CPVO · OCVV
Community Plant Variety Office
Office Communautaire des Variétés Végétales

PROTOCOL FOR TESTS ON DISTINCTNESS, UNIFORMITY AND STABILITY

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

ONCIDIUM; xONCIDESA; Xionocidium; xZELENKOCIDIUM

UPOV Code: ONCID; ONCIE; IONOC; ZELCI

Adopted on 31/03/2025

Entry into force on 31/03/2025

CPVO-TP/283/1-Rev based on the version 5 of the CPVO-TP/template

TABLE OF CONTENTS

CPVO-TP/283/1-Rev

1. SUBJECT OF THE PROTOCOL AND REPORTING

1.1 Scope of the technical protocol

This Technical Protocol applies to all varieties of *Oncidium* Sw., x*Oncidesa* Hort. (*Oncidium* Sw. x *Gomesa* R.B.), x*Ionocidium* Hort. (*Oncidium* Sw. x *Ionopsis* Kunth.) and x*Zelenkocidium* J.M.H. Shaw (*Oncidium* Sw. x *Zelenkoa* M.W.Chase & N.H.Williams.).

The protocol describes the technical procedures to be followed in order to meet the requirements of Council Regulation 2100/94 on Community Plant Variety Rights. The technical procedures have been agreed by the Administrative Council and are based on documents agreed by the International Union for the Protection of New Varieties of Plants (UPOV), such as the General Introduction to DUS (UPOV Document TG/1/3 http://www.upov.int/export/sites/upov/resource/en/tg_1_3.pdf), its associated TGP documents (http://www.upov.int/tgp/en/) and the relevant UPOV Test Guideline TG/283/1 Rev. 2 dated 24/10/2023 (https://www.upov.int/edocs/tgdocs/en/tg283.pdf) for the conduct of tests for Distinctness, Uniformity and Stability.

1.2 Entry into Force

The present protocol enters into force on **31.03.2025**. Any ongoing DUS examination of candidate varieties started before the aforesaid date will not be affected by the approval of the Technical Protocol. Technical examinations of candidate varieties are carried out according to the TP in force when the DUS test starts. The starting date of a DUS examination is considered to be the due date for submitting of plant material for the first growing cycle.

In cases where the Office requests to take-over a DUS report for which the technical examination has either been finalized or which is in the process to be carried out at the moment of this request, such report can only be accepted if the technical examination has been carried out according to the CPVO TP which was in force at the moment when the technical examination started.

1.3 Reporting between Examination Office and CPVO and Liaison with Applicant

1.3.1 Reporting between Examination Office and CPVO

The Examination Office shall deliver to the CPVO a preliminary report ("the preliminary report") no later than four weeks after the date of the request for technical examination by the CPVO and in any case preferably before the submission period of the plant material.

The Examination Office shall also deliver to the CPVO a report relating to each growing period ("the interim report") and, when the Examination Office considers the results of the technical examination to be adequate to evaluate the variety or the CPVO so requests, a report relating to the examination ("the final report").

The final report shall state the opinion of the Examination Office on the distinctness, uniformity and stability of the variety. Where it considers those criteria to be satisfied, or where the CPVO so requests, a description of the variety shall be added to the report.

If a report is negative the Examination Office shall set out the detailed reasons for its findings.

The interim and the final reports shall be delivered to the CPVO as soon as possible and no later than on the deadlines as laid down in the designation agreement.

1.3.2 Informing on problems in the DUS test

In cases where the Examination Office identifies issues during the course of the technical examination that may lead to a negative report, the Examination Office shall inform the CPVO and in urgent cases the applicant/holder as soon as such issues become obvious.

1.3.3 Sample keeping in case of problems

As far as feasible the Examination Office shall keep a representative sample of any relevant testing material of the candidate variety and reference variety(ies) if the technical examination has resulted in a negative report. As soon as possible, the CPVO shall inform the Examination Office when the material can be destroyed.

2. MATERIAL REQUIRED

2.1 Plant material requirements

Information with respect to the agreed closing dates and submission requirements of plant material for the technical examination of varieties can be found on https://public.plantvarieties.eu/publication in the special issue S2/S3 of the Official Gazette of the Office. General requirements on submission of samples are also to be found following the same link.

2.2 Informing the applicant of plant material requirements

The CPVO informs the applicant that:

- he is responsible for ensuring compliance with any customs and plant health requirements;
- the plant material supplied should be visibly healthy, not lacking in vigour, nor affected by any important pest or disease;
- 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.

2.3 Informing about problems on the submission of material

The Examination Office shall report to the CPVO immediately in cases where the test material of the candidate variety has not arrived in time or in cases where the material submitted does not fulfil the conditions laid down in the request for submission of plant material issued by the CPVO.

In cases where the examination office encounters difficulties to obtain plant material of reference varieties the CPVO should be informed in writing.

3. METHOD OF EXAMINATION

3.1 Number of growing cycles

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

The testing of a variety may be concluded when the entrusted examination office 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" http://www.upov.int/edocs/tgpdocs/en/tgp_9.pdf.

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.

Because daylight varies, colour determinations made against a colour 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 colour chart and version used should be specified in the variety description.

3.4 Test design

Each test should be designed to result in a total of at least 9 plants.

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 Special tests for additional characteristics

In accordance with Article 23 of Implementing Rules N° 874/2009 an applicant may claim either in the Technical Questionnaire or during the test that a candidate has a characteristic which would be helpful in establishing distinctness. If such a claim is made and is supported by reliable technical data, a special test may be undertaken providing that a technically acceptable test procedure can be devised.

Special tests will be undertaken, with the agreement of the President of CPVO, where distinctness is unlikely to be shown using the characteristics listed in the protocol.

3.6 Constitution and maintenance of a variety collection

The process for the constitution and the maintenance of a variety collection can be summarized as follows:

Step 1: Making an inventory of the varieties of common knowledge.

Step 2: Establishing a collection ("variety collection") of varieties of common knowledge which are relevant for the examination of distinctness of candidate varieties.

Step 3: Selecting the varieties from the variety collection which need to be included in the growing trial or other tests for the examination of distinctness of a particular candidate variety.

3.6.1 Forms of variety collection

The variety collection shall comprise variety descriptions and may comprise living plant material. The variety description shall be produced by the EO unless special cooperation exists between EOs and the CPVO. The variety collection shall comprise images (e.g., photographs, illustrations or digitalized images) of representative parts of the plants of each variety, produced by the respective EO. The descriptive and pictorial information produced by the EO shall be held and maintained in a form of a database.

3.6.2 Living Plant Material

The EO may only obtain living plant material of reference varieties as and when those varieties need to be included in growing trials or other tests.
Living plant material of reference varieties identified to be included in the growing trial may be taken from the EO's collection in case there is one or shall be obtained specifically for the growing trial or other tests.

3.6.3 Making an inventory of varieties of common knowledge for inclusion in the variety collection

The inventory shall include varieties protected under National and Community PBR, varieties in trade or in commercial registers.
The inventory shall take into account the list of varieties which are the subject of an on-going application for protection or official registration (candidate varieties).

In addition to the above, the inventory shall be extended to the appropriate to

- relevant example varieties referred to in the technical protocols;
- any commercial document in which varieties are marketed as propagating or harvested material, especially when there is no official registration system;
- any list including varieties which are publicly available within plant collections (varieties included in genetic resource collections, collection of old varieties, etc.);
- information provided by relevant plant experts.

4. ASSESSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY

The prescribed procedure is to assess distinctness, uniformity and stability in a growing trial.

4.1 Distinctness

4.1.1 General recommendations

It is of particular importance for users of this Technical Protocol to consult the UPOV-General Introduction to DUS (link in chapter 1 of this document) and TGP 9 'Examining Distinctness' (http://www.upov.int/edocs/tgpdocs/en/tgp_9.pdf) prior to making decisions regarding distinctness. However, the following points are provided for elaboration or emphasis in this Technical Protocol.

Further guidance is provided in documents TGP/9 "Examining Distinctness" and TGP/8 "Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability".

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 Technical Protocols are familiar with the recommendations contained in the UPOV-General Introduction to DUS 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 third 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., colour 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 this Technical Protocol to consult the UPOV-General Introduction to DUS (link in chapter 1 of this document) and TGP 10 'Examining Uniformity' (http://www.upov.int/edocs/tgpdocs/en/tgp_10.pdf) prior to making decisions regarding uniformity. However, the following points are provided for elaboration or emphasis in this Technical Protocol:

4.2.2 This Technical Protocol has been developed for the examination of vegetatively propagated varieties. For varieties with other types of propagation the recommendations in the UPOV-General Introduction to DUS and document TGP/13 "Guidance for new types and species", Section 4.5 "Testing Uniformity" should be followed.

For the assessment of uniformity of vegetatively propagated varieties, 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

It is of particular importance for users of this Technical Protocol to consult the UPOV-General Introduction to DUS (link in chapter 1 of this document) and TGP 11 'Examining Stability' (http://www.upov.int/edocs/tgpdocs/en/tgp_11.pd)

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.

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 ORGANISATION 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 organise the growing trial so that similar varieties are grouped together.

5.3 The following have been agreed as useful grouping characteristics:

a) Plant: size (characteristic 1)

b) Flower: width in front view (characteristic 23)

c) Petal: ground colour (characteristic 71) with the following groups:

d) Petal: diffused over colour (if present) (characteristic 72) with the following groups:

e) Petal: colour of spots (characteristic 75) with the following groups:

f) Petal: colour of bands (characteristic 78) with the following groups:

g) Petal: colour of stripes (if present) (characteristic 79) with the following groups:

h) Petal: colour of margin (characteristic 81) with the following groups:

i) Petal: colour of macule (characteristic 83) with the following groups:

j) Apical lobe of lip: ground colour (characteristic 92) with the following groups:

Grouping characteristics from (c) to (j) should be applicable with following colour groups:
Gr. 1: white
Gr. 2: yellow
Gr. 3: orange
Gr. 4: pink
Gr. 5: red
Gr. 6: violet
Gr. 7: brown

5.4 If characteristics other than those mentioned in the list of grouping characteristics and/or from the table of characteristics and/or from the Technical Questionnaire – sections 5 and 7. are used for the selection of varieties to be included into the growing trial, the EO shall inform the CPVO and seek the prior consent of the CPVO before using these characteristics.

5.5 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the UPOV-General Introduction to DUS and document TGP/9 "Examining Distinctness".

6. INTRODUCTION TO THE TABLE OF CHARACTERISTICS

6.1 Characteristics to be used

The characteristics to be used in DUS tests and preparation of descriptions shall be those referred to in the table of characteristics. All the characteristics shall be used, providing that observation of a characteristic is not rendered impossible by the expression of any other characteristic, or the expression of a characteristic is prevented by the environmental conditions under which the test is conducted or by specific legislation on plant health. In the latter case, the CPVO should be informed.

The Administrative Council empowers the President, in accordance with Article 23 of Commission Regulation N°874/2009, to insert additional characteristics and their expressions in respect of a variety.

6.2. States of expression and corresponding notes

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

Further explanation of the presentation of states of expression and notes is provided in UPOV document TGP/7 "Development of Test Guidelines".

6.3 Example Varieties

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

6.4 Legend

For column 'CPVO N°':

G	Grouping characteristic	-see Chapter 5
QL	Qualitative characteristic	
QN	Quantitative characteristic	
PQ	Pseudo-qualitative characteristic	
(+)	Explanations for individual characteristics	-see Chapter 8.2

For column 'UPOV N°':

The numbering of the characteristics is provided as a reference to the UPOV guideline.

(*)	UPOV Asterisked characteristic	- Characteristics that are important for the international harmonization of variety descriptions.

For column 'Stage, method':

MG, MS, VG, VS		-see Chapter 4.1.5
(a)-(d)	Explanations covering several Characteristics	-see Chapter 8.1

7. TABLE OF CHARACTERISTICS

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
1. (+)	**1. (*)**	**VG**	**Plant: size**		
QN			very small		1
			very small to small		2
			small	Trop0013, Twinkle Fragrance Fantasy	3
			small to medium		4
			medium	Maroesja, Mayfair Yellow Angel	5
			medium to large		6
			large	Dancing White Butterfly, Kurisu	7
			large to very large		8
G			very large		9
2. (+)	**2. (*)**	**VG**	**Plant: attitude of leaves**		
QN		**(b)**	erect	Haruka	1
			semi-erect	Only You	2
			horizontal		3
			pendulous		4
3.	**3. (*)**	**VG**	**Pseudobulb: size**		
QN		**(a)**	very small		1
			very small to small		2
			small	Haru Ichiban	3
			small to medium		4
			medium		5
			medium to large		6
			large	Joost, Sang-Chang Nihao, Shimizuparasol Papurikon	7
			large to very large		8
			very large		9

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
4. (+)	**4. (*)**	**VG**	**Pseudobulb: shape in longitudinal section**		
PQ		**(a)**	ovate	Kukoo YMC-2, Yellow Days	1
			elliptic	Haruka, Sunlight Siesta Lulu	2
			circular	Dancing Sunlight Ami	3
			oblate		4
5. (+)	**5.**	**VG**	**Pseudobulb: shape in cross section**		
PQ		**(a)**	very narrow oblate	Dancing Sunlight Suzy	1
			narrow oblate	Mayfair Yellow Angel	2
			oblate		3
			circular		4
6. (+)	**6.**	**MS/VG**	**Pseudobulb: number of cataphylls**		
QN		**(a)**	few	Fight Yuko	1
			medium	Sunlight Siesta Lulu	2
			many		3
7. (+)	**7.**	**MS/VG**	**Pseudobulb: number of leaves**		
QN		**(a)**	one	Dancing Sunlight Ami	1
			two	Monshirochono Cafe	2
			three	Shimizuparasol Papurikon	3
			more than three		4

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
8.	**8.**	**MS/VG**	**Leaf: length**		
QN		**(b)**	very short		1
			very short to short		2
			short	Lemon Drop, Trop0025, Twinkle Fragrance Fantasy	3
			short to medium		4
			medium	Dancing Sunlight Suzy, Dancing White Butterfly	5
			medium to long		6
			long	Cesar, Shimizuparasol Papurikon	7
			long to very long		8
			very long		9
9.	**9. (*)**	**MS/VG**	**Leaf: width**		
QN		**(b)**	very narrow		1
			very narrow to narrow		2
			narrow	Sakuranosato, Tiger Sun, Yellow Days	3
			narrow to medium		4
			medium	Dancing Sunlight Suzy	5
			medium to broad		6
			broad	Joost	7
			broad to very broad		8
			very broad		9
10. (+)	**10. (*)**	**VG**	**Leaf: shape**		
PQ		**(b)**	narrow lanceolate	Morning Medley Sakurako	1
			linear	Haruka, Kaorinoizumi	2
			narrow elliptic	ONCDBALCOJ	3
			medium elliptic		4

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
11.	**11.**	**VG**	**Leaf: shape in cross section**		
QN		**(b)**	concave	Yellow Days	1
			flat	Ella Flambeau	2
			convex		3
12.	**12.**	**VG**	**Leaf: intensity of green colour on upper side**		
QN		**(b)**	light		1
			medium	Sunlight Siesta Lulu	2
			dark	Dancing Sunlight Nancy	3
13. (+)	**13. (*)**	**VG**	**Inflorescence: type**		
QL			raceme	Poco-A-Poco Yellow	1
			simple panicle	Misakiwaveyurara	2
			compound panicle	Dancing Sunlight Ami	3
14. (+)	**14.**	**MS/VG**	**Inflorescence: length of flowering part**		
QN			very short		1
			very short to short		2
			short		3
			short to medium		4
			medium	Monshirochono Cafe	5
			medium to long		6
			long	Kurisu	7
			long to very long		8
			very long		9

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
15. (+)	**15.**	**MS/VG**	**Inflorescence: width**		
QN			very narrow		1
			very narrow to narrow		2
			narrow	Twinkle Fragrance Fantasy	3
			narrow to medium		4
			medium	Sunlight Siesta Lulu	5
			medium to broad		6
			broad	Kurisu	7
			broad to very broad		8
			very broad		9
16.	**16. (*)**	**MS/VG**	**Inflorescence: number of flowers**		
QN			very few		1
			very few to few		2
			few	Dancing White Butterfly	3
			few to medium		4
			medium	Yasukaspa Akane	5
			medium to many		6
			many	Sunlight Siesta Lulu, Tiger Sun	7
			many to very many		8
			very many		9

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
17. (+)	**17. (*)**	**MS/VG**	**Peduncle: length**		
QN			very short		1
			very short to short		2
			short	Kaorinoizumi, Sakuranosato	3
			short to medium		4
			medium	Sunlight Siesta Lulu, Trop0025	5
			medium to long		6
			long	Dancing White Butterfly, Ella Flambeau	7
			long to very long		8
			very long		9
18.	**18. (*)**	**MS/VG**	**Peduncle: thickness**		
QN			thin	ONCDBALCOJ, Twinkle Fragrance Fantasy	1
			medium	Cesar, Kurisu	2
			thick		3
19. (+)	**19. (*)**	**VG**	**Peduncle: anthocyanin coloration**		
QN			absent or weak	Monshirochono Cafe	1
			moderate	Kurisu	2
			strong	Dancing Sunlight Nancy	3
20. (+)	**20. (*)**	**VG**	**Flower: curvature of sepals**		
QN		**(c)**	incurving	Mayfair Yellow Angel	1
			straight	Shimizuparasol Papurikon	2
			recurving	Dancing Sunlight Ami	3

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
21. (+)	**21. (*)**	**VG**	**Flower: curvature of petals**		
QN		**(c)**	incurving	Mayfair Yellow Angel	1
			straight	Shimizuparasol Papurikon	2
			recurving	Dancing Sunlight Ami	3
22. (+)	**22. (*)**	**MS/VG**	**Flower: length in front view**		
QN			very short		1
			very short to short		2
			short	Kurisu, ONCDBALCOJ	3
			short to medium		4
			medium	Dancing Sunlight Ami, Trop0025	5
			medium to long		6
			long	Makali Gotoh, Tiger Sun	7
			long to very long		8
			very long		9
23. (+)	**23. (*)**	**MS/VG**	**Flower: width in front view**		
QN			very narrow		1
			very narrow to narrow		2
			narrow	Kurisu	3
			narrow to medium		4
			medium	Morning Medley Sakurako, Trop0025	5
			medium to broad		6
			broad	Cesar, Mayfair Trinity	7
			broad to very broad		8
G			very broad		9

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
24.	**24.**	**VG**	**Flower: fragrance**		
QN			absent or weak	Pink Sugar, Sunlight Siesta Lulu	1
			moderate	Only One	2
			strong		3
25.	**25. (*)**	**MS/VG**	**Dorsal sepal: length**		
QN		**(c)**	very short	Yellow Days	1
			short	Mayfair Trinity	2
			medium	Pink Puli	3
			long		4
			very long	Augures Royal Sash	5
26.	**26. (*)**	**MS/VG**	**Dorsal sepal: width**		
QN		**(c)**	very narrow	Yellow Days	1
			narrow	Yukahime	2
			medium	Abousarasa	3
			broad	Augures Royal Sash	4
			very broad		5
27. (+)	**27. (*)**	**VG**	**Dorsal sepal: shape**		
PQ		**(c)**	ovate	Ella Flambeau	1
			lanceolate	Shell White	2
			elliptic	Misakiwaveyurara, Yellow Days	3
			narrow elliptic	Dancing Sunlight Nancy, Haruka	4
			linear	Sunlight Siesta Ota	5
			obovate	Kaorinoizumi	6

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
28. (+)	**28. (*)**	**VG**	**Dorsal sepal: curvature of longitudinal axis**		
QN		**(c)**	strongly incurving		1
			strongly incurving to moderately incurving		2
			moderately incurving	Sang-Chang Nihao, Yellow Days	3
			moderately incurving to straight		4
			straight	Makali Gotoh	5
			straight to moderately recurving		6
			moderately recurving	Ella Flambeau	7
			moderately recurving to strongly recurving		8
			strongly recurving		9
29. (+)	**29.**	**VG**	**Dorsal sepal: cross section**		
QN		**(c)**	strongly concave		1
			strongly concave to moderately concave		2
			moderately concave		3
			moderately concave to flat		4
			flat	Kukoo YMC-2, Only You	5
			flat to moderately convex		6
			moderately convex	Shell White, Yellow Days	7
			moderately convex to strongly convex		8
			strongly convex		9
30. (+)	**30.**	**VG**	**Dorsal sepal: undulation of margin**		
QN		**(c)**	absent or weak	Only You	1
			moderate	Yellow Days	2
			strong		3

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
31.	**31. (*)**	**VG**	**Dorsal sepal: ground colour**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
32. (+)	**32.**	**VG**	**Dorsal sepal: diffused over colour (if present)**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
33.	**33.**	**VG**	**Dorsal sepal: number of spots**		
QN		**(c)**	absent or very few	Fight Yuko	1
			few		2
			medium	Makali Gotoh	3
			many		4
34.	**34.**	**VG**	**Dorsal sepal: size of spots**		
QN		**(c)**	very small		1
			small	Pink Sugar	2
			medium	Makali Gotoh	3
			large	Kurisu	4
35. (+)	**35.**	**VG**	**Dorsal sepal: colour of spots**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
36.	**36.**	**VG**	**Dorsal sepal: number of bands**		
QN		**(c)**	absent or very few	Fight Yuko	1
			few		2
			medium	Monshirochono Cafe	3
			many		4

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
37.	**37.**	**VG**	**Dorsal sepal: distribution of bands**		
PQ		**(c)**	basal area		1
			middle area		2
			distal area		3
			basal and middle area		4
			distal and middle area		5
			whole area		6
38. (+)	**38.**	**VG**	**Dorsal sepal: colour of bands**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
39. (+)	**39.**	**VG**	**Dorsal sepal: colour of stripes**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
40.	**40.**	**VG**	**Dorsal sepal: width of marginal colour**		
QN		**(c)**	absent or very narrow		1
			narrow		2
			medium		3
			broad		4
41. (+)	**41.**	**VG**	**Dorsal sepal: colour of margin**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
42.	**42.**	**VG**	**Dorsal sepal: size of macule (if present)**		
QN		**(c)**	very small		1
			small		2
			medium		3
			large		4

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
43. (+)	**43.**	**VG**	**Dorsal sepal: colour of macule**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
44.	**44. (*)**	**MS/VG**	**Lateral sepal: length**		
QN		**(c)**	very short	Yellow Days	1
			short	Amby	2
			medium	Pink Puli	3
			long		4
			very long	Augures Royal Sash	5
45.	**45. (*)**	**MS/VG**	**Lateral sepal: width**		
QN		**(c)**	very narrow	Yellow Days	1
			narrow		2
			medium		3
			broad	Augures Royal Sash	4
			very broad		5
46. (+)	**46. (*)**	**VG**	**Lateral sepal: shape**		
PQ		**(c)**	ovate	Makali Gotoh	1
			lanceolate	Dancing Sunlight Suzy	2
			elliptic		3
			broad obovate	Kukoo YMC-2	4
			medium obovate	Yasukasupa Koharu	5
			curving obovate	Only You	6

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
47. (+)	**47. (*)**	**VG**	**Lateral sepal: curvature of longitudinal axis**		
QN		**(c)**	strongly incurving		1
			strongly incurving to moderately incurving		2
			moderately incurving	Haruka, Yellow Days	3
			moderately incurving to straight		4
			straight	Only You	5
			straight to moderately recurving		6
			moderately recurving	Makali Gotoh	7
			moderately recurving to strongly recurving		8
			strongly recurving	Dancing Sunlight Nancy, Pink Sugar	9
48. (+)	**48.**	**VG**	**Lateral sepal: cross section**		
QN		**(c)**	strongly concave		1
			strongly concave to moderately concave		2
			moderately concave		3
			moderately concave to flat		4
			flat	Ella Flambeau	5
			flat to moderately convex		6
			moderately convex		7
			moderately convex to strongly convex		8
			strongly convex		9
49.	**49.**	**VG**	**Lateral sepal: twisting**		
QN		**(c)**	absent or weak	Dancing Sunlight Ami	1
			moderate		2
			strong	Shimizuparasol Papurikon	3

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
50. (+)	**50. (*)**	**VG**	**Lateral sepal: undulation of margin**		
QN		**(c)**	absent or weak	Haruka, Kaorinoizumi	1
			moderate	Monshirochono Cafe	2
			strong	ONCDBALCOJ	3
51.	**51. (*)**	**VG**	**Lateral sepal: ground colour**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
52. (+)	**52.**	**VG**	**Lateral sepal: diffused over colour (if present)**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
53.	**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.	**54.**	**VG**	**Lateral sepal: size of spots**		
QN		**(c)**	very small		1
			small		2
			medium	Makali Gotoh	3
			large	Kurisu	4
55. (+)	**55.**	**VG**	**Lateral sepal: colour of spots**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
56.	**56.**	**VG**	**Lateral sepal: number of bands**		
QN		**(c)**	absent or very few	Fight Yuko	1
			few		2
			medium	Monshirochono Cafe	3
			many		4

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
57.	**57.**	**VG**	**Lateral sepal: distribution of bands**		
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. (+)	**58.**	**VG**	**Lateral sepal: colour of bands**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
59. (+)	**59.**	**VG**	**Lateral sepal: colour of stripes (if present)**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
60.	**60.**	**VG**	**Lateral sepal: width of marginal colour**		
QN		**(c)**	absent or very narrow		1
			narrow		2
			medium		3
			broad		4
61. (+)	**61.**	**VG**	**Lateral sepal: colour of margin**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
62.	**62.**	**VG**	**Lateral sepal: size of macule (if present)**		
QN		**(c)**	very small		1
			small		2
			medium		3
			large		4

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
63. (+)	**63.**	**VG**	**Lateral sepal: colour of macule**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
64. (*)	**64.**	**MS/VG**	**Petal: length**		
QN		**(c)**	very short	Haruka	1
			short	Amby	2
			medium	Pink Puli	3
			long	Augures Royal Sash	4
			very long		5
65. (*)	**65.**	**MS/VG**	**Petal: width**		
QN		**(c)**	very narrow	Haruka	1
			narrow		2
			medium	Mayfair Trinity	3
			broad		4
			very broad	Augures Royal Sash	5
66. (+)	**66. (*)**	**VG**	**Petal: shape**		
PQ		**(c)**	ovate		1
			elliptic		2
			linear	Sunlight Siesta Ota	3
			broad obovate	Yasukasupa Komachi	4
			oblanceolate	Dancing Sunlight Ami	5

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
67. (+)	**67. (*)**	**VG**	**Petal: curvature of longitudinal axis**		
QN		**(c)**	strongly incurving		1
			strongly incurving to moderately incurving		2
			moderately incurving	Kukoo YMC-2, Yellow Days	3
			moderately incurving to straight		4
			straight	Kaorinoizumi	5
			straight to moderately recurving		6
			moderately recurving	Dancing Sunlight Ami	7
			moderately recurving to strongly recurving		8
			strongly recurving		9
68. (+)	**68.**	**VG**	**Petal: cross section**		
QN		**(c)**	strongly concave		1
			strongly concave to moderately concave		2
			moderately concave		3
			moderately concave to flat		4
			flat	Kukoo YMC-2, Yellow Days	5
			flat to moderately convex		6
			moderately convex	Monshirochono Cafe, Shell White	7
			moderately convex to strongly convex		8
			strongly convex		9
69.	**69.**	**VG**	**Petal: twisting**		
QN		**(c)**	absent or weak	Dancing Sunlight Ami	1
			moderate		2
			strong	Shimizuparasol Papurikon	3

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
70. (+)	**70.**	**VG**	**Petal: undulation of margin**		
QN		**(c)**	absent or weak	Haruka, Sunlight Siesta Lulu	1
			moderate	Yellow Days	2
			strong	ONCDBALCOJ	3
71.	**71. (*)**	**VG**	**Petal: ground colour**		
PQ G		**(c)**	RHS Colour Chart (indicate reference number)		
72. (+)	**72. (*)**	**VG**	**Petal: diffused over colour (if present)**		
PQ G		**(c)**	RHS Colour Chart (indicate reference number)		
73.	**73.**	**VG**	**Petal: number of spots**		
QN		**(c)**	absent or very few	Fight Yuko	1
			few		2
			medium	Makali Gotoh	3
			many		4
74.	**74.**	**VG**	**Petal: size of spots**		
QN		**(c)**	very small		1
			small	Makali Gotoh	2
			medium	Kurisu	3
			large		4
75. (+)	**75. (*)**	**VG**	**Petal: colour of spots**		
PQ G		**(c)**	RHS Colour Chart (indicate reference number)		
76.	**76.**	**VG**	**Petal: number of bands**		
QN		**(c)**	absent or very few		1
			few	Monshirochono Cafe	2
			medium	Volcano Queen	3
			many	ONCDBALCOJ	4

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
77.	**77.**	**VG**	**Petal: distribution of bands**		
PQ		**(c)**	basal area		1
			middle area		2
			distal area		3
			basal and middle area		4
			distal and middle area		5
			whole area		6
78. (+)	**78. (*)**	**VG**	**Petal: colour of bands**		
PQ G		**(c)**	RHS Colour Chart (indicate reference number)		
79. (+)	**79.**	**VG**	**Petal: colour of stripes (if present)**		
PQ G		**(c)**	RHS Colour Chart (indicate reference number)		
80.	**80.**	**VG**	**Petal: width of marginal colour**		
QN		**(c)**	absent or very narrow		1
			narrow		2
			medium		3
			broad		4
81. (+)	**81. (*)**	**VG**	**Petal: colour of margin**		
PQ G		**(c)**	RHS Colour Chart (indicate reference number)		
82.	**82.**	**VG**	**Petal: size of macule (if present)**		
QN		**(c)**	very small		1
			small		2
			medium		3
			large		4
83. (+)	**83. (*)**	**VG**	**Petal: colour of macule**		
PQ G		**(c)**	RHS Colour Chart (indicate reference number)		

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
84. (+)	**84. (*)**	**MS/VG**	**Lip: length**		
QN		**(c)**	very short	Haruka	1
			short	Mayfair Trinity	2
			medium	Yasukasupa Akane	3
			long		4
			very long		5
85. (+)	**85. (*)**	**MS/VG**	**Lip: width**		
QN		**(c)**	very narrow	Haruka	1
			narrow	Monshirochono Cafe	2
			medium	Mayfair Trinity	3
			broad		4
			very broad		5
86. (+)	**86. (*)**	**VG**	**Lip: size of lateral lobe in relation to apical lobe**		
QN		**(c)**	smaller	Misakiwaveyurara, Shimizuparasol Papurikon	1
			same size	Dancing Sunlight Ami	2
			larger	Haruka, Only One	3
87. (+)	**87.**	**VG**	**Lip: undulation of margin**		
QN		**(c)**	absent or weak	Dancing Sunlight Ami, ONCDBALCOJ	1
			medium		2
			strong		3

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
88. (+)	**88. (*)**	**VG**	**Apical lobe of lip: shape**		
PQ		**(c)**	rhombic	Only You	1
			circular		2
			oblate		3
			flabellate	Monshirochono Cafe, Pink Sugar	4
			obdeltate		5
89. (+)	**89. (*)**	**VG**	**Apical lobe of lip: indentation of apex**		
QN		**(c)**	absent or very weak	Yasukasupa Akane	1
			weak	Dancing Sunlight Ami, ONCDBALCOJ	2
			medium	Pink Sugar, Shimizuparasol Papurikon	3
			strong	Haruka, Yellow Days	4
90. (+)	**90. (*)**	**VG**	**Apical lobe of lip: curvature of longitudinal of apex**		
QN		**(c)**	incurving	Mayfair Yellow Angel, Yellow Days	1
			straight	Pink Sugar, Shimizuparasol Papurikon	2
			recurving	Only You	3
91. (+)	**91.**	**VG**	**Apical lobe of lip: cross section**		
QN		**(c)**	concave	Kaorinoizumi	1
			flat		2
			convex	Only You	3
92. (+)	**92. (*)**	**VG**	**Apical lobe of lip: ground colour**		
PQ G		**(c)**	RHS Colour Chart (indicate reference number)		
93. (+)	**93.**	**VG**	**Apical lobe of lip: diffused over colour (if present)**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		

CPVO N°	UPOV N°	Stage, Method	Characteristics	Examples	Note
94. (+)	**94.**	**VG**	**Apical lobe of lip: colour of spots (if present)**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
95. (+)	**95.**	**VG**	**Apical lobe of lip: colour of bands (if present)**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
96. (+)	**96.**	**VG**	**Apical lobe of lip: colour of margin (if present)**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
97. (+)	**97.**	**VG**	**Lateral lobe of lip: ground colour**		
PQ		**(c)**	RHS Colour Chart (indicate reference number)		
98.	**98.**	**VG**	**Lip: colour of callus**		
PQ		**(c)**	white	Fight Yuko	1
			yellow	Twinkle Fragrance Fantasy	2
			orange	Yasukasupa Akane	3
			red		4
			red purple		5
			yellow brown	Shimizuparasol Papurikon	6
			brown		7
99.	**99.**	**VG**	**Lip: colour of blotches surrounding callus**		
PQ		**(c)**	white	Twinkle Fragrance Fantasy	1
			yellow	Yellow Days	2
			orange		3
			red	Yasukasupa Akane	4
			red purple		5
			yellow brown		6
			brown	Monshirochono Cafe	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 third 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.

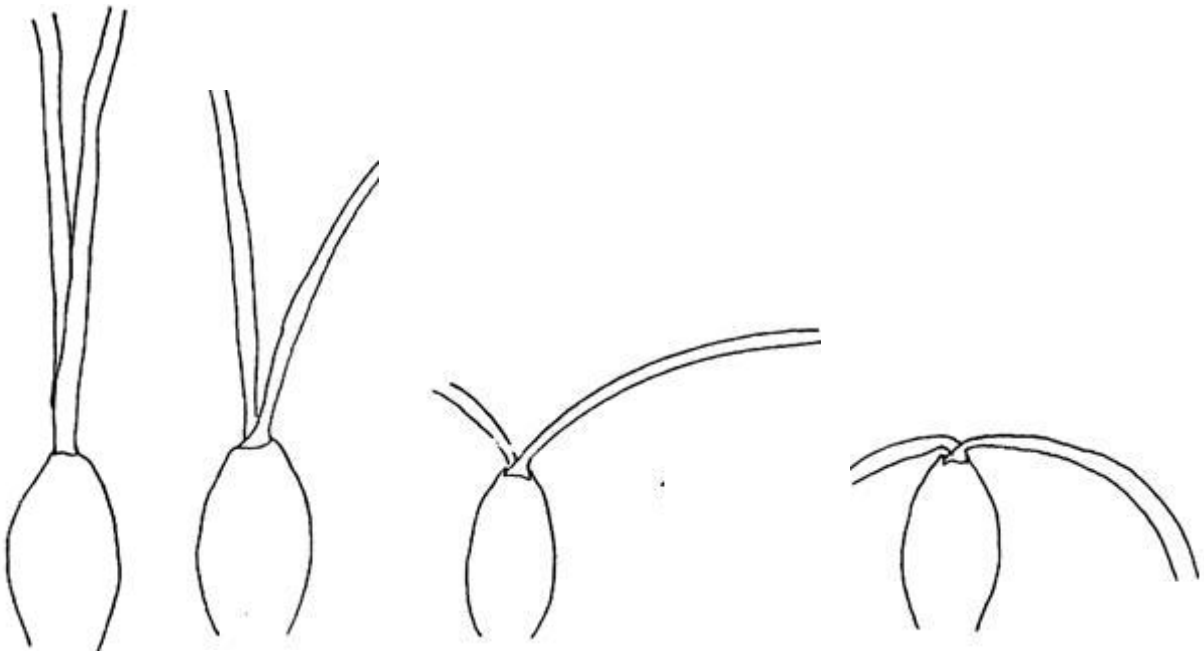
d) Observations on the inflorescence should be made on the longest inflorescence.

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.

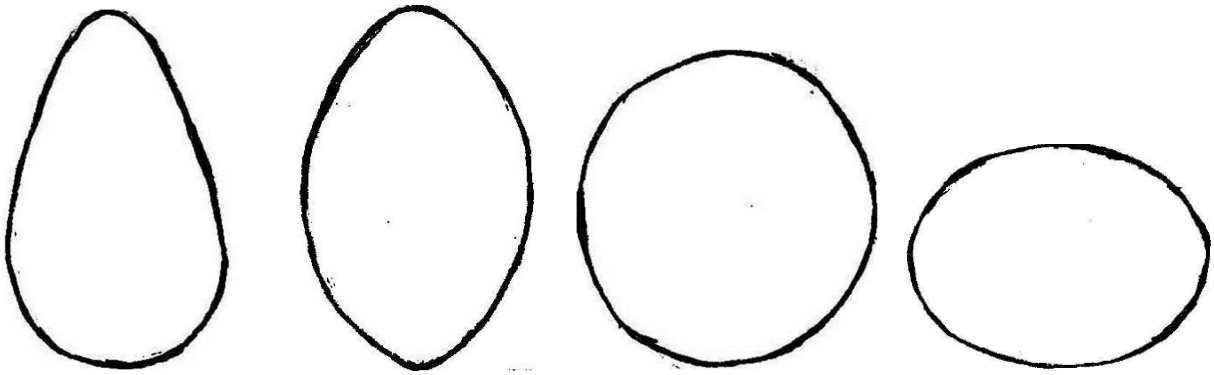
Ad. 2: Plant: attitude of leaves



1 erect | 2 semi-erect | 3 horizontal | 4 pendulous

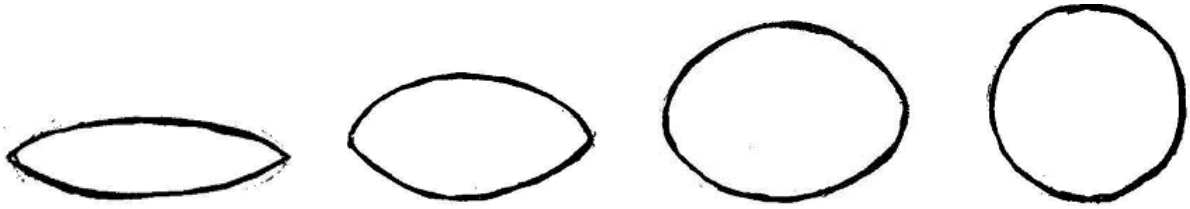
Ad. 4: Pseudobulb: shape in longitudinal section

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



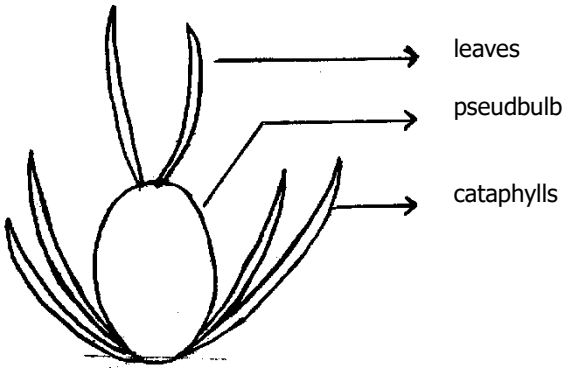
1 ovate | 2 elliptic | 3 circular | 4 oblate

Ad. 5: Pseudobulb: shape in cross section

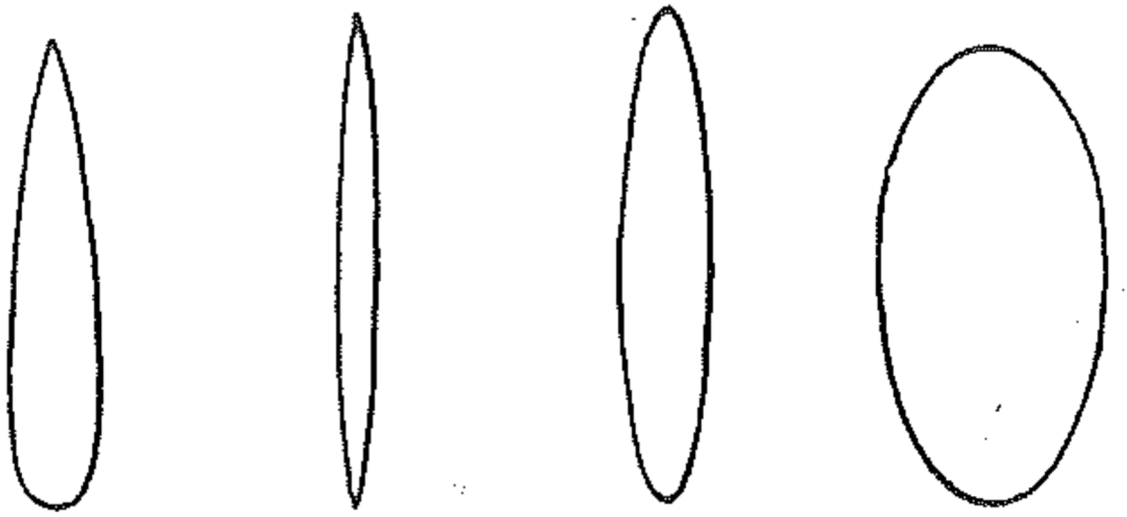


1 very narrow oblate | 2 narrow oblate | 3 oblate | 4 circular

Ad. 6: Pseudobulb: number of cataphylls
Ad. 7: Pseudobulb: number of leaves



Ad. 10: Leaf: shape



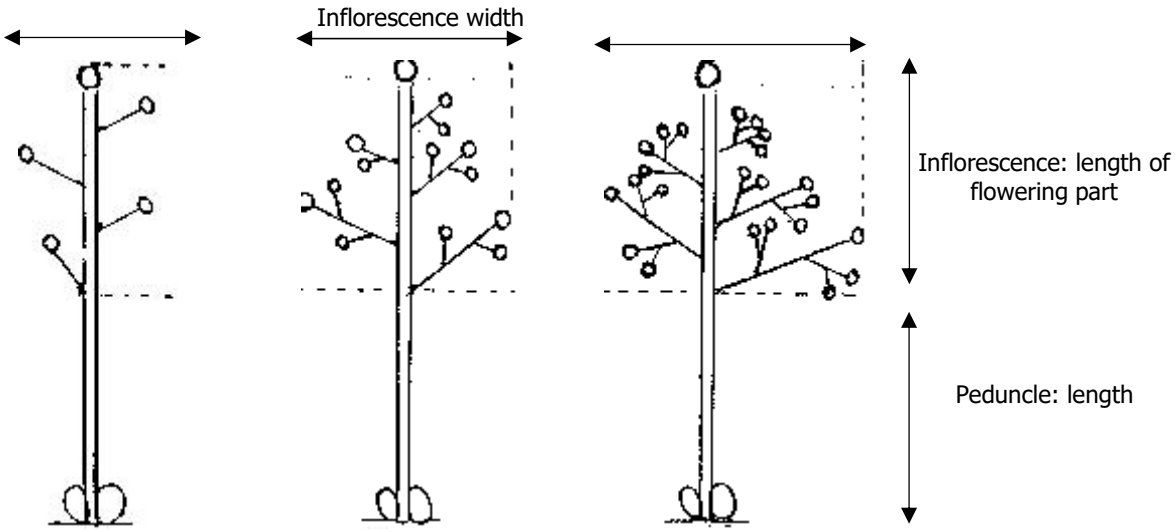
1
narrow lanceolate

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



1
raceme

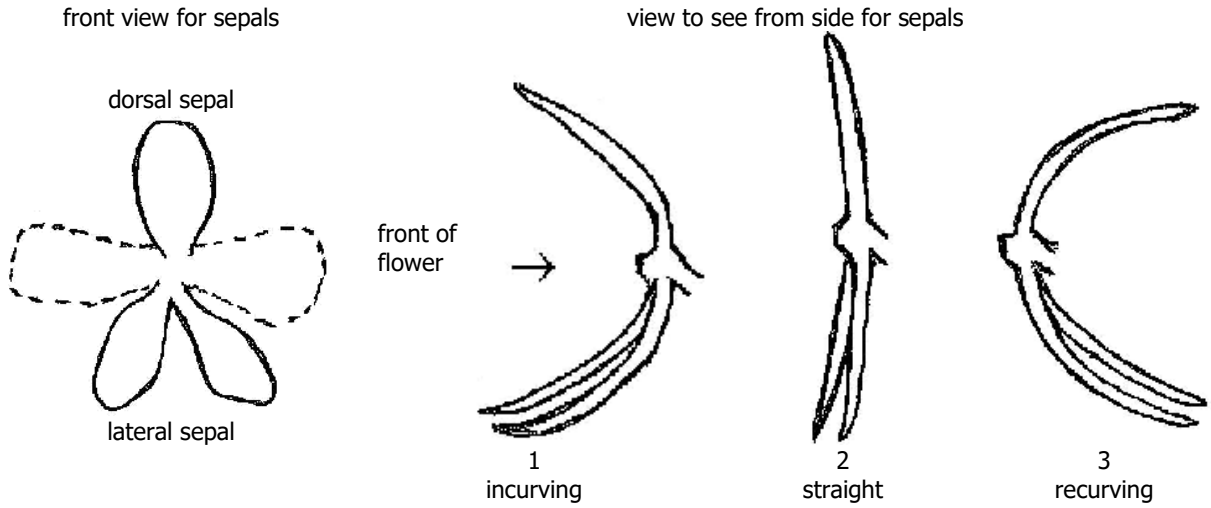
2
simple panicle

3
compound panicle

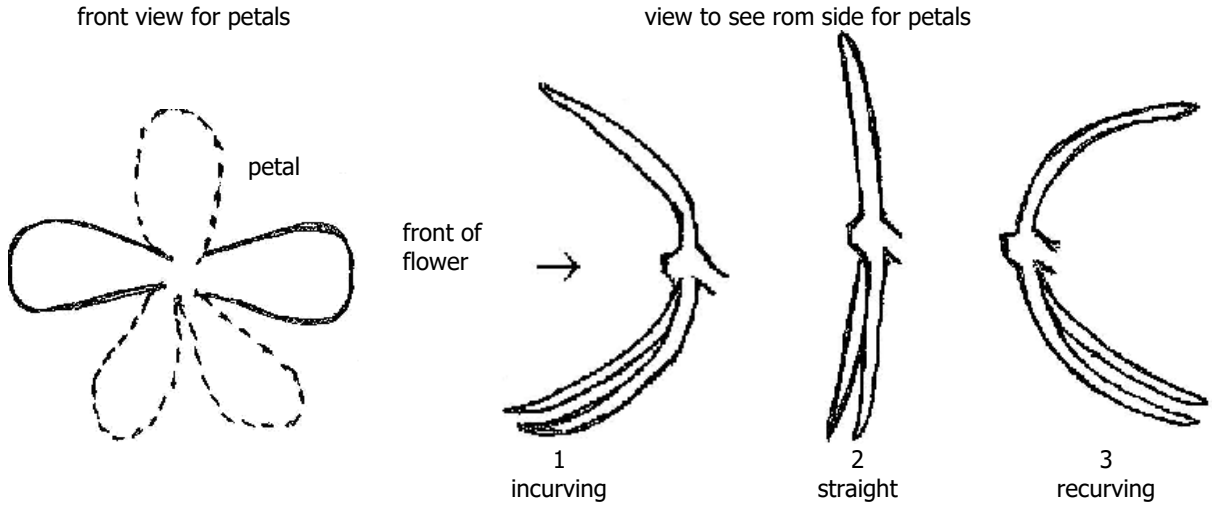
Ad. 19: Peduncle: anthocyanin coloration

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

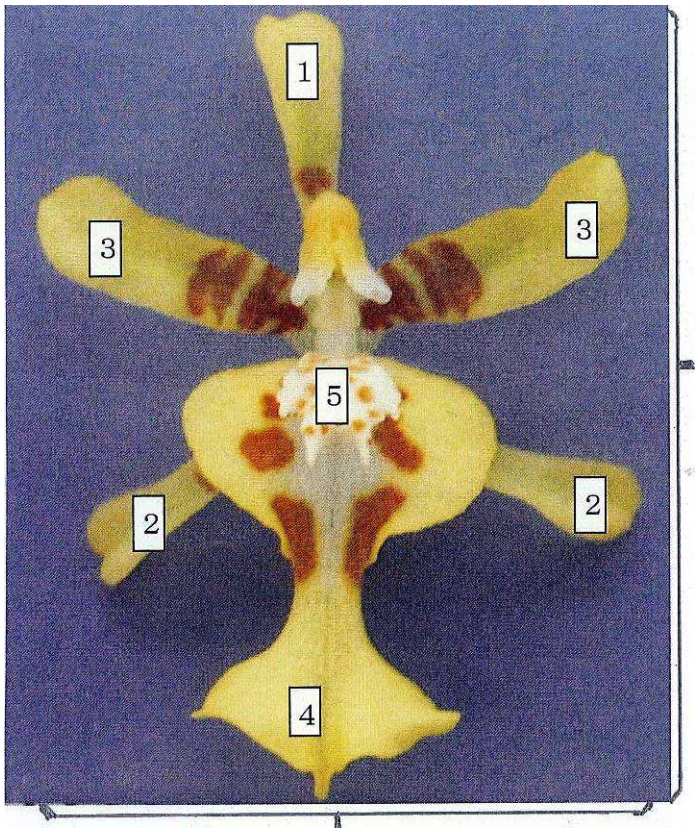
Ad. 20: Flower: curvature of sepals



Ad. 21: Flower: curvature of petals



Ad. 22: Flower: length in front view
Ad. 23: Flower: width in front view

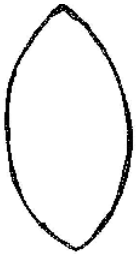


Flower : length in front view

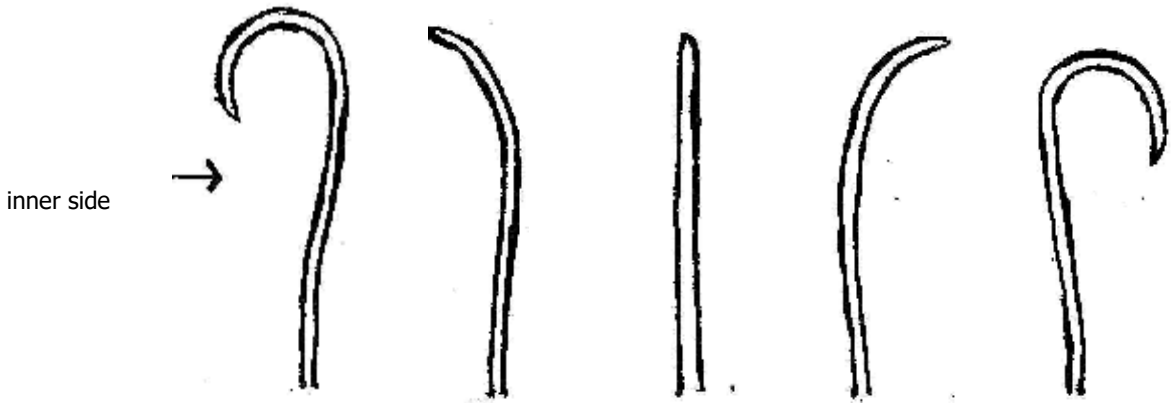
Flower: width in front view

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

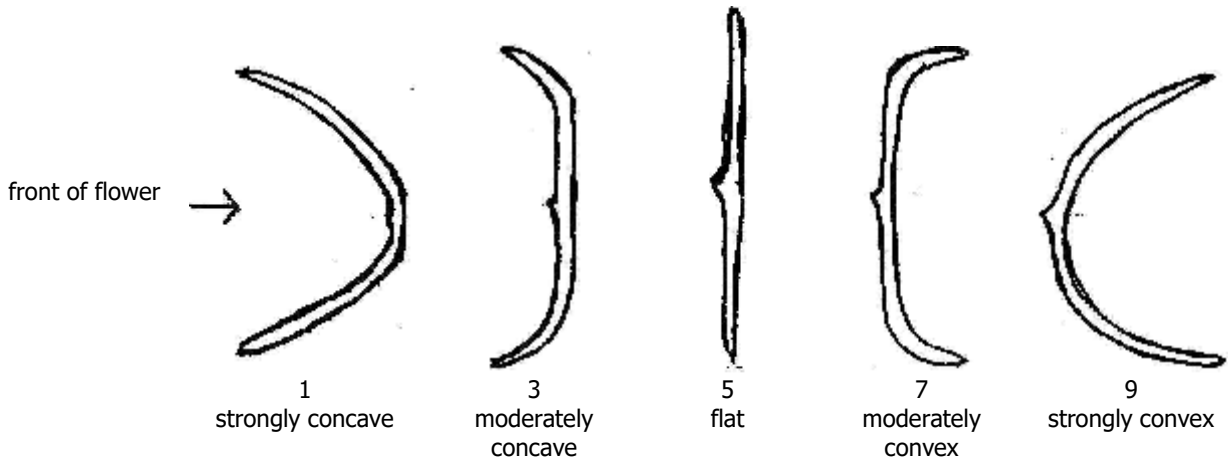
Ad. 27: Dorsal sepal: shape

	← broadest part →		
	(below middle)	at middle	(above middle)
narrow (elongated)	 2 lanceolate	 5 linear	
width (ratio length/width) →	 1 ovate	 4 narrow elliptic	
← broad (compressed)		 3 elliptic	 6 obovate

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

1
absent or weak

2
moderate

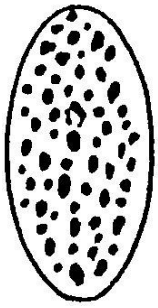
3
strong

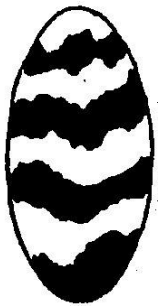
Ad. 31: Dorsal sepal: ground colour
Ad. 51: Lateral sepal: ground colour
Ad. 71: Petal: ground colour
Ad. 92: Apical lobe of lip: ground colour
Ad. 97: Lateral lobe of lip: ground colour

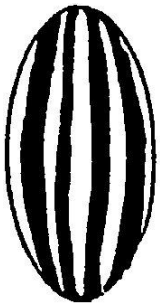
Ground colour: The first colour to appear chronologically during the development of the plant part. Other colours may develop in time in the form of spots, blotches, or a colour flush or blush. The ground colour is not always the colour occupying the largest surface area of the plant part concerned. The ground colour can be the main colour of the lower side of an organ.

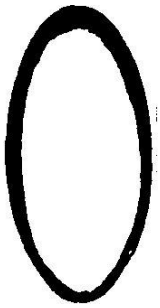
Ad. 32: Dorsal sepal: diffused over colour (if present)
Ad. 35: Dorsal sepal: colour of spots
Ad. 38: Dorsal sepal: colour of bands
Ad. 39: Dorsal sepal: colour of stripes (if present)
Ad. 41: Dorsal sepal: colour of margin
Ad. 43: Dorsal sepal: colour of macule
Ad. 52: Lateral sepal: diffused over colour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

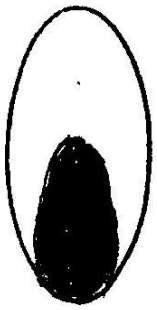

diffused over colour


colour of spots


colour of bands


colour of stripes


colour of margin


colour of macule

Ad. 32: Dorsal sepal: diffused over colour (if present)
Ad. 52: Lateral sepal: diffused over colour (if present)
Ad. 72: Petal: diffused over colour (if present)
Ad. 93: Apical lobe of lip: diffused over colour (if present)

Over colour: In the case of a plant part which has a ground colour upon which a second colour such as a flush develops over time, the flush is considered the over colour. The over colour is not always the colour occupying the smallest surface area of the plant part concerned.

Ad. 37: Dorsal sepal: distribution of bands
Ad. 57: Lateral sepal: distribution of bands
Ad. 77: Petal: distribution of bands


1
basal area


2
middle area

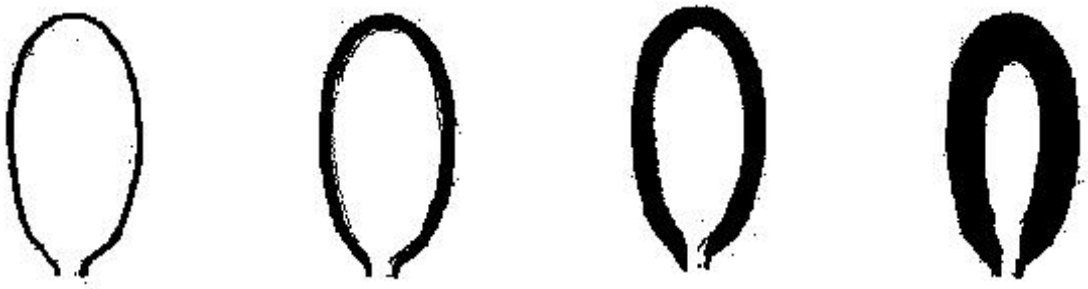

3
distal area


4
basal and middle area


5
distal and middle area


6
whole area

Ad. 40: Dorsal sepal: width of marginal colour
Ad. 60: Lateral sepal: width of marginal colour
Ad. 80: Petal: width of marginal colour

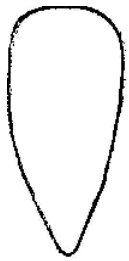


1 absent or very narrow | 2 narrow | 3 medium | 4 broad

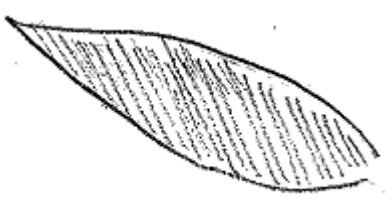
Ad. 42: Dorsal sepal: size of macule (if present)
Ad. 62: Lateral sepal: size of macule (if present)
Ad. 82: Petal: size of macule (if present)

1 very small | 2 small | 3 medium | 4 large

Ad. 46: Lateral sepal: shape

	← broadest part →		
	(below middle)	at middle	(above middle)
narrow (elongated)	 2 lanceolate			
width (ratio length/width) →	 1 ovate	 3 elliptic	 5 medium obovate	 6 curving obovate
← broad (compressed)			 4 broad obovate	

Ad. 49: Lateral sepal: twisting
Ad. 69: Petal: twisting

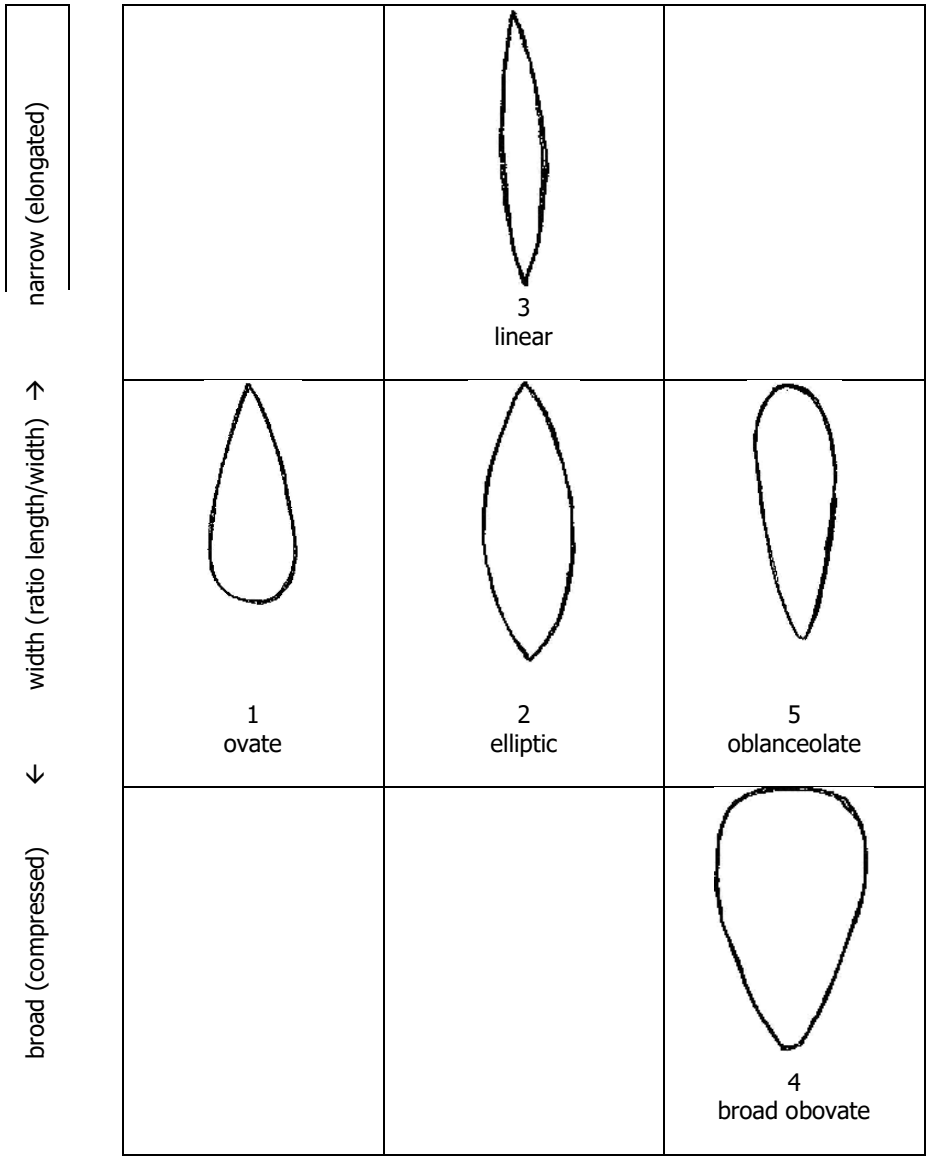

1
absent or weak


2
moderate

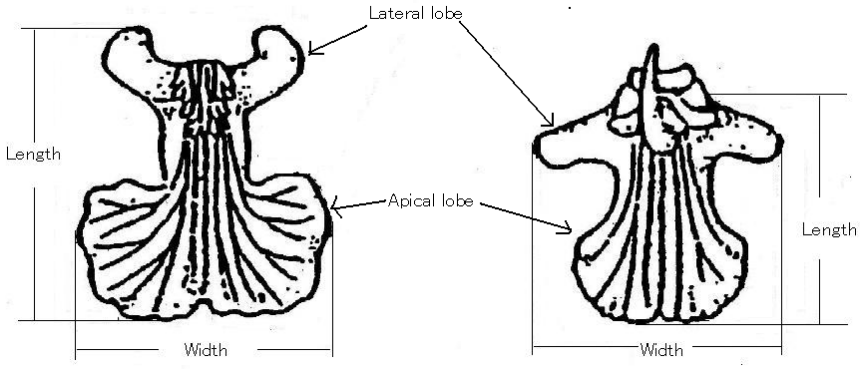

3
strong

Ad. 66: Petal: shape

← broadest part →		
(below middle)	at middle	(above middle)
narrow (elongated)		
width (ratio length/width) →		
←		
broad (compressed)		

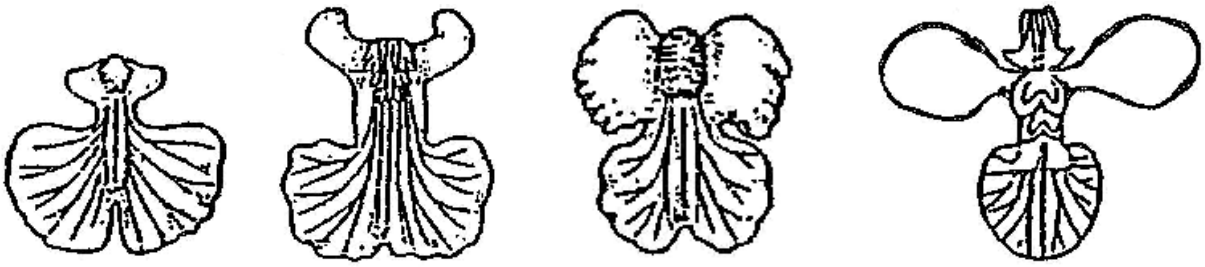


Ad. 84: Lip: length
Ad. 84: Lip: width



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.



1
smaller

2
same size

3
larger

Ad. 88: Apical lobe of lip: shape

1
rhombic

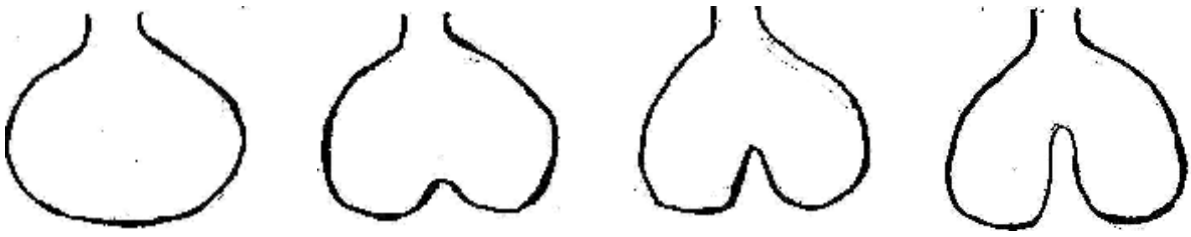
2
circular

3
oblate

4
flabellate

5
obdeltate

Ad. 89: Apical lobe of lip: indentation of apex



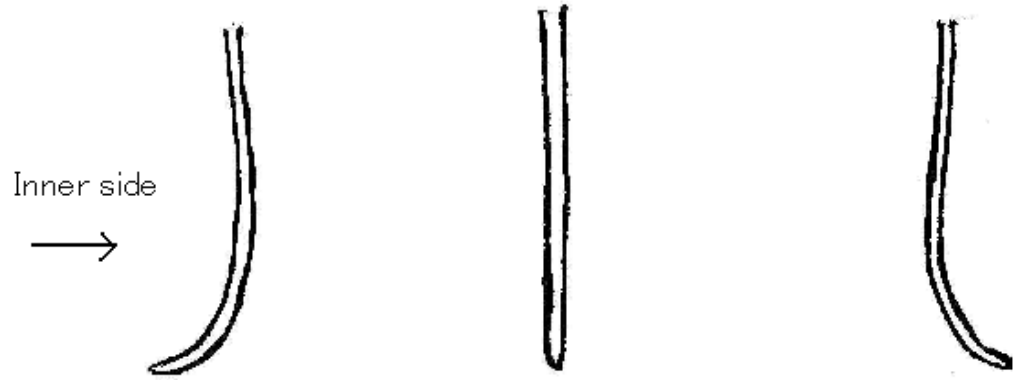
1
absent or very weak

2
weak

3
medium

4
strong

Ad. 90: Apical lobe of lip: curvature of longitudinal axis

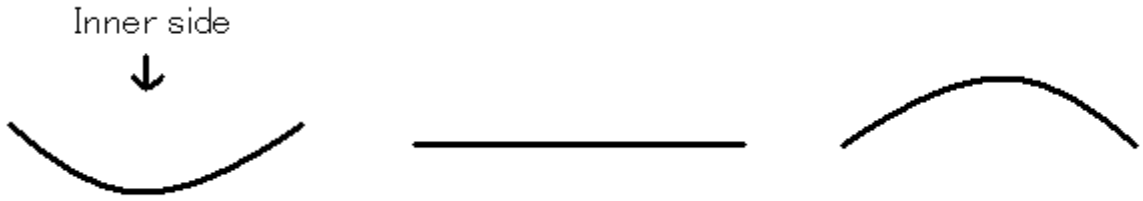


1
incurving

2
straight

3
recurving

Ad. 91: Apical lobe of lip: cross section

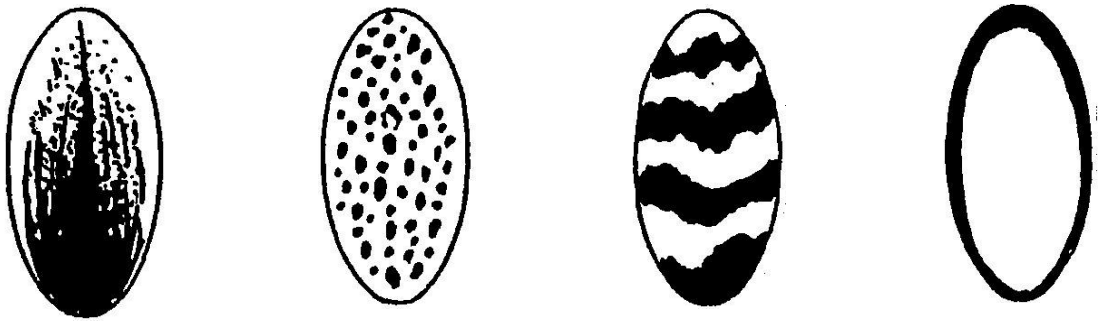


1
concave

2
flat

3
convex

Ad. 93: Apical lobe of lip: diffused over colour (if present)
Ad. 94: Apical lobe of lip: colour of spots (if present)
Ad. 95: Apical lobe of lip: colour of bands (if present)
Ad. 96: Apical lobe of lip: colour of margin (if present)



diffused over colour

colour of spots

colour of bands

colour of margin

9. LITERATURE

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

Karasawa, K., 1989: Orchid Atlas Volume7. Orchid Atlas Publishing Society. Tokyo, JP, pp. 40 to 110.

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

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

Karasawa, K., 2003: Species Orchidacearum- 2 Plates. Japan Broadcasting Publishing Co. Ltd. Tokyo, JP, pp.295 to 307.

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

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

10. TECHNICAL QUESTIONNAIRE

The Technical Questionnaire is available on the CPVO website under the following reference:
CPVO/TQ/283/1-Rev – *Oncidium* SW.; x*Oncidesa* Hort.; x*Ionocidium* Hort.; x*Zelenkocidium* J.M.H.Shaw. - oncidium