example Varieties	Note
<b>5.11(i) Petal: main color of <u>outer</u> side (29)</b>		
RHS Colour Chart (indicate reference number)		
<b>5.11(ii) Petal: main color of <u>outer</u> side (29)</b>		
white		1 [ ]
green		2 [ ]
yellow		3 [ ]
orange		4 [ ]
pink		5 [ ]
red		6 [ ]
purple		7 [ ]
violet		8 [ ]
other(indicate)		9 [ ]
<b>5.12(i) Petal: secondary color of <u>outer</u> side (30)</b>		
RHS Colour Chart (indicate reference number)		
<b>5.12(ii) Petal: secondary color of <u>outer</u> side (30)</b>		
absent		1 [ ]
white		2 [ ]
green		3 [ ]
yellow		4 [ ]
orange		5 [ ]
pink		6 [ ]
red		7 [ ]
purple		8 [ ]
violet		9 [ ]
other (indicate)		10 [ ]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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Characteristics	Example Varieties	Note
<b>5.13(i) Petal: tertiary color of <u>outer</u> side</b> <b>(33)</b>		
RHS Colour Chart (indicate reference number)		
<b>5.13(ii) Petal: tertiary color of <u>outer</u> side</b> <b>(33)</b>		
absent		1 [ ]
white		2 [ ]
green		3 [ ]
yellow		4 [ ]
orange		5 [ ]
pink		6 [ ]
red		7 [ ]
purple		8 [ ]
violet		9 [ ]
other (indicate)		10 [ ]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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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 <b>similar</b> variety(ies)	Describe the expression of the characteristic(s) for <b>your</b> candidate variety
<i>Example</i>	<i>Plant: height</i>	<i>short</i>	<i>medium</i>
Comments:			

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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#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 photograph of the variety displaying its main distinguishing feature(s), should accompany the Technical Questionnaire. The photograph will provide a visual illustration of the candidate variety which supplements the information provided in the Technical Questionnaire.

The key points to consider when taking a photograph of the candidate variety are:

- Indication of the date and geographic location
- Correct labeling (breeder's reference)
- Good quality printed photograph (minimum 10 cm x 15 cm) and/or sufficient resolution electronic format version (minimum 960 x 1280 pixels)

Further guidance on providing photographs with the Technical Questionnaire is available in document TGP/7 "Development of Test Guidelines", Guidance Note 35 (<http://www.upov.int/tgp/en/>).

[The link provided may be deleted by members of the Union when developing authorities' own test guidelines.]

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