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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 xamabilis (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 Committee at its fiftieth session,
 to be held in Geneva from April 7 to 9, 2014*

Disclaimer: this document does not represent UPOV policies or guidance

Alternative Names: *

Botanical name	English	French	German	Spanish
<i>Mandevilla sanderi</i> (Hemsl.) Woodson <i>Dipladenia sanderi</i> Hemsl. <i>Dipladenia xamoena</i> T. Moore	Brazilian-jasmine		Brasiljasmin	
<i>Mandevilla xamabilis</i> (Backh. & Backh. f.) Dress <i>Dipladenia xamabilis</i> Backh. & Backh. f.				

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.....	3
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.....	16
8.1 EXPLANATIONS COVERING SEVERAL CHARACTERISTICS	16
8.2 EXPLANATIONS FOR INDIVIDUAL CHARACTERISTICS	16
9. LITERATURE	22
10. TECHNICAL QUESTIONNAIRE.....	23

1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Mandevilla sanderi* (Hemsl.) Woodson and *Mandevilla xamabilis* (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 5)
- (c) Leaf blade: bulging between 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 of foliage	Plante : densité du feuillage	Pflanze: Dichte des Laubes	Planta: densidad del follaje		
QN		sparse	faible	locker	laxa		3
		medium	moyenne	mittel	media	Scarlet Pimpernel	5
		dense	dense	dicht	densa	Red Fantasy	7
2.	VG/ (*) MS	Plant: number of climbing tendrils	Plante : nombre de vrilles grimpantes	Pflanze: Anzahl Kletterranken	Planta: número de zarcillos trepadores		
QN		none or few	nul ou petit	keine oder gering	ninguno o pocos	Scarlet Pimpernel	1
		medium	moyen	mittel	medio	Sunmandecrim	2
		many	grand	hoch	muchos	Sunmandetomi	3
3.	VG	Young stem: intensity of green color	Jeune tige : intensité de la couleur verte	Jungtrieb: Intensität der grünen Farbe	Tallo joven: intensidad del color verde		
QN	(a)	light	faible	hell	claro		1
		medium	moyenne	mittel	medio		2
		dark	foncée	dunkel	oscuro		3
4.	VG (*)	Young stem: anthocyanin coloration	Jeune tige : pigmentation anthocyanique	Jungtrieb: Anthocyanfärbung	Tallo joven: pigmentación antociánica		
QN	(a)	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Sunparacoho	1
		weak	faible	gering	débil	Alegnuflor 704	2
		moderate	modérée	mäßig	moderada	Cotton Candy	3
		strong	forte	stark	fuerte	Gendipred	4
5.	VG/ (*) MS (+)	Stem: length of internode	Tige : longueur de l'entre-nœud	Trieb: Internodienlänge	Tallo: longitud del entrenudo		
QN		short	court	kurz	corto	Cotton Candy	3
		medium	moyen	mittel	medio	Lanoregon	5
		long	long	lang	largo	Sunpararenga	7
6.	VG (*)	Stem: pubescence	Tige : pubescence	Trieb: Behaarung	Tallo: pubescencia		
QL		absent	absente	fehlend	ausente	Sunparacoho	1
		present	présente	vorhanden	presente	Scarlet Velvet	9
7.	VG (*) (+)	Leaf: arrangement	Feuilles : disposition	Blatt: Anordnung	Hoja: disposición		
QL	(b)	opposite	opposées	gegenständig	opuesta	Julie	1
		decussate	décussées	kreuzständig	decusa	Sunmandetomi	2
8.	VG/ MS	Petiole: length	Pétiole: longueur	Blattstiel: Länge	Pecíolo: longitud		
QN	(b)	short	court	kurz	corto	Cotton Candy	1
		medium	moyen	mittel	medio	Sunparacoho	2
		long	long	lang	largo	Sunpararenga	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
9.	VG	Petiole: intensity of green color	Pétiole : intensité de la couleur verte	Blattstiel: Intensität der grünen Farbe	Pecíolo: intensidad del color verde		
QN	(b)	light	faible	hell	claro		1
		medium	moyenne	mittel	medio		2
		dark	foncée	dunkel	oscuro		3
10. (*)	VG	Petiole: anthocyanin coloration	Pétiole : pigmentation anthocyannique	Blattstiel: Anthocyanfärbung	Pecíolo: pigmentación antociánica		
QN	(b)	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Sunparacoho	1
		weak	faible	gering	débil	Lanoregon	2
		moderate	modérée	mäßig	moderada	Laniowa	3
		strong	forte	stark	fuerte	Gendipdured	4
11. (*)	VG	Petiole: pubescence	Pétiole : pubescence	Blattstiel: Behaarung	Pecíolo: pubescencia		
QL	(b)	absent	absente	fehlend	ausente	Crimson Silk	1
		present	présente	vorhanden	presente	Scarlet Velvet	9
12.	VG/ MS	Leaf blade: length	Limbe : longueur	Blattspreite: Länge	Limbo: longitud		
QN	(b)	short	court	kurz	corto	Lannevada	3
		medium	moyen	mittel	medio	Lanoregon	5
		long	long	lang	largo	Cotton Candy	7
13.	VG/ MS	Leaf blade: width	Limbe : largeur	Blattspreite: Breite	Limbo: anchura		
QN	(b)	narrow	étroit	schmal	estrecho	Lanoregon	3
		medium	moyen	mittel	medio	Sunparamiho	5
		broad	large	breit	ancho	Gendiprote	7
14.	VG/ MS	Leaf blade: ratio length/width	Limbe : rapport longueur/largeur	Blattspreite: Verhältnis Länge/Breite	Limbo: relación longitud/anchura		
QN	(b)	low	bas	klein	baja		1
		medium	moyen	mittel	media		2
		high	élevé	groß	alta		3
15.	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	(b)	towards base	vers la base	zur Basis hin	hacia la base		1
		at middle	au milieu	in der Mitte	en el medio		2
		towards apex	vers le sommet	zur Spitze hin	hacia el ápice		3
16. (*) (+)	VG	Leaf blade: shape of apex	Limbe : forme du sommet	Blattspreite: Form der Spitze	Limbo: forma del ápice		
PQ	(b)	acuminate	acuminé	zugespitzt	acuminado	Sunparacoho	1
		acute	aigu	spitz	agudo	Monrey	2
		rounded	arrondi	abgerundet	redondeado	Lancalifornia	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
17.	VG (+)	Leaf blade: shape of base	Limbe : forme de la base	Blattspreite: Form der Basis	Limbo: forma de la base		
PQ	(b)	acute	aiguë	spitz	aguda	Summer Dress	1
		rounded	arrondie	abgerundet	redondeada	Sunmandeho	2
		cordate	cordiforme	herzförmig	cordiforme	Rose Giant	3
18.	VG	Leaf blade: main color	Limbe : couleur principale	Blattspreite: Hauptfarbe	Limbo: color principal		
PQ	(b)	whitish yellow	jaune blanchâtre	weißlich gelb	amarillo blanquecino		1
	(d)	yellow green	vert jaune	gelbgrün	verde amarillento		2
		light green	vert clair	hellgrün	verde claro		3
		medium green	vert moyen	mittelgrün	verde medio	Cotton Candy	4
		dark green	vert foncé	dunkelgrün	verde oscuro	Gendipred	5
19.	VG	Leaf blade: secondary color	Limbe : couleur secondaire	Blattspreite: Sekundärfarbe	Limbo: color secundario		
PQ	(b)	none	aucune	keine	ninguno		1
	(d)	whitish yellow	jaune blanchâtre	weißlich gelb	amarillo blanquecino		2
		yellow green	vert jaune	gelbgrün	verde amarillento		3
		light green	vert clair	hellgrün	verde claro		4
		medium green	vert moyen	mittelgrün	verde medio		5
		dark green	vert foncé	dunkelgrün	verde oscuro		6
20.	VG	Leaf blade: glossiness of upper side	Limbe : brillance de la face supérieure	Blattspreite: Glanz der Oberseite	Limbo: brillo del haz		
QN	(b)	weak	faible	gering	débil		1
		medium	medium	mittel	medio	Celine	2
		strong	forte	stark	fuerte	Lanoregon	3
21.	VG (*) (+)	Leaf blade: bulging between veins	Limbe : cloûre entre les nervures	Blattspreite: Wölbung zwischen den Adern	Limbo: abultamiento entre los nervios		
QN	(b)	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Alegnuflor 704	1
		weak	faible	gering	débil	Gendiprote	2
		medium	moyenne	mittel	medio	Sunparacopapi	3
		strong	forte	stark	fuerte	Cotton Candy	4
22.	VG	Leaf blade: pubescence of upper side	Limbe : pubescence de la face supérieure	Blattspreite: Behaarung der Oberseite	Limbo: pubescencia del haz		
QL	(b)	absent	absente	fehlend	ausente	Crimson Silk	1
		present	présente	vorhanden	presente	Scarlet Velvet	9
23.	VG	Leaf blade: intensity of green color of lower side	Limbe : intensité de la couleur verte de la face intérieure	Blattspreite: Intensität der grünen Farbe der Unterseite	Limbo: intensidad del color verde del envés		
QN	(b)	light	légère	hell	claro	Cotton Candy	1
		medium	moyenne	mittel	medio	Celine	2
		dark	foncée	dunkel	oscuro	Gendiprote	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
24. (*)	VG	Leaf blade: pubescence of lower side	Limbe : pubescence de la face intérieure	Blattspreite: Behaarung der Unterseite	Limbo: pubescencia del envés		
QL	(b)	absent	absente	fehlend	ausente	Celine	1
		present	présente	vorhanden	presente		9
25. (+)	VG	Leaf blade: shape in cross section	Limbe : forme en section transversale	Blattspreite: Form im Querschnitt	Limbo: forma en sección transversal		
QN	(b)	incurving	incurvé	aufgebogen	incurvado	Crimson Silk	1
		straight	droit	gerade	recto	Lanwisconsin	2
		recurving	récurvé	zurückgebogen	recurvado		3
26. (*)	VG	Leaf blade: undulation of margin	Limbe : ondulation du bord	Blattspreite: Randwellung	Limbo: ondulación del borde		
QN	(b)	absent or very weak	absente ou très faible	fehlend oder sehr schwach	ausente o muy débil	Laniowa	1
		weak	faible	schwach	débil	Lanidaho	2
		medium	moyenne	mittel	media	Sunpararenga	3
		strong	forte	stark	fuerte		4
27.	VG/ MS	Pedicele: length	Pédicelle : longueur	Blütenstiel: Länge	Pedículo: longitud		
QN	(c)	short	court	kurz	corto	Sunpararenga	1
		medium	moyen	mittel	medio	Lanarizona	2
		long	long	lang	largo	Sunparacoho	3
28.	VG	Pedicele: intensity of green color	Pédicelle : intensité de la couleur verte	Blütenstiel: Intensität der grünen Farbe	Pedículo: intensidad del color verde		
QN	(c)	light	faible	hell	claro	Crimson Silk	1
		medium	moyenne	mittel	medio	Lanmissouri	2
		dark	foncée	dunkel	oscuro		3
29. (*)	VG	Pedicele: anthocyanin coloration	Pédicelle : pigmentation anthocyanique	Blütenstiel: Anthocyanfärbung	Pedículo: pigmentación antociánica		
QN	(c)	absent or weak	absente ou faible	fehlend or schwach	ausente o débil	Cotton Candy	1
		medium	moyenne	mittel	media	Lanmissouri	2
		strong	forte	stark	fuerte	Scarlet Velvet	3
30. (*)	VG	Pedicele: pubescence	Pédicelle : pubescence	Blütenstiel: Behaarung	Pedículo: pubescencia		
QL	(c)	absent	absente	fehlend	ausente	Cotton Candy	1
		present	présente	vorhanden	presente		9
31. (*) (+)	VG	Flower bud: shape	Bouton floral : forme	Blütenknospe: Form	Botón floral: forma		
PQ	(b)	trullate	trullé	rautenförmig	en forma de llana		1
		rhombic	losangique	rhombisch	rómbico		2
		obtrullate	losangique transverse	vekehrt rautenförmig	en forma de llana invertida	Alegnuflor 711	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
32. (*) (+)	VG Flower: type	Fleur : type	Blüte: Typ	Flor: tipo		
QL	(c) single	unique	einfach	sencilla		1
	double	double	gefüllt	doble		2
33.	VG/ MS Calyx: length	Calice : longueur	Kelch: Länge	Cáliz: longitud		
QN	(c) short	court	kurz	corto	Sunparacoho	1
	medium	moyen	mittel	medio	Laniowa	2
	long	long	lang	largo		3
34.	VG Calyx: main color of <u>basal</u> half	Calice : couleur principale de la moitié <u>basale</u>	Kelch: Hauptfarbe der <u>basalen</u> Hälfte	Cáliz: color principal de la mitad <u>basal</u>		
PQ	(c) light green	vert clair	hellgrün	verde claro	Laniowa	1
	(d) medium green	vert moyen	mittelgrün	verde medio	Crimson Silk	2
	dark green	vert foncé	dunkelgrün	verde oscuro		3
	light red	rouge clair	hellrot	rojo claro		4
	medium red	rouge moyen	mittelrot	rojo medio		5
	dark red	rouge foncé	dunkelrot	rojo oscuro		6
35. (*)	VG Calyx: main color of <u>distal</u> half	Calice : couleur principale de la moitié <u>distale</u>	Kelch: Hauptfarbe der <u>distalen</u> Hälfte	Cáliz: color principal de la mitad <u>distal</u>		
PQ	(c) light green	vert clair	hellgrün	verde claro	Sunparacoho	1
	(d) medium green	vert moyen	mittelgrün	verde medio	Lanminnesota	2
	dark green	vert foncé	dunkelgrün	verde oscuro		3
	light red	rouge clair	hellrot	rojo claro	Lanwisconsin	4
	medium red	rouge moyen	mittelrot	rojo medio	Lanmissouri	5
	dark red	rouge foncé	dunkelrot	rojo oscuro		6
36. (*) (+)	VG/ MS Corolla: diameter	Corolle : diamètre	Krone: Durchmesser	Corola: diámetro		
QN	(c) small	petit	klein	pequeño	Cotton Candy	3
	medium	moyen	mittel	medio	Lanmissouri	5
	large	grand	groß	grande	Scarlet Velvet	7
37. (+)	VG/ MS Corolla tube: length	Tube de la corolle : longueur	Kronenröhre: Länge	Tubo de la corola: longitud		
QN	(c) short	court	kurz	corto	Cotton Candy	1
	medium	moyen	mittel	medio	Alegnuflor 711	2
	long	long	lang	largo	Laniowa	3
38. (*) (+)	VG Corolla tube: color of outer side	Tube de la corolle : couleur de la face extérieure	Kronenröhre: Farbe der Außenseite	Tubo de la corola: color de la cara externa		
PQ	(c) 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)		

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
39. (*) (+)	VG/ MS	Corolla throat: length	Gorge de la corolle : longueur	Kronenschlund: Länge	Garganta de la corola: longitud		
QN	(c)	short	courte	kurz	corta	Sunparacoho	1
		medium	moyenne	mittel	media	Lannevada	2
		long	longue	lang	larga	Lanwisconsin	3
40. (+)	VG/ MS	Corolla throat: width of distal part	Gorge de la corolle : largeur de la partie distale	Kronenschlund: Breite des distalen Teils	Garganta de la corola: anchura de la parte distal		
QN	(c)	narrow	étroite	schmal	estrecha	Sunparacoho	1
		medium	moyenne	mittel	media	Cotton Candy	2
		broad	large	breit	ancha	Scarlet Velvet	3
41. (*) (+)	VG	Corolla throat: shape	Gorge de la corolle : forme	Kronenschlund: Form	Garganta de la corola: forma		
PQ	(c)	funnel-shaped	en entonnoir	trichterförmig	en forma de embudo		1
		campanulate	campanulée	glockenförmig	acampanada		2
		tubular	tubulaire	röhrenförmig	tubular		3
42.	VG	Corolla throat: color of <u>basal</u> half of outer side	Gorge de la corolle : couleur de la moitié <u>basale</u> de la face extérieure	Kronenschlund: Farbe der <u>basalen</u> Hälfte der Außenseite	Garganta de la corola: color de la mitad <u>basal</u> de la cara externa		
PQ	(c)	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)		
43. (*)	VG	Corolla throat: color of <u>distal</u> half of outer side	Gorge de la corolle : couleur de la moitié <u>distale</u> de la face extérieure	Kronenschlund: Farbe der <u>distalen</u> Hälfte der Außenseite	Garganta de la corola: color de la mitad <u>distal</u> de la cara externa		
PQ	(c)	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)		
44.	VG	Corolla throat: color of <u>basal</u> half of inner side	Gorge de la corolle : couleur de la moitié <u>basale</u> de la face intérieure	Kronenschlund: Farbe der <u>basalen</u> Hälfte der Innenseite	Garganta de la corola: color de la mitad <u>basal</u> de la cara interna		
PQ	(c)	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)		
45. (*)	VG	Corolla throat: color of <u>distal</u> half of inner side	Gorge de la corolle : couleur de la moitié <u>distale</u> de la face intérieure	Kronenschlund: Farbe der <u>distalen</u> Hälfte der Innenseite	Garganta de la corola: color de la mitad <u>distal</u> de la cara interna		
PQ	(c)	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)		

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
46. (*) (+)	VG	Corolla lobe: symmetry	Lobe de la corolle : symétrie	Kronlappen: Symmetrie	Lóbulo de la corola: simetría		
QN	(c)	symmetric or slightly asymmetric	symétrique ou légèrement asymétrique	symmetrisch oder leicht asymmetrisch	simétrico o ligeramente asimétrico		1
		moderately asymmetric	modérément asymétrique	mäßig asymmetrisch	moderadamente asimétrico		2
		strongly asymmetric	fortement asymétrique	stark asymmetrisch	muy asimétrico		3
47. (*) (+)	VG	Corolla lobe: shape of apex	Lobe de la corolle : forme du sommet	Kronlappen: Form der Spitze	Lóbulo de la corola: forma del ápice		
PQ	(c)	acuminate	acuminé	zugespitzt	acuminado	Crimson Silk	1
		acute	aigu	spitz	agudo	Lanarizona	2
		rounded	arrondi	abgerundet	redondeado		3
48. (*)	VG	Corolla lobe: main color of upper side	Lobe de la corolle : couleur principale de la face supérieure	Kronlappen: Hauptfarbe der Oberseite	Lóbulo de la corola: color principal del haz		
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)		
49. (*)	VG	Corolla lobe: secondary color of upper side	Lobe de la corolle : couleur secondaire de la face supérieure	Kronlappen: Sekundärfarbe der Oberseite	Lóbulo de la corola: color secundario del haz		
		none	aucune	keine	ninguno		1
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)		
50.	VG	Corolla lobe: recurving of margin	Lobe de la corolle : courbure du bord	Kronlappen: Randbiegung	Lóbulo de la corola: curvado del borde		
QN		weak	faible	schwach	débil		3
		medium	moyenne	mittel	medio	Red Fantasy	5
		strong	forte	stark	fuerte	Sunmandecrim	7
51.	VG	Corolla lobe: undulation of margin	Lobe de la corolle : ondulation du bord	Kronlappen: Randwellung	Lóbulo de la corola: ondulación del borde		
QN	(c)	weak	faible	schwach	débil	Lanoregon	1
		medium	moyenne	mittel	media	Crimson Silk	2
		strong	forte	stark	fuerte	Lanmissouri	3
52. (+)	VG	Corolla lobe: shape in longitudinal section of distal part	Lobe de la corolle : forme de la section longitudinale de la partie distale	Kronlappen: Form im Längsschnitt des distalen Teils	Lóbulo de la corola: forma en sección longitudinal de la parte distal		
QN	(c)	concave	concave	konkav	cóncava	Crimson Silk	1
		straight	droite	gerade	recta	Lanmontana	2
		convex	convexe	konvex	convexa	Alegnuflor 711	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota	
53.	VG	Filament: color	Filament : couleur	Filament: Farbe	Filamento: color		
PQ	(c)	yellowish white	blanc jaunâtre	gelblich weiß	blanco amarillento	Scarlet Velvet	1
		light yellow	jaune clair	hellgelb	amarillo claro	Lanwisconsin	2
		medium yellow	jaune moyen	mittelgelb	amarillo medio	Gendipred	3
		light green	vert clair	hellgrün	verde claro	Lanarizona	4
		medium green	vert moyen	mittelgrün	verde medio		5
54.	VG	Anther: color	Anthère : couleur	Anthere: Farbe	Antera: color		
PQ	(c)	white	blanc	weiß	blanco	Gendipred	1
		light yellow	jaune clair	hellgelb	amarillo claro	Lanmissouri	2
		light green	vert clair	hellgrün	verde claro	Gendipros	3
55.	VG	Ovary: color	Ovaire : couleur	Fruchtknoten: Farbe	Ovario: color		
PQ	(c)	white	blanc	weiß	blanco		1
		light yellow	jaune clair	hellgelb	amarillo claro		2
		light green	vert clair	hellgrün	verde claro	Cotton Candy	3

8. Explanations on the Table of Characteristics

8.1 *Explanations covering several characteristics*

Observations on plant and stem should be made when 50% of flowers have opened on the third raceme.

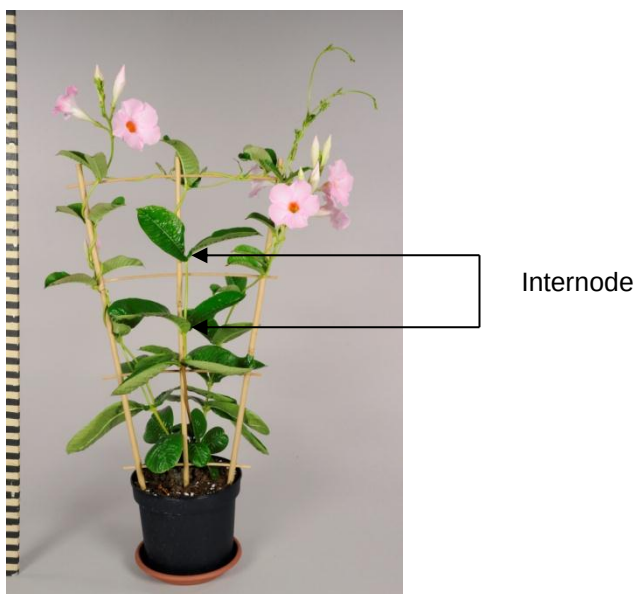
Characteristics containing the following key in the second column of the Table of Characteristics should be examined as indicated below:

- (a) Young stems are stems which are not lignified.
- (b) Observations on leaves should be made on fully expanded leaves.
- (c) Observations on flowers and pedicel should be made on fully open flowers.
- (d) 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 areas of the main and secondary color are too similar to reliably decide which color has the largest area, the lightest color is considered to be the main color.

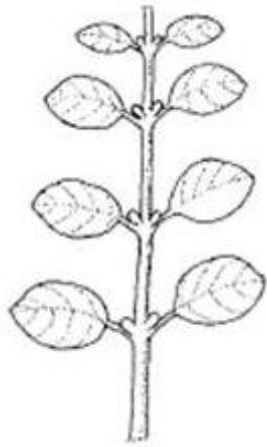
8.2 *Explanations for individual characteristics*

Ad. 5: 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. 14: Leaf blade: ratio length/width



1
low

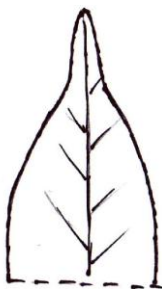


2
medium



3
high

Ad. 16: Leaf blade: shape of apex



1
acuminate



2
acute



3
rounded

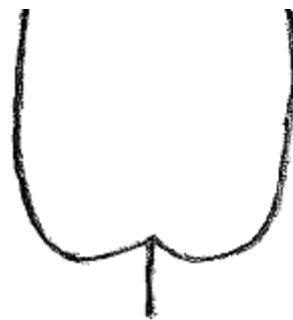
Ad. 17: Leaf blade: shape of base



1
acute



2
rounded



3
cordate

Ad. 21: Leaf blade: bulging between veins



1
absent or very weak



2
weak

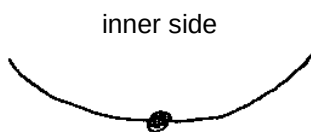


3
medium

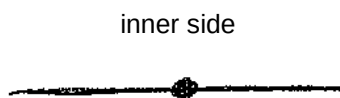


4
strong

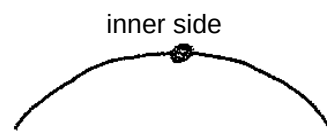
Ad. 25: Leaf blade: shape in profile



1
incurving



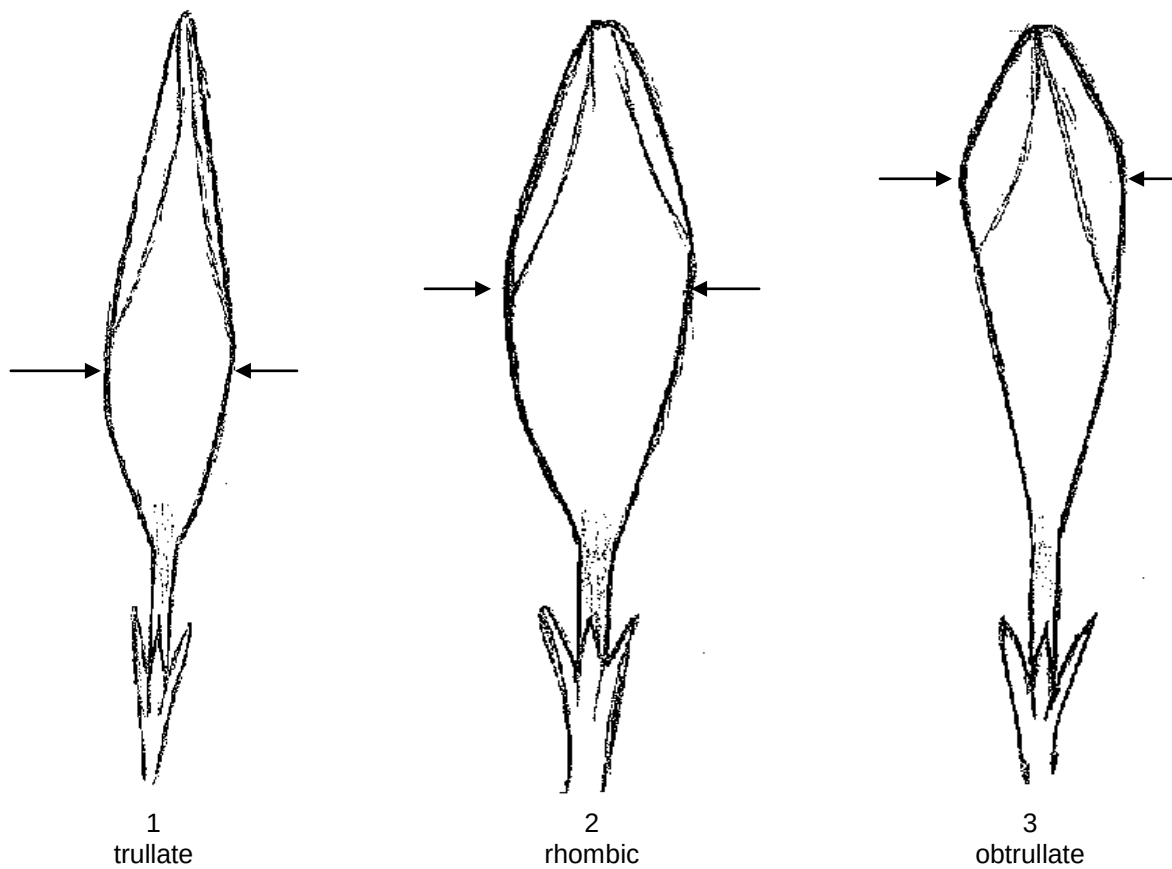
2
straight



3
recurving

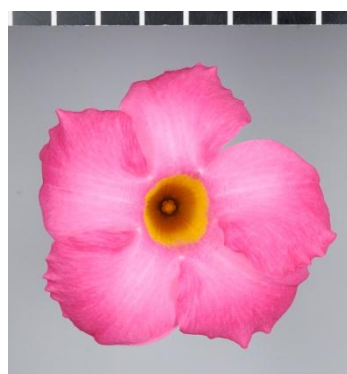
Ad. 31: Flower bud: shape

Observations on bud should be made just before opening of the bud.



Ad. 32: Flower: type

Double varieties are varieties with petaloid staminodes.

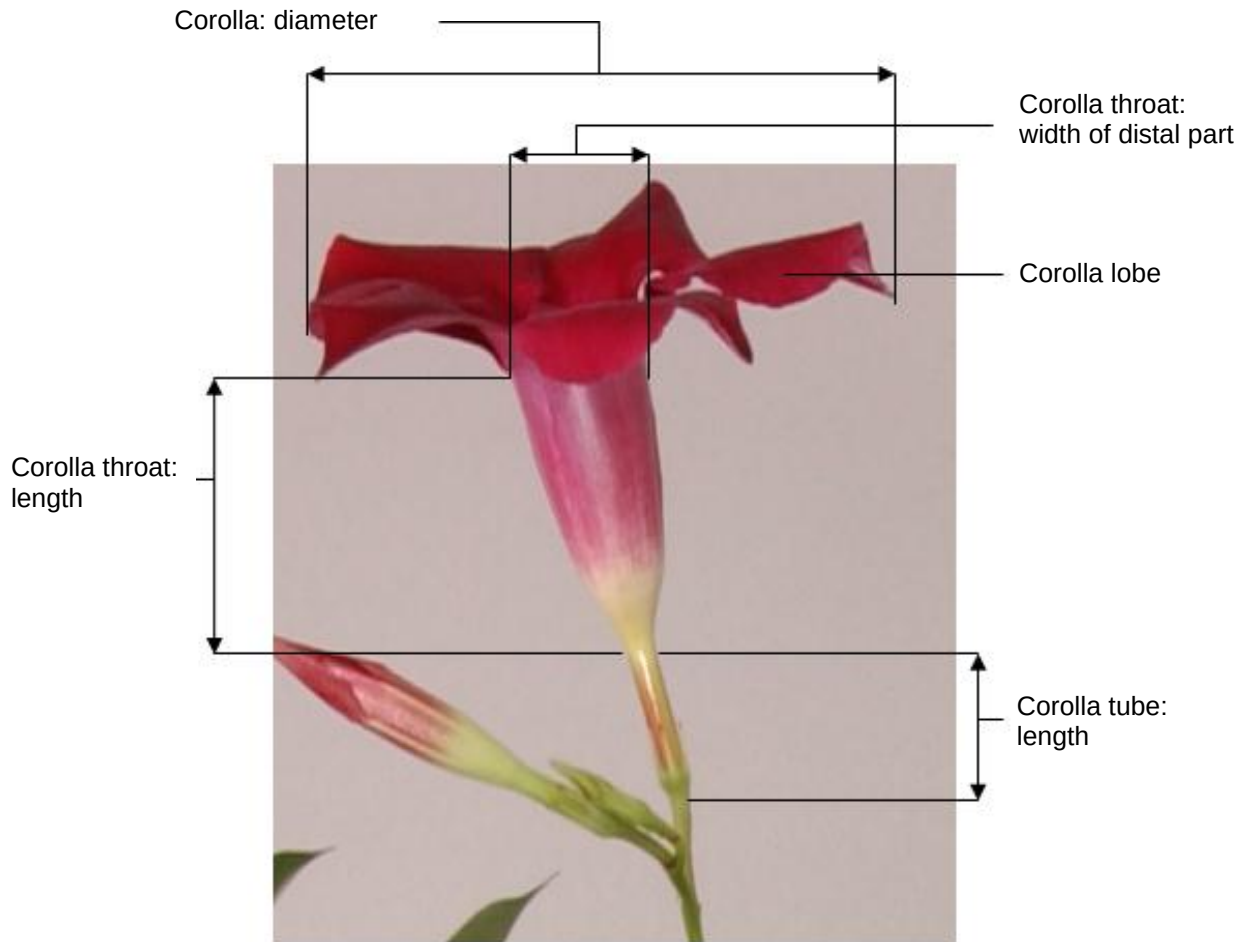


1
single

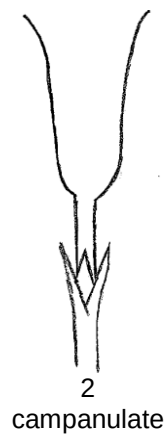
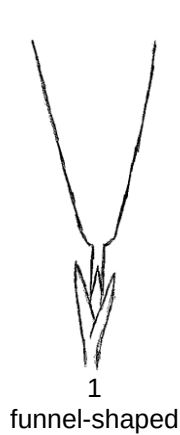


2
double

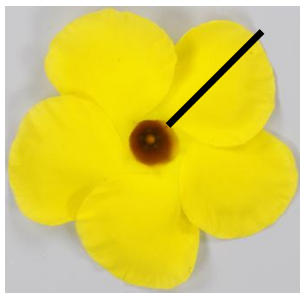
- Ad. 36: Corolla: diameter
Ad. 37: Corolla tube: length
Ad. 38: Corolla tube: color of outer side
Ad. 39: Corolla throat: length
Ad. 40: Corolla throat: width of distal part



- Ad. 41: Corolla throat: shape



Ad. 46: Corolla lobe: symmetry



1
symmetric or slightly asymmetric

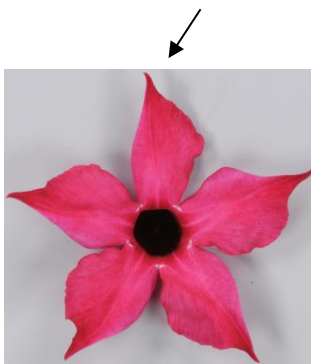


2
moderately asymmetric

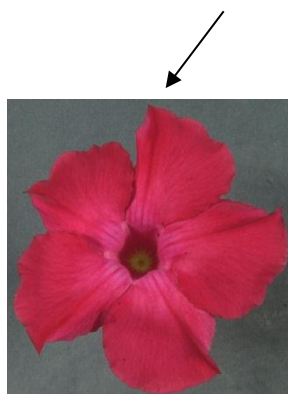


3
strongly asymmetric

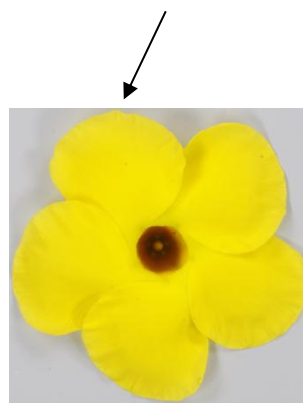
Ad. 47: Corolla lobe: shape of apex



1
acuminate



2
acute

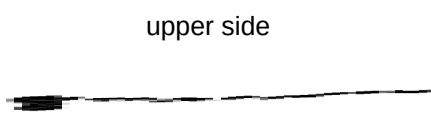


3
rounded

Ad. 52: Corolla lobe: shape in longitudinal section of distal part



1
concave



2
straight



3
convex

9. Literature

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

Graf, A.B., 1992: Hortica, Roehrs Company, Rutherford, New Jersey, US p. 264, p.1100

Lannes, Huguette & Robert, 2010: Dipladenia & Mandevilla, Edisud, Aix-en-Provence, FR

10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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	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	Mandevilla sanderi (Hemsl.) Woodson []
1.1.2 Common name	Brazilian-jasmine
1.2.1 Botanical name	Mandevilla xamabilis (Backh. & Backh. f.) Dress []
1.2.2 Common name	

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:
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#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)

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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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 Seed []

4.2.3 Other []
(please provide details)

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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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 Plant: number of climbing tendrils (2)		
none or few	Scarlet Pimpernel	1[]
medium	Sunmandecrim	2[]
many	Sunmandetomi	3[]
5.2 Stem: length of internode (5)		
very short		1[]
very short to short		2[]
short	Cotton Candy	3[]
short to medium		4[]
medium	Lanoregon	5[]
medium to long		6[]
long	Sunpararenga	7[]
long to very long		8[]
very long		9[]
5.3 Leaf blade: bulging between veins (21)		
absent or very weak	Alegnuflor 704	1[]
weak	Gendiprote	2[]
medium	Sunparacopapi	3[]
strong	Cotton Candy	4[]
5.4 Corolla: diameter (36)		
very small		1[]
very small to small		2[]
small	Cotton Candy	3[]
small to medium		4[]
medium	Lanmissouri	5[]
medium to large		6[]
large	Scarlet Velvet	7[]
large to very large		8[]
very large		9[]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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Characteristics	Example Varieties	Note
5.5 (41) Corolla throat: shape		
funnel-shaped		1[]
campanulate		2[]
tubular		3[]
5.6 i (48) Corolla lobe: main color of upper side		
RHS Colour Chart (indicate reference number)		
5.6 ii (48) Corolla lobe: main color of upper side		
white		1[]
yellow		2[]
pink		3[]
red		4[]
purple red		5[]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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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>Stem: length of internode</i>	<i>short</i>	<i>long</i>
Comments:			

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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#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)	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:
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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]