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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

PLECTRANTHUS *

UPOV Code: PLECT

Plectranthus L'Hér.
excluding *P. scutellarioides*

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by (an) expert(s) from South Africa

to be considered by the

Technical Committee at its fifty-second session,
to be held in Geneva from March 14 to 16, 2016

Disclaimer: this document does not represent UPOV policies or guidance

Alternative Names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Plectranthus L'Hér., *Coleus* Lour., *Plectranthus* L'Herit.	Plectranthus, Spurflower	Plectranthe	Harfenstrauch	Plectranthus

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 *Plectranthus* L'Hér. excluding *P. scutellarioides*.

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 plants capable of expressing all relevant characteristics of the variety during the first growing cycle.

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

10 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

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 10 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 5 plants or parts taken from each of 5 plants and any other observations made on all plants in the test, disregarding any off-type plants. In the case of observations of parts taken from single plants, the number of parts to be taken from each of the plants should be 1.

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 10 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 2)
(b) Leaf blade: variegation (characteristic 12)
(c) Leaf blade: anthocyanin coloration of lower side (characteristic 15)
(d) Flower: main color (characteristic 24) with the following groups:
    Gr. 1: white
    Gr. 2: pink
    Gr. 3: reddish purple
    Gr. 4: purple
    Gr. 5: violet
    Gr. 6: violet blue

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)-(d) See Explanations on the Table of Characteristics in Chapter 8.1

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

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

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1.	**VG**	**Plant: growth habit**	**Plante : port**	**Pflanze: Wuchsform**	**Planta: porte**		
(+)							
QN		upright	dressé	aufrecht	erguido	Erma	1
		semi-upright	demi-dressé	halbaufrecht	semierguido	Cloud Nine	3
		spreading	étalé	breitwüchsig	extendida	Amanda, Verandah Jacaranda	5
		trailing	rampant	hängend	rastrera	Variegated Cape GC	7
2.	**MS/ VG**	**Plant: height**	**Plante : hauteur**	**Pflanze: Höhe**	**Planta: altura**		
(*)							
(+)							
QN		short	basse	niedrig	baja	Hadi Variegated	3
		medium	moyenne	mittel	media	Chimanimani	5
		tall	haute	hoch	alta	Erma	7
3.	**MS/ VG**	**Plant: width**	**Plante : largeur**	**Pflanze: Breite**	**Planta: anchura**		
QN		narrow	étroite	schmal	estrecha	Hadi Variegated	3
		medium	moyenne	mittel	media	Chimanimani	5
		broad	large	breit	ancha	Variegated Cape GC	7
4.	**MS/ VG**	**Petiole: length**	**Pétiole : longueur**	**Blattstiel: Länge**	**Pecíolo: longitud**		
QN	**(a)**	short	court	kurz	corto	Jazz Pink	1
		medium	moyen	mittel	medio	Variegated Cape GC	2
		long	long	lang	largo	Verandah Jacaranda	3
5.	**MS/ VG**	**Leaf blade: length**	**Limbe : longueur**	**Blattspreite: Länge**	**Limbo: longitud**		
(*)							
QN	**(a)**	short	court	kurz	corto	Chimanimani	3
		medium	moyen	mittel	medio	Jaws	5
		long	long	lang	largo	Erma, Trish	7
6.	**MS/ VG**	**Leaf blade: width**	**Limbe : largeur**	**Blattspreite: Breite**	**Limbo: anchura**		
(*)							
QN	**(a)**	very narrow	très étroit	sehr schmal	muy estrecho		1
		narrow	étroit	schmal	estrecho	Chimanimani	3
		medium	moyen	mittel	medio	Jazz Purple	5
		broad	large	breit	ancho	Erma	7
		very broad	très large	sehr breit	muy ancho	Trish	9
7.	**VG**	**Leaf blade: ratio length/width**	**Limbe : rapport longueur/largeur**	**Blattspreite: Verhältnis Länge/Breite**	**Limbo: relación longitud/anchura**		
(+)							
QN	**(a)**	low	bas	klein	baja	Chimanimani	1
		medium	moyen	mittel	media	Jazz Purple	2
		high	élevé	groß	alta	Tommy White	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
8.	**VG**	**Leaf blade: thickness**	**Limbe : épaisseur**	**Blattspreite: Dicke**	**Limbo: grosor**		
QN	**(a)**	thin	fin	dünn	delgado	Erma	1
		medium	moyen	mittel	medio	Jazz White	2
		thick	épais	dick	grueso	Verandah Jacaranda	3
9. **(*)** **(+)**	**VG**	**Leaf blade: shape of base**	**Limbe : forme de la base**	**Blattspreite: Form der Basis**	**Limbo: forma de la base**		
PQ	**(a)**	acute	pointue	spitz	aguda	Amanda, Erma	1
		obtuse	obtuse	stumpf	obtusa	Plepalila	2
		rounded	arrondie	abgerundet	redondeada	Cloud Nine, Jazz Purple	3
		truncate	tronquée	gerade	truncada	Coral Cloud, Jaws	4
10. **(*)** **(+)**	**VG**	**Leaf blade: shape of apex**	**Limbe : forme du sommet**	**Blattspreite: Form der Spitze**	**Limbo: forma del ápice**		
PQ	**(a)**	acute	pointu	spitz	agudo	Guru's Choice	1
		obtuse	obtus	stumpf	obtuso	Coral Cloud	2
		rounded	arrondi	abgerundet	redondeado	Amanda, Trish	3
11.	**VG**	**Leaf blade: position of broadest part**	**Limbe : position de la partie la plus large**	**Blattspreite: Position der breitesten Stelle**	**Limbo: posición de la parte más ancha**		
QN	**(a)**	at middle	au milieu	in der Mitte	en el medio	P 00 06 07	1
		slightly towards base	légèrement vers la base	leicht zur Basis hin	ligeramente hacia la base	Jazz Purple	2
		moderately towards base	modérément vers la base	mäßig zur Basis hin	moderadamente hacia la base	Variegated Cape GC	3
12. **(*)**	**VG**	**Leaf blade: variegation**	**Limbe : panachure**	**Blattspreite: Panaschierung**	**Limbo: variegación**		
QL	**(a)**	absent	absente	fehlend	ausente	Jaws, Jazz Purple	1
		present	présente	vorhanden	presente	Variegated Cape GC	9
13. **(*)** **(+)**	**VG**	**Leaf blade: intensity of green color of upper side**	**Limbe : intensité de la couleur verte de la face supérieure**	**Blattspreite: Intensität der Grünfärbung der Oberseite**	**Limbo: intensidad del color verde del haz**		
QN	**(a)**	light	claire	hell	claro	Easy Gold, Jaws	1
		medium	moyenne	mittel	medio	Amanda	2
		dark	foncée	dunkel	oscuro	Erma	3
14.	**VG**	**Leaf blade: anthocyanin coloration of upper side**	**Limbe : pigmentation anthocyanique de la face supérieure**	**Blattspreite: Anthocyanfärbung der Oberseite**	**Limbo: pigmentación antociánica del haz**		
QN	**(a)**	absent or weak	absente ou faible	fehlend oder schwach	ausente o débil		1
		medium	moyenne	mittel	media		2
		strong	forte	stark	fuerte		3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
15. (*)	**VG**	**Leaf blade: anthocyanin coloration of lower side**	**Limbe : pigmentation anthocyanique de la face inférieure**	**Blattspreite: Anthocyanfärbung der Unterseite**	**Limbo: pigmentación antociánica del envés**		
QN	**(a)**	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Cloud Nine	1
		weak	faible	gering	débil	Tommy White	3
		medium	moyenne	mittel	media	Jazz Blush Pink	5
		strong	forte	stark	fuerte	Jazz Purple	7
		very strong	très forte	sehr stark	muy fuerte		9
16. (*)	**VG**	**Leaf blade: distribution of anthocyanin coloration of lower side**	**Limbe : répartition de la pigmentation anthocyanique de la face inférieure**	**Blattspreite: Verteilung der Anthocyanfärbung der Unterseite**	**Limbo: distribución de la pigmentación antociánica del envés**		
PQ	**(a)**	between veins	entre les nervures	zwischen den Adern	entre los nervios	Verandah Jacaranda	1
		on veins only	sur les nervures seulement	nur auf den Adern	solo en los nervios	Coral Cloud	2
		throughout	partout	überall	por todo	Amanda, P 00 06 07	3
17. (*) (+)	**VG**	**Leaf blade: type of incisions of margin**	**Limbe : type d'incisions du bord**	**Blattspreite: Art der Randeinschnitte**	**Limbo: tipo de incisiones del borde**		
PQ	**(a)**	biserrate	bidenticulé	doppelt gesägt	biserradas	Tommy White	1
		serrate	denticulé	gesägt	serradas	Erma	2
		serrate to dentate	denticulé à denté	gesägt bis gezähnt	de serradas a dentadas	Jazz Blush Pink	3
		dentate	denté	gezähnt	dentadas	Variegated Cape GC	4
		dentate to crenate	denté à crénelé	gezähnt bis gekerbt	de dentadas a crenadas	Amanda	5
		crenate	crénelé	gekerbt	crenadas	Cloud Nine	6
18. (*) (+)	**VG**	**Leaf blade: depth of incisions of margin**	**Limbe : profondeur des incisions du bord**	**Blattspreite: Tiefe der Randeinschnitte**	**Limbo: profundidad de las incisiones del borde**		
QN	**(a)**	very shallow	très peu profondes	sehr flach	muy poco profundas	Hadi Variegated	1
		shallow	peu profondes	flach	poco profundas	Erma	2
		medium	moyennes	mittel	medias	Variegated Cape GC	3
		deep	profondes	tief	profundas	Tommy White	4
		very deep	très profondes	sehr tief	muy profundas	Jaws	5
19.	**VG**	**Leaf blade: blistering**	**Limbe : cloqûre**	**Blattspreite: Blasigkeit**	**Limbo: abullonado**		
QN	**(a)**	weak	faible	gering	débil	Coral Cloud	1
		medium	moyenne	mittel	medio	Amanda	2
		strong	forte	stark	fuerte	Jazz Purple	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
20. (*)	**VG**	**Leaf blade: pubescence**	**Limbe : pilosité**	**Blattspreite: Behaarung**	**Limbo: pubescencia**		
QN	**(a)**	absent or very sparse	absente ou très faible	fehlend oder sehr gering	ausente o muy laxa	Erma	1
		sparse	faible	gering	laxa	P 00 06 07	2
		medium	moyenne	mittel	media	Tommy White	3
		dense	forte	dicht	densa	Plepalila	4
		very dense	très forte	sehr dicht	muy densa	Jaws	5
21.	**VG**	**Flowering branch: density of flowers**	**Branche florifère : densité des fleurs**	**Blühender Trieb: Dichte der Blüten**	**Rama floral: densidad de flores**		
QN	**(b)**	very sparse	très faible	sehr locker	muy laxa	Jazz Pink	1
		sparse	faible	locker	laxa	Jazz Purple	3
		medium	moyenne	mittel	media	Jazz Variegated White	5
		dense	forte	dicht	densa	Chimanimani	7
		very dense	très forte	sehr dicht	muy densa		9
22. (*)	**VG**	**Flowering branch: pubescence**	**Branche florifère : pilosité**	**Blühender Trieb: Behaarung**	**Rama floral: pubescencia**		
QN	**(b)**	absent or very sparse	absente ou très faible	fehlend oder sehr locker	ausente o muy laxa	Jazz Purple	1
		sparse	faible	locker	laxa	Chimanimani	2
		medium	moyenne	mittel	media	Variegated Cape GC	3
		dense	forte	dicht	densa		4
		very dense	très forte	sehr dicht	muy densa	Jaws	5
23.	**VG**	**Flowering branch: anthocyanin coloration**	**Branche florifère : pigmentation anthocyanique**	**Blühender Trieb: Anthocyanfärbung**	**Rama floral: pigmentación antociánica**		
QN	**(b)**	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Guru's Choice	1
		weak	faible	gering	débil		2
		medium	moyenne	mittel	media	Coral Cloud	3
		strong	forte	stark	fuerte		4
		very strong	très forte	sehr stark	muy fuerte	Amanda	5
24. (*) (+)	**VG**	**Flower: main color**	**Fleur : couleur principale**	**Blüte: Hauptfarbe**	**Flor: color principal**		
PQ	**(c)**	white	blanc	weiß	blanco	Jazz Variegated White	1
	(d)	pink	rose	rosa	rosa	Jazz Blush Pink	2
		reddish purple	pourpre rougeâtre	rötlichpurpurn	púrpura rojizo	P 00 06 07	3
		purple	pourpre	purpurn	púrpura	Amanda	4
		violet	violet	violett	violeta	Jazz Purple	5
		violet blue	bleu-violet	violettblau	azul violáceo	Hadi Variegated	6

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
25. (*) (+)	**MS/ VG**	**Corolla: length**	**Corolle : longueur**	**Krone: Länge**	**Corola: longitud**		
QN	**(d)**	very short	très courte	sehr kurz	muy corta	Chimanimani	1
		short	courte	kurz	corta	Jazz Variegated White	3
		medium	moyenne	mittel	media	Jazz Blush Pink	5
		long	longue	lang	larga	Jazz Purple	7
		very long	très longue	sehr lang	muy larga		9
26. (+)	**MS/ VG**	**Corolla: height**	**Corolle : hauteur**	**Krone: Höhe**	**Corola: altura**		
QN	**(d)**	low	basse	niedrig	pequeña		1
		medium	moyenne	mittel	media		3
		high	haute	hoch	alta		5
27. (*) (+)	**MS/ VG**	**Corolla tube: length**	**Tube de la corolle : longueur**	**Kronröhre: Länge**	**Tubo de la corola: longitud**		
QN	**(d)**	very short	très court	sehr kurz	muy corto	Coral Cloud	1
		short	court	kurz	corto	Amanda	3
		medium	moyen	mittel	medio	Guru's Choice	5
		long	long	lang	largo	Cloud Nine	7
		very long	très long	sehr lang	muy largo		9
28. (*) (+)	**MS/ VG**	**Corolla tube: height**	**Tube de la corolle : hauteur**	**Kronröhre: Höhe**	**Tubo de la corola: altura**		
QN	**(d)**	very low	très bas	sehr niedrig	muy bajo	Chimanimani	1
		low	bas	niedrig	bajo	Coral Cloud, Jazz Variegated White	3
		medium	moyen	mittel	medio	Jazz Pink	5
		high	haut	hoch	alto	Guru's Choice	7
		very high	très haut	sehr hoch	muy alto		9
29. (*) (+)	**VG**	**Corolla tube: ratio length/height**	**Tube de la corolle : rapport longueur/hauteur**	**Kronröhre: Verhältnis Länge/Höhe**	**Tubo de la corola: relación longitud/altura**		
QN	**(d)**	low	bas	klein	baja		1
		medium	moyen	mittel	media		2
		high	élevé	groß	alta		3
30. (+)	**VG**	**Corolla tube: longitudinal curving**	**Tube de la corolle : courbure longitudinale**	**Kronröhre: Längskrümmung**	**Tubo de la corola: curvatura longitudinal**		
QN	**(d)**	absent or weak	absente ou faible	fehlend oder gering	ausente o débil	Cloud Nine	1
		medium	moyenne	mittel	media	Variegated Cape GC	2
		strong	forte	stark	fuerte	Guru's Choice	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
31. **(*)**	**VG**	**Corolla tube: main color of outer side**	**Tube de la corolle : couleur principale de la face externe**	**Kronröhre: Hauptfarbe der Außenseite**	**Tubo de la corola: color principal de la cara externa**		
PQ	**(c)** **(d)**	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)		
32. **(*)** **(+)**	**VG**	**Upper corolla lobe: main color of outer side**	**Lobe supérieur de la corolle : couleur principale de la face externe**	**Oberer Kronlappen: Hauptfarbe der Außenseite**	**Lóbulo superior de la corola: color principal de la cara externa**		
PQ	**(c)** **(d)**	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)		
33. **(*)** **(+)**	**VG**	**Upper corolla lobe: main color of inner side**	**Lobe supérieur de la corolle : couleur principale de la face interne**	**Oberer Kronlappen: Hauptfarbe der Innenseite**	**Lóbulo superior de la corola: color principal de la cara interna**		
PQ	**(c)** **(d)**	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)		
34. **(*)** **(+)**	**VG**	**Upper corolla lobe: prominence of purple spots or markings**	**Lobe supérieur de la corolle : importance des taches ou marques pourpres**	**Oberer Kronlappen: Ausprägung von purpurnen Flecken oder Zeichnungen**	**Lóbulo superior de la corola: prominencia de lunares o marcas púrpura**		
QN	**(d)**	absent or weak	nulle ou faible	fehlend oder schwach	ausente o débil	Jazz Blush Pink	1
		medium	moyenne	mittel	media	Tommy White	2
		strong	forte	stark	fuerte	P 00 06 07	3
35. **(*)** **(+)**	**VG**	**Lower corolla lobe: main color of outer side**	**Lobe inférieur de la corolle : couleur principale de la face externe**	**Unterer Kronlappen: Hauptfarbe der Außenseite**	**Lóbulo inferior de la corola: color principal de la cara externa**		
PQ	**(c)**	white	blanc	weiß	blanco	Guru's Choice	1
	(d)	pink	rose	rosa	rosa	Jazz Blush Pink	2
		reddish purple	pourpre rougeâtre	rötlichpurpurn	púrpura rojizo	P 00 06 07	3
		purple	pourpre	purpurn	púrpura	Amanda	4
		violet	violet	violett	violeta	Coral Cloud, Jazz Purple	5
		violet blue	bleu-violet	violettblau	azul violáceo	Hadi Variegated	6
36. **(+)**	**MG**	**Time of beginning of flowering**	**Époque de début de floraison**	**Zeitpunkt des Blühbeginns**	**Época de comienzo de la floración**		
QN		early	précoce	früh	temprana		3
		medium	moyenne	mittel	media		5
		late	tardive	spät	tardía		7

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 second column of the Table of Characteristics should be examined as indicated below:

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

(b) Observations on the flowering branch should be made on the highest flowering branch. Pubescence and anthocyanin coloration of the flowering branch should be assessed on the middle third of the rachis.

(c) The main color is the color with the largest surface area. In cases where the areas of the main and secondary color are too similar to reliably decide which color has the largest area, the darker color is considered to be the main color.

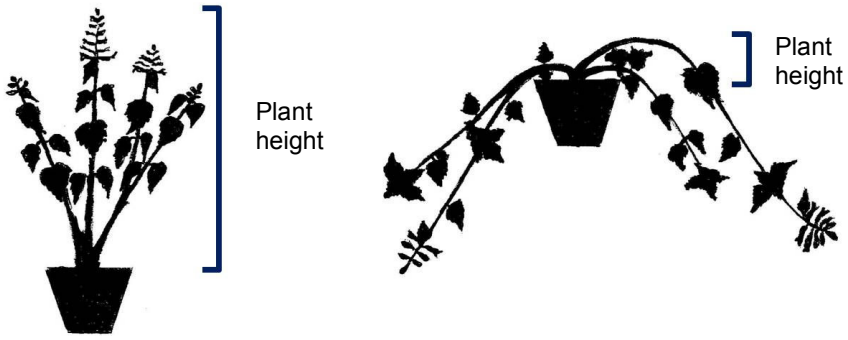
(d) Observations on the flower and flower parts should be made on fresh, fully open flowers.

8.2 Explanations for individual characteristics

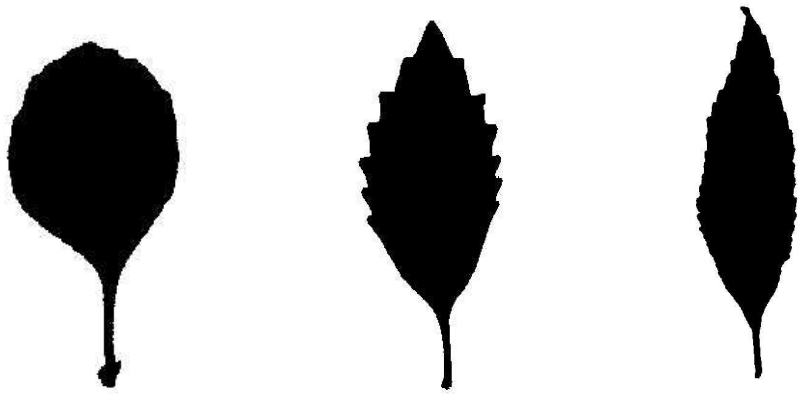
Ad. 1: Plant: growth habit

1 upright | 3 semi-upright | 5 spreading | 7 trailing

Ad. 2: Plant: height



Ad. 7: Leaf blade: ratio length/width

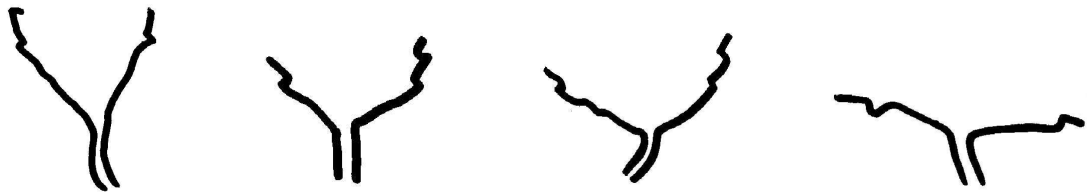


1
low

2
medium

3
high

Ad. 9: Leaf blade: shape of base



1
acute

2
obtuse

3
rounded

4
truncate

Ad. 10: Leaf blade: shape of apex

1
acute

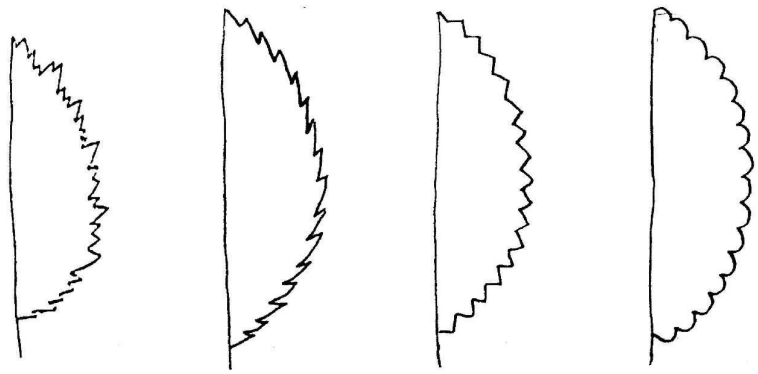
2
obtuse

3
rounded

Ad. 13: Leaf blade: intensity of green color of upper side

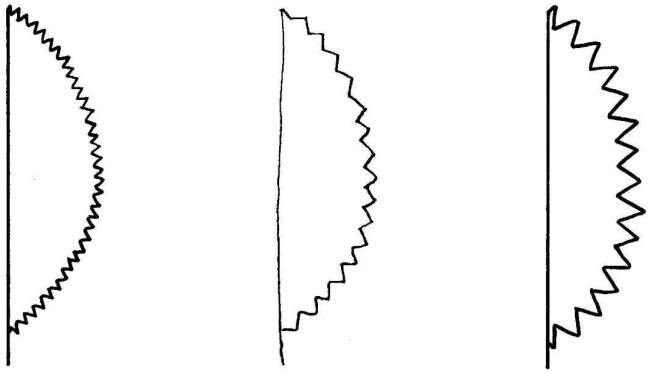
To be observed excluding variegation.

Ad. 17: Leaf blade: type of incisions of margin



1 biserrate | 2 serrate | 4 dentate | 6 crenate

Ad. 18: Leaf blade: depth of incisions of margin

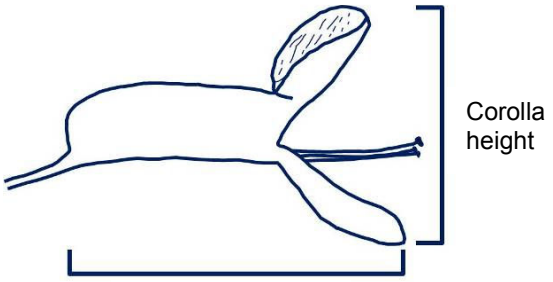


2 shallow | 3 medium | 4 deep

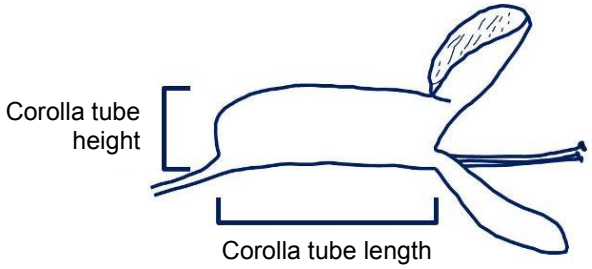
Ad. 24: Flower: main color

This characteristic refers to the general color impression of the flowers, and should be observed while standing one or two steps away from the plants.

Ad. 25: Corolla: length
Ad. 26: Corolla: height



Ad. 27: Corolla tube: length
Ad. 28: Corolla tube: height



Ad. 29: Corolla tube: ratio length/height

1
low

2
medium

3
high

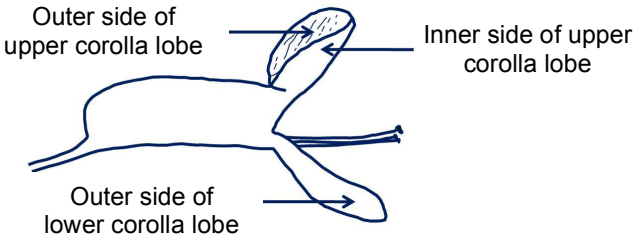
Ad. 30: Corolla tube: longitudinal curving

1
absent or weak

2
medium

3
strong

Ad. 32: Upper corolla lobe: main color of outer side
Ad. 33: Upper corolla lobe: main color of inner side
Ad. 35: Lower corolla lobe: main color of outer side



Ad. 34: Upper corolla lobe: prominence of purple spots or markings

The prominence is determined by the color contrast.

Ad. 36: Time of beginning of flowering

The time of beginning of flowering is when all plants have at least one open flower.

9. Literature

Blake, S.T., 1971: A Revision of Plectranthus (Labiatae) in Australasia. Contributions from the Queensland Herbarium No. 9. Brisbane, Queensland, AU.

Codd, L.E., 1975: Plectranthus (Labiatae) and allied genera in Southern Africa. Bothalia, vol. 11. Pretoria, ZA, pp. 371 to 442.

Van Jaarsveld, E.J., 1981: The S.A. Plectranthus species as Garden Plants. National Botanic Gardens of South Africa. Cape Town, ZA, 9 pp.

Van Jaarsveld, E.J., 1988: The Plectranthus Handbook. National Botanic Gardens of South Africa. Cape Town, ZA, 21 pp.

Van Jaarsveld, E.J., Edwards, T.J., 1997: Notes on Plectranthus (Lamiaceae) from southern Africa. Bothalia, vol. 27. Pretoria, ZA, pp. 1 to 6.

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	*Plectranthus* L'Hér	
1.2 Species (please complete)		[ ]
1.3 Hybrid		[ ]
Species (please complete)		

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) [ ]

4.2.3 Other [ ]
(please provide details)

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

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

	Characteristics	Example Varieties	Note
5.1 (2)	**Plant: height**		
	very short		1[ ]
	very short to short		2[ ]
	short	Hadi Variegated	3[ ]
	short to medium		4[ ]
	medium	Chimanimani	5[ ]
	medium to tall		6[ ]
	tall	Erma	7[ ]
	tall to very tall		8[ ]
	very tall		9[ ]
5.2 (12)	**Leaf blade: variegation**		
	absent	Jaws, Jazz Purple	1[ ]
	present	Variegated Cape GC	9[ ]
5.3 (15)	**Leaf blade: anthocyanin coloration of lower side**		
	absent or very weak	Cloud Nine	1[ ]
	very weak to weak		2[ ]
	weak	Tommy White	3[ ]
	weak to medium		4[ ]
	medium	Jazz Blush Pink	5[ ]
	medium to strong		6[ ]
	strong	Jazz Purple	7[ ]
	strong to very strong		8[ ]
	very strong		9[ ]
5.4 (24)	**Flower: main color**		
	white	Jazz Variegated White	1[ ]
	pink	Jazz Blush Pink	2[ ]
	reddish purple	P 00 06 07	3[ ]
	purple	Amanda	4[ ]
	violet	Jazz Purple	5[ ]
	violet blue	Hadi Variegated	6[ ]

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

6. Similar varieties and differences from these varieties

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

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the **similar** variety(ies)	Describe the expression of the characteristic(s) for **your** candidate variety
Example	*Leaf blade: variegation*	*absent*	*present*

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

Main use
(a) garden plant [ ]
(b) pot plant [ ]
(c) other [ ]
(please provide details)

7.4 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.]

8. Authorization for release

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

Yes [ ] No [ ]

(b) Has such authorization been obtained?

Yes [ ] No [ ]

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

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

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

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

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

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

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

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

……

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

Yes [ ]

(please provide details as specified by the Authority)

No [ ]

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

Applicant’s name

Signature Date

[End of document]