



TG/OXYPE_CAE(proj.2)

ORIGINAL: English

DATE: 2023-04-30

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

OXYPETALUM

UPOV Code(s): OXYPE_CAE

Oxypetalum coeruleum (D. Don) Decne.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

*prepared by experts from Japan
to be considered by the
Technical Working Party for Ornamental Plants and Forest Trees
at its fifty-fifth session, to be held virtually
from 2023-06-12 to 2023-06-16*

Disclaimer: this document does not represent UPOV policies or guidance

Alternative names:*

Botanical name	English	French	German	Spanish
<i>Oxypetalum coeruleum</i> (D. Don) Decne., <i>Tweedia coerulea</i> D. Don	Oxypetalum	Oxypetalum	Oxypetalum	Oxipetalum

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.]

TABLE OF CONTENTS	PAGE
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.....	4
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.....	6
6. INTRODUCTION TO THE TABLE OF CHARACTERISTICS.....	6
6.1 Categories of Characteristics.....	6
6.2 States of Expression and Corresponding Notes.....	6
6.3 Types of Expression.....	6
6.4 Example Varieties.....	7
6.5 Legend.....	8
7. TABLE OF CHARACTERISTICS/TABLEAU DES CARACTÈRES/MERKMALSTABELLE/TABLA DE CARACTERES.....	9
8. EXPLANATIONS ON THE TABLE OF CHARACTERISTICS.....	18
8.1 Explanations covering several characteristics.....	18
8.2 Explanations for individual characteristics.....	19
9. LITERATURE.....	27
10 TECHNICAL QUESTIONNAIRE.....	28

1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Oxypetalum coeruleum* (D. Don) Decne.

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 seeds or rooted cuttings.

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

seed-propagated varieties: sufficient seeds to produce 30 plants
vegetatively propagated varieties: 15 rooted cuttings

In the case of seed, the seed should meet the minimum requirements for germination, species and analytical purity, health and moisture content, specified by the competent authority.

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.

3.1.2 The testing of a variety may be concluded when the competent authority can determine with certainty the outcome of the test.

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 In the case of seed-propagated varieties, each test should be designed to result in a total of at least 30 plants.

3.4.2 In the case of vegetatively propagated varieties, each test should be designed to result in a total of at least 15 plants.

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 or Parts of Plants to be Examined

In the case of seed-propagated varieties, unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 20 plants or parts taken from each of 20 plants and any other observation made on all plants in the test, disregarding any off-type plants.

In the case of vegetatively propagated varieties, unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 10 plants or parts taken from each of 10 plants and any other observation 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 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 These Test Guidelines have been developed for the examination of self-pollinated seed-propagated and vegetatively propagated varieties. For varieties with other types of propagation, the recommendations in the General Introduction and document TGP/13 "Guidance for new types and species" Section 4.5 "Testing Uniformity" should be followed.
- 4.2.3 For the assessment of uniformity of self-pollinated seed-propagated varieties, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 30 plants, 1 off-type is allowed.
- 4.2.4 For the assessment of uniformity of vegetatively propagated varieties, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 15 plants, 1 off-type is allowed.

4.3 *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 seed or 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) Flower: type (characteristic 16)
 - (b) Corolla lobe: number of colors on upper side (characteristic 23)
 - (c) Corolla lobe: main color of upper side (characteristic 24) with the following groups:
 - Gr. 1: white
 - Gr. 2: pink
 - Gr. 3: red
 - Gr. 4: purple
 - Gr. 5: blue
- 5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction and document TGP/9 “Examining Distinctness”.

6. Introduction to the Table of Characteristics

6.1 *Categories of Characteristics*

6.1.1 Standard Test Guidelines Characteristics

Standard Test Guidelines characteristics are those which are approved by UPOV for examination of DUS and from which members of the Union can select those suitable for their particular circumstances.

6.1.2 Asterisked Characteristics

Asterisked characteristics (denoted by *) are those included in the Test Guidelines which are important for the international harmonization of variety descriptions and should always be examined for DUS and included in the variety description by all members of the Union, except when the state of expression of a preceding characteristic or regional environmental conditions render this inappropriate.

6.2 *States of Expression and Corresponding Notes*

6.2.1 States of expression are given for each characteristic to define the characteristic and to harmonize descriptions. Each state of expression is allocated a corresponding numerical note for ease of recording of data and for the production and exchange of the description.

6.2.2 All relevant states of expression are presented in the characteristic.

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

English				français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1	2	3	4	5	6	7			
	Name of characteristics in English			Nom du caractère en français		Name des Merkmals auf Deutsch	Nombre del carácter en español		
	states of expression			types d'expression		Ausprägungsstufen	tipos de expresión		

1 Characteristic number

2 (*) Asterisked characteristic – see Chapter 6.1.2

3 Type of expression

QL	Qualitative characteristic	– see Chapter 6.3
QN	Quantitative characteristic	– see Chapter 6.3
PQ	Pseudo-qualitative characteristic	– see Chapter 6.3

4 Method of observation (and type of plot, if applicable)
MG, MS, VG, VS – see Chapter 4.1.5

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

6 (a)-(g) See Explanations on the Table of Characteristics in Chapter 8.1

7 Not applicable

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

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1.	PQ	VG	(+)	(a)				
	Plant: growth habit							
	upright						Shane Blue, Tanioka 2go	1
	arched						Sasaodemu	2
	spreading							3
2. (*)	QN	MG/MS/VG	(+)	(a)				
	Plant: height							
	very short							1
	very short to short							2
	short							3
	short to medium							4
	medium						Shane Blue, Tanioka 2go	5
	medium to tall						Sasabrand	6
	tall							7
	tall to very tall							8
	very tall							9
3.	PQ	VG		(a), (b)				
	Stem: color							
	light green						Shane Blue, Tanioka 2go	1
	medium green						Ikeda Pink 1go	2
	green brown							3
4.	QN	VG		(a), (b)				
	Stem: density of pubescence							
	absent or very sparse							1
	sparse						INTA-GEISEI001	2
	medium						Shane Blue, Tanioka 2go	3
	dense						Pegasus White	4
	very dense							5

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5.	QN	MG/MS/VG	(+)	(a), (c)				
	Leaf blade: length							
	very short							1
	very short to short							2
	short							3
	short to medium						Mayor Pink	4
	medium						Sasaodemu	5
	medium to long							6
	long							7
	long to very long							8
	very long							9
6.	QN	MG/MS/VG	(+)	(a), (c)				
	Leaf blade: width							
	very narrow							1
	narrow						Sasapawel	2
	medium						Sasaodemu	3
	broad							4
	very broad							5
7. (*)	PQ	VG	(+)	(a), (c)				
	Leaf blade: shape of base							
	truncate							1
	cordate							2
	auriculate							3
8. (*)	PQ	VG	(+)	(a), (c)				
	Leaf blade: shape of apex							
	acuminate							1
	acute							2
	obtuse							3
	rounded							4

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
9.	QN	VG	(a), (c)				
	Leaf blade: intensity of green color on upper side						
	very light						1
	light					INTA-GEISEI001	2
	medium					Shane Blue	3
	dark						4
	very dark						5
10.	QN	VG	(a), (c)				
	Leaf blade: density of pubescence						
	absent or very sparse						1
	sparse					INTA-GEISEI001	2
	medium					Shane Blue, Tanioka 2go	3
	dense						4
	very dense						5
11.	QN	MG/MS/VG	(+)	(a), (c)			
	Petiole: length						
	very short					Mayor Pink	1
	short					Tanioka 2go	2
	medium						3
	long						4
	very long						5
12.	QN	MG/MS/VG	(+)	(d)			
	Inflorescence: length						
	very short						1
	very short to short						2
	short					Sasapawel	3
	short to medium						4
	medium					Tanioka 2go	5
	medium to long						6
	long						7
	long to very long						8
	very long						9

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
13.	PQ	VG	(+)	(d)				
	Inflorescence: shape							
	conical						Blue Dia	1
	cylindrical						Sasaodemu, Shane Blue	2
14.	QN	MG/MS/VG		(d)				
	Inflorescence: number of flowers							
	very few							1
	few						INTA-GEISEI001	2
	medium						Shane Blue, Tanioka 2go	3
	many							4
	very many							5
15.	QN	MG/MS/VG	(+)	(e)				
	Pediceal: length							
	very short							1
	short						Hoppy Pegasus	2
	medium						Sasaodemu	3
	long							4
	very long							5
16. (*)	PQ	VG	(+)	(e)				
	Flower: type							
	single						Shane Blue, Tanioka 2go	1
	semi-double						Blue Dia	2
	double						Sasadango	3
17.	QN	VG	(+)	(e), (f)				
	Flower: attitude of corolla lobes							
	upwards							1
	upwards to horizontal							2
	horizontal						Tanioka 2go	3
	horizontal to downwards							4
	downwards						Sasadango	5

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
18. (*)	QN	MG/MS/VG	(+)	(e)				
	Flower: diameter							
	very small							1
	very small to small							2
	small							3
	small to medium							4
	medium						Sasabrand, Sasaiku	5
	medium to large							6
	large						King Sapphire	7
	large to very large							8
	very large							9
19.	QN	MG/MS/VG		(e)				
	Calyx: length of lobe							
	very short							1
	short						Sasabrand	2
	medium						Shane Blue, Tanioka 2go	3
	long							4
	very long							5
20.	QN	MG/MS/VG	(+)	(e), (f)				
	Corolla lobe: length							
	very short							1
	short						Shane Blue	2
	medium						Sasaiku	3
	long						Sasadango	4
	very long							5
21.	QN	MG/MS/VG	(+)	(e), (f)				
	Corolla lobe: width							
	very narrow							1
	narrow							2
	medium						INTA-GEISEI001, Sasaiku	3
	broad						Ikeda Pink 1go	4
	very broad							5

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
22. (*)	PQ	VG	(+)	(e), (f)				
	Corolla lobe: shape							
	lanceolate							1
	narrow elliptic						Sasaiku	2
	medium elliptic							3
	broad elliptic						Shane Blue, Tanioka 2go	4
	spatulate						Sasadango	5
23. (*)	QL	VG		(e), (f)				
	Corolla lobe: number of colors on upper side							
	one						Shane Blue, Tanioka 2go	1
	more than one						Blue Heart	2
24. (*)	PQ	VG		(e), (f), (g)				
	Corolla lobe: main color of <u>upper</u> side							
	RHS Colour Chart (indicate reference number)							
25. (*)	PQ	VG		(e), (f), (g)				
	<u>Only varieties with more than one color:</u> Corolla lobe: secondary color of upper side							
	RHS Colour Chart (indicate reference number)							
26.	PQ	VG	(+)	(e), (f), (g)				
	<u>Only varieties with more than one color:</u> Corolla lobe: distribution of secondary color of upper side							
	at margin						Blue Heart	1
	central							2
27.	PQ	VG	(+)	(e), (f)				
	Corolla lobe: color of <u>lower</u> side							
	RHS Colour Chart (indicate reference number)							

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
28.	QL	VG	(+)	(e)				
	Corona: conspicuousness							
	conspicuous						Shane Blue, Tanioka 2go	1
	inconspicuous						Sasadango	9
29. (*)	PQ	VG	(+)	(e)				
	<u>Only varieties with conspicuous corona:</u> Corona: color of distal part							
	RHS Colour Chart (indicate reference number)							

8. Explanations on the Table of Characteristics

8.1 *Explanations covering several characteristics*

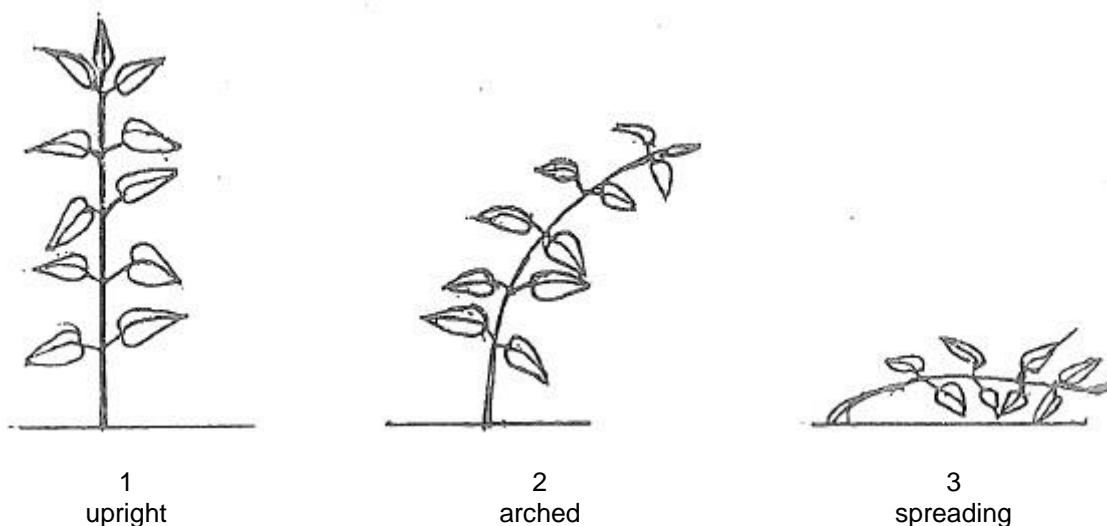
Unless otherwise indicated observations should be made at the time of full flowering.

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

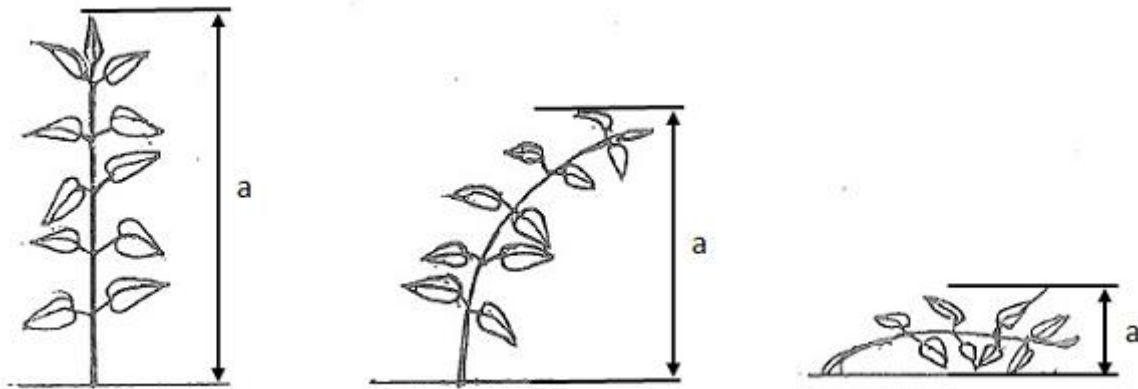
- (a) Observations should be made when about 50 % of flowers have opened on the first inflorescence.
- (b) Observations should be made on the middle third of the stem.
- (c) Observations should be made on typical leaves taken from the middle third of the stem.
- (d) Observations should be made on the inflorescence of the longest branch. The optimum stage of development for the assessment of the characteristics is the time when the flowers on the fourth node from the bottom of the inflorescence are fully opened.
- (e) Observations should be made on typical flowers that are fully opened.
- (f) Observations should be made on the outermost corolla lobes in the case of varieties with the semi-double or double flowers.
- (g) The main color is the color with the largest surface area. The color with the second largest area is the secondary color. In cases where the areas of the colors are too similar to reliably decide which color has the largest area, the darker color is considered to be the main color.

8.2 *Explanations for individual characteristics*

Ad. 1: Plant: growth habit



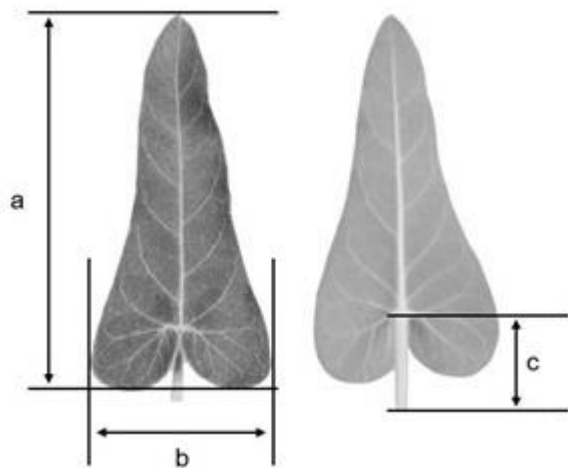
Ad. 2: Plant: height



a = Plant: height

The plant height should be observed from the base to the highest point of the plant.

Ad. 5: Leaf blade: length



a = Leaf blade: length
b = Leaf blade: width
c = Petiole: length

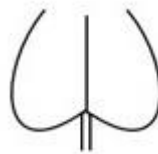
Ad. 6: Leaf blade: width

See Ad. 5

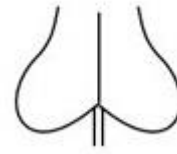
Ad. 7: Leaf blade: shape of base



1
truncate



2
cordate

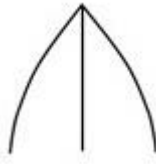


3
auriculate

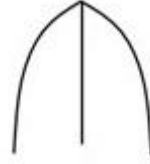
Ad. 8: Leaf blade: shape of apex



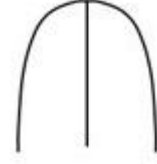
1
acuminate



2
acute



3
obtuse

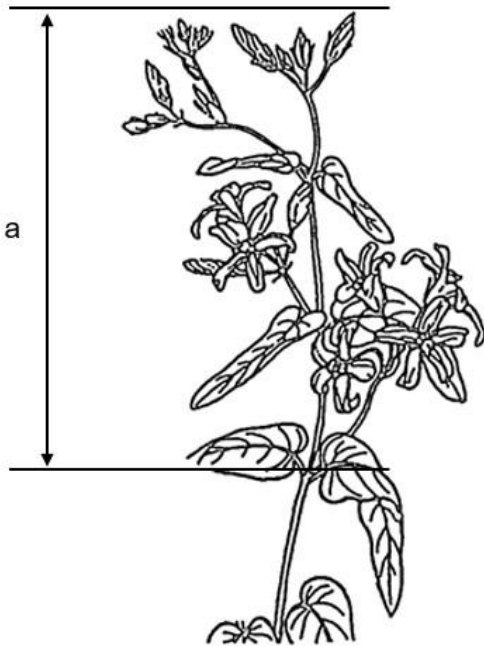


4
rounded

Ad. 11: Petiole: length

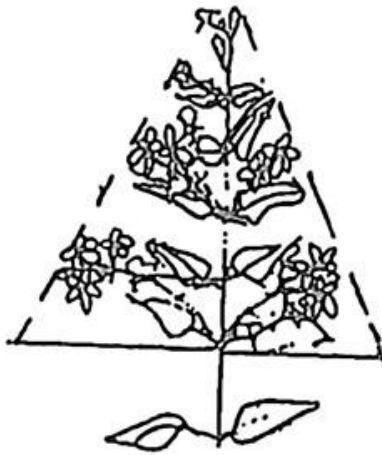
See Ad. 5

Ad. 12: Inflorescence: length



a = Inflorescence: length

Ad. 13: Inflorescence: shape

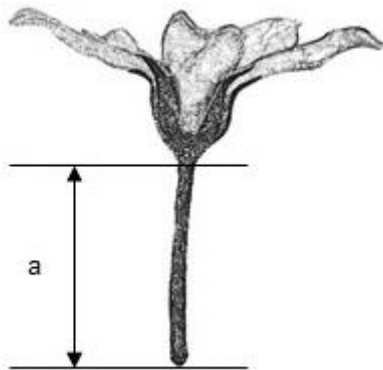


1
conical



2
cylindrical

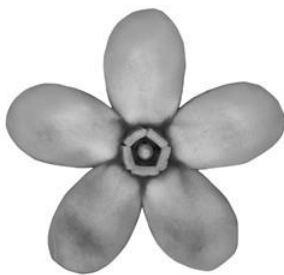
Ad. 15: Pedicel: length



a = Pedicel: length

Ad. 16: Flower: type

1. Single: flowers with 5 or less corolla lobes.
2. Semi-double: flowers with 6 to 10 corolla lobes.
3. Double: flowers with 11 or more corolla lobes.



1
single



2
semi-double



3
double

Ad. 17: Flower: attitude of corolla lobes



1
upwards

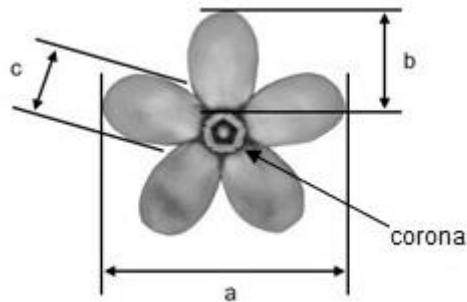


3
horizontal



5
downwards

Ad. 18: Flower: diameter



a = Flower: diameter
b = Corolla lobe: length
c = Corolla lobe: width

The diameter should be observed at the broadest part of the flower.




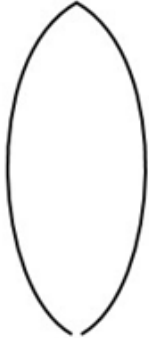
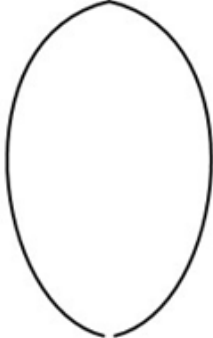
Ad. 20: Corolla lobe: length

See Ad. 18

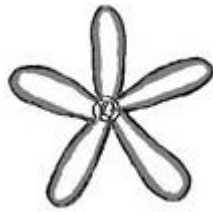
Ad. 21: Corolla lobe: width

See Ad. 18

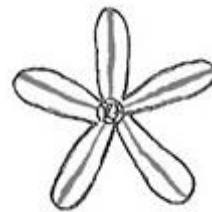
Ad. 22: Corolla lobe: shape

relative width	← broadest part →		
	below middle	at middle	above middle
narrow	<div></div> <div>1 lanceolate</div>	<div></div> <div>2 narrow elliptic</div>	<div></div> <div>5 spatulate</div>
medium		<div></div> <div>3 medium elliptic</div>	
broad		<div></div> <div>4 broad elliptic</div>	

Ad. 26: Only varieties with more than one color: Corolla lobe: distribution of secondary color of upper side



1
at margin

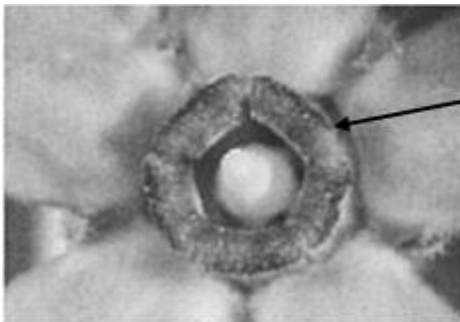


2
central

Ad. 27: Corolla lobe: color of lower side

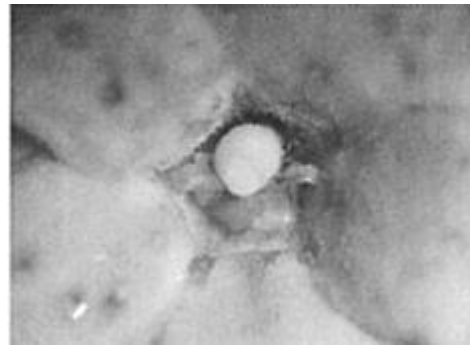
The darkest color should be observed regardless of its percentage of the surface area in the case with more than one color on lower side.
The green color on the midrib should be excluded.

Ad. 28: Corona: conspicuousness



1
conspicuous

Corona:
color of distal
part



9
inconspicuous

Ad. 29: Only varieties with conspicuous corona: Corona: color of distal part

See Ad. 28

9. Literature

Tsukamoto, Y., 1994: The Grand Dictionary of Horticulture, Volume 1. The Shogakukan Ltd. Chiyoda, Tokyo, JP, pp. 399-400

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	<i>Oxypetalum coeruleum</i> (D. Don) Decne.
1.2 Common name	Oxypetalum
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 variety)

(.....) 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:
-------------------------	-----------------	-------------------

4.2	Method of propagating the variety	
4.2.1	Seed-propagated varieties	
(a)	Self-pollination	[]
(b)	Other (please provide details)	[]
	<div></div>	
4.2.2	Vegetative propagation	
(a)	Cuttings	[]
(b)	Other (state method)	[]
	<div></div>	
4.2.3	Other	[]
	(Please provide details)	
	<div></div>	

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 Plant: height (2)		
very short		1 []
very short to short		2 []
short		3 []
short to medium		4 []
medium	Shane Blue, Tanioka 2go	5 []
medium to tall	Sasabrand	6 []
tall		7 []
tall to very tall		8 []
very tall		9 []
5.2 Leaf blade: shape of base (7)		
truncate		1 []
cordate		2 []
auriculate		3 []
5.3 Leaf blade: shape of apex (8)		
acuminate		1 []
acute		2 []
obtuse		3 []
rounded		4 []
5.4 Flower: type (16)		
single	Shane Blue, Tanioka 2go	1 []
semi-double	Blue Dia	2 []
double	Sasadango	3 []

Characteristics	Example Varieties	Note
5.5 Flower: diameter (18)		
very small		1 []
very small to small		2 []
small		3 []
small to medium		4 []
medium	Sasabrand, Sasaiku	5 []
medium to large		6 []
large	King Sapphire	7 []
large to very large		8 []
very large		9 []
5.6 Corolla lobe: shape (22)		
lanceolate		1 []
narrow elliptic	Sasaiku	2 []
medium elliptic		3 []
broad elliptic	Shane Blue, Tanioka 2go	4 []
spatulate	Sasadango	5 []
5.7 Corolla lobe: number of colors on upper side (23)		
one	Shane Blue, Tanioka 2go	1 []
more than one	Blue Heart	2 []
5.8(i) Corolla lobe: main color of <u>upper</u> side (24)		
RHS Colour Chart (indicate reference number)		
5.8(ii) Corolla lobe: main color of <u>upper</u> side (24)		
white		1 []
pink		2 []
red		3 []
purple		4 []
blue		5 []
other (indicate)		6 []

Characteristics	Example Varieties	Note
5.9(i) <u>Only varieties with more than one color:</u> Corolla lobe: (25) secondary color of upper side RHS Colour Chart (indicate reference number)		
5.9(ii) <u>Only varieties with more than one color:</u> Corolla lobe: (25) secondary color of upper side white		1 []
pink		2 []
red		3 []
purple		4 []
blue		5 []
other (indicate)		6 []
5.10 <u>Only varieties with conspicuous corona:</u> Corona: color of distal (29) part RHS Colour Chart (indicate reference number)		

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
<i>Example</i>	<i>Plant: height</i>	<i>short</i>	<i>medium</i>

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

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.]

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

<p>8. Authorization for release</p> <p>(a) Does the variety require prior authorization for release under legislation concerning the protection of the environment, human and animal health?</p> <p>Yes [] No []</p> <p>(b) Has such authorization been obtained?</p> <p>Yes [] No []</p> <p>If the answer to (b) is yes, please attach a copy of the authorization.</p>																		
<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 border="0"><tr><td>(a)</td><td>Microorganisms (e.g. virus, bacteria, phytoplasma)</td><td>Yes []</td><td>No []</td></tr><tr><td>(b)</td><td>Chemical treatment (e.g. growth retardant, pesticide)</td><td>Yes []</td><td>No []</td></tr><tr><td>(c)</td><td>Tissue culture</td><td>Yes []</td><td>No []</td></tr><tr><td>(d)</td><td>Other factors</td><td>Yes []</td><td>No []</td></tr></table> <p>Please provide details for where you have indicated "yes".</p> <p>.....</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> <p>Applicant's name <input type="text"/></p> <p>Signature <input type="text"/> Date <input type="text"/></p>																		

[End of document]