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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

REGAL PELARGONIUM *

UPOV Code: PELAR_GRD; PELAR_DOM; PELAR_CRI; PELAR_CDO

Pelargonium grandiflorum (Andrews) Willd.*;*
P. ×*domesticum* L. H. Bailey;
P. crispum (P.J. Bergius) L'Hér. and
P. crispum x P. ×*domesticum*

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from Germany

to be considered by the

Enlarged Editorial Committee at its meeting
to be held in Geneva, on January 7 and 8, 2015

Alternative Names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Pelargonium grandiflorum (Andrews) Willd.	Large-flower Pelargonium	Pélargonium des fleuristes	Edelpelargonie	
P. ×*domesticum* L.H. Bailey	Regal Pelargonium			
P. crispum (P.J. Bergius) L'Hér.	Crisped-leaf Pelargonium		Zitronenduft-Pelargonie	
P. crispum x P. ×*domesticum*				

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.]

TABLE OF CONTENTS PAGE

1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Pelargonium grandiflorum* (Andrews) Willd.*; P.* ×*domesticum* L. H. Bailey; *P. crispum* (P.J. Bergius) L'Hér. and *P. crispum x P.* ×*domesticum.*

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.

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

15 rooted cuttings.

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 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 / 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 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 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 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 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) Flower: width (characteristic 11)
(c) Upper petal: color of middle (characteristic 18)
(d) Lower petal: color of middle (characteristic 24)

(c) and (d) with the following groups:

Gr. 1: white
Gr. 2: light pink
Gr. 3: medium pink
Gr. 4: dark pink
Gr. 5: light red
Gr. 6: medium red
Gr. 7: dark red
Gr. 8: purple
Gr. 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 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

(*)	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) 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 Variedadesejemplo	Note/ Nota
1. **(*)** **(+)**	**VG/ MS**	**Plant: height**	**Plante : hauteur**	**Pflanze: Höhe**	**Planta: altura**		
QN		very short	très courte	sehr niedrig	muy baja	Kuegrapipink	1
		short	courte	niedrig	baja	Cambi	3
		medium	moyenne	mittel	media	Pacperfu	5
		tall	haute	hoch	alta	Tingsat	7
		very tall	très haute	sehr hoch	muy alta	Darmsten	9
		extremely tall	extrêmement haute	extrem hoch	extremamente alta	Tingmoz	11
2.	**VG/ MS**	**Plant: width**	**Plante : largeur**	**Pflanze: Breite**	**Planta: anchura**		
QN		narrow	étroite	schmal	estrecha	FLOREG 01	3
		medium	moyenne	mittel	media	Kuegramerl	5
		broad	large	breit	ancha	Cambi	7
3. **(*)** **(+)**	**VG/ MS**	**Leaf blade: length**	**Limbe : longueur**	**Blattspreite: Länge**	**Limbo: longitud**		
QN	**(a)**	short	court	kurz	corto	Randy	3
		medium	moyen	mittel	medio	Kuegramerl	5
		long	long	lang	largo	OGLGER 3067	7
4. **(*)** **(+)**	**VG/ MS**	**Leaf blade: width**	**Limbe : largeur**	**Blattspreite: Breite**	**Limbo: anchura**		
QN	**(a)**	narrow	étroit	schmal	estrecho	Randy	3
		medium	moyen	mittel	medio	Cambi	5
		broad	large	breit	ancho	Camstra	7
5. **(+)**	**VG**	**Leaf blade: base**	**Limbe : base**	**Blattspreite: Basis**	**Limbo: base**		
QN	**(a)**	wide open	largement ouverte	weit offen	muy abierta		1
		slightly open	légèrement ouverte	leicht offen	ligeramente abierta		3
		closed	fermée	geschlossen	cerrada		5
		slightly overlapping	légèrement chevauchante	leicht überlappend	parcialmente solapada		7
		strongly overlapping	fortement chevauchante	stark überlappend	fuertemente solapada		9
6. **(*)** **(+)**	**VG**	**Leaf blade: depth of sinus**	**Limbe : profondeur du sinus**	**Blattspreite: Tiefe der Einbuchtungen**	**Limbo: profundidad de los senos**		
QN	**(a)**	absent or very shallow	absent ou très peu profond	fehlend oder sehr flach	ausentes o muy poco profundos		1
		shallow	peu profond	flach	poco profundos		3
		medium	moyen	mittel	medios		5
		deep	profond	tief	profundos		7
		very deep	très profond	sehr tief	muy profundos		9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
7. **(+)**	**VG**	**Leaf blade: indentation of margin**	**Limbe : denticulations du bord**	**Blattspreite: Randeinschnitte**	**Limbo: indentación del borde**		
QN	**(a)**	absent or very shallow	absentes ou très peu profondes	fehlend oder sehr flach	ausente o muy poco profunda		1
		shallow	peu profondes	flach	poco profunda		2
		medium	moyennes	mittel	medio		3
		deep	profondes	tief	profunda		4
8. **(*)** **(+)**	**VG**	**Leaf blade: variegation**	**Limbe : panachure**	**Blattspreite: Panaschierung**	**Limbo: variegación**		
QL	**(a)**	absent	absente	fehlend	ausente		1
		present	présente	vorhanden	presente		9
9. **(+)**	**VG**	**Leaf blade: intensity of green color**	**Limbe : intensité de la couleur verte**	**Blattspreite: Intensität der Grünfärbung**	**Limbo: intensidad del color verde**		
QN	**(a)**	light	faible	hell	claro	Sarah Don	1
		medium	moyenne	mittel	medio	Randy	3
		dark	forte	dunkel	oscuro		5
10. **(+)**	**VG/ MS**	**Flower: length**	**Fleur : longueur**	**Blüte: Länge**	**Flor: longitud**		
QN		very short	très courte	sehr kurz	muy corta	Randy	1
		short	courte	kurz	corta	Pacburg	3
		medium	moyenne	mittel	media	Cambi	5
		long	longue	lang	larga	Camstra	7
		very long	très longue	sehr lang	muy larga	Regscho	9
		extremely long	extrêmement longue	extrem lang	extremamente larga		11
11. **(*)** **(+)**	**VG/ MS**	**Flower: width**	**Fleur : largeur**	**Blüte: Breite**	**Flor: anchura**		
QN		very narrow	très étroite	sehr schmal	muy estrecha	Randy	1
		narrow	étroite	schmal	estrecha	Pacburg	3
		medium	moyenne	mittel	media	Cambi	5
		broad	large	breit	ancha	Camstra	7
		very broad	très large	sehr breit	muy ancha	Regscho	9
		extremely broad	extrêmement large	extrem breit	extremamente ancha	Amarena	11
12. **(*)** **(+)**	**VG/ MS**	**Sepal: length**	**Sépale : longueur**	**Kelchblatt: Länge**	**Sépalo: longitud**		
QN		very short	très court	sehr kurz	muy corto	Kuegrapiso	1
		short	court	kurz	corto	Randy	2
		medium	moyen	mittel	medio	Camdared	3
		long	long	lang	largo	Kuegramerl	4
		very long	très long	sehr lang	muy largo	Camstra	5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
13. **(+)**	**VG/ MS**	**Sepal: width**	**Sépale : largeur**	**Kelchblatt: Breite**	**Sépalo: anchura**		
QN		very narrow	très étroit	sehr schmal	muy estrecho	Randy	1
		narrow	étroit	schmal	estrecho	Kuegrapidue	2
		medium	moyen	mittel	medio	Cambi	3
		broad	large	breit	ancho	Reglav	4
		very broad	très large	sehr breit	muy ancho	FLOREG 01	5
14. **(+)**	**VG**	**Pedicel: anthocyanin coloration**	**Pédicelle : pigmentation anthocyanique**	**Blütenstiel: Anthocyanfärbung**	**Pedicelo: pigmentación antociánica**		
QN		absent or weak	absente ou faible	fehlend oder sehr gering	ausente o débil	Regscho	1
		medium	moyenne	mittel	media		2
		strong	forte	sehr stark	fuerte	Randy, Virginia	3
15. **(*)** **(+)**	**VG**	**Upper petal: undulation of margin**	**Pétale supérieur : ondulation du bord**	**Oberes Blütenblatt: Wellung des Randes**	**Pétalo superior: ondulación del borde**		
QN		absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Pasperfu	1
		weak	faible	gering	débil	Cambi	2
		medium	moyenne	mittel	media	Kuegramerl	3
		strong	forte	stark	fuerte	OGLGER 6037	4
		very strong	très forte	sehr stark	muy fuerte	OGLGER 3067	5
16. **(*)** **(+)**	**VG**	**Upper petal: color of margin**	**Pétale supérieur : couleur du bord**	**Oberes Blütenblatt: Farbe des Randes**	**Pétalo superior: color del borde**		
PQ		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)		
17. **(*)** **(+)**	**VG**	**Upper petal: color between margin and middle**	**Pétale supérieur : couleur de la partie située entre le bord et la partie centrale**	**Oberes Blütenblatt: Farbe zwischen Rand und Mitte**	**Pétalo superior: color entre el borde y la zona media**		
PQ		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)		
18. **(*)** **(+)**	**VG**	**Upper petal: color of middle**	**Pétale supérieur : couleur de la partie centrale**	**Oberes Blütenblatt: Farbe der Mitte**	**Pétalo superior: color de la zona media**		
PQ		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)		
19. **(*)** **(+)**	**VG**	**Upper petal: size of central marking**	**Pétale supérieur : taille de l'ornementation centrale**	**Oberes Blütenblatt: Größe der mittigen Zeichnung**	**Pétalo superior: tamaño de la ornamentación central**		
QN		absent or very small	absente ou très petite	fehlend oder sehr klein	ausente o muy pequeña		1
		small	petite	klein	pequeña		3
		medium	moyenne	mittel	mediana		5
		large	grande	groß	grande		7
		very large	très grande	sehr groß	muy grande		9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
20. (*) (+)	**VG**	**Upper petal: size of zone at base**	**Pétale supérieur : taille de la zone à la base**	**Oberes Blütenblatt: Größe der Zone an der Basis**	**Pétalo superior: tamaño de la zona en la base**		
QN		absent or very small	absente ou très petite	fehlend oder sehr klein	ausente o muy pequeña		1
		small	petite	klein	pequeña		2
		medium	moyenne	mittel	mediana		3
		large	grande	groß	grande		4
		very large	très grande	sehr groß	muy grande		5
21.	**VG**	**Upper petal: color of zone at base**	**Pétale supérieur : couleur de la zone à la base**	**Oberes Blütenblatt: Farbe der Zone an der Basis**	**Pétalo superior: color de la zona en la base**		
PQ		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)		
22. (*) (+)	**VG**	**Lower petal: color of margin**	**Pétale inférieur : couleur du bord**	**Unteres Blütenblatt: Farbe des Randes**	**Pétalo inferior: color del borde**		
PQ		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)		
23. (*) (+)	**VG**	**Lower petal: color between margin and middle**	**Pétale inférieur : couleur de la partie située entre le bord et la partie centrale**	**Unteres Blütenblatt: Farbe zwischen Rand und Mitte**	**Pétalo inferior: color entre el borde y la zona media**		
PQ		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)		
24. (*) (+)	**VG**	**Lower petal: color of middle**	**Pétale inférieur : couleur de la partie centrale**	**Unteres Blütenblatt: Farbe der Mitte**	**Pétalo inferior: color de la zona media**		
PQ		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)		
25. (+)	**VG**	**Lower petal: size of central marking**	**Pétale inférieur : taille de l'ornementation centrale**	**Unteres Blütenblatt: Größe der mittigen Zeichnung**	**Pétalo inferior: tamaño de la ornamentación central**		
QN		absent or very small	absente ou très petite	fehlend oder sehr klein	ausente o muy pequeña		1
		small	petite	klein	pequeña		3
		medium	moyenne	mittel	mediana		5
		large	grande	groß	grande		7
		very large	très grande	sehr groß	muy grande		9
26. (*) (+)	**VG**	**Lower petal: size of zone at base**	**Pétale inférieur : taille de la zone à la base**	**Unteres Blütenblatt: Größe der Zone an der Basis**	**Pétalo inferior: tamaño de la zona en la base**		
QN		absent or very small	absente ou très petite	fehlend oder sehr klein	ausente o muy pequeña		1
		small	petite	klein	pequeña		2
		medium	moyenne	mittel	media		3
		large	grande	groß	grande		4
		very large	très grande	sehr groß	muy grande		5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
27.	**VG**	**Lower petal: color of zone at base**	**Pétale inférieur : couleur de la zone à la base**	**Unteres Blütenblatt: Farbe der Zone an der Basis**	**Pétalo inferior: color de la zona en la base**		
PQ		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)		

8. Explanations on the Table of Characteristics

8.1 Explanations covering several characteristics

Observations should be made at the time of full flowering.

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

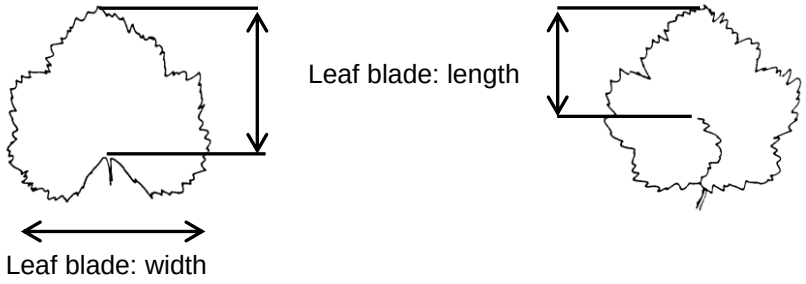
(a) Observations on the leaf should be made on the upper side of fully developed leaves from the middle part of the plant.

8.2 Explanations for individual characteristics

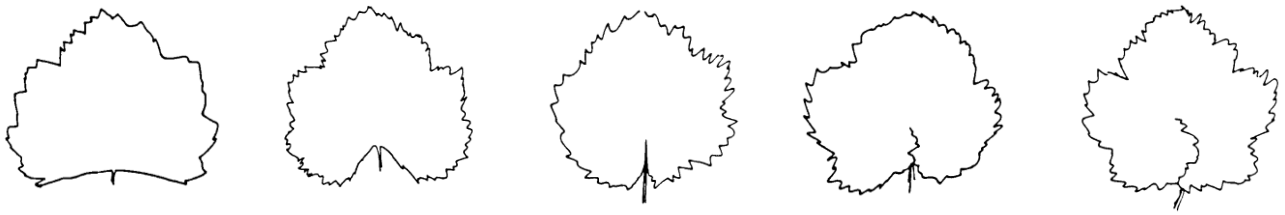
Ad. 1: Plant: height

The plant height should be observed on the longest shoot from the ground to the top of the uppermost flowers.

Ad. 3: Leaf blade: length
Ad. 4: Leaf blade: width



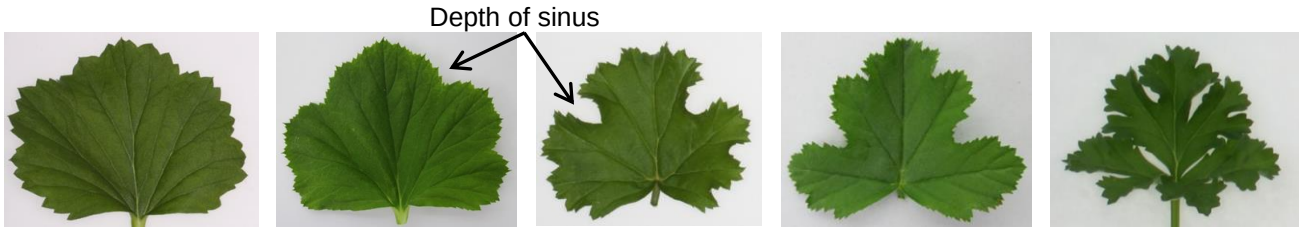
Ad. 5: Leaf blade: base



1	3	5	7	9
wide open	slightly open	closed	slightly overlapping	strongly overlapping

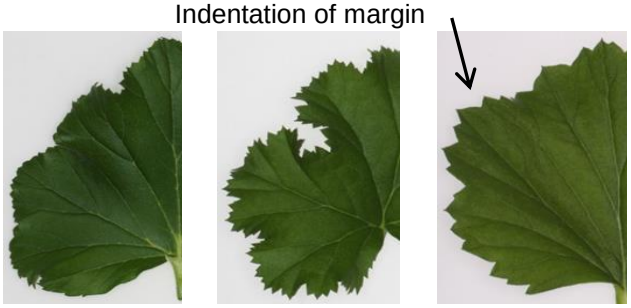
Ad. 6: Leaf blade: depth of sinus

The depth of the sinus should be observed on the deepest sinus. The depth of the sinus is observed in relation to the size of the leaf blade.



1 absent or very shallow | 3 shallow | 5 medium | 7 deep | 9 very deep

Ad. 7: Leaf blade: indentation of margin



2 shallow | 3 medium | 4 deep

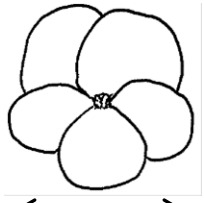
Ad. 8: Leaf blade: variegation

1 absent | 9 present

Ad. 9: Leaf blade: intensity of green color

In the case of variegated leaves the color of the largest surface area should be observed.

Ad. 10: Flower: length
Ad. 11: Flower: width



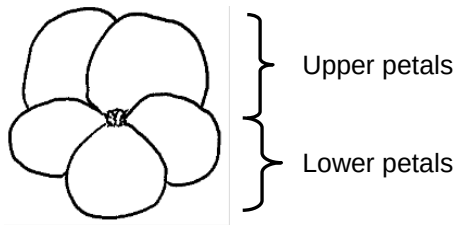
Ad. 12: Sepal: length
Ad. 13: Sepal: width

The largest sepal should be observed.

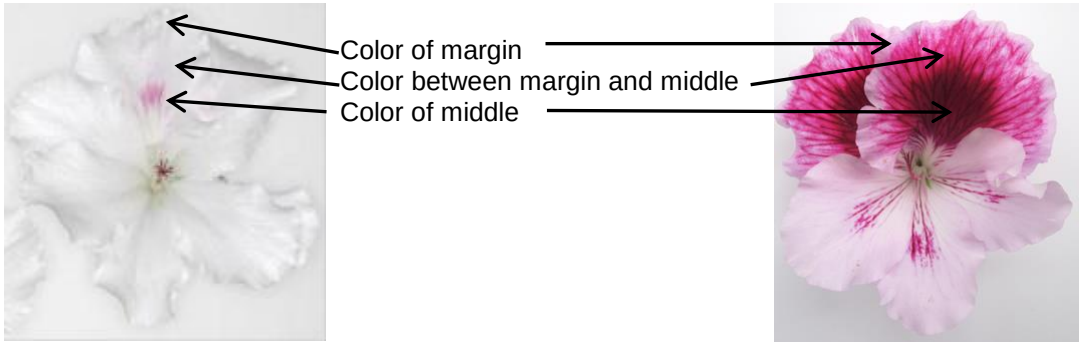
Ad. 14: Pedicel: anthocyanin coloration

The anthocyanin coloration should be observed on the upper third of the pedicel.

Ad. 15: Upper petal: undulation of margin

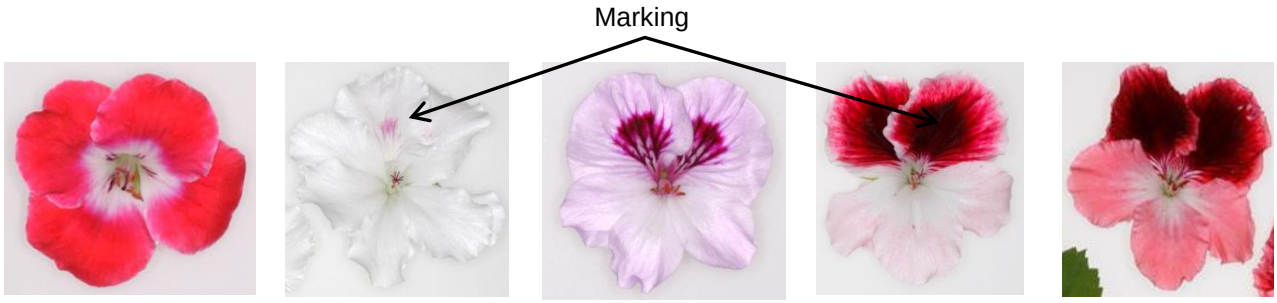


Ad. 16: Upper petal: color of margin
Ad. 17: Upper petal: color between margin and middle
Ad. 18: Upper petal: color of middle



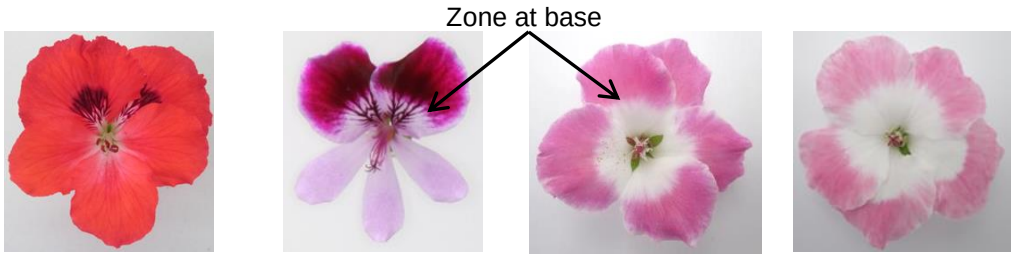
For varieties which have a central marking on the upper petal the color of middle is the color of the central marking when the size of the marking is bigger than very small to small (note 2 in characteristic 19).

Ad. 19: Upper petal: size of central marking



1	3	5	7	9
absent or very small	small	medium	large	very large

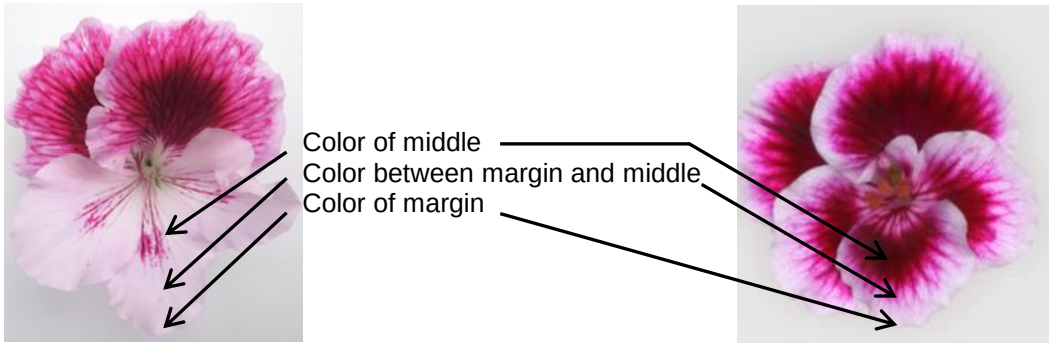
Ad. 20: Upper petal: size of zone at base



1	3	4	5
absent or very small	medium	large	very large

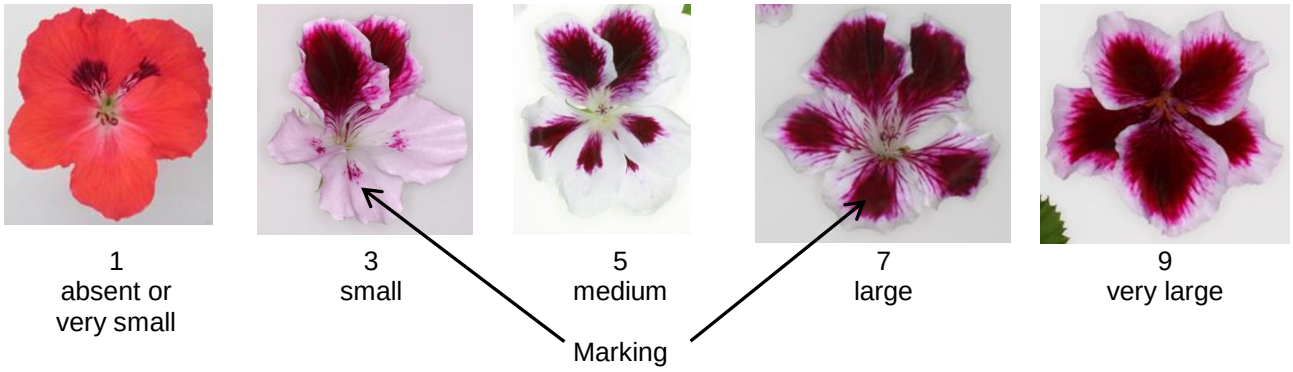
The size of the zone is observed in relation to the size of the upper petal.

Ad. 22: Lower petal: color of margin
Ad. 23: Lower petal: color between margin and middle
Ad. 24: Lower petal: color of middle

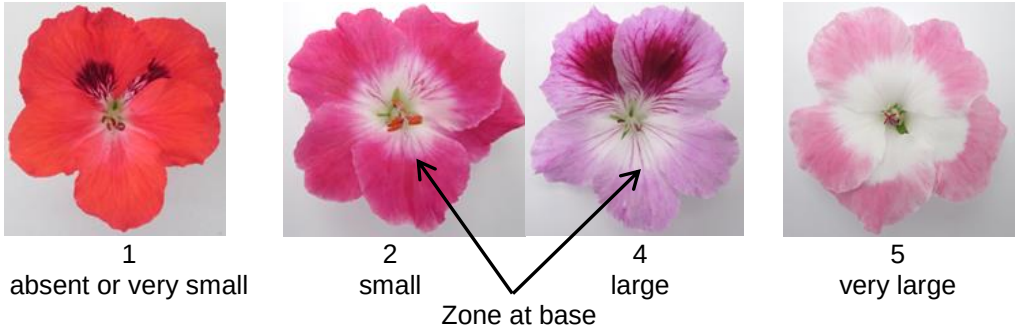


For varieties which have a central marking on the lower petal the color of middle is the color of the central marking when the size of the marking is bigger than very small to small (note 2 in characteristic 25).

Ad. 25: Lower petal: size of central marking



Ad. 26: Lower petal: size of zone at base



The size of the zone is observed in relation to the size of the lower petal.

9. Literature

Maatsch, R. et al,1977: Pelargonien. Verlag Paul Parey, Berlin, Hamburg, DE

Miller, D., 1996: Pelargoniums. B.T. Batsford Ltd, London, UK

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	*Pelargonium* L.	
1.2	Species (please complete)		
1.2.1	Botanical name	*Pelargonium grandiflorum* (Andrews) Willd.	[ ]
1.2.2	Botanical name	*Pelargonium* ×*domesticum* L.H. Bailey	[ ]
1.2.3	Botanical name	*Pelargonium crispum* (P.J. Bergius) L'Hér.	[ ]
1.3	Hybrid	*P. crispum x P.* ×*domesticum*	[ ]
	Other (please specify)		[ ]

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) *in vitro* propagation [ ]

(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: height**		
	very short	Kuegrapipink	1[ ]
	very short to short		2[ ]
	short	Cambi	3[ ]
	short to medium		4[ ]
	medium	Pacperfu	5[ ]
	medium to tall		6[ ]
	tall	Tingsat	7[ ]
	tall to very tall		8[ ]
	very tall	Darmsten	9[ ]
	very tall to extremely tall		10[ ]
	extremely tall	Tingmoz	11[ ]
5.2 (11)	**Flower: width**		
	very narrow	Randy	1[ ]
	very narrow to narrow		2[ ]
	narrow	Pacburg	3[ ]
	narrow to medium		4[ ]
	medium	Cambi	5[ ]
	medium to broad		6[ ]
	broad	Camstra	7[ ]
	broad to very broad		8[ ]
	very broad	Regscho	9[ ]
	very broad to extremely broad		10[ ]
	extremely broad	Amarena	11[ ]

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

	Characteristics	Example Varieties	Note
5.3 i (16)	**Upper petal: color of margin**		
	RHS Colour Chart (indicate reference number)	.....	
5.3 ii (16)	**Upper petal: color of margin**		
	white		1[ ]
	light pink		2[ ]
	medium pink		3[ ]
	dark pink		4[ ]
	light red		5[ ]
	medium red		6[ ]
	dark red		7[ ]
	purple		8[ ]
	violet		9[ ]
	other color (indicate which)	.....	10[ ]
5.4 i (18)	**Upper petal: color of middle**		
	RHS Colour Chart (indicate reference number)	.....	
5.4 ii (18)	**Upper petal: color of middle**		
	white		1[ ]
	light pink		2[ ]
	medium pink		3[ ]
	dark pink		4[ ]
	light red		5[ ]
	medium red		6[ ]
	dark red		7[ ]
	purple		8[ ]
	violet		9[ ]
	other color (indicate which)	.....	10[ ]

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

	Characteristics	Example Varieties	Note
5.5 i (22)	**Lower petal: color of margin**		
	RHS Colour Chart (indicate reference number)	.....	
5.5 ii (22)	**Lower petal: color of margin**		
	white		1[ ]
	light pink		2[ ]
	medium pink		3[ ]
	dark pink		4[ ]
	light red		5[ ]
	medium red		6[ ]
	dark red		7[ ]
	purple		8[ ]
	violet		9[ ]
	other color (indicate which)	.....	10[ ]
5.6 i (24)	**Lower petal: color of middle**		
	RHS Colour Chart (indicate reference number)	.....	
5.6 ii (24)	**Lower petal: color of middle**		
	white		1[ ]
	light pink		2[ ]
	medium pink		3[ ]
	dark pink		4[ ]
	light red		5[ ]
	medium red		6[ ]
	dark red		7[ ]
	purple		8[ ]
	violet		9[ ]
	other color (indicate which)	.....	10[ ]

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	*Plant: height*	*short*	*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

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”.

……

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]