



TG/PLECTR(proj.2)

ORIGINAL: English

DATE: 2015-08-03

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

Plectranthus

UPOV Code: PLECT

Plectranthus L'Hér.

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 Working Party for Ornamental Plants and Forest Trees**at its forty-eighth session**to be held in Cambridge, United Kingdom,**from 2015-09-14**to 2015-09-18*Alternative Names:^{*}

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
Plectranthus L'Hér., Coleus Lour., Plectranthus L'Herit.	Spurflower		Harfenstrauch	

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.]

<u>TABLE OF CONTENTS</u>	<u>PAGE</u>
1. SUBJECT OF THESE TEST GUIDELINES.....	3
2. MATERIAL REQUIRED.....	3
3. METHOD OF EXAMINATION.....	3
3.1 NUMBER OF GROWING CYCLES	3
3.2 TESTING PLACE	3
3.3 CONDITIONS FOR CONDUCTING THE EXAMINATION.....	3
3.4 TEST DESIGN.....	3
3.5 ADDITIONAL TESTS.....	4
4. ASSESSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY	4
4.1 DISTINCTNESS	4
4.2 UNIFORMITY	5
4.3 STABILITY.....	5
5. GROUPING OF VARIETIES AND ORGANIZATION OF THE GROWING TRIAL.....	5
6. INTRODUCTION TO THE TABLE OF CHARACTERISTICS	5
6.1 CATEGORIES OF CHARACTERISTICS	5
6.2 STATES OF EXPRESSION AND CORRESPONDING NOTES	6
6.3 TYPES OF EXPRESSION.....	6
6.4 EXAMPLE VARIETIES.....	6
6.5 LEGEND	7
7. TABLE OF CHARACTERISTICS/TABLEAU DES CARACTÈRES/MERKMALSTABELLE/TABLA DE CARACTERES	8
8. EXPLANATIONS ON THE TABLE OF CHARACTERISTICS.....	17
9. LITERATURE	25
10. TECHNICAL QUESTIONNAIRE.....	26

1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Plectranthus* L'Hér..

excluding *Plectranthus 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*

3.1.1 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)

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*

- (*) Asterisk 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.

(+) See Explanations on the Table of Characteristics in Chapter 8.

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

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

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<hr/>					
1. QN VG (+)					
Plant: growth habit					
upright				Erma	1
semi-upright				Cloud Nine	3
spreading				Amanda, Verandah Jacaranda	5
trailing				Variegated Cape GC	7
<hr/>					
2. (*) QN MS VG (+)					
Plant: height					
short				Hadi Variegated	3
medium				Chimanimani	5
tall				Erma	7
<hr/>					
3. QN MS VG					
Plant: width					
narrow				Hadi Variegated	3
medium				Chimanimani	5
broad				Variegated Cape GC	7
<hr/>					
4. QN MS VG (a)					
Petiole: length					
short				Jazz Pink	1
medium				Variegated Cape GC	2
long				Verandah Jacaranda	3
<hr/>					

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<hr/>					
5. (*) QN MS VG (a)					
Leaf blade: length					
short				Chimanimani	3
medium				Jaws	5
long				Erma, Trish	7
<hr/>					
6. (*) QN MS VG (a)					
Leaf blade: width					
narrow				Chimanimani	3
medium				Jazz Purple	5
broad				Erma	7
very broad				Trish	9
<hr/>					
7. QN VG (a)					
Leaf blade: ratio length/width					
low				Chimanimani	1
medium				Jazz Purple	2
high				Tommy White	3
<hr/>					
8. QN VG (a)					
Leaf blade: thickness					
thin				Erma	1
medium				Jazz White	2
thick				Verandah Jacaranda	3
<hr/>					

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<hr/>					
9. (*) QN VG (+)					
(a)					
Leaf blade: shape of base					
acute				Amanda, Erma	1
obtuse				Plepalila	2
rounded				Cloud Nine, Jazz Purple	3
truncate				Coral Cloud, Jaws	4
<hr/>					
10. (*) QN VG (+)					
(a)					
Leaf blade: shape of apex					
acute				Guru's Choice	1
obtuse				Coral Cloud	2
rounded				Amanda, Trish	3
<hr/>					
11. QN VG (a)					
Leaf blade: position of broadest part					
at middle				P 00 06 07	1
slightly towards base				Jazz Purple	2
moderately towards base				Variegated Cape GC	3
<hr/>					
12. (*) QL VG (a)					
Leaf blade: variegation					
absent				Jaws, Jazz Purple	1
present				Variegated Cape GC	9
<hr/>					
13. (*) QN VG (a)					
Leaf blade: intensity of green color of upper side					
light				Jaws	1
medium				Amanda	2
dark				Erma	3
<hr/>					

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<hr/>					
14. (*) QN VG (a)					
Leaf blade:					
anthocyanin					
coloration of upper side					
absent or weak					1
medium					2
strong					3
<hr/>					
15. (*) QN VG (a)					
Leaf blade:					
anthocyanin					
coloration of lower side					
absent or very weak				Cloud Nine	1
weak				Tommy White	3
medium				Jazz Blush Pink	5
strong				Jazz Purple	7
<hr/>					
16. (*) PQ VG (a)					
Leaf blade:					
distribution of anthocyanin					
coloration of lower side					
between veins				Verandah Jacaranda	1
veins only				Coral Cloud	2
throughout				Amanda, P 00 06 07	3
<hr/>					
17. (*) PQ VG (+)					
(a)					
Leaf blade: type of incisions of margin					
biserrate				Tommy White	1
serrate				Erma	2
serrate to dentate				Jazz Blush Pink	3
dentate				Variegated Cape GC	4
dentate to crenate				Amanda	5
crenate				Cloud Nine	6
<hr/>					

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<hr/>					
18. (*) QN VG (a)					
Leaf blade: depth of incisions of margin					
very shallow				Hadi Variegated	1
shallow				Erma	2
medium				Variegated Cape GC	3
deep				Tommy White	4
very deep				Jaws	5
<hr/>					
19. QN VG (a)					
Leaf blade: blistering					
weak				Coral Cloud	1
medium				Amanda	2
strong				Jazz Purple	3
<hr/>					
20. (*) QN VG (a)					
Leaf blade: pubescence					
absent or very sparse				Erma	1
sparse				P 00 06 07	2
medium				Tommy White	3
dense				Plepalila	4
very dense				Jaws	5
<hr/>					
21. QN VG (b)					
Flowering branch: density of flowers					
very sparse				Jazz Pink	1
sparse				Jazz Purple	3
medium				Jazz Variegated White	5
dense				Chimanimani	7
<hr/>					

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<hr/>					
22. (*) QN VG (b)					
Flowering branch: pubescence					
absent or very sparse				Jazz Purple	1
sparse				Chimanimani	2
medium				Variegated Cape GC	3
dense					4
very dense				Jaws	5
<hr/>					
23. (*) QN VG (b)					
Flowering branch: anthocyanin coloration					
absent or very weak				Guru's Choice	1
weak					2
medium				Coral Cloud	3
strong					4
very strong				Amanda	5
<hr/>					
24. (*) PQ VG (+)					
(c) (d)					
Flower: main color					
white				Jazz Variegated White	1
yellow					2
pink				Jazz Blush Pink	3
reddish purple				P 00 06 07	4
purple				Amanda	5
violet				Jazz Purple	6
violet blue				Hadi Variegated	7
<hr/>					

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<hr/>					
25. (*) QN MS VG (+) (d) Corolla: length					
very short				Chimanimani	1
short				Jazz Variegated White	3
medium				Jazz Blush Pink	5
long				Jazz Purple	7
very long					9
<hr/>					
26. QN MS VG (+) (d) Corolla: height					
low					1
medium					3
high					5
<hr/>					
27. (*) QN MS VG (+) (d) Corolla tube: length					
very short				Coral Cloud	1
short				Amanda	3
medium				Guru's Choice	5
long				Cloud Nine	7
very long					9
<hr/>					
28. (*) QN MS VG (+) (d) Corolla tube: height					
very low				Chimanimani	1
low				Coral Cloud, Jazz Variegated White	3
medium				Jazz Pink	5
high				Guru's Choice	7
<hr/>					

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
---------	----------	---------	---------	--	------------

29. (*) QN VG (+) (d)

**Corolla tube: ratio
length/height**

low					1
medium					2
high					3

30. QN VG (+) (d)

**Corolla tube:
longitudinal curving**

absent or weak				Cloud Nine	1
medium				Variegated Cape GC	2
strong				Guru's Choice	3

31. (*) PQ VG (c) (d)

**Corolla tube: main
color**

RHS Colour Chart
(indicate reference
number)

32. (*) PQ VG (c) (d)

**Upper corolla lobe:
main color of outer
side**

RHS Colour Chart
(indicate reference
number)

33. (*) PQ VG (+) (c)
(d)

**Upper corolla lobe:
main color of inner
side**

RHS Colour Chart
(indicate reference
number)

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<hr/>					
34. (*) QN VG (d)					
Upper corolla					
lobe: prominence of purple spots or markings					
absent or weak				Jazz Blush Pink	1
medium				Tommy White	2
strong				P 00 06 07	3
<hr/>					
35. (*) PQ VG (+)					
(c) (d)					
Lower corolla					
lobe: main color of outer side					
white				Guru's Choice	1
yellow					2
pink				Jazz Blush Pink	3
reddish purple				P 00 06 07	4
purple				Amanda	5
violet				Coral Cloud, Jazz Purple	6
violet blue				Hadi Variegated	7
<hr/>					
36. QN MG (+)					
Time of beginning of flowering					
early					3
medium					5
late					7

8. Explanations on the Table of Characteristics

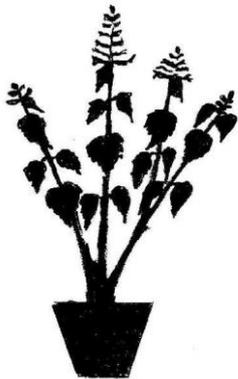
8.1 *Explanations covering several characteristics*

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

- (a) Observations on the 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.
- (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 darkest 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

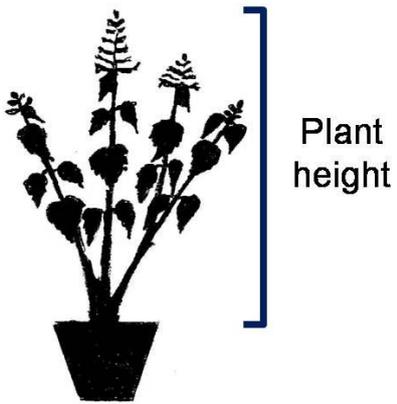


5 - spreading

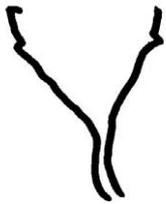


7 - trailing

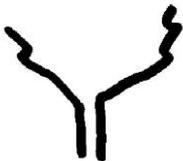
Ad. 2: Plant: height



Ad. 9: Leaf blade: shape of base



1 - acute



2 - obtuse



3 - rounded



4 - truncate

Ad. 10: Leaf blade: shape of apex



1 - acute

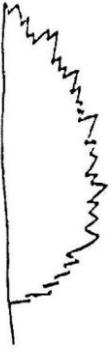


2 - obtuse



3 - rounded

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



1 - biserrate



2 - serrate

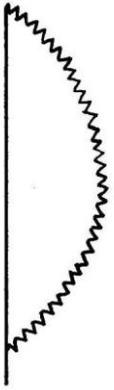


4 - dentate

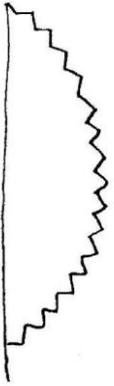


6 - crenate

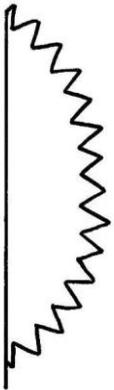
Ad. 18: Leaf blade: depth of incisions of margin



2 - shallow



3 - medium

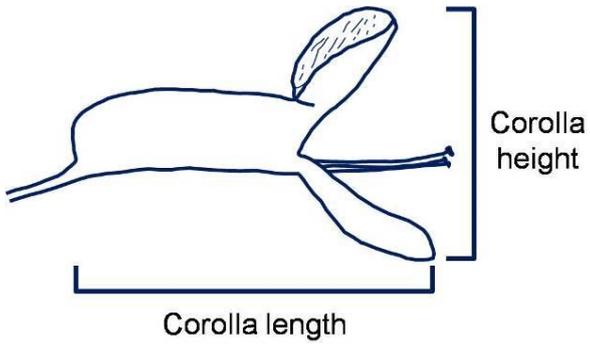


4 - deep

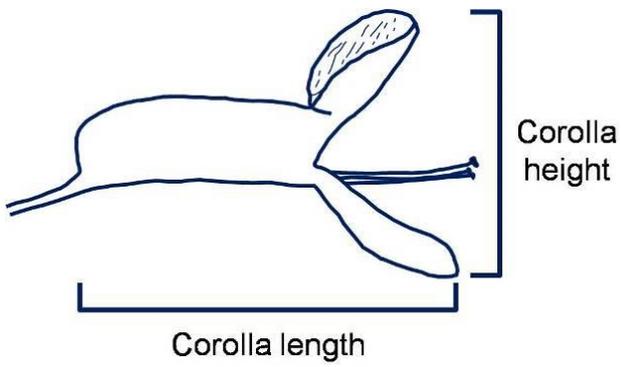
Ad. 24: Flower: main color

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.

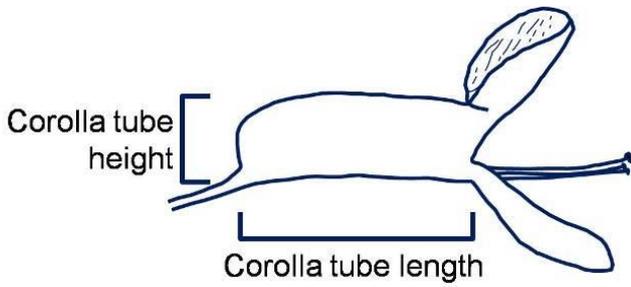
Ad. 25: Corolla: length



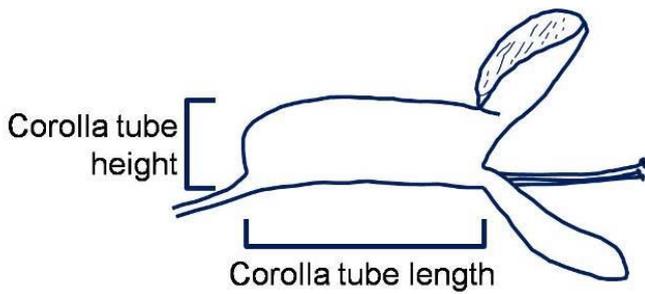
Ad. 26: Corolla: height



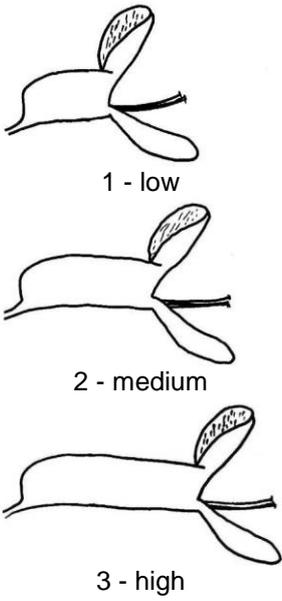
Ad. 27: Corolla tube: length



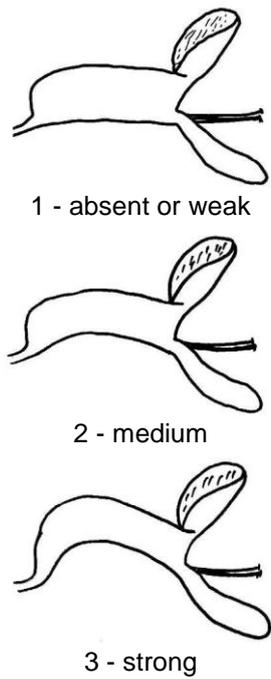
Ad. 28: Corolla tube: height



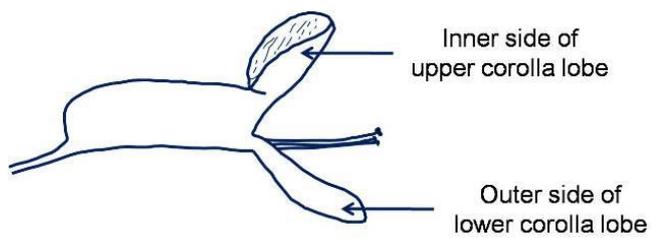
Ad. 29: Corolla tube: ratio length/height



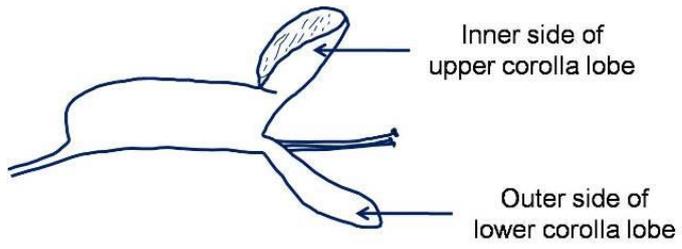
Ad. 30: Corolla tube: longitudinal curving



Ad. 33: Upper corolla lobe: main color of inner side



Ad. 35: Lower corolla lobe: main color of outer side



Ad. 36: Time of beginning of flowering

The time of beginning of flowering is when 50% of the 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. The Plectranthus Handbook. National Botanic Gardens. Cape Town, ZA.

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., 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			
1.1.1	Botanical Name	Plectranthus L'Hér.	[]
1.1.2	Common Name	Spurflower	
1.1.3			
1.2.1	Botanical Name	Species	[]
1.2.2	Common Name		
1.2.3	Please provide details		
1.3.1	Botanical Name	Hybrid	[]
1.3.2	Common Name		
1.3.3	Please provide details		

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

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

4. Information on the breeding scheme and propagation of the variety

4.1 Breeding scheme

Variety resulting from:

4.1.1 Crossing

(a) controlled cross []
(please state parent 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)

.....

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)

.....
:
:
:
.....

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[]
weak	Tommy White	3[]
medium	Jazz Blush Pink	5[]
strong	Jazz Purple	7[]
5.4 (24) Flower: main color		
white	Jazz Variegated White	1[]
yellow		2[]
pink	Jazz Blush Pink	3[]
reddish purple	P 00 06 07	4[]
purple	Amanda	5[]
violet	Jazz Purple	6[]
violet blue	Hadi Variegated	7[]

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
<i>Example</i>	<i>Leaf blade: variegation</i>	<i>absent</i>	<i>present</i>

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

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.

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:												
<p>9. Information on plant material to be examined or submitted for examination</p> <p>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.</p> <p>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:</p> <table data-bbox="239 560 1356 761"><tr><td>(a) Microorganisms (e.g. virus, bacteria, phytoplasma)</td><td>Yes []</td><td>No []</td></tr><tr><td>(b) Chemical treatment (e.g. growth retardant, pesticide)</td><td>Yes []</td><td>No []</td></tr><tr><td>(c) Tissue culture</td><td>Yes []</td><td>No []</td></tr><tr><td>(d) Other factors</td><td>Yes []</td><td>No []</td></tr></table> <p>Please provide details for where you have indicated "yes".</p> <p>.....</p> <p>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 []</p>			(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 []
(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 []												
<p>10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:</p> <table data-bbox="223 1142 1404 1344"><tr><td data-bbox="223 1142 494 1209">Applicant's name</td><td colspan="2" data-bbox="494 1142 1404 1209"><input type="text"/></td></tr><tr><td data-bbox="223 1209 494 1321">Signature</td><td data-bbox="494 1209 973 1321"><input type="text"/></td><td data-bbox="973 1209 1404 1321">Date <input type="text"/></td></tr></table>			Applicant's name	<input type="text"/>		Signature	<input type="text"/>	Date <input type="text"/>						
Applicant's name	<input type="text"/>													
Signature	<input type="text"/>	Date <input type="text"/>												

[End of document]