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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

MANDEVILLA *

UPOV Code: MANDE_SAN; MANDE_AMA

Mandevilla sanderi (Hemsl.) Woodson;
Mandevilla x amabilis (Backh. & Backh. f.) Dress

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from the Netherlands

to be considered by the

Technical Working Party for Ornamental Plants and Forest Trees
at its forty-sixth session, to be held in Melbourne, Australia, from April 22 to 26, 2013

Alternative Names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Mandevilla sanderi (Hems.) Woodson *Dipladenia sanderi* Hemsl. *Mandevilla* x *amabilis* (Backh. & Backh. f.)Dress *Dipladenia* x *amabilis* Backh. &Backh. f. *Dipladenia* x *amoena* T. Moore				

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 *Mandevilla sanderi (*Hemsl.) Woodson*, Mandevilla* x *amabilis* (Backh. & Backh. f.) Dress.

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 young 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

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.

3.4 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 9 plants or parts taken from each of 9 plants and any other observations made on all plants in the test, disregarding any off-type plants.

4.1.5 Method of Observation

The recommended method of observing the characteristic for the purposes of distinctness is indicated by the following key in the second column of the Table of Characteristics (see document TGP/9 “Examining Distinctness”, Section 4 “Observation of characteristics”):

MG: single measurement of a group of plants or parts of plants
MS: measurement of a number of individual plants or parts of plants
VG: visual assessment by a single observation of a group of plants or parts of plants
VS: visual assessment by observation of individual plants or parts of plants

Type of observation: visual (V) or measurement (M)

“Visual” observation (V) is an observation made on the basis of the expert’s judgment. For the purposes of this document, “visual” observation refers to the sensory observations of the experts and, therefore, also includes smell, taste and touch. Visual observation includes observations where the expert uses reference points (e.g. diagrams, example varieties, side-by-side comparison) or non-linear charts (e.g. color charts). Measurement (M) is an objective observation against a calibrated, linear scale e.g. using a ruler, weighing scales, colorimeter, dates, counts, etc.

Type of record: for a group of plants (G) or for single, individual plants (S)

For the purposes of distinctness, observations may be recorded as a single record for a group of plants or parts of plants (G), or may be recorded as records for a number of single, individual plants or parts of plants (S). In most cases, “G” provides a single record per variety and it is not possible or necessary to apply statistical methods in a plant-by-plant analysis for the assessment of distinctness.

In cases where more than one method of observing the characteristic is indicated in the Table of Characteristics (e.g. VG/MG), guidance on selecting an appropriate method is provided in document TGP/9, Section 4.2.

4.2 Uniformity

4.2.1 It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding uniformity. However, the following points are provided for elaboration or emphasis in these Test Guidelines:

4.2.2 For the assessment of uniformity, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 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: number of climbing tendrils (characteristic 2)
(b) Stem: length of internode (characteristic 3)
(c) Leaf blade: bulging between the veins (characteristic 21)
(d) Corolla: diameter (characteristic 36)
(e) Corolla throat: shape (characteristic 41)
(f) Corolla lobe: main color of upper side (characteristic 48) with the following groups:
Gr. 1: white
Gr. 2: yellow
Gr. 3: pink
Gr. 4: red
Gr. 5: purple red

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: density**					
QN	**(a)**	sparse					3
		medium				Scarlet Pimpernel	5
		dense				Red Fantasy	7
2. **(*)**	**VG/** **MS**	**Plant: number of climbing tendrils**					
QN	**(a)**	absent or few				Scarlet Pimpernel	1
		medium				Sunmandecrim	2
		many				Sunmandetomi	3
3. **(*)** **(+)**	**VG/** **MS**	**Stem: length of internode**					
QN	**(a)**	short				Cotton Candy	3
		medium				Lanoregon	5
		long				Sunpararenga	7
4.	**VG**	**Young stem: intensity of green color**					
QN	**(a)**	light					1
		medium					2
		dark					3
5. **(*)**	**VG**	**Young stem: anthocyanin coloration**					
QN	**(a)**	absent or very weak				Sunparacoho	1
		weak				Alegnuflor 704	2
		medium				Cotton Candy	3
		strong				Gendipred	4
6. **(*)**	**VG**	**Stem: pubescence**					
QL	**(a)**	absent				Sunparacoho	1
		present				Scarlet Velvet	9
7. **(*)** **(+)**	**VG**	**Leaf: arrangement**					
QL	**(b)**	opposite				Julie	1
		decussate				Sunmandetomi	2
8.	**VG/** **MS**	**Petiole: length**					
QN	**(a)**	short				Cotton Candy	1
	(b)	medium				Sunparacoho	2
		long				Sunpararenga	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
9.	**VG**	**Petiole: intensity of green color**					
PQ	**(a)**						
	(b)	light					1
		medium					2
		dark					3
10. (*)	**VG**	**Petiole: anthocyanin coloration**					
QN	**(a)**	absent or very weak				Sunparacoho	1
	(b)	weak				Lanoregon	2
		medium				Laniowa	3
		strong				Gendipdured	4
11. (*)	**VG**	**Petiole: pubescence**					
QL	**(a)**	absent				Crimson Silk	1
	(b)	present				Scarlet Velvet	9
12.	**VG/ MS**	**Leaf blade: length**					
QN	**(a)**	short				Lannevada	3
	(b)	medium				Lanoregon	5
		long				Cotton Candy	7
13.	**VG/ MS**	**Leaf blade: width**					
QN	**(a)**	narrow				Lanoregon	3
	(b)	medium				Sunparamiho	5
		broad				Gendiprote	7
14.	**VG/ MS**	**Leaf blade: ratio length/ width**					
QN	**(a)**	slightly elongated					1
	(b)	moderately elongated					2
		strongly elongated					3
15.	**VG**	**Leaf blade: position of broadest part**					
QN	**(a)**	towards base					1
	(b)	at middle					2
		towards apex					3
16. (*) (+)	**VG**	**Leaf blade: shape of apex**					
PQ	**(a)**	acuminate				Sunparacoho	1
	(b)	acute					2
		rounded					3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
17. **(+)**	**VG**	**Leaf blade: shape of base**					
PQ	**(a)**	acute				Summer Dress	1
	(b)	rounded				Sunmandeho	2
		cordate				Rose Giant	3
18. **(+)**	**VG**	**Leaf blade: main color**					
PQ	**(a)**	whitish yellow					1
	(b)	yellow green					2
		light green					3
		medium green				Cotton Candy	4
		dark green				Gendipred	5
19.	**VG**	**Leaf blade: secondary color**					
PQ	**(a)**	whitish yellow					1
	(b)	yellow green					2
		light green					3
		medium green					4
		dark green					5
20.	**VG**	**Leaf blade: glossiness of upper side**					
QN	**(a)**	weak					1
	(b)	medium				Celine	2
		strong				Lanoregon	3
21. **(*)** **(+)**	**VG**	**Leaf blade: bulging between the veins**					
QN	**(a)**	absent or very weak				Alegnuflor 704	1
	(b)	weak				Gendiprote	2
		medium				Sunparacopapi	3
		strong				Coton Candy	4
22.	**VG**	**Leaf blade: pubescence of upper side**					
QL	**(a)**	absent				Crimson Silk	1
	(b)	present				Scarlet Velvet	9
23.	**VG**	**Leaf blade: intensity of green color of lower side**					
QN	**(a)**	light				Cotton Candy	1
	(b)	medium				Celine	2
		dark				Gendiprote	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
24.	**VG**	**Leaf blade: pubescence of lower side**					
QL	**(a)**	absent				Celine	1
	(b)	present					9
25.	**VG**	**Leaf blade: shape in profile**					
QN	**(a)**	incurving				Crimson Silk	3
	(b)	straight				Lanwisconsin	5
		recurving					7
26.	**VG**	**Leaf blade: undulation of margin**					
QN	**(a)**	absent or very weak				Laniowa	1
	(b)	weak				Lanidaho	2
		medium				Sunpararenga	3
		strong					4
27.	**VG/ MS**	**Pedicel: length**					
QN	**(a)**	short				Sunpararenga	1
	(d)	medium				Lanarizona	2
		long				Sunparacoho	3
28.	**VG**	**Pedicel: intensity of green color**					
QN	**(a)**	light				Crimson Silk	1
	(d)	medium				Lanmissouri	2
		dark					3
29. (*)	**VG**	**Pedicel: anthocyanin coloration**					
QN	**(a)**	absent or weak				Cotton Candy	1
	(d)	medium				Lanmissouri	2
		strong				Scarlet Velvet	3
30.	**VG**	**Pedicel: pubescence**					
QL	**(a)**	absent				Cotton Candy	1
	(d)	present					9
31. (*) (+)	**VG**	**Flower bud: shape**					
PQ	**(a)**	trullate					1
	(b)	rhombic					2
		obtrullate				Alegnuflor 711	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
32. **(*)** **(+)**	**VG**	**Flower: type**					
QL	**(a)**	single					1
	(d)	double					2
33.	**VG/ MS**	**Calyx: length**					
QN	**(a)**	short				Sunparacoho	1
	(d)	medium				Laniowa	2
		long					3
34.	**VG**	**Calyx: color of <u>basal</u> half**					
PQ	**(a)**	light green				Laniowa	1
	(d)	medium green				Crimson Silk	2
		dark green					3
		light red					4
		medium red					5
		dark red					6
35.	**VG**	**Calyx: color of <u>distal</u> half**					
PQ	**(a)**	light green				Sunparacoho	1
	(d)	medium green				Lanminesota	2
		dark green					3
		light red				Lanwisconsin	4
		medium red				Lanmissouri	5
		dark red					6
36. **(+)** **(*)**	**VG/ MS**	**Corolla: diameter**					
QN	**(a)**	small				Cotton Candy	3
	(d)	medium				Lanmissouri	5
		large				Scarlet Velvet	7
37. **(+)**	**VG/ MS**	**Corolla tube: length**					
QN	**(a)**	short				Cotton Candy	1
	(d)	medium				Alegnuflor 711	2
		long				Laniowa	3
38. **(+)**	**VG**	**Corolla tube: color of <u>outer</u> side**					
PQ	**(a)** **(d)**	RHS Colour Chart (indicate reference number)					

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
39. **(*)** **(+)**	**VG/ MS**	**Corolla throat: length**					
QN	**(a)**	short				Sunparacoho	1
	(d)	medium				Lannevada	2
		long				Lanwisconsin	3
40. **(+)**	**VG/ MS**	**Corolla throat: width of <u>distal</u> part**					
QN	**(a)**	narrow				Sunparacoho	1
	(d)	medium				Cotton Candy	2
		broad				Scarlet Velvet	3
41. **(*)** **(+)**	**VG**	**Corolla throat: shape**					
PQ	**(a)**	funnelform					1
	(d)	campanulate					2
		salverform					3
42.	**VG**	**Corolla throat: color of <u>basal</u> half of <u>outer</u> side**					
PQ	**(a)** **(d)**	RHS Colour Chart (indicate reference number)					
43. **(*)**	**VG**	**Corolla throat: color of <u>distal</u> half of <u>outer</u> side**					
PQ	**(a)** **(d)**	RHS Colour Chart (indicate reference number)					
44.		**Corolla throat: color of <u>basal</u> half of <u>inner</u> side**					
PQ	**(a)** **(d)**	RHS Colour Chart (indicate reference number)					
45. **(*)**		**Corolla throat: color of <u>distal</u> half of <u>inner</u> side**					
PQ	**(a)** **(d)**	RHS Colour Chart (indicate reference number)					
46. **(+)**	**VG**	**Corolla lobe: symmetry**					
PQ	**(a)**	symmetric or slightly asymmetric					1
	(d)	moderately asymmetric					2
		strongly asymmetric					3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
47. **(+)**	**VG**	**Corolla lobe: shape of apex**					
PQ	**(a)**	acuminate				Crimson Silk	1
	(d)	acute				Lanarizona	2
		rounded					3
48. **(+)**	**VG**	**Corolla lobe: main color of upper side**					
PQ	**(a)** **(d)**	RHS Colour Chart (indicate reference number)					
49. **(*)** **(+)**	**VG**	**Corolla lobe: secondary color of upper side**					
		none					1
PQ	**(a)** **(d)**	RHS Colour Chart (indicate reference number)					
50.	**VG**	**Corolla lobe: recurving of margin**					
QN	**(a)**	absent or very weak					1
		weak					3
		medium				Red Fantasy	5
		strong				Sunmandecrim	7
		very strong					9
51.	**VG**	**Corolla lobe: undulation of margin**					
QN	**(a)**	weak				Lanoregon	1
	(d)	medium				Crimson Silk	2
		strong				Lanmissouri	3
52.	**VG**	**Corolla lobe: shape in longitudinal section of distal part**					
QN	**(a)**	concave				Crimson Silk	1
	(d)	straight				Lanmontana	2
		convex				Alegnuflor 711	3
53.	**VG**	**Filament: color**					
PQ	**(a)**	yellowish white				Scarlet Velvet	1
	(d)	light yellow				Lanwisconsin	2
		medium yellow				Gendipred	3
		light green				Lanarizona	4
		medium green					5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
54.	**VG**	**Anther: color**					
PQ	**(a)**	white				Gendipred	1
	(d)	light yellow				Lanmissouri	2
		light green				Gendipros	3
55.	**VG**	**Ovary: color**					
PQ	**(a)**	white					1
	(d)	light yellow					2
		light green				Cotton Candy	3

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:

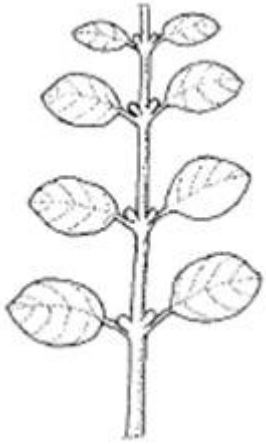
(a) Observations on plant and stem should be made when 50% of flowers have opened on the third raceme.
(b) Observations on leaves should be made on fully expanded leaves.
(c) Observations on bud should be made just before opening of the bud
(d) Observations on flowers and pedicel should be made on fully open flowers.

8.2 Explanations for individual characteristics

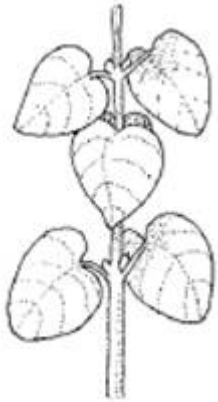
Ad. 3: Stem: length of internode

The length of the internode should be observed on the middle third of the plant

Ad. 7: Leaf: arrangement



1
opposite



2
decussate

Ad. 16: Leaf blade: shape of apex

1
acuminate

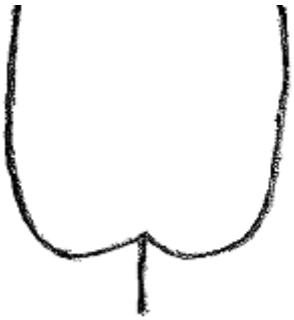
2
acute

3
rounded

Ad. 17: Leaf blade: shape of base

1
acute

2
rounded



3
cordate

Ad. 18: Leaf blade: main color
Ad. 19: Leaf blade: secondary color
Ad. 48: Corolla lobe: main color of upper side
Ad. 49: Corolla lobe: secondary color of upper side

The main color is the color with the largest total surface area, the secondary color (if present) is the color with the second largest total surface area. In cases where the areas of the main color are too similar to reliable decide which color has the largest area, the lightest color is considered to be the main color.

Ad. 21: Leaf blade: bulging between the veins

1
absent or very weak

3
weak

5
medium

7
strong

Ad. 31: Flower bud: shape

1
trullate

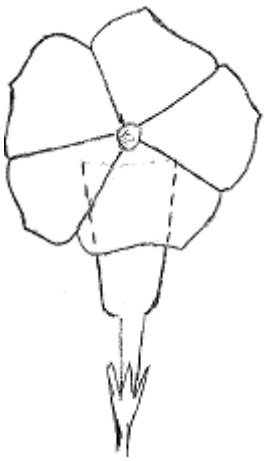
2
rhombic

3
obtrullate

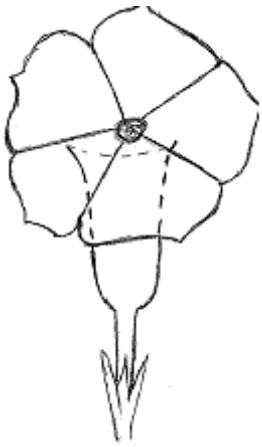
Ad. 32: Flower: type

Double varieties are varieties with petaloid staminodes.

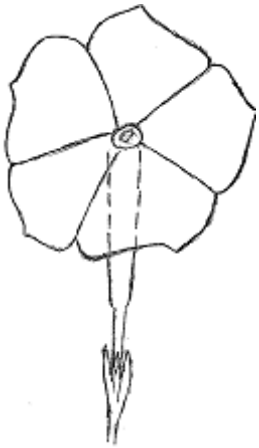
Ad. 41: Corolla throat: shape



1
funnelform

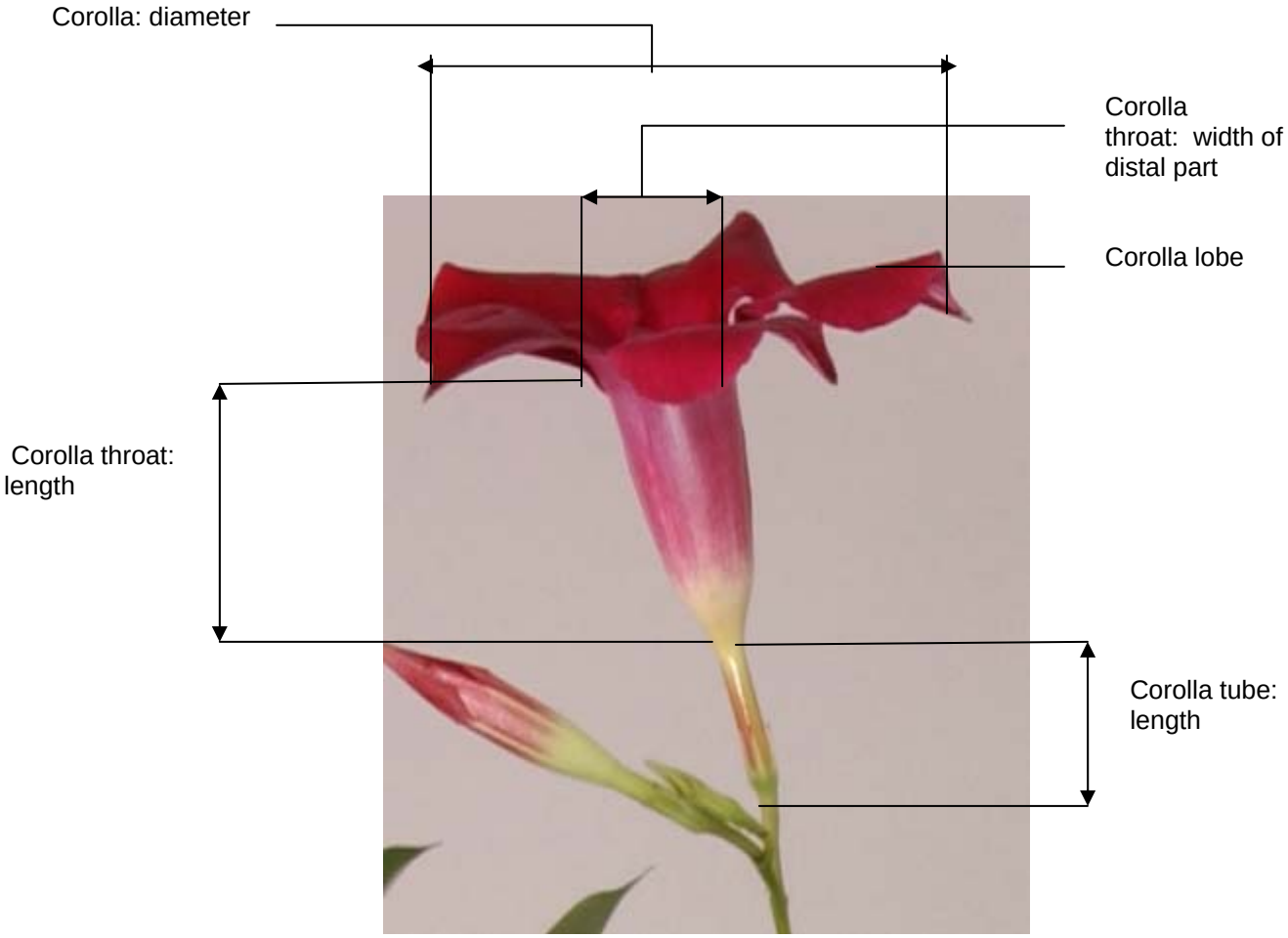


2
campanulate



3
salverform

Ad. 36: Corolla: diameter
Ad. 37: Corolla tube: length
Ad. 39: Corolla throat: length
Ad. 40: Corolla throat: width of distal part



Ad. 46: Corolla lobe: symmetry

1
symmetric or slightly asymmetric

2
moderately asymmetric

3
strongly asymmetric

Ad. 47: Corolla lobe: shape of apex

1
acuminate

2
acute

3
rounded

Ad. 48: Corolla lobe: main color of upper side
Ad. 49: Corolla lobe: secondary of upper side

The main color is the color with the largest total surface area, the secondary color (if present) is the color with the second largest total surface area.

9. Literature

Chittenden, Fred J.: Dictionary of Gardening. Oxford, GB

Graf, A.B.: Hortica. US

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 Botanical name	*Mandevilla* Lindl. *Mandevilla sanderi* (Hemsl.) Woodson *Mandevilla x amabilis*
1.2 Common name	Mandevilla

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 Vegetatively propagated varieties

(a) cuttings [ ]

(b) *in vitro* propagation [ ]

(c) other (state method) [ ]

4.2.2 Other [ ]
(please provide details)

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

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

	Characteristics	Example Varieties	Note
5.1 (2)	**Plant: amount of climbing tendrils**		
	absent or few		1[ ]
	medium		2[ ]
	many		3[ ]
5.1 (3)	**Stem: length of internode**		
	very short		1[ ]
	very short to short		2[ ]
	short		3[ ]
	short to medium		4[ ]
	medium		5[ ]
	medium to long		6[ ]
	long		7[ ]
	long to very long		8[ ]
	very long		9[ ]
5.2 (21)	**Leaf blade: bulging between the veins**		
	absent or very weak		1[ ]
	very weak to weak		2[ ]
	weak		3[ ]
	weak to medium		4[ ]
	medium		5 [ ]
	medium to strong		6[ ]
	strong		7[ ]
	strong to very strong		8[ ]
	very strong		9[ ]
5.3 (48)	**Corolla lobe: main color of upper side**		
	white		
	pink		
	red		
	purple red		

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	*Stem: length of internode*	*short*	*long*

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

7.3.1 Main use

(a) garden plant [ ]
(b) pot plant [ ]
(c) cut-flower [ ]
(d) other [ ]
(please provide details)

7.3.2 A representative color image of the variety should accompany the Technical Questionnaire.

8. Authorization for release

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

Yes [ ] No [ ]

(b) Has such authorization been obtained?

Yes [ ] No [ ]

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

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

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

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

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

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

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

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

.....

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

Applicant’s name

Signature Date

[End of document]