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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT

ZONAL PELARGONIUM, IVY-LEAVED PELARGONIUM *

UPOV Code: PELAR_ZON, PELAR_PEL
(PELAR_PZO, PELAR_ZPE, PELAR_ZTO)

Pelargonium Zonale Group, *Pelargonium peltatum* (L.) Hér
and hybrids between those species and other species of
Pelargonium L'Hér. ex Ait.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from Germany

to be considered by the
Technical Working Party for Ornamental Plants and Forest Trees
at its forty first session, to be held in Wageningen, The Netherlands from June 9 to 13, 2008

Alternative Names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Pelargonium Zonale Group, *Pelargonium* ×*hortorum* L. H. Bailey, Pelargonium-Zonale-Hybridae	Zonal Pelargonium, Horseshoed pelargonium	Géranium, Pelargonium zonale	Zonal-Pelargonie	
Pelargonium peltatum (L.) Hér, Pelargonium-Peltatum-Hybridae	Ivy-leaved Pelargonium, Hanging geranium, Ivy geranium, Ivy-leaf pelargonium,	Géranium-lierre	Efeupelargonie, Efeu-blättrige, Halbpeltaten	

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

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

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

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Pelargonium* Zonale Group *(syn. Pelargonium* x*hortorum* L.H. Bailey) and *Pelargonium peltatum* (L.) Hér. as well as to hybrids between these species and other species of *Pelargonium* L'Hér. ex Aiton of the family *Geraniaceae*.

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 well rooted cuttings or seeds.

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

vegetatively propagated varieties: 15 well rooted cuttings, not pinched
seed-propagated varieties: sufficient seed to produce 30 plants

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

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 The optimum stage of development for the assessment of the characteristics is at the time of full flowering.

3.3.3 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.

3.4 Test Design

3.4.1 Vegetatively propagated varieties: each test should be designed to result in a total of at least 15 plants.

3.4.2 Seed-propagated varieties: each test should be designed to result in a total of at least 30 plants.

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

3.5 Number of Plants / Parts of Plants to be Examined

3.5.1 Vegetatively propagated varieties: unless otherwise indicated, 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.

3.5.2 Seed propagated varieties: unless otherwise indicated, all observations on single plants should be made on 20 plants or parts taken from each of 20 plants and any other observations made on all plants in the test.

3.6 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.

4.2 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 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.

4.2.3 For the assessment of uniformity of seed-propagated varieties which are self-pollinated, a population standard of 2% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 30 plants, 2 off-types are allowed.

4.2.4 For the assessment of uniformity of seed-propagated varieties which are cross-pollinated or hybrids, the recommendations in the General Introduction for cross-pollinated or hybrid varieties should be followed, as appropriate.

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 tested, either by growing a further generation, or by testing a new seed or plant stock to ensure that it exhibits the same characteristics as those shown by the previous 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 Besides the botanical species the following have been agreed as useful grouping characteristics:

(a) Leaf blade: variegation (characteristic 12)
(b) Flower: type (characteristic 29)
(c) Lower petal: color of middle of upper side (characteristic 52) with the following groups:
Gr. 1: white
Gr. 2: orange pink
Gr. 3: orange
Gr. 4: red
Gr. 5: purple
Gr. 6: blue pink

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction.

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

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.

6.3 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

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

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

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. **(*)** **(+)**		**Plant: growth type**		**Pflanze: Wuchstyp**			
QN		upright		aufrecht		Sil Merle	1
		semi-upright		halbaufrecht		Cante Laver	2
		trailing		hängend		KLEP04112	3
2.		**Only upright and semi-upright varieties: Plant: height of foliage**		**Nur aufrecht und halbaufrecht wachsende Sorten: Pflanze: Höhe der Laubzone**			
QN		short		niedrig		Sil Merle	3
		medium		mittel		Fisum Pink	5
		tall		hoch		Zowitre	7
3.		**Only trailing varieties: Plant: shoot length**		**Nur hängende Sorten: Pflanze: Trieblänge**			
QN		short		kurz		Free Rured	3
		medium		mittel		Pacmeli	5
		long		lang		KLEP04112	7
4.		**Only upright and semi-upright varieties: Plant: width**		**Nur aufrecht und halbaufrecht wachsende Sorten: Pflanze: Breite**			
QN		narrow		schmal		Zolcaros	3
		medium		mittel		Zolarlet	5
		broad		breit		Pacsalpri	7
5.		**Stem: color**		**Trieb: Farbe**			
QL	**(a)**	whitish		weißlich			1
		green		grün			2

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
6.		**Stem: anthocyanin coloration**		**Trieb: Anthocyanfärbung**			
QN	**(a)**	absent or weak		fehlend oder gering		KLEP0312	1
		medium		mittel		Fisrocky Dark Red	3
		strong		stark		Balgaldepro	5
7. **(*)** **(+)**		**Leaf blade: length**		**Blattspreite: Länge**			
QN	**(a)**	short		kurz		KLEP03012	3
		medium		mittel		Zolirsca	5
		long		lang		Pacvica	7
8. **(*)** **(+)**		**Leaf blade: width**		**Blattspreite: Breite**			
QN	**(a)**	narrow		schmal		KLEP03012	3
		medium		mittel		Zolirsca	5
		broad		breit		Pacvica	7
9. **(+)**		**Leaf blade: depth of sinus**		**Blattspreite: Tiefe der Lappen**			
QN	**(a)**	absent or very shallow		fehlend oder sehr flach			1
		shallow		flach		Zolcaros	3
		medium		mittel		KLEP01052	5
		deep		tief		Cante Laver	7
10. **(+)**		**Leaf blade: undulation of margin**		**Blattspreite: Randwellung**			
QN	**(a)**	weak		gering		Zolirsca	3
		medium		mittel		Zolarlet	5
		strong		stark		Wesvilsu	7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
11.		**Leaf blade: base**		**Blattspreite: Basis**			
(+)							
QN	**(a)**	wide open		weit offen			1
		open		offen			3
		closed		geschlossen			5
		partly overlapping		gering überlappend			7
		strongly overlapping		stark überlappend			9
12. **(*)**		**Leaf blade: variegation**		**Blattspreite: Panaschierung**			
QL	**(a)**	absent		fehlend		Sil Merle	1
		present		vorhanden		Penevro	9
13. **(*)** **(+)**		**Leaf blade: main color (zone excluded)**		**Blattspreite: Hauptfarbe (ohne Zone)**			
PQ	**(a)**	yellow		gelb			1
		light green		hellgrün			2
		light green to medium green		hellgrün bis mittelgrün		Zowit	3
		medium green		mittelgrün		Sil Merle	4
		medium green to dark green		mittelgrün bis dunkelgrün		KLEP03106	5
		dark green		dunkelgrün		Zolirsca	6
		dark red		dunkelrot		Vancouver Centennial	7
		brown purple		braunpurpurn		Black Magic	8

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
14. **(*)**		**Leaf blade: secondary color (zone excluded)**		**Blattspreite: Sekundärfarbe (ohne Zone)**			
PQ	**(a)**	white		weiß		Evka	1
		yellow		gelb		Raimu Kissu	2
		light green		hellgrün		Vancouver Centennial	3
		medium green		mittelgrün		Black Magic	4
		red		rot			5
15.		**<u>Only trailing varieties:</u> Leaf blade: glossiness**		**<u>Nur hängende Sorten:</u> Blattspreite: Glanz**			
QN	**(a)**	weak		gering		Free Rured	3
		medium		mittel		Zopihosd	5
		strong		stark		KLEP04112	7
16. **(*)** **(+)**		**Leaf blade: conspicuousness of zone**		**Blattspreite: Ausprägung der Zone**			
QN	**(a)**	absent or very weak		fehlend oder sehr gering		Zowit	1
		weak		gering		Zolirsca	3
		medium		mittel		Zolarlet	5
		strong		stark		Pascalpri	7
		very strong		sehr stark		Baldescarim	9
17. **(+)**		**Leaf blade: position of zone**		**Blattspreite: Position der Zone**			
QN	**(a)**	at base		an der Basis			1
		in middle		in der Mitte			2
		towards margin		zum Rand hin			3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
18. **(+)**		**Leaf blade: relative size of zone**		**Blattspreite: relative Größe der Zone**			
QN	**(a)**	small		klein			1
		medium		mittel			2
		large		groß			3
19.		**Peduncle: length**		**Blütenstandsstiel: Länge**			
QN	**(b)**	short		kurz		Duefuerto	3
		medium		mittel		Sil Merle	5
		long		lang		Fisroweiss	7
20. **(*)**		**Peduncle: anthocyanin coloration on upper third**		**Blütenstandsstiel: Anthocyanfärbung am oberen Drittel**			
QN	**(b)**	absent or very weak		fehlend oder sehr gering			1
		weak		gering			3
		medium		mittel			5
		strong		stark			7
21. **(+)**		**Inflorescence: height**		**Blütenstand: Höhe**			
QN	**(b)**	short		niedrig			3
		medium		mittel			5
		tall		hoch			7
22. **(*)** **(+)**		**Inflorescence: width**		**Blütenstand: Breite**			
QN	**(b)**	narrow		schmal		KLEP01052	3
		medium		mittel		KLEP03106	5
		broad		breit		Zolirsca	7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
23.		**Inflorescence: number of open flowers**		**Blütenstand: Anzahl offener Blüten**			
QN	**(b)**	few		gering		Tikvio	3
		medium		mittel		KLEP01052	5
		many		hoch		KLEP03106	7
24. **(*)**		**Inflorescence: length of largest flower**		**Blütenstand: Länge der größten Blüte**			
QN	**(b)**	short		kurz			3
		medium		mittel			5
		long		lang			7
25. **(*)**		**Inflorescence: width of largest flower**		**Blütenstand: Breite der größten Blüte**			
QN	**(b)**	narrow		schmal			3
		medium		mittel		Fisum Pink	5
		broad		breit		Fisrowei	7
26.		**Inflorescence: length of longest pedicel**		**Blütenstand: Länge des längsten Blütenstiels**			
QN	**(b)**	short		kurz			3
		medium		mittel			5
		long		lang			7
27.		**Pedicel: anthocyanin colouration on upper third**		**Blütenstiel: Anthocyanfärbung im oberen Drittel**			
QN	**(b)**	absent or very weak		fehlend oder sehr gering			1
		weak		gering		Paclai	3
		medium		mittel		Fisrocky Dark Red	5
		strong		stark		Zonabriscal	7
		very strong		sehr stark		Clip Velred	9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
28. **(+)**		**Pedicel: swelling**		**Blütenstiel: Verdickung**			
QL	**(b)**	predominantly absent		überwiegend fehlend			1
		predominantly present		überwiegend vorhanden			2
29. **(+)** **(*)**		**Flower: type**		**Blüte: Typ**			
QL		single		einfach			1
		double		gefüllt			2
30. **(+)**		**Only single flowering varieties:** **Flower: arrangement of upper petals in relation to lower petals**		**Nur einfach blühende Sorten:** **Blüte: Anordnung der oberen Blütenblätter zu den unteren Blütenblättern**			
QN	**(b)**	free		frei stehend			1
		touching		sich berührend			3
		slightly overlapping		gering überlappend			5
31. **(*)**		**Only double flowering varieties:** **Flower: number of petals**		**Nur gefüllt blühende Sorten: Blüte: Anzahl Blütenblätter**			
QN	**(b)**	few		gering		KLEP01052	3
		medium		mittel		Fisum Pink	5
		many		groß		Pacsalkom	7
32. **(+)**		**Flower: cross section in lateral view**		**Blüte: Querschnitt in der Seitenansicht**			
QN	**(b)**	concave		konkav			1
		flat		gerade			2
		convex		konvex			3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
33. **(*)** **(+)**		**Flower: presence of irregularly distributed stripes or blotches**		**Blüte: Vorhandensein von unregelmäßig verteilten Streifen oder Flecken**			
QL	**(b)**	absent		fehlend		Sil Merle	1
		present		vorhanden		Gradowi	9
34. **(*)** **(+)**		**Only varieties with flowers with irregularly distributed stripes or blotches: Flower: ground color**		**Nur Sorten mit Blüten mit unregelmäßig verteilten Streifen oder Flecken: Blüte: Grundfarbe**			
PQ	**(b)**	white		weiß		Gradowi	1
		pink		rosa		Starburst Red	2
		red		rot			3
35. **(*)** **(+)**		**Only varieties with flowers with irregularly distributed stripes or blotches: Flower: color of stripes or blotches**		**Nur Sorten mit Blüten mit unregelmäßig verteilten Streifen oder Flecken: Blüte: Farbe der Streifen oder Flecken**			
PQ	**(b)**	white and red		weiß und rot		Starburst Red	1
		only red		nur rot		Gradowi	2
		purple		purpurn		Fismopink	3
36. **(+)**		**Sepal: reflexing**		**Kelchblatt: Zurückbiegung**			
QN	**(b)**	absent or very weak		fehlend oder sehr gering			1
		moderate		mittel			2
		strong		stark			3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
37.		**Sepal: anthocyanin coloration in the middle of the broadest sepal**		**Kelchblatt: Anthocyanfärbung in der Mitte des breitesten Kelchblattes**			
PQ	**(b)**	absent or very weak		fehlend oder sehr gering			1
		weak		gering			3
		medium		mittel			5
		strong		stark			7
		very strong		sehr stark			9
38. **(+)**		**Upper petal: width**		**Oberes Blütenblatt: Breite**			
QN	**(b)**	narrow		schmal		KLEP04133	3
		medium		mittel		Zolirsca	5
		broad		breit		KLEP03106	7
39. **(+)**		**Upper petal: shape**		**Oberes Blütenblatt: Form**			
PQ	**(b)**	triangular		dreieckig			1
		spatulate		löffelförmig			2
		round		rund			3
		rhombic		rhombisch			4
40. **(+)**		**Upper petal: margin of apical part**		**Oberes Blütenblatt: oberer Rand**			
PQ	**(b)**	entire		ganzrandig			1
		emarginate		gespalten			2
		laciniate		gefranst			3
41. **(*)** **(+)**		**<u>Upper</u> petal: color of margin of <u>upper side</u>**		**<u>Oberes</u> Blütenblatt: Farbe des Randes der <u>Oberseite</u>**			
PQ	**(b)** **(c)**	RHS Colour Chart (indicate reference		RHS-Farbkarte (Nummer angeben)			

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
		number)					
42. **(*)** **(+)**		**<u>Upper</u> petal: color of middle of <u>upper side</u>**		**<u>Oberes</u> Blütenblatt: Farbe der Mitte der <u>Oberseite</u>**			
PQ	**(b)** **(c)**	RHS Colour Chart (indicate reference number)		RHS-Farbkarte (Nummer angeben)			
43. **(*)** **(+)**		**<u>Upper</u> petal: color of <u>lower side</u>**		**<u>Oberes</u> Blütenblatt: Farbe der <u>Unterseite</u>**			
PQ	**(b)** **(c)**	RHS Colour Chart (indicate reference number)		RHS-Farbkarte (Nummer angeben)			
44. **(*)**		**<u>Upper</u> petal: conspicuousness of marking**		**<u>Oberes</u> Blütenblatt: Ausprägung der Zeichnung**			
QN	**(b)** **(c)**	absent or very weak		fehlend oder sehr gering		Fisum Pink	1
		weak		gering		Zoldarobo	3
		medium		mittel		Zonadarolo	5
		strong		stark		Genda	7
45. **(*)** **(+)**		**<u>Upper</u> petal: type of marking**		**<u>Oberes</u> Blütenblatt: Art der Zeichnung**			
PQ	**(b)**	stripes only		nur gestreift			1
	(c)	stripes and dots		gestreift und Punkte			2
		stripes and spot/spots		gestreift und Fleck/Flecken			3
		spot only		nur Fleck			4
46. **(+)**		**<u>Upper</u> petal: size of largest spot**		**<u>Oberes</u> Blütenblatt: Größe des größten Flecks**			
QN	**(b)**	small		klein			3
	(c)	medium		mittel			5
		large		groß			7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
47. **(+)**		**<u>Upper</u> petal: color of spot**		**<u>Oberes</u> Blütenblatt: Farbe des Flecks**			
PQ	**(b)** **(c)**	RHS Colour Chart (indicate reference number)		RHS-Farbkarte (Nummer angeben)			
48. **(*)** **(+)**		**<u>Upper</u> petal: zone at base**		**<u>Oberes</u> Blütenblatt: Zone an der Basis**			
QL	**(b)**	absent		fehlend		KLEP03106	1
	(c)	present		vorhanden		Sil Merle	9
49. **(+)**		**<u>Upper</u> petal: size of zone at base**		**<u>Oberes</u> Blütenblatt: Größe der Zone an der Basis**			
QN	**(b)**	small		klein		Swero	3
	(c)	medium		mittel		Sil Merle	5
		large		groß			7
50. **(*)**		**<u>Upper</u> petal: color of zone at base**		**<u>Oberes</u> Blütenblatt: Farbe der Zone an der Basis**			
PQ	**(b)**	white		weiß		Sil Merle	1
	(c)	red pink		rotrosa		Pacsalpri	2
		orange red		orangerot			3
51. **(*)** **(+)**		**<u>Lower</u> petal: color of margin of <u>upper</u> <u>side</u>**		**<u>Unteres</u> Blütenblatt: Farbe des Randes der <u>Oberseite</u>**			
PQ	**(b)** **(c)**	RHS Colour Chart (indicate reference number)		RHS-Farbkarte (Nummer angeben)			
52. **(*)** **(+)**		**<u>Lower</u> petal: color of middle of <u>upper</u> <u>side</u>**		**<u>Unteres</u> Blütenblatt: Farbe der Mitte der <u>Oberseite</u>**			
PQ	**(b)** **(c)**	RHS Colour Chart (indicate reference number)		RHS-Farbkarte (Nummer angeben)			

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
53. **(*)** **(+)**		**<u>Lower</u> petal: color of <u>lower side</u>**		**<u>Unteres</u> Blütenblatt: Farbe der <u>Unterseite</u>**			
PQ	**(b)** **(c)**	RHS Colour Chart (indicate reference number)		RHS-Farbkarte (Nummer angeben)			
54. **(+)**		**<u>Lower</u> petal: conspicuousness of marking**		**<u>Unteres</u> Blütenblatt: Ausprägung der Zeichnung**			
QN	**(b)**	absent or very weak		fehlend oder sehr gering		Sil Merle	1
	(c)	weak		gering		Zomelo	3
		medium		mittel		Zonadarolo	5
		strong		stark		Swero	7
55. **(+)**		**<u>Lower</u> petal: type of marking**		**<u>Unteres</u> Blütenblatt: Art der Zeichnung**			
PQ	**(b)**	stripes only		nur gestreift			1
	(c)	stripes and dots		gestreift und Punkte			2
		stripes and spot/spots		gestreift und Fleck/Flecken			3
		spot only		nur Fleck			4
56. **(+)**		**<u>Lower</u> petal: size of largest spot**		**<u>Unteres</u> Blütenblatt: Größe des größten Flecks**			
QN	**(b)**	small		klein			3
	(c)	medium		mittel			5
		large		groß			7
57.		**<u>Lower</u> petal: zone at base**		**<u>Unteres</u> Blütenblatt: Zone an der Basis**			
QN	**(b)**	absent		fehlend		Fisum Pink	1
	(c)	present		vorhanden		Sil Linus	9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
58.		**<u>Lower</u> petal: size of zone at base**		**<u>Unteres</u> Blütenblatt: Größe der Zone an der Basis**			
QN	**(b)**	small		klein		Duevipifiz	3
	(c)	medium		mittel		Sil Linus	5
		large		groß			7
59.		**<u>Lower</u> petal: color of zone at base**		**<u>Unteres</u> Blütenblatt: Farbe der Zone an der Basis**			
QL	**(b)**	white		weiß			1
	(c)	orange red		orangerot			2
		blue pink		blaurosa			3
		violet		violett			4
60. **(*)**		**<u>Only double flowering varieties:</u> Inner petal: color of middle of <u>upper side</u>**		**<u>Nur gefüllt blühende Sorten:</u> Inneres Blütenblatt: Farbe der Mitte der <u>Oberseite</u>**			
PQ	**(b)**	RHS Colour Chart (indicate reference number)		RHS-Farbkarte (Nummer angeben)			

8. Explanations on the Table of Characteristics

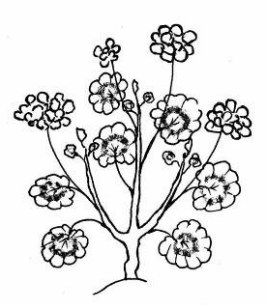
8.1 Explanations covering several characteristics

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

(a) Observations on the stem and the leaf should be made at the base of the second inflorescence of the strongest stem. All observations on the leaf should be made on the upper side.
(b) Observations on the inflorescence and the flower should be made on the second inflorescence of the strongest stem.
(c) Observations should be made on varieties with flowers without irregularly distributed stripes or blotches only.

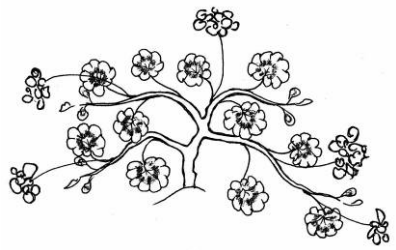
8.2 Explanations for individual characteristics

Ad. 1: Plant: growth type



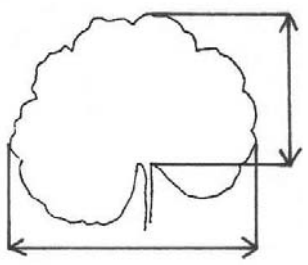
1
upright

2
semi-upright

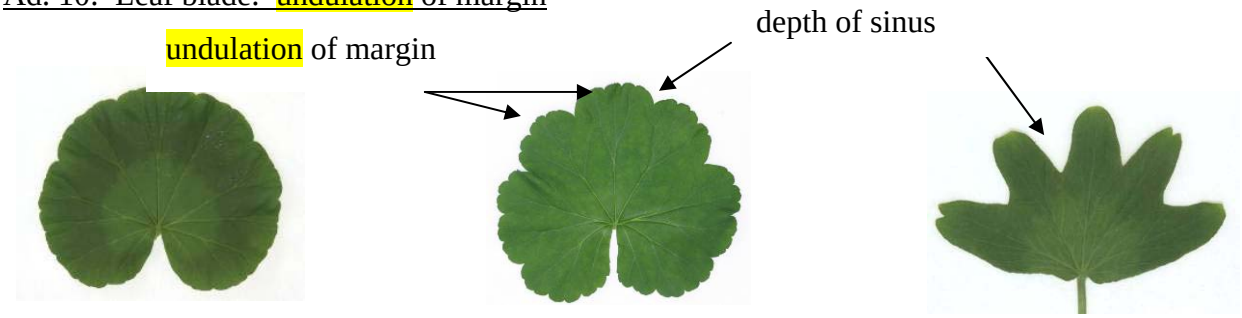


3
trailing

Ad. 7: Leaf blade: length
Ad. 8: Leaf blade: width

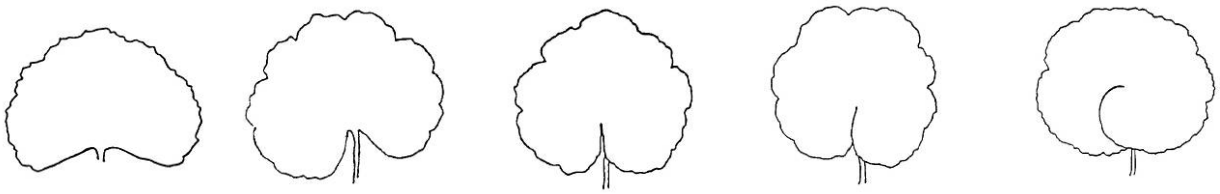


Ad. 9: Leaf blade: depth of sinus
Ad. 10: Leaf blade: undulation of margin



1	5	7
absent or very shallow	medium	deep

Ad. 11: Leaf blade: base



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

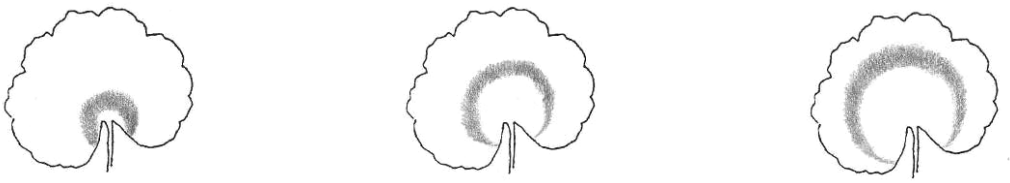
Ad. 13: Leaf blade: main color (zone excluded)

Main color: color of the largest area of the leaf blade. If the area of the colors is nearly half and half, the darker color is the main color.

Ad. 16: Leaf blade: conspicuousness of zone

1	3	5	7	9
absent or very weak	weak	medium	strong	very strong

Ad. 17: Leaf blade: position of zone



1
at base

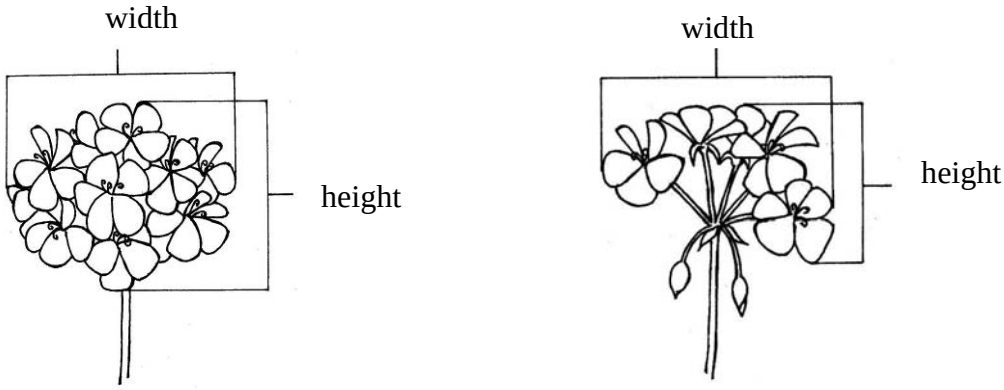
2
in middle

3
towards margin

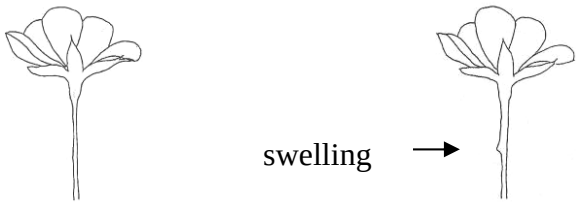
Ad. 18: Leaf blade: relative size of zone

[TO BE PROVIDED]

Ad. 21: Inflorescence: height
Ad. 22: Inflorescence: width



Ad. 28: Pedicel: swelling



1
predominantly absent

2
predominantly present

Ad. 29: Flower: type

A single flower has 5 petals only. A double flower has more than 5 petals.

Ad. 30: Only single flowering varieties: Flower: arrangement of upper petals in relation to lower petals

1
free

3
touching

5
slightly overlapping

Ad.: 32: Flower: cross section in lateral view

1
concave

2
flat

3
convex

Ad. 33: Flower: presence of irregularly distributed stripes or blotches

1
absent

9
present

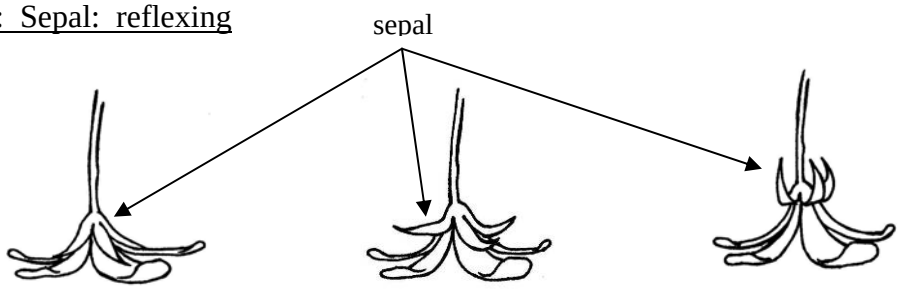
Ad. 34. Only varieties with flowers with irregularly distributed stripes or blotches: Flower: ground color

[TO BE PROVIDED]

Ad. 35: Only varieties with flowers with irregularly distributed stripes or blotches: Flower: color of stripes or blotches

[TO BE PROVIDED]

Ad. 36: Sepal: reflexing



1
absent or very weak

2
moderate

3
strong

Ad. 38: Upper petal: width

[TO BE PROVIDED]

Ad. 39: Upper petal: shape

1
triangular

2
spatulate

3
round

4
rhombic

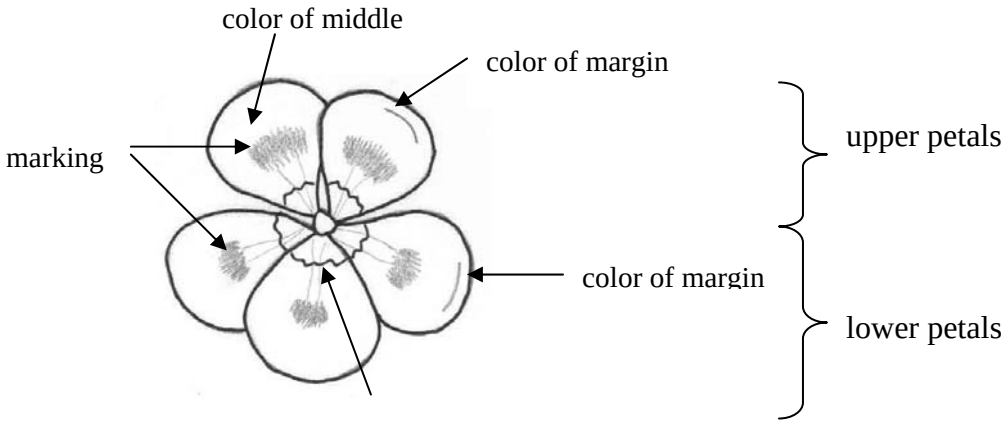
Ad. 40: Upper petal: margin of apical part

1
entire

2
emarginate

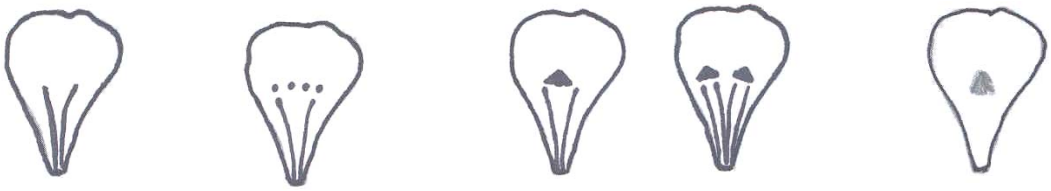
3
laciniate

Ad. 41: Upper petal: color of margin of upper side
Ad. 42: Upper petal: color of middle of upper side
Ad. 51: Lower petal: color of margin of upper side
Ad. 52: Lower petal: color of middle of upper side



zone at base

Ad. 45: Upper petal: type of marking
Ad. 55: Lower petal: type of marking



1
stripes only

2
stripes and dots

3
stripes and spot/spots

4
spot only

Ad. 46: Upper petal: size of largest spot
Ad. 56: Lower petal: size of largest spot

3
small

5
medium

7
large

Ad. 47: Upper petal: color of spot

Only for varieties with spot with at least size "medium" (5)

Ad. 48. Upper petal: zone at base

[TO BE PROVIDED]

Ad. 49: Upper petal: size of zone at base

[TO BE PROVIDED]

Ad. 53: Lower petal: color of lower side

[TO BE PROVIDED]

Ad. 54: Lower petal: conspicuousness of marking

[TO BE PROVIDED]

9. Literature

Maatsch et al, 1977: Pelargonien: Geschichte, Kultur, Wirtschaftlichkeit, Züchtung. Verlag Paul Parey, Berlin, Hamburg, Deutschland, 116 pp.

10. Technical Questionnaire

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

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

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

1. Subject of the Technical Questionnaire

1.1.1	Botanical name	*Pelargonium* Zonale Group (syn. *Pelargonium* x*hortorum* L.H. Bailey)	[ ]
1.1.2	Common name	Zonal Pelargonium	
1.2.1	Botanical name	*Pelargonium peltatum* (L.) Hér.	[ ]
1.2.2	Common name	Ivy-leaved Pelargonium	

Hybrid: please indicate name(s) of species used in the crossing

1.3	Botanical name		[ ]

2. Applicant

Name	
Address	
Telephone No.	
Fax No.	
E-mail address	

Breeder (if different from applicant)

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

3. Proposed denomination and breeder's reference

Proposed denomination (if available) [ ]

Breeder's reference [ ]

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

4.1.2 Mutation [ ]
(please state parent variety)

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

4.1.4 Other [ ]
(please provide details)

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

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

4.2 Method of propagating the variety

4.2.1 Seed-propagated varieties

(a) Self-pollination [ ]
(b) Cross pollination
(i) population [ ]
(ii) synthetic variety [ ]
© Hybrid [ ]
(d) Other [ ]
(please provide details)

4.2.2 Vegetative propagation

(a) cuttings [ ]
(b) *in vitro* propagation [ ]
© other (state method) [ ]

4.2.3 Other [ ]
(please provide details)

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

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

	Characteristics	Example Varieties	Note
5.1 (12)	**Leaf blade: variegation**		
	absent	Sil Merle	1[ ]
	present	Penevro	9[ ]
5.2 (13)	**Leaf blade: main color (zone excluded)**		
	yellow		1[ ]
	light green		2[ ]
	light green to medium green	Zowit	3[ ]
	medium green	Sil Merle	4[ ]
	medium green to dark green	KLEP031106	5[ ]
	dark green	Zolirsca	6[ ]
	dark red	Vancouver Centennial	7[ ]
	dark purple	Black Magic	8[ ]
	other (indicate color)	.....	
5.3 (16)	**Leaf blade: conspicuousness of zone**		
	absent or very weak	Zowit	1[ ]
	weak	Zolirsca	3[ ]
	medium	Zolarlet	5[ ]
	strong	Pascalpri	7[ ]
	very strong	Baldescarim	9[ ]
5.4 (20)	**Penduncle: anthocyanin coloration on upper third**		
	absent or very weak		1[ ]
	weak		3[ ]
	medium		5[ ]
	strong		7[ ]

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

	Characteristics	Example Varieties	Note
5.5 (29)	**Flower: type**		
	single		1[ ]
	double		2[ ]
5.6 (44)	**Upper petal: conspicuousness of marking**		
	absent or very weak	Fisum Pink	1[ ]
	weak	Zoldarobo	3[ ]
	medium	Zonadarolo	5[ ]
	strong	Genda	7[ ]
5.7 (45)	**Upper petal: type of marking**		
	stripes only		1[ ]
	stripes and dots		2[ ]
	stripes and spot/spots		3[ ]
	spot only		4[ ]
5.8i (52)	**Lower petal: color of middle of upper side**		
	RHS Colour Chart (indicate reference number)	……..	
5.8ii (52)	**Lower petal: color of middle of upper side**		
	white		1[ ]
	orange pink		2[ ]
	orange		3[ ]
	red		4[ ]
	purple		5[ ]
	blue pink		6[ ]
	other (indicate color)	……..	

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 ist examination of distinctness in a more efficient way.

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the similar variety(ies)	Describe the expression of the characteristic(s) for your candidate variety
(Example)	*Flower: type*	*single*	*double*

Comments:

[#]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 should accompany the Technical Questionnaire.

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

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

8. Authorization for release

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

Yes [ ] No [ ]

(b) Has such authorization been obtained?

Yes [ ] No [ ]

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

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

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

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

(a) Microorganisms (e.g. virus, bacteria, phytoplasma) Yes [ ] No [ ]

(b) Chemical treatment (e.g. growth retardant, pesticide) Yes [ ] No [ ]

(c) Tissue culture Yes [ ] No [ ]

(d) Other factors Yes [ ] No [ ]

Please provide details of 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]