

UPOV

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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT

**ONCIDIUM
x ONCIDESA
x IONOCIDIUM
x ZELENKOCIDIUM**

UPOV Code:
ONCID;ONCIE;IONOC;ZELEN

(*Oncidium* Sw. x *Oncidesa* Hort.,
Ionocidium Hort., *Zelenkocidium*
J.M.H.Shaw.)

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by experts from Japan

to be considered by the

*Enlarged Editorial Committee at its meeting
to be held in Geneva, on January 11 and 12, 2012*

Alternative Names:*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Oncidium</i> Sw.	Oncidium	Orchidee danseuse, Oncidium	Oncidium	Oncidium
x <i>Oncidesa</i> Hort. (<i>Oncidium</i> Sw x <i>Gomesa</i> R.B.)				
x <i>Ionocidium</i> Hort. (<i>Oncidium</i> Sw x <i>Ionopsis</i> Kunth.)				
x <i>Zelencocidium</i> J.M.H. Shaw (<i>Oncidium</i> Sw. x <i>Zelenkoa</i> M.W. Chase & N.H. Williams.)				

* 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.]

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.

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Oncidium* Sw. and their intergeneric hybrids with *Cochlioda* Lindl., *Cyrtochilum*, *Gomesa* R.B., *Ionopsis* Kunth. and *Zelenkoa* M.W.Chase & N.H. Williams.

2. Material Required

2.1 The competent authorities decide on the quantity and quality of the plant material required for testing the variety and when and where it is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must ensure that all customs formalities and phytosanitary requirements are complied with.

2.2 The material is to be supplied in the form of plants that have not previously flowered, ready to show all the characteristics with growing inflorescence.

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

9 plants.

2.4 The plant material supplied should be visibly healthy, not lacking in vigor, nor affected by any important pest or disease.

2.5 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

3. Method of Examination

3.1 *Number of Growing Cycles*

The minimum duration of tests should normally be a single growing cycle.

3.2 *Testing Place*

Tests are normally conducted at one place. In the case of tests conducted at more than one place, guidance is provided in TGP/9 "Examining Distinctness".

3.3 *Conditions for Conducting the Examination*

3.3.1 The tests should be carried out under conditions ensuring satisfactory growth for the expression of the relevant characteristics of the variety and for the conduct of the examination.

3.3.2 Because daylight varies, color determinations made against a color chart should be made either in a suitable cabinet providing artificial daylight or in the middle of the day in a room without direct sunlight. The spectral distribution of the illuminant for artificial daylight should conform with the CIE Standard of Preferred Daylight D 6500 and should fall within the tolerances set out in the British Standard 950, Part I. These determinations should be made with the plant part placed against a white background. The color chart and version used should be specified in the variety description.

3.4 *Test Design*

3.4.1 Each test should be designed to result in a total of at least 9 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 8 plants or parts taken from each of 8 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:

4.2.1 For the assessment of uniformity, a population standard of 95% and an acceptance probability of at least 1% should be applied. In the case of a sample size of 9 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:

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".

- (a) Plant: size (characteristic 1)
- (b) Flower: width in front view (characteristic 23)
- (c) Petal: ground color (characteristic 71) with the following groups:
- (d) Petal: diffused over color (characteristic 72) with the following groups:
- (e) Petal: color of spots (if present) (characteristic 75) with the following groups:
- (f) Petal: color of bands (if present) (characteristic 78) with the following groups:
- (g) Petal: color of stripes (if present) (characteristic 79) with the following groups:
- (h) Petal: color of margin (if present) (characteristic 81) with the following groups:
- (i) Petal: color of macule (if present) (characteristic 83) with the following groups:
- (j) Lip: apical lobe: ground color (characteristic 92) with the following groups:

Grouping characteristics from (c) to (j) should be applicable with following color groups

- Gr.1: white
- Gr.2: yellow
- Gr.3: orange
- Gr.4: pink
- Gr.5: red
- Gr.6: violet
- Gr.7: brown

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*

6.4.1 Where appropriate, example varieties are provided to clarify the states of expression of each characteristic.

6.4.2 Some variety denominations are preceded by group names(GREX). General remark: a particular grouping on the basis of known parentage, of which the unit is the GREX, is in long standing use in orchids.

6.4.3 The variety denominations are placed between single quotation marks (e.g. Ella‘Flambeau’).

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)-(c) 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**¹

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. VG Plant: size (* (+)						
QN	small				Fragrance Fantasy	3
	medium				Yellow Angel	5
	large				Kurusu	7
2. VG Plant: attitude of leaves (* (+)						
QN (b)	erect				Haruka	1
	semi-erect				Only You	2
	horizontal					3
	pendulous					4
3. VG Pseudobulb: size (* (+)						
QN (a)	small				Haru Ichiban	3
	medium					5
	large				Nihao, Papurikon, Shimizu Parasol	7
4. VG Pseudobulb: shape in longitudinal section (* (+)						
PQ (a)	ovate				Yellow Days, YMC-2	1
	elliptic				Haruka, Ruru	2
	circular				Ami	3
	oblate					4

¹ Subject to approval by the TWO by correspondence.

	English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
5.	VG					
(+)	Pseudobulb: shape in cross section					
PQ	(a) broad oblate				Suzy	1
	medium oblate					2
	narrow oblate				Yellow Angel	3
	circular					4
6.	MG/ MS					
(+)	Pseudobulb: number of cataphylls					
QN	(a) few				Fight Yuko	1
	medium				Ruru	2
	many					3
7.	MG/ MS					
(+)	Pseudobulb: number of leaves					
QN	(a) one				Ami	1
	two				Monshirotyo no Cafe	2
	three				Shimizu Parasol Papurikon	3
	more than three					4
8.	VG/ MG					
	Leaf: length					
QN	(b) short				Fragrance Fantasy	3
	medium				Suzy	5
	long				Shimizu Parasol Papurikon	7
9.	VG/ MG					
(*)	Leaf: width					
QN	(b) narrow				Sakura no Sato, Yellow Days	3
	medium				Suzy	5
	broad					7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
10.	VG Leaf: shape					
(*)						
(+)						
PQ	(b) narrow lanceolate				Sakurako	1
	linear				Haruka, Kaori no Izumi	2
	narrow elliptic					3
	medium elliptic					4
11.	VG Leaf: shape in cross section					
QN	(b) concave				Yellow Days	1
	flat				Flambeau	2
	convex					3
12.	VG Leaf: intensity of green color on upper side					
QN	(b) light					1
	medium				Ruru	2
	dark				Nancy	3
13.	VG Inflorescence:					
(*)	type					
(+)						
QL	raceme				Poco-A-Poco, Yellow	1
	simple panicle				Yurara	2
	compound panicle				Ami	3
14.	VG/ MG Inflorescence:					
(+)	length of flowering part					
QN	short					3
	medium				Monshirotyo no Cafe	5
	long				Kurusu	7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
15. VG/ Inflorescence: MG width (+)						
QN	narrow				Fragrance Fantasy	3
	medium				Ruru	5
	broad				Kurusu	7
16. MS/ Inflorescence: MG number of flowers (*)						
QN	few					3
	medium				Yasukaspa Akane	5
	many				Ruru	7
17. VG/ Peduncle: length MG (*) (+)						
QN	short				Kaoli no Izumi, Sakura no Sato	3
	medium				Ruru	5
	long				Flambeau	7
18. VG/ Peduncle: MG thickness (*)						
QN	thin				Fragrance Fantasy	1
	medium				Kurusu	2
	thick					3
19. VG Peduncle: MG anthocyanin coloration (*) (+)						
QN	absent or weak				Monshirotyo no Cafe	1
	moderate				Kurusu	2
	strong				Nancy	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
20.	VG					
(*)	Flower: curvature					
(+)	of sepals					
QN	(c) incurving				Yellow Angel	1
	straight				Shimizu Parasol Papurikon	2
	recurving				Ami	3
21.	VG					
(*)	Flower: curvature					
(+)	of petals					
QN	(c) incurving				Yellow Angel	1
	straight				Shimizu Parasol Papurikon	2
	recurving				Ami	3
22.	VG/					
(*)	MG					
(+)	Flower: length in					
	front view					
QN	short				Kurusu	3
	medium				Ami	5
	long				Gotoh	7
23.	VG/					
(*)	MS					
(+)	Flower: width in					
	front view					
QN	narrow				Kurusu	3
	medium				Sakurako	5
	broad				Trinity	7
24.	VG					
	Flower: fragrance					
QN	absent or weak				Pink Sugar, Rur	1
	moderate				Only One	2
	strong					3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
25.	VG/ Dorsal sepal:					
(*)	MG length					
QN	(c) short				Yellow Days, YMC-2	1
	medium					2
	long				Gotoh	3
26.	VG/ Dorsal sepal:					
(*)	MG width					
QN	(c) narrow				Kurusu	1
	medium				YMC-2	2
	broad				Sakurako	3
27.	VG Dorsal sepal:					
(*)	shape					
(+)						
PQ	(c) lanceolate				Shell white	1
	ovate				Flambeau	2
	linear				Ota	3
	narrow elliptic				Haruka,Nancy	4
	elliptic				Yellow Days, Yurara	5
	obovate				Kaori no Izumi	6
28.	VG Dorsal sepal:					
(*)	curvature of					
(+)	longitudinal axis					
QN	(c) strongly incurving					1
	moderately incurving				Nihao, Yellow Days	3
	straight				Gotoh	5
	moderately recurving				Flambeau	7
	strongly recurving					9

	English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
29.	VG Dorsal sepal: cross section					
(+)						
QN	(c) strongly concave					1
	moderately concave					3
	flat				Only You, YMC-2	5
	moderately convex				Shell white, Yellow Days	7
	strongly convex					9
30.	VG Dorsal sepal: undulation of margin					
(+)						
QN	(c) absent or weak				Only You	1
	moderate				Yellow Days	2
	strong					3
31.	VG Dorsal sepal: ground color					
(*)						
PQ	(c) RHS Colour Chart (indicate reference number)					
32.	VG Dorsal sepal: diffused over color (if present)					
(+)						
PQ	(c) RHS Colour Chart (indicate reference number)					
33.	VG Dorsal sepal: number of spots					
QN	(c) absent or very few				Fight Yuko	1
	few					2
	medium				Makali Gotoh	3
	many					4

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
34.	VG	Dorsal sepal: size of spots (if present)				
QN	(c)	very small				1
		small			Pink Sugar	2
		medium			Makali Gotoh	3
		large			Kurusu	4
35.	VG	Dorsal sepal: color of spots (if present)				
(+)						
PQ	(c)	RHS Colour Chart (indicate reference number)				
36.	VG	Dorsal sepal: number of bands				
QN	(c)	absent or very few			Fight Yuko	1
		few				2
		medium			Monshirotyo no Cafe	3
		many				4
37.	VG	Dorsal sepal: distribution of bands (if present)				
PQ	(c)	basal area				1
		middle area				2
		distal area				3
		basal and middle area				4
		distal and middle area				5
		whole area				6

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
38.	VG Dorsal sepal: color of bands (if present)					
(+)						
PQ	(c) RHS Colour Chart (indicate reference number)					
39.	VG Dorsal sepal: color of stripes (if present)					
(+)						
PQ	(c) RHS Colour Chart (indicate reference number)					
40.	VG Dorsal sepal: width of marginal color					
QN	(c) absent or very narrow					1
	narrow					2
	medium					3
	broad					4
41.	VG Dorsal sepal: color of margin (if present)					
(+)						
PQ	(c) RHS Colour Chart (indicate reference number)					
42.	VG Dorsal sepal: size of macule (if present)					
QN	(c) very small					1
	small					2
	medium					3
	large					4

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
43. VG	Dorsal sepal: color of macule (if present)					
(+)						
PQ	(c) RHS Colour Chart (indicate reference number)					
44. VG/ (* MG)	Lateral sepal: length					
QN	(c) short				Yellow Days, YMC-2	1
	medium					2
	long				Gotoh	3
45. VG/ (* MG)	Lateral sepal: width					
QN	(c) narrow				Ami	1
	medium				Flambeau	2
	broad				Gotoh	3
46. VG (* (+)	Lateral sepal: shape					
PQ	(c) lanceolate				Suzy	1
	ovate				Gotoh	2
	elliptic					3
	obovate				Yasukasupa Koharu	4
	broad obovate				YMC-2	5
	curving obovate				Only You	6

	English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
47.	VG					
(*)	Lateral sepal:					
(+)	curvature of					
	longitudinal axis					
QN	(c)	strongly incurving				1
		moderately incurving			Haruka, Yellow Days	3
		straight			Only You	5
		moderately recurving			Gotoh	7
		strongly recurving			Nancy, Pink Sugar	9
48.	VG					
(+)	Lateral sepal:					
	cross section					
QN	(c)	strongly concave				1
		moderately concave				3
		flat			Flambeau	5
		moderately convex				7
		strongly convex				9
49.	VG					
	Lateral sepal:					
	twisting					
QN	(c)	absent or weak			Ami	1
		moderate				2
		strong			Shimizu Parasol Papurikon	3
50.	VG					
(+)	Lateral sepal:					
(*)	undulation of					
	margin					
QN	(c)	absent or weak			Haruka, Kaori no Izumi	1
		moderate			Monshirotyo no Cafe	2
		strong				3

	English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
51.	VG Lateral sepal: ground color					
(*)						
PQ	(c) RHS Colour Chart (indicate reference number)					
52.	VG Lateral sepal: diffused over color (if present)					
(+)						
PQ	(c) RHS Colour Chart (indicate reference number)					
53.	VG Lateral sepal: number of spots					
QN	(c) absent or very few				Fight Yuko	1
	few					2
	medium				Makali Gotoh	3
	many					4
54.	VG Lateral sepal: size of spots (if present)					
QN	(c) very small					1
	small					2
	medium				Makali Gotoh	3
	large				Kurusu	4
55.	VG Lateral sepal: color of spots (if present)					
(+)						
PQ	(c) RHS Colour Chart (indicate reference number)					

	English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota	
56.	VG	Lateral sepal: number of bands					
QN	(c)	absent or very few			Fight Yuko	1	
		few				2	
		medium			Monshirotyo no Cafe	3	
		many				4	
57.	VG	Lateral sepal: distribution of bands (if present)					
PQ	(c)	basal area				1	
		middle area				2	
		distal area				3	
		basal and middle area				4	
		distal and middle area				5	
		whole area				6	
58.	VG	Lateral sepal: color of bands (if present)					
(+)							
PQ	(c)	RHS Colour Chart (indicate reference number)					
59.	VG	Lateral sepal: color of stripes (if present)					
(+)							
PQ	(c)	RHS Colour Chart (indicate reference number)					

	English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
60.	VG	Lateral sepal: width of marginal color				
QN	(c)	absent or very narrow				1
		narrow				2
		medium				3
		broad				4
61.	VG	Lateral sepal: color of margin (if present)				
(+)						
PQ	(c)	RHS Colour Chart (indicate reference number)				
62.	VG	Lateral sepal: size of macule (if present)				
QN	(c)	very small				1
		small				2
		medium				3
		large				4
63.	VG	Lateral sepal: color of macule (if present)				
(+)						
PQ	(c)	RHS Colour Chart (indicate reference number)				
64.	VG/ (* MG)	Petal: length				
QN	(c)	short			Fight Yuko, Haruka	1
		medium			Flambeau	2
		long			Gotoh	3

	English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
65.	VG/					
(*)	MG					
QN	(c)	narrow			Only You	1
		medium			Fight Yuko	2
		broad				3
66.	VG	Petal: shape				
(*)						
(+)						
PQ	(c)	ovate				1
		linear			Ota	2
		elliptic				3
		oblanceolate			Ami	4
		broad obovate			Yasukasupa Komachi	5
67.	VG	Petal: curvature of longitudinal axis				
(*)						
(+)						
QN	(c)	strongly incurving				1
		moderately incurving			Yellow Days, YMC-2	3
		straight			Kaori no Izumi	5
		moderately recurving			Ami	7
		strongly recurving				9
68.	VG	Petal: cross section				
(+)						
QN	(c)	strongly concave				1
		moderately concave				3
		flat			Yellow Days, YMC-2	5
		moderately convex			Shell white, Monshirotyo no Cafe	7
		strongly convex				9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
69.	VG	Petal: twisting				
QN	(c)	absent or weak			Ami	1
		moderate				2
		strong			Shimizu Parasol Papurikon	3
70.	VG	Petal: undulation of margin				
(+)						
QN	(c)	absent or weak			Haruka,Ruru	1
		moderate			Yellow Days	2
		strong				3
71.	VG	Petal: ground color				
(*)						
PQ	(c)	RHS Colour Chart (indicate reference number)				
72.	VG	Petal: diffused over color (if present)				
(*)						
(+)						
PQ	(c)	RHS Colour Chart (indicate reference number)				
73.	VG	Petal: number of spots				
QN	(c)	absent or very few			Fight Yuko	1
		few				2
		medium			Makali Gotoh	3
		many				4

	English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota	
74.	VG	Petal: size of spots (if present)					
QN	(c)	very small				1	
		small			Makali Gotoh	2	
		medium			Kurusu	3	
		large				4	
75.	VG	Petal: color of spots (if present)					
(*)							
(+)							
PQ	(c)	RHS Colour Chart (indicate reference number)					
76.	VG	Petal: number of bands					
QN	(c)	absent or very few				1	
		few			Monshirotyo no Cafe	2	
		medium			Volcano Queen	3	
		many				4	
77.	VG	Petal: distribution of bands (if present)					
PQ	(c)	basal area				1	
		middle area				2	
		distal area				3	
		basal and middle area				4	
		distal and middle area				5	
		whole area				6	

	English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
78.	VG					
(*)	Petal: color of					
(+)	bands					
	(if present)					
PQ	(c)	RHS Colour Chart				
		(indicate reference number)				
79.	VG					
(+)	Petal: color of					
	stripes					
	(if present)					
PQ	(c)	RHS Colour Chart				
		(indicate reference number)				
80.	VG					
	Petal: width of					
	marginal color					
QN	(c)	absent or very narrow				1
		narrow				2
		medium				3
		broad				4
81.	VG					
(*)	Petal: color of					
(+)	margin (if present)					
PQ	(c)	RHS Colour Chart				
		(indicate reference number)				
82.	VG					
	Petal: size of					
	macule (if present)					
QN	(c)	very small				1
		small				2
		medium				3
		large				4

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
83.	VG					
(*)	Petal: color of					
(+)	macule					
	(if present)					
PQ	(c)	RHS Colour Chart				
		(indicate reference number)				
84.	VG/					
(*)	Lip: length					
(+)	MS					
QN	(c)	short			Ami	1
		medium			Gotoh	2
		long			Flambeau	3
85.	VG/					
(*)	Lip: width					
(+)	MS					
QN	(c)	narrow			Gotoh, Kaoli no Izumi	1
		medium			Monshirotyo no Cafe	2
		broad			Flambeau	3
86.	VG					
(*)	Lip: size of lateral					
(+)	lobe in relation to					
	apical lobe					
QN	(c)	smaller			Shimizu Prasol Papurikon, Yurara	1
		same size			Ami	2
		larger			Haruka, Only One	3
87.	VG					
(+)	Lip: undulation of					
	margin					
QN	(c)	absent or weak			Ami	1
		moderate				2
		strong				3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
88.	VG					
(*)	Lip: apical lobe:					
(+)	shape					
PQ	(c)	rhombic			Only You	1
		circular				2
		oblate				3
		flabellate			Monshirotyo no Café, Pink Sugar	4
		obdeltate				5
89.	VG					
(*)	Lip: apical lobe:					
(+)	indentation of apex					
QN	(c)	absent or very weak			Yasukasupa Akane	1
		weak			Ami	2
		medium			Pink Sugar, Shimizu Prasol Papurikon	3
		strong			Haruka, Yellow Days	4
90.	VG					
(*)	Lip: apical lobe:					
(+)	curvature of longitudinal axis					
QN	(c)	incurving			Yellow Angel, Yellow Days	1
		straight			Pink Sugar, Shimizu Prasol Papurikon	2
		recurving			Only You	3
91.	VG					
(+)	Lip: apical lobe:					
	cross section					
QN		concave			Kaori no Izumi	1
		flat				2
		convex			Only You	3

	English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
92.	VG Lip: apical lobe: ground color					
(*) (+)						
PQ	(c) RHS Colour Chart (indicate reference number)					
93.	VG Lip: apical lobe: diffused over color (if present)					
(+)						
PQ	(c) RHS Colour Chart (indicate reference number)					
94.	VG Lip: apical lobe: color of spots (if present)					
(+)						
PQ	(c) RHS Colour Chart (indicate reference number)					
95.	VG Lip: apical lobe: color of bands (if present)					
(+)						
PQ	(c) RHS Colour Chart (indicate reference number)					
96.	VG Lip: apical lobe: color of margin (if present)					
(+)						
PQ	(c) RHS Colour Chart (indicate reference number)					
97.	VG Lip: lateral lobe: ground color					
(+)						
PQ	(c) RHS Colour Chart (indicate reference number)					

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota	
98. VG	Lip: callus: color						
PQ	white				Fight Yuko	1	
	yellow				Fragrance Fantasy	2	
	orange				Yasukasupa Akane	3	
	red					5	
	red purple					4	
	yellow brown				Shimizu Parasol Papurikon	6	
	brown					7	
99. VG	Lip: color of blotches surrounding callus						
PQ	white				Fragrance Fantasy	1	
	yellow				Yellow Days	2	
	orange					3	
	red				Yasukasupa Akane	5	
	red purple					4	
	yellow brown					6	
	brown				Monshirotyo no Café	7	

8. Explanations on the Table of Characteristics

8.1 Explanations covering several characteristics

Unless otherwise noted, all characteristics should be observed when 80% of flowers have opened on the first inflorescence.

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

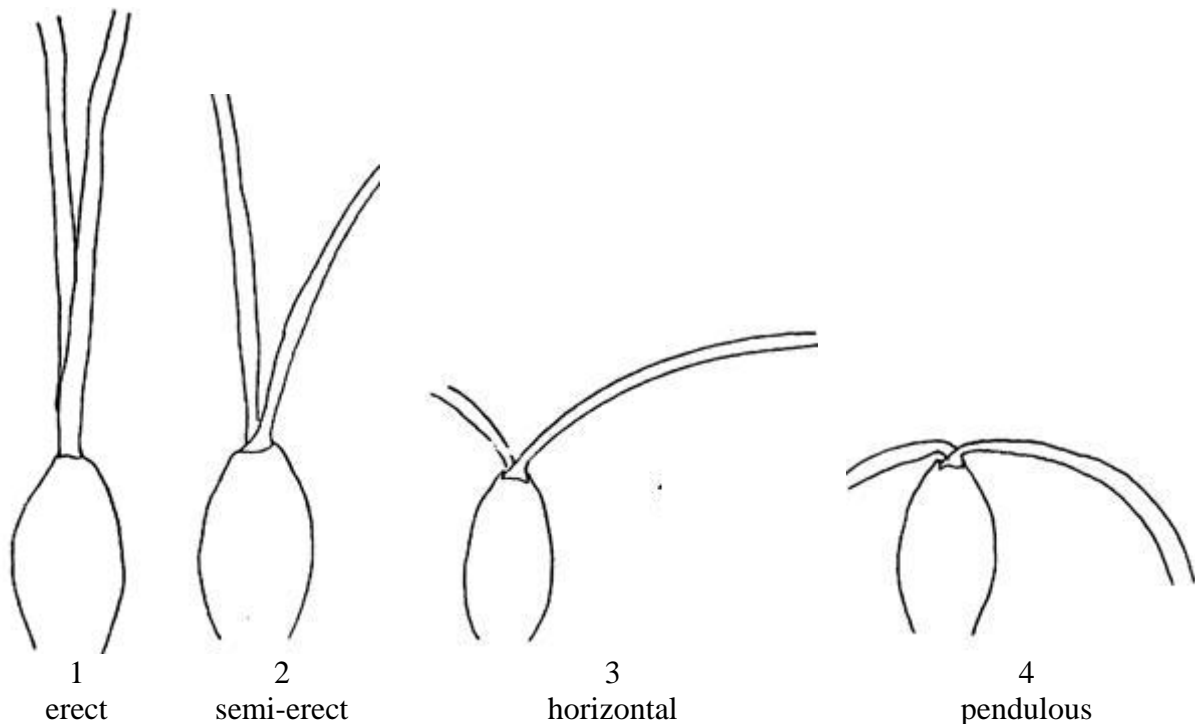
- (a) Observations on pseudobulb should be made on the flowering pseudobulb.
- (b) Observations on leaf should be made on the longest leaf of a flowering pseudobulb.
- (c) Observations on the sepal, petal and lip should be made on the front of flower.
- (d) Observations on the inflorescence should be made on the longest inflorescence.

8.2 Explanations for individual characteristics

Ad. 1: Plant: size

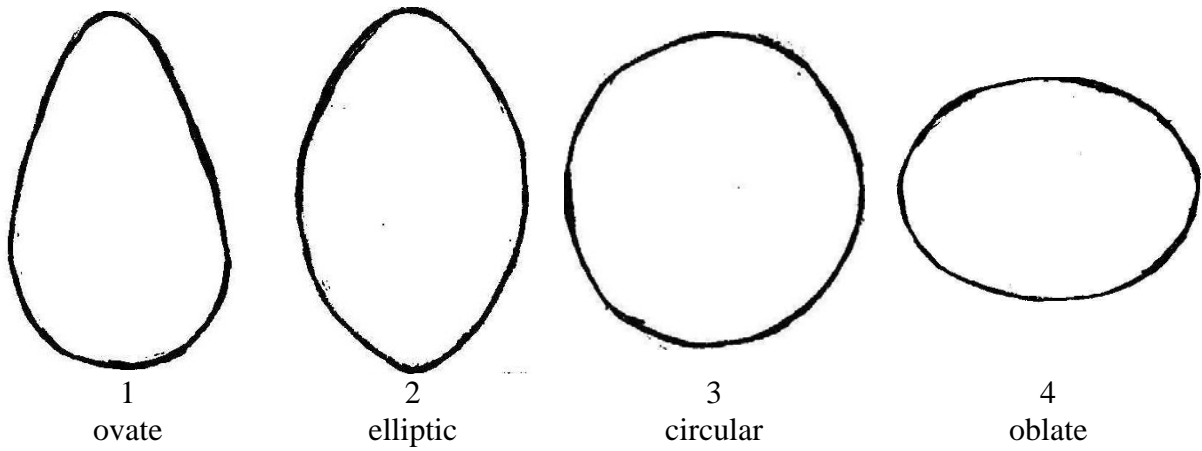
The size of plant is evaluated by observation of whole plant size including pseudobulb and leaf.

Ad.2: Plant: attitude of leaves

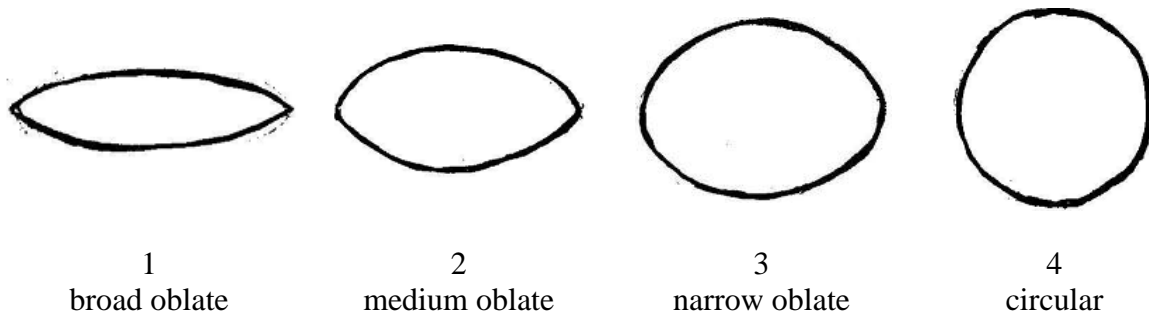


Ad. 4: Pseudobulb: shape in longitudinal section

The shape in longitudinal section should be observed shape in longitudinal section of the most broad part of pseudobulb.

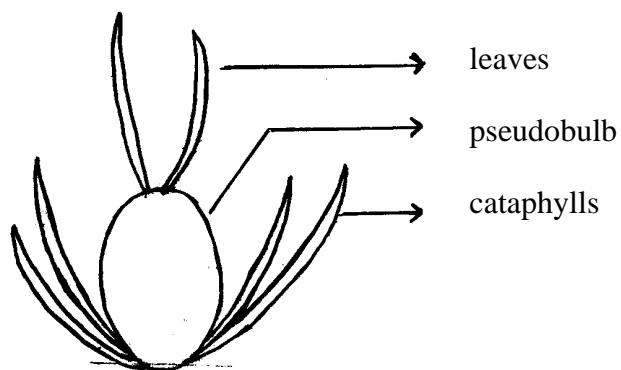


Ad. 5: Pseudobulb: shape in cross section



Ad. 6: Pseudobulb: number of cataphylls

Ad. 7: Pseudobulb: number of leaves



Ad. 10: Leaf : shape



1
narrow
lanceolate



2
linear



3
narrow elliptic



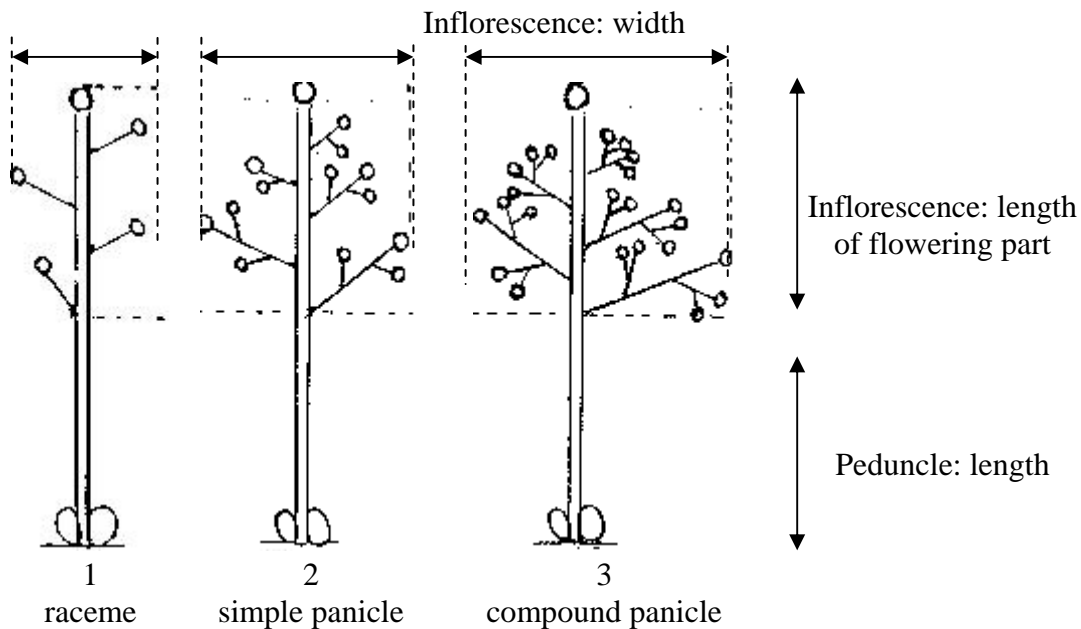
4
medium elliptic

Ad. 13: Inflorescence: type

Ad. 14: Inflorescence: length of flowering part

Ad. 15: :Inflorescence : width

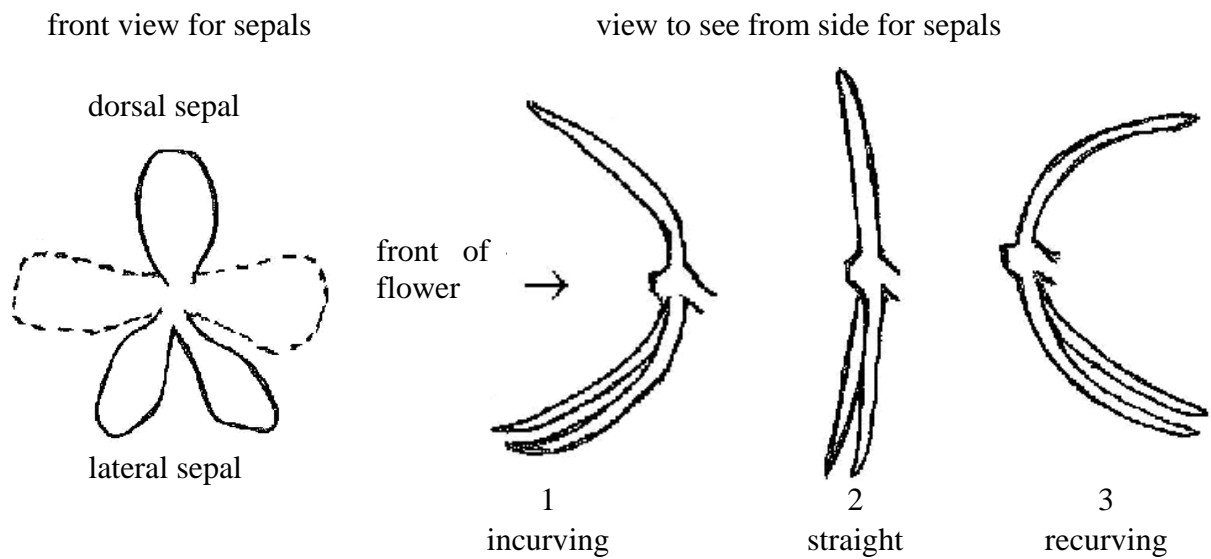
Ad. 17: Peduncle : length



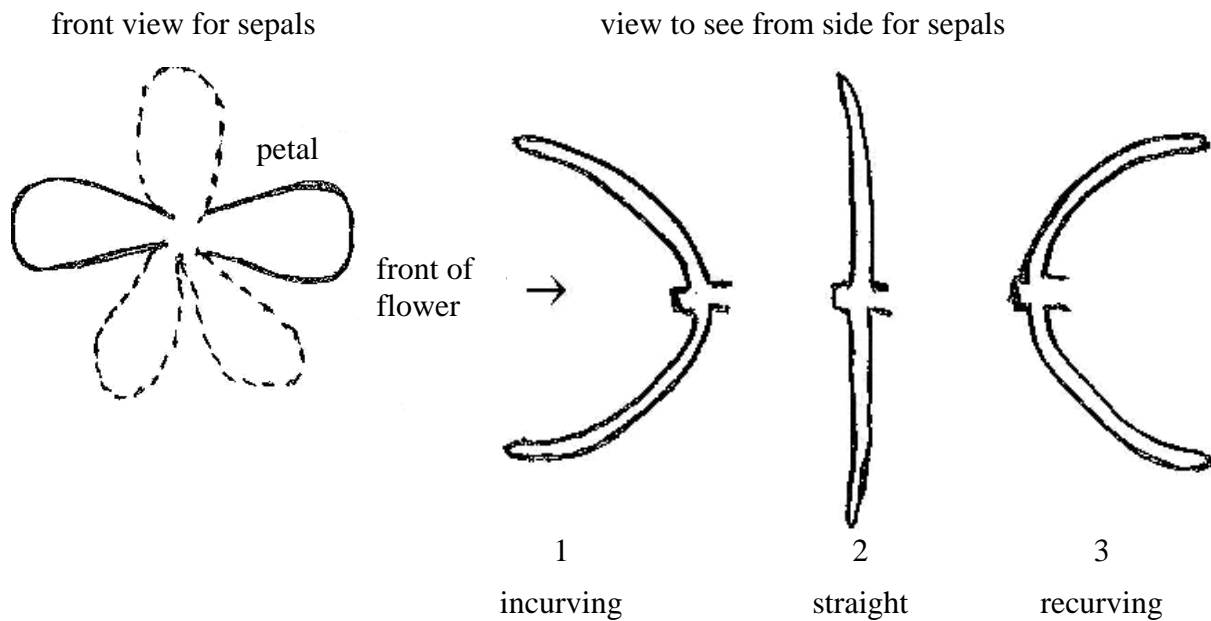
Ad.19: Peduncle: anthocyanin coloration

Anthocyanin coloration should be observed on the area of strongest coloration along whole length of peduncle.

Ad. 20: Flower: curvature of sepals

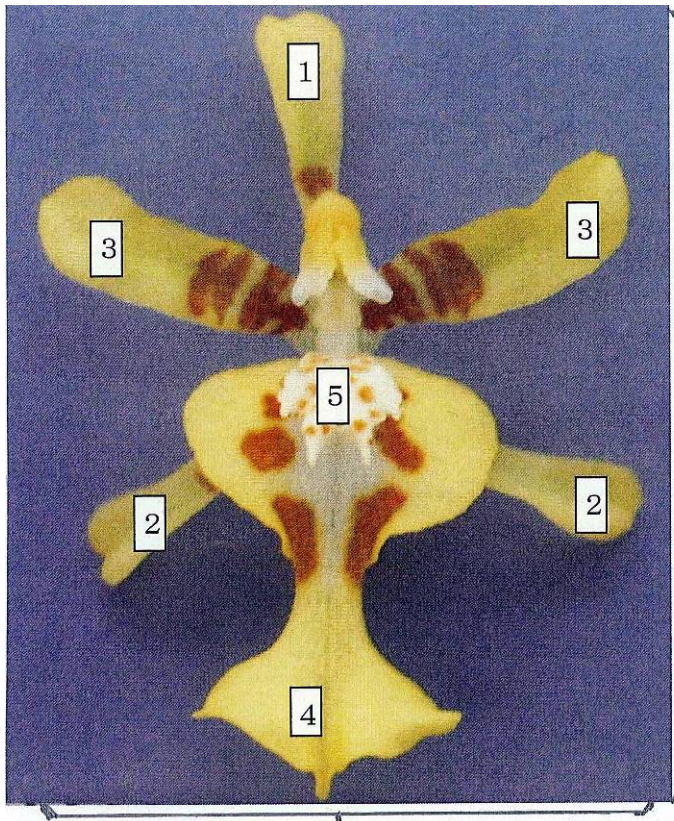


Ad. 21: Flower: curvature of petals



Ad. 22: Flower: length in front view

Ad. 23: Flower: width in front view

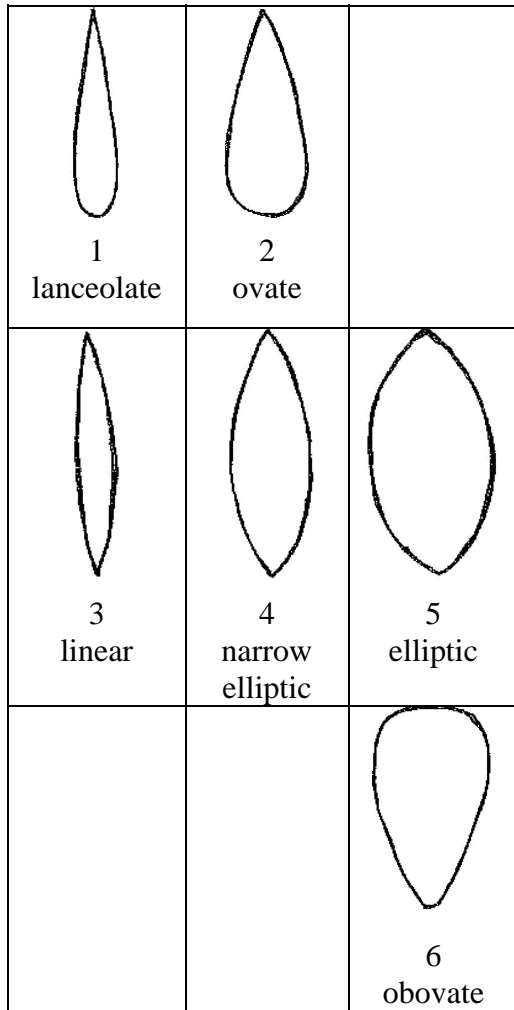


Flower: length
in front view

Flower: width in
front view

- | | |
|----------------|-----------------|
| 1 Dorsal sepal | 2 Lateral sepal |
| 3 Petal | 4 Lip |
| 5 Callus | |

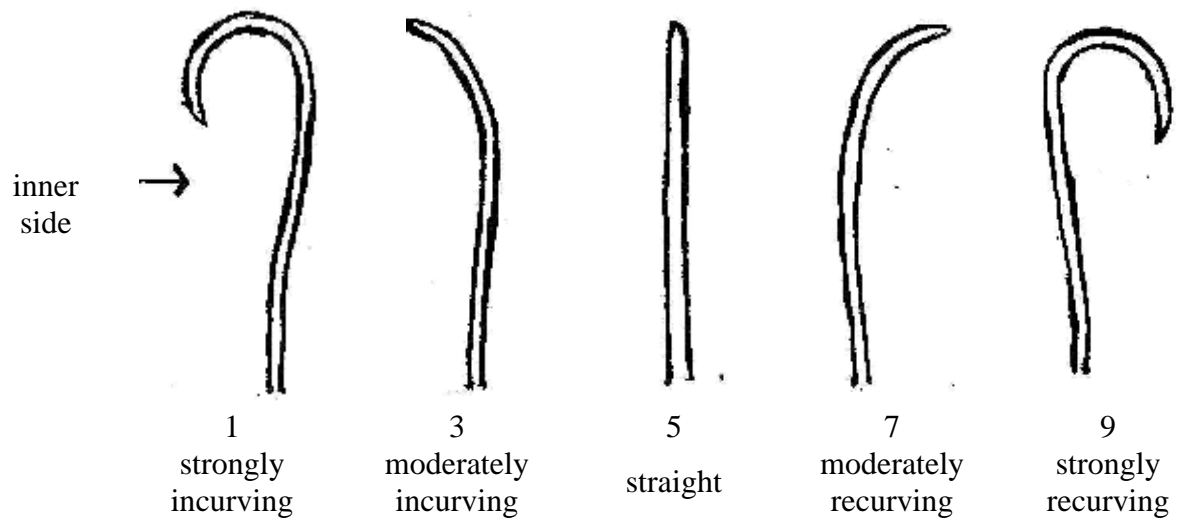
Ad. 27: Dorsal sepal: shape



Ad. 28: Dorsal sepal: curvature of longitudinal axis

Ad. 47: Lateral sepal: curvature of longitudinal axis

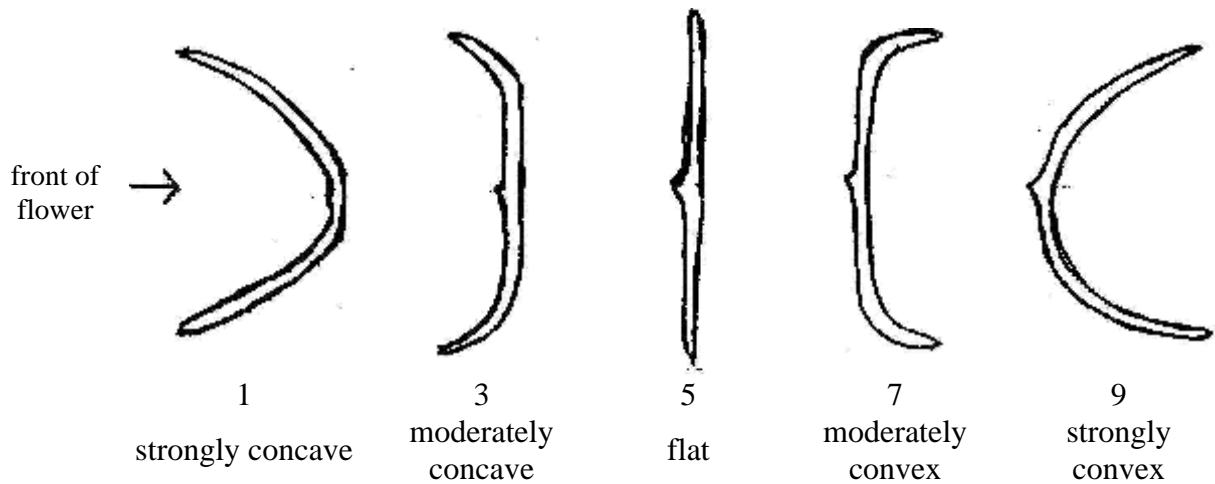
Ad. 67: Petal: curvature of longitudinal axis



Ad. 29: Dorsal sepal: cross section

Ad. 48: Lateral sepal: cross section

Ad. 68: Petal: cross section

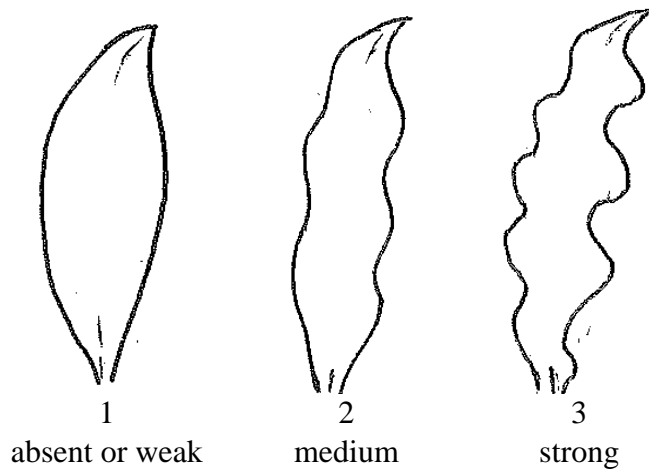


Ad.30: Dorsal sepal: undulation of margin

Ad.50: Lateral sepal: undulation of margin

Ad.70: Petal: undulation of margin

Ad.87: Lip: undulation of margin



Ad. 31: Dorsal sepal: ground color

Ad. 51: Lateral sepal: ground color

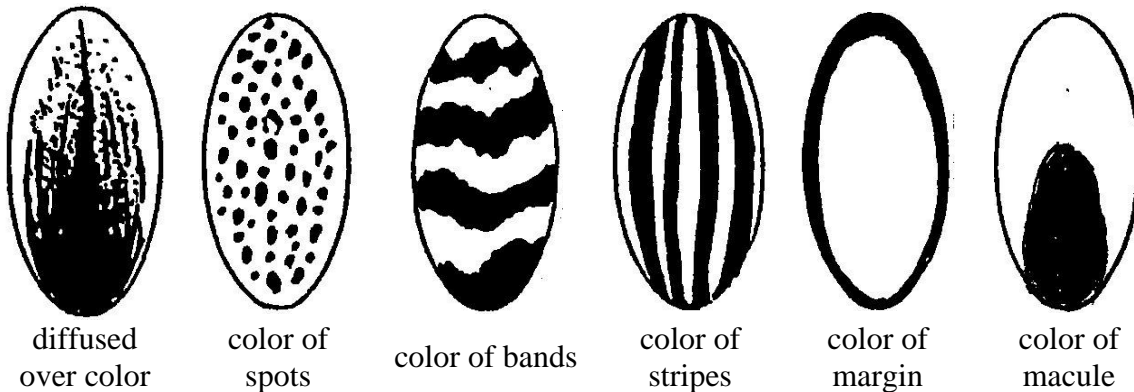
Ad. 71: Petal: ground color

Ad. 92: Lip: apical lobe: ground color

Ad. 97: Lip: lateral lobe: ground color

Ground color is the continuously dispersed color beside diffused over color, color of spot, bands, stripes, margin and macule which originated by anthocyanin pigmentation, is likely as the color of inner tissue layer of the organs.

- Ad. 32: Dorsal sepal: diffused over color (if present)
Ad. 35: Dorsal sepal: color of spots (if present)
Ad. 38: Dorsal sepal: color of bands (if present)
Ad. 39: Dorsal sepal: color of stripes (if present)
Ad. 41: Dorsal sepal: color of margin (if present)
Ad. 43: Dorsal sepal: color of macule (if present)
Ad. 52: Lateral sepal: diffused over color (if present)
Ad. 55: Lateral sepal: color of spots (if present)
Ad. 58: Lateral sepal: color of bands (if present)
Ad. 59: Lateral sepal: color of stripes (if present)
Ad. 61: Lateral sepal: color of margin (if present)
Ad. 63: Lateral sepal: color of macule (if present)
Ad. 72: Petal: diffused over color (if present)
Ad. 75: Petal: color of spots (if present)
Ad. 78: Petal: color of bands (if present)
Ad. 79: Petal: color of stripes (if present)
Ad. 81: Petal: color of margin (if present)
Ad. 83: Petal: color of macule (if present)



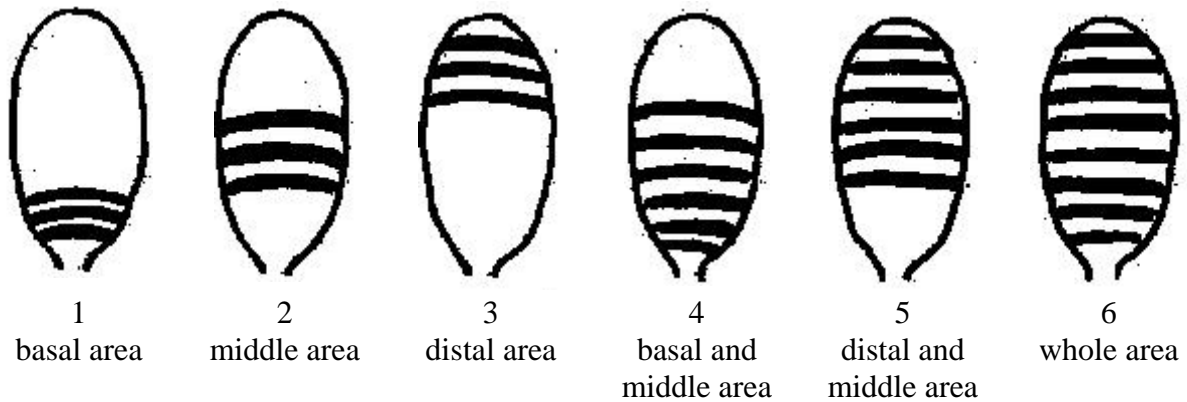
- Ad. 32: Dorsal sepal: diffused over color (if present)
Ad. 52: Lateral sepal: diffused over color (if present)
Ad. 72: Petal: diffused over color (if present)
Ad. 93: Lip: apical lobe: diffused over color (if present)

Diffused over color should be observed at base of the each organs.

Ad. 37: Dorsal sepal: distribution of bands¹

Ad. 57: Lateral sepal: distribution of bands

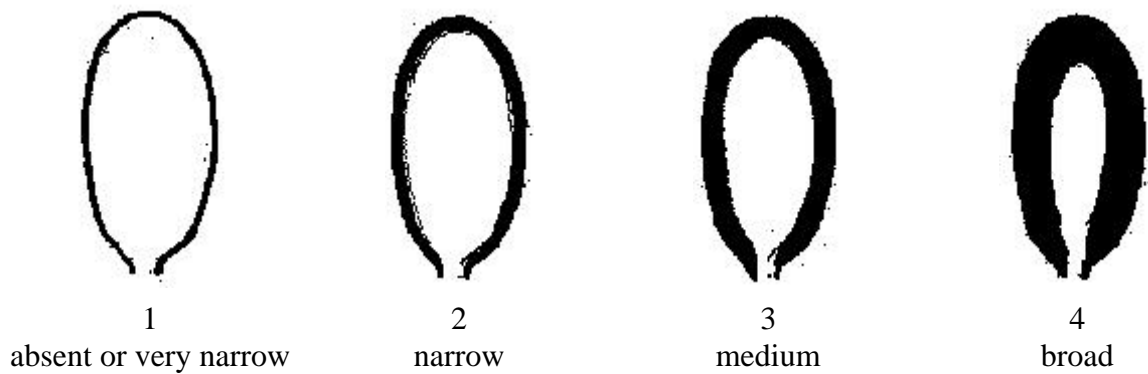
Ad. 77: Petal : distribution of bands



Ad. 40 Dorsal sepal: width of marginal color¹

Ad. 60 Lateral sepal: width of marginal color

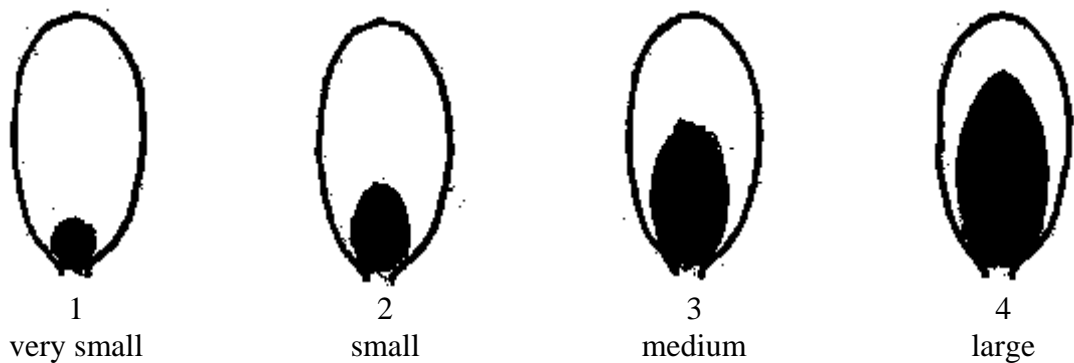
Ad. 80 Petal: width of marginal color







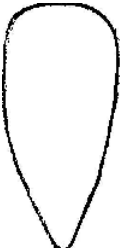

Ad. 42 Dorsal sepal: size of macule (if present)¹

Ad. 62 Lateral sepal: size of macule (if present)

Ad. 82 Petal: size of macule (if present)

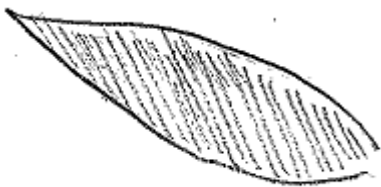


Ad. 46: Lateral sepal: shape

 1 lanceolate	 2 ovate		
	 3 elliptic		
	 4 obovate	 5 broad obovate	 6 curving obovate

Ad. 49: Lateral sepal: twisting

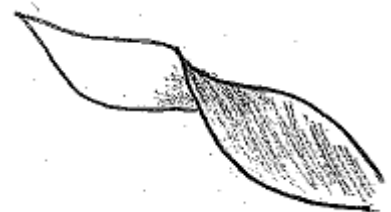
Ad. 69: Petal: twisting



1
absent or weak





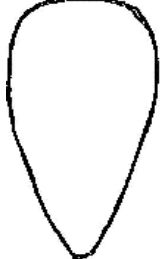


2
moderate



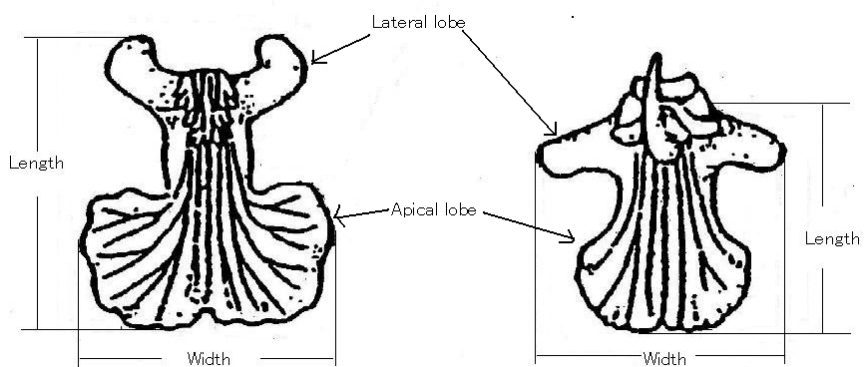
3
strong

Ad. 66: Petal : shape

	 1 ovate	
 2 linear	 3 elliptic	
	 4 oblanceolate	 5 broad obovate

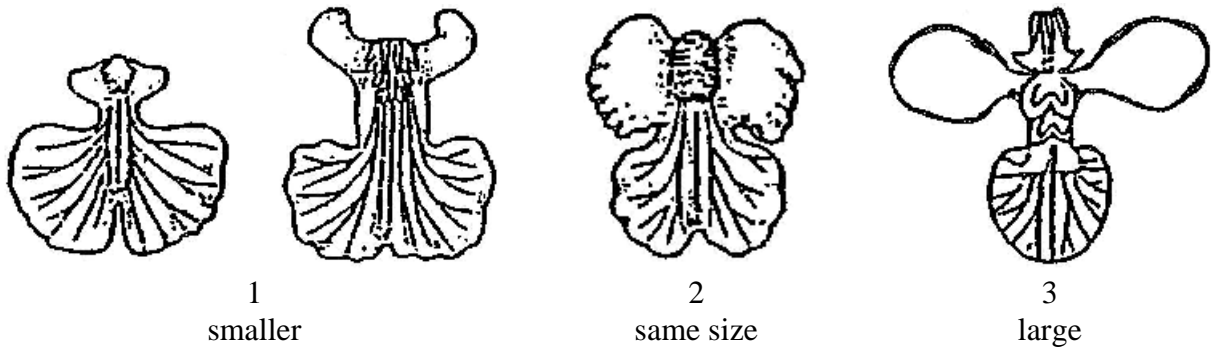
Ad. 84: Lip: length

Ad. 85: Lip: width

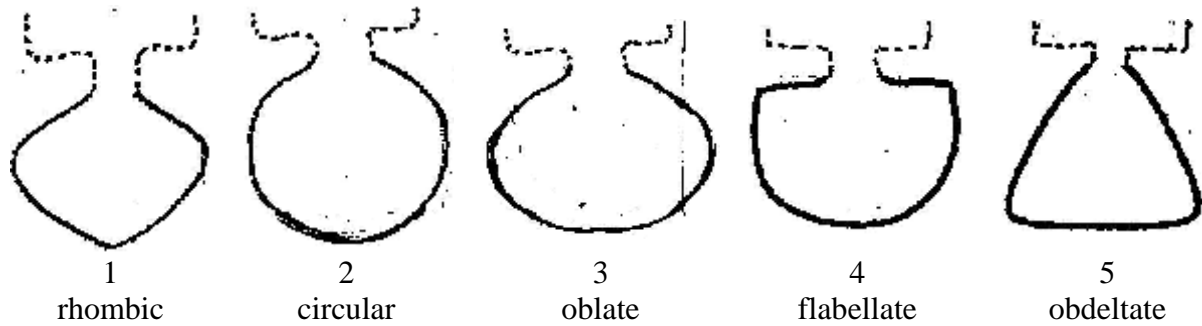


Ad. 86: Lip: size of lateral lobe in relation to apical lobe

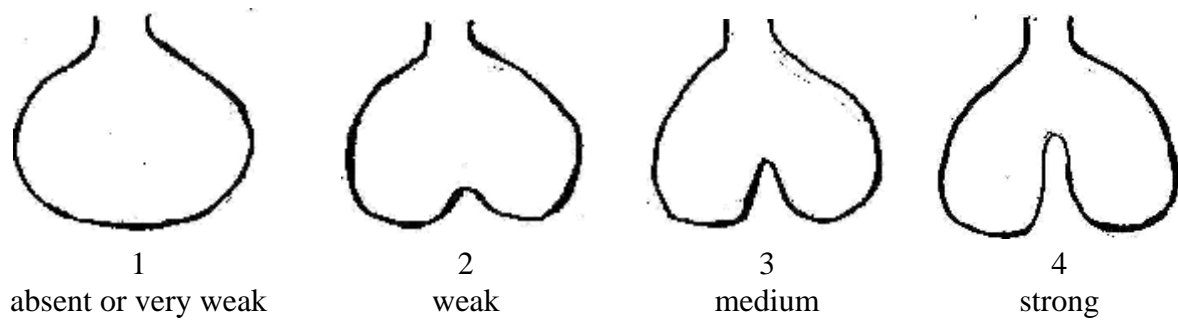
The size of both lateral lobes compared to the size of the single apical lobe.



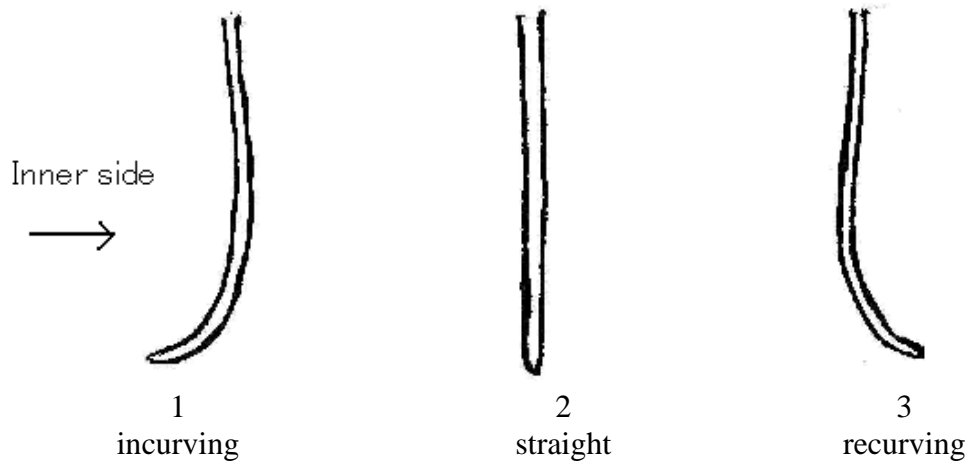
Ad. 88: Lip: apical lobe : shape



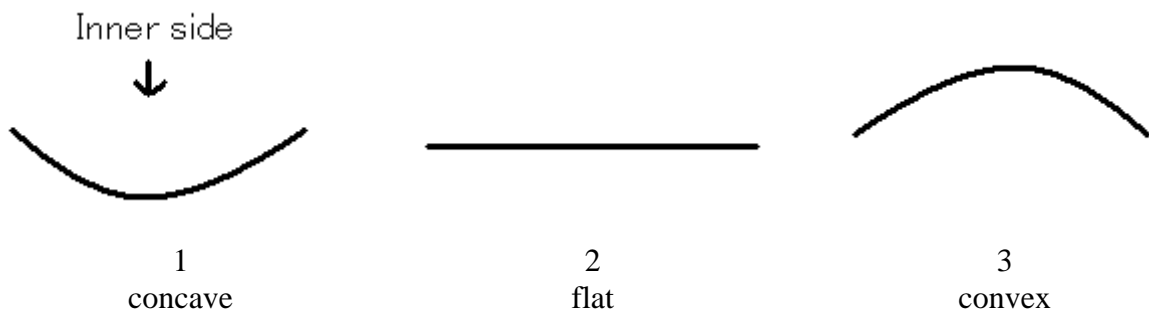
Ad. 89: Lip: apical lobe: indentation of apex



Ad. 90: Lip: apical lobe: curvature of longitudinal axis



Ad. 91: Lip: apical lobe: cross section

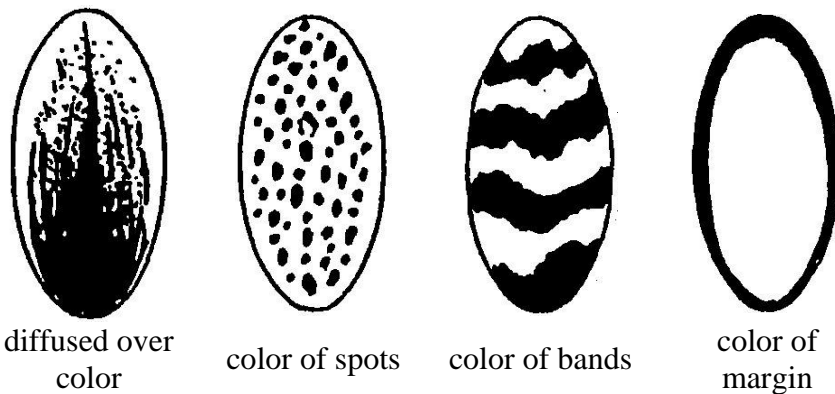


Ad. 93: Lip: apical lobe: diffused over color (if present)

Ad. 94: Lip: apical lobe: color of spots (if present)

Ad. 95: Lip: apical lobe: color of bands (if present)

Ad. 96: Lip: apical lobe: color of margin (if present)



9. Literature

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Karasawa, K., 2003: Species Orchidacearum- 1 Text. Japan Broadcasting Publishing Co. Ltd. Tokyo, JP, pp.296 to 308.

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Yoneda, K., 2003: The Grand Dictionary of Flower Horticulture Volume15 Orchid. The Rural Culture Association. Tokyo, JP, pp.371 to 391

Oda, Z., 1984: Orchid-Varieties,Breeding,Cultivation and Propagation. The Hokuryu Ltd. Tokyo, JP, pp.315 to 319

Karasawa, K., 1996: Color Dictionary of Orchid. The Yamatokeikoku Ltd. Tokyo, JP, pp. 407 to 432.

Higuchi, H., 1983: Japanese Test Guideline for Oncidium. Ministry of Agriculture, Forestry and Fisheries. Japan, Tokyo, JP.

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(please indicate the relevant genus or hybrid)		
1.1.1 Genus name	[<i>Oncidium</i> SW.]	
1.1.2 Botanical name	[]	[]
1.1.3 Common name	[Oncidium]	
1.2.1 Genus name	[x <i>Oncidesa</i> Hort,]	
1.2.2 Botanical name	[]	[]
1.2.3 Common name	[]	
1.3.1 Genus name	[x <i>Ionocidium</i> Hort]	
1.3.2 Botanical name	[]	[]
1.3.3 Common name	[]	
1.4.1 Genus name	[x <i>Zelenkocidium</i> J.M.H.Shaw]	
1.4.2 Botanical name	[]	[]
1.4.3 Common name	[]	

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
2. Applicant		
Name	<input type="text"/>	
Address	<input type="text"/>	
Telephone No.	<input type="text"/>	
Fax No.	<input type="text"/>	
E-mail address	<input type="text"/>	
Breeder (if different from applicant)	<input type="text"/>	
3. Proposed denomination and breeder's reference		
Proposed denomination (if available)	<input type="text"/>	
Breeder's reference	<input type="text"/>	

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

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

4.1 Breeding scheme

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:
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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

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: size (1)		
very small		1[]
very small to small		2[]
small	Fragrancy Fantasy	3[]
small to medium		4[]
medium	Yellow Angel	5[]
medium to large		6[]
large	Kurisu	7[]
large to very large		8[]
very large		9[]
5.2 Flower: width in front view (23)		
very narrow		1[]
very narrow to narrow		2[]
narrow	Kurisu	3[]
narrow to medium		4[]
medium	Sakuroku	5[]
medium to broad		6[]
broad	Trinity	7[]
broad to very broad		8[]
very broad		9[]

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Characteristics	Example Varieties	Note
5.3 Petal: ground color (71)		
white		1[]
yellow		2[]
orange		3[]
pink		4[]
red		5[]
violet		6[]
brown		7[]
5.4 Petal: diffused over color (if present) (72)		
white		1[]
yellow		2[]
orange		3[]
pink		4[]
red		5[]
violet		6[]
brown		7[]
5.5 Petal: color of spots (if present) (75)		
white		1[]
yellow		2[]
orange		3[]
pink		4[]
red		5[]
violet		6[]
brown		7[]

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	Characteristics	Example Varieties	Note
5.7	Petal: color of bands (if present)		
(78)			
	white		1[]
	yellow		2[]
	orange		3[]
	pink		4[]
	red		5[]
	violet		6[]
	brown		7[]
5.8	Petal: color of stripes (if present)		
(79)			
	white		1[]
	yellow		2[]
	orange		3[]
	pink		4[]
	red		5[]
	violet		6[]
	brown		7[]
5.9	Petal: color of margin (if present)		
(81)			
	white		1[]
	yellow		2[]
	orange		3[]
	pink		4[]
	red		5[]
	violet		6[]
	brown		7[]

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Characteristics	Example Varieties	Note
5.10 Petal: color of macule (if present) (83)		
white		1[]
yellow		2[]
orange		3[]
pink		4[]
red		5[]
violet		6[]
brown		7[]
5.11 Lip: apical lobe: ground color (if present) (92)		
white		1[]
yellow		2[]
orange		3[]
pink		4[]
red		5[]
violet		6[]
brown		7[]

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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>Petal: ground color</i>	<i>yellow</i>	<i>white</i>

Comments:

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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

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.

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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]