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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT

ONCIDIUM

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Oncidium Sw. and hybrids between *Oncidium* Sw.
and *Cochlioda* Lindl.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from Japan

to be considered by the

Technical Working Party for Ornamental Plants and Forest Trees

at its forty-second session, to be held in Angers, France, from September 14 to 18, 2009

Alternative Names:*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Oncidium</i> Sw.	Oncidium			

The purpose of these guidelines ("Test Guidelines") is to elaborate the principles contained in the General Introduction (document TG/1/3), and its associated TGP documents, into detailed practical guidance for the harmonized examination of distinctness, uniformity and stability (DUS) and, in particular, to identify appropriate characteristics for the examination of DUS and production of harmonized variety descriptions.

ASSOCIATED DOCUMENTS

These Test Guidelines should be read in conjunction with the General Introduction and its associated TGP documents.

* These names were correct at the time of the introduction of these Test Guidelines but may be revised or updated. [Readers are advised to consult the UPOV Code, which can be found on the UPOV Website (www.upov.int), for the latest information.]

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Oncidium* Sw. and hybrids between *Oncidium* Sw. and *Cochlioda* Lindl. of the family Orchidaceae.

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 in the first growing season .

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

10 young 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.

3.4 *Test Design*

3.4.1 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.

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

3.5 *Number of Plants / Parts of Plants to be Examined*

Unless otherwise indicated, all observations on single plants should be made on 5 plants or parts taken from each of 5 plants and any other observations made on all plants in the test.

3.6 *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.

4.2 *Uniformity*

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

4.2.2 For the assessment of uniformity a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 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 tested, either by growing a further generation, or by testing a new plant stock to ensure that it exhibits the same characteristics as those shown by the previous material supplied.

5. Grouping of Varieties and Organization of the Growing Trial

5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness are aided by the use of grouping characteristics.

5.2 Grouping characteristics are those in which the documented states of expression, even where produced at different locations, can be used, either individually or in combination with other such characteristics: (a) to select varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness; and (b) to organize the growing trial so that similar varieties are grouped together.

5.3 The following have been agreed as useful grouping characteristics:

- (a) Plant: size (characteristic 1)
- (b) Flower: width in front view (characteristic 24)
- (c) Petal: ground color (characteristic 76) with the following groups:
 - Gr.1: white
 - Gr.2: yellow
 - Gr.3: orange
 - Gr.4: pink
 - Gr.5: red
 - Gr.6: violet
 - Gr.7: brown
- (d) Petal: shading (characteristic 77)
- (e) Petal: spots (characteristic 79)
- (f) Petal: brindle (characteristic 81)
- (g) Petal: banded (characteristic 83)
- (h) Petal: stripes (characteristic 85)

- (i) Petal: edge (characteristic 87)
- (j) Petal: macule (characteristic 89)
- (k) Apical lobe: ground color (characteristic 99) with the following groups:
 - Gr.1: white
 - Gr.2: yellow
 - Gr.3: orange
 - Gr.4: pink
 - Gr.5: red
 - Gr.6: violet
 - Gr.7: brown

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction.

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*

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.

6.3 *Types of Expression*

An explanation of the types of expression of characteristics (qualitative, quantitative and pseudo-qualitative) is provided in the General Introduction.

6.4 *Example Varieties*

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

6.5 *Legend*

(*) Asterisk 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

(a)-(d) See Explanations on the Table of Characteristics in Chapter 8.1.

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

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

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1.	Plant: size					
(*)						
(+)						
QN	small				Twinkle Fragrance Fantasy	3
	medium				Kinsei Abe No.4	5
	large				Kurisu	7
2.	Plant: attitude					
(*)						
QN (a)	erect					1
	semi-erect				Only You	2
	horizontal				Stardust Fairy	3
	pendulous					4
3.	Pseudobulb: size					
(*)						
	small				Haru Ichiban	3
	medium					5
	large				Sang-Chan Nihao	7
4.	Pseudobulb: shape in longitudinal section					
(*)						
(+)						
PQ (a)	ovate				Kukoo YMC-2	1
	elliptic				Haruka	2
	circular				Dancing Sunlight Ami	3
	transverse elliptic				Kinsei Abe No.4	4

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5. Pseudobulb: shape in cross section					
(+)					
PQ (a) linear				Dancing Sunlight Suzy	1
oblong				Kinsei Abe No.4	2
elliptic				Mayfair Yellow Angel	3
circular					4
6. Pseudobulb: depth of grooving					
(*)					
QL (a) absent or very shallow				Kinsei Abe No.4	1
shallow				Kurisu	2
deep					3
7. Pseudobulb: number of cataphylls					
(+)					
QN few				Aloha Iwanaga	1
medium				Sunlight Siesta Ruru	2
many					3
8. Pseudobulb: number of leaves					
(+)					
QN one				Dancing Sunlight Ami	1
two				Monshirotyo no Cafe	2
three				Shimizu Parasol Papurikon	3
more than three					4

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
9. Leaf: length					
QN (b) short				Twinkle Fragrance Fantasy	3
medium				Dancing Sunlight Suzy	5
long				Shimizu Parasol Papurikon	7
10. Leaf: width (* (*)					
QN (b) narrow				Sakura no Sato	3
medium				Dancing Sunlight Suzy	5
broad					7
11. Leaf: shape (* (*) (+)					
PQ (b) narrow lanceolate				Barbie Strawberry Delight	1
linear				Haruka	2
narrow elliptic					3
elliptic					4
12. Leaf: shape in cross section					
PQ (b) concave				Kinsei	1
flat				Ella Flambeau	2
convex					3
13. Leaf: intensity of green color					
QN (b) light					1
(d) medium				Sunlight Siesta Ruru	2
dark				Kinsei	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
14. (* (+)	Inflorescence: type					
QL	raceme				Poco-A-Poco Yellow	1
	panicle				Misaki Wave Yurara	2
	compound panicle				Dancing Sunlight Ami	3
15. (+)	Inflorescence: length					
QN	short					3
	medium				Monshirotyo no Cafe	5
	long				Kurisu	7
16. (+)	Panicle and compound panicle type only: Inflorescence: width					
QN	narrow				Twinkle Fragrance Fantasy	3
	medium				Sunlight Siesta Ruru	5
	broad				Kurisu	7
17. (* (+)	Inflorescence: number of flowers					
QN	few				Aloha Iwanaga	3
	medium				Sunlight Siesta Ruru	5
	many					7
18. (* (+)	Peduncle: length					
QN	short				Sakura no Sato	3
	medium				Sunlight Siesta Ruru	5
	long				Ella Flambeau	7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
19. (*)	Peduncle: thickness					
QN	thin				Twinkle Fragrance Fantasy	1
	medium				Kurisu	2
	thick					3
20. (*)	Peduncle: anthocyanin coloration					
QN	absent or very weak				Monshirotyo no Cafe	1
	weak				Kurisu	2
	strong				Dancing Sunlight Nancy	3
21. (*) (+)	Flower: general appearance of sepals					
QN	(c) incurving				Mayfair Yellow Angel	1
	spreading				Kinsei	2
	reflexing				Dancing Sunlight Ami	3
22. (*) (+)	Flower: general appearance of petals					
QN	incurving				Kinsei	1
	spreading				Dancing Sunlight Ami	2
	reflexing					3
23. (*) (+)	Flower: length in front view					
QN	(c) short				Kurisu	3
	medium				Dancing Sunlight Ami	5
	long				Makalii Gotoh	7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
24. Flower: width in front view (* (+)					
QN (c) narrow				Kurisu	3
medium				Golden Sunset Taka	5
broad				Ella Flambeau	7
25. Flower: fragrance					
QL (c) absent				Pink Sugar	1
present				Only One	9
26. Dorsal sepal: length (*					
QN (c) short				Kukoo YMC-2	1
medium				Kinawi Abe No.4	2
long				Makalii Gotoh	3
27. Dorsal sepal: width (*					
QN (c) narrow				Kurisu	1
medium				Kukoo YMC-2	2
broad				Kinsei Abe No.4	3
28. Dorsal sepal: shape (* (+)					
PQ (c) lanceolate				Shell white	1
ovate				Ella Flambeau	2
linear				Sunlight Siesta Ota	3
oblong				Haruka	4
elliptic				Misaki Wave Yurara	5
obovate				Kaori no Izumi	6

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
29.	Dorsal sepal:					
(*)	curvature of					
(+)	longitudinal axis					
QN	(c) strongly incurving					1
	moderately incurving				Sang-Chan Nihao	3
	straight				Makalii Gotoh	5
	moderately recurving				Ella Flambeau	7
	strongly recurving					9
30.	Dorsal sepal: cross					
(+)	section					
QN	(c) strongly concave					1
	moderately concave				Stardust Snow	3
	flat				Kukoo YMC-2	5
	moderately convex				Shell White	7
	strongly convex					9
31.	Dorsal sepal:					
	undulation of					
	margin					
QL	(c) absent or very weak				Only You	1
	weak					2
	strong					3
32.	Dorsal sepal:					
(*)	ground color					
PQ	(c) RHS Colour Chart					
	(d) (indicate reference number)					
33.	Dorsal sepal:					
(*)	shading					
(+)						
QL	(c) absent					1
	(d) present				Haruka	9

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
34. Dorsal sepal: color of shade					
PQ (c) RHS Colour Chart (d) (indicate reference number)					
35. Dorsal sepal: spots (* (+)					
QL	(c) absent				1
	(d) present			Kurisu	9
36. Dorsal sepal: color of spots					
PQ (c) RHS Colour Chart (d) (indicate reference number)					
37. Dorsal sepal: brindle (* (+)					
QL	(c) absent				1
	(d) present				9
38. Dorsal sepal: color of brindle					
PQ (c) RHS Colour Chart (d) (indicate reference number)					
39. Dorsal sepal: banded (* (+)					
QL	(c) absent				1
	(d) present				9
40. Dorsal sepal: color of banding					
PQ (c) RHS Colour Chart (d) (indicate reference number)					

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<hr/>					
41.	Dorsal sepal: stripes				
(*)					
(+)					
QL	(c) absent				1
	(d) present			Misty Pinky	9
<hr/>					
42.	Dorsal sepal: color of stripes				
PQ	(c) RHS Colour Chart				
	(d) (indicate reference number)				
<hr/>					
43.	Dorsal sepal: edge				
(*)					
(+)					
QL	(c) absent				1
	(d) present				9
<hr/>					
44.	Dorsal sepal: color of edge				
PQ	(c) RHS Colour Chart				
	(d) (indicate reference number)				
<hr/>					
45.	Dorsal sepal: macule				
(*)					
(+)					
QL	(c) absent				1
	(d) present			Sunlight Siesta Ruru	9
<hr/>					
46.	Dorsal sepal: color of macule				
PQ	(c) RHS Colour Chart				
	(d) (indicate reference number)				
<hr/>					
47.	Lateral sepal: length				
(*)					
QN	(c) short			Kukoo YMC-2	1
	medium			Kinsei Abe No.4	2
	long			Makalii Gotoh	3
<hr/>					

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
48.	Lateral sepal: width					
	(*)					
QN	(c) narrow				Dancing Sunlight Ami	1
	medium				Ella Flambeau	2
	broad				Makalii Gotoh	3
49.	Lateral sepal: shape					
	(*)					
	(+)					
PQ	(c) lanceolate				Dancing Sunlight Suzy	1
	ovate				Makalii Gotoh	2
	elliptic					3
	obovate				Yasukasupa Koharu	4
	broad obovate				Kukoo YMC-2	5
	curving obovate				Only You	6
50.	Lateral sepal: curvature of longitudinal axis					
	(*)					
	(+)					
QN	(c) strongly incurving					1
	moderately incurving				Haruka	3
	straight				Only You	5
	moderately recurving				Makalii Gotoh	7
	strongly recurving				Pink Sugar	9
51.	Lateral sepal: cross section					
	(*)					
	(+)					
QN	(c) strongly concave					1
	moderately concave				Stardust Snow	3
	flat				Ella Flambeau	5
	moderately convex				Golden Fancy Charm	7
	strongly convex					9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
52.	Lateral sepal: twisting					
QN	(c) absent or very weak				Dancing Sunlight Ami	1
	weak					2
	strong					3
53. (*)	Lateral sepal: undulation of margin					
QN	(c) absent or very weak				Haruka	1
	weak					2
	strong					3
54. (*)	Lateral sepal: ground color					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					
55. (*) (+)	Lateral sepal: shading					
QL	(c) absent					1
	(d) present				Haruka	9
56.	Lateral sepal: color of shade					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					
57. (*) (+)	Lateral sepal: spots					
QL	(c) absent					1
	(d) present				Makalii Gotoh	9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
58.	Lateral sepal: color of spots					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					
59.	Lateral sepal: brindle					
(*) (+)						
QL	(c) absent					1
	(d) present					9
60.	Lateral sepal: color of brindle					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					
61.	Lateral sepal: banded					
(*) (+)						
QL	(c) absent					1
	(d) present					9
62.	Lateral sepal: color of banding					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					
63.	Lateral sepal: stripes					
(*) (+)						
QL	(c) absent					1
	(d) present				Misty Pinky	9
64.	Lateral sepal: color of stripes					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
65. Lateral sepal: edge					
(*)					
(+)					
QL	(c) absent				1
	(d) present			Kinsei	9
66. Lateral sepal: color of edge					
PQ	(c) RHS Colour Chart				
	(d) (indicate reference number)				
67. Lateral sepal: macule					
(*)					
(+)					
QL	(c) absent				1
	(d) present			Sunlight Siesta Run	9
68. Lateral sepal: color of macule					
PQ	(c) RHS Colour Chart				
	(d) (indicate reference number)				
69. Petal: length					
(*)					
QN	(c) short			Haruka	1
	medium			Ella Flambeau	2
	long			Makalii Gotoh	3
70. Petal: width					
(*)					
QN	(c) narrow			Only You	1
	medium			Potpourri	2
	broad			Kinsei Ake No.4	3

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
71. Petal: shape					
(*)					
(+)					
PQ (c)					
ovate					1
linear				Golden Sunset Taka	2
elliptic					3
oblanceolate				Dancing Sunlight Ami	4
broad obovate				Yasukasupa Komachi	5
72. Petal: curvature of longitudinal axis					
(*)					
(+)					
QN (c)					
strongly incurving					1
moderately incurving				Kukoo YMC-2	3
straight				Kaorino Izumi	5
moderately recurving				Dancing Sunlight Ami	7
strongly recurving					9
73. Petal: cross section					
(+)					
QN (c)					
strongly concave					1
moderately concave				Stardust Snow	3
flat				Kukoo YMC-2	5
moderately convex				Shell White	7
strongly convex				Potpourri	9
74. Petal: twisting					
QN (c)					
absent or very weak				Dancing Sunlight Ami	1
weak					2
strong					3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
75.	Petal: undulation of margin					
QN	(c) absent or very weak				Haruka	1
	weak					2
	strong					3
76. (*)	Petal: ground color					
PQ	(c) RHS Colour Chart					
	(d) (indicate reference number)					
77. (*) (+)	Petal: shading					
QL	(c) absent					1
	(d) present				Dancing Sunlight Suzy	9
78.	Petal: color of shade					
PQ	(c) RHS Colour Chart					
	(d) (indicate reference number)					
79. (*) (+)	Petal: spots					
QL	(c) absent					1
	(d) present				Makalii Gotoh	9
80.	Petal: color of spots					
PQ	(c) RHS Colour Chart					
	(d) (indicate reference number)					
81. (*) (+)	Petal: brindle					
QL	(c) absent					1
	(d) present					9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
82.	Petal: color of brindle					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					
83.	Petal: banded					
	(*) (+)					
QL	(c) absent					1
	(d) present					9
84.	Petal: color of banding					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					
85.	Petal: stripes					
	(*) (+)					
QL	(c) absent					1
	(d) present				Haruka	9
86.	Petal: color of stripes					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					
87.	Petal: edge					
	(*) (+)					
QL	(c) absent					1
	(d) present				Kinsei	9
88.	Petal: color of edge					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
89. Petal: macule					
(*)					
(+)					
QL	(c) absent				1
	(d) present			Sunlight Siesta Run	9
90. Petal: color of macule					
PQ	(c) RHS Colour Chart				
	(d) (indicate reference number)				
91. Lip: length					
(*)					
(+)					
QN	(c) short			Dancing Sunlight Ami	1
	medium			Makalii Gothoh	2
	long			Ella Flambeau	3
92. Lip: width					
(*)					
(+)					
QN	(c) narrow			Makalii Gotoh	1
	medium			Golden Sunset Taka	2
	broad			Kinsei Abe No.4	3
93. Lip: size of lateral lobe in relation to apical lobe					
QN	(c) small			Misaki Wave Yurara	1
	same			Dancing Sunlight Ami	2
	large			Haruka	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
94.	Lip: undulation of margin					
QN	(c) absent or very weak				Dancing Sunlight Ami	1
	weak					2
	strong					3
95.	Apical lobe: shape					
(*)						
(+)						
PQ	(c) rhombic				Only You	1
	circular					2
	transverse elliptic				Shangri-la	3
	semi-circular				Pink Sugar	4
	deltoid					5
96.	Apical lobe: incision of apex					
(*)						
(+)						
QN	absent or very weak				Yasukasupa Akane	1
	weak				Dancing Sunlight Ami	2
	medium				Pink Sugar	3
	strong				Haruka	4
97.	Apical lobe: curvature of longitudinal axis					
(*)						
QN	(c) incurving				Mayfair Yellow Angel	1
	straight				Pink Sugar	2
	recurving				Kinsei	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
98.	Apical lobe: cross section					
QN	(c) concave				Kaori no Izumi	1
	flat				Kinsei Abe No.4	2
	convex				Only You	3
99. (*)	Apical lobe: ground color					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					
100. (*) (+)	Apical lobe: shading					
QL	(c) absent					1
	(d) present				Haruka	9
101.	Apical lobe: color of shade					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					
102. (*) (+)	Apical lobe: spots					
QL	(c) absent					1
	(d) present				Barbie Strawberry Delight	9
103.	Apical lobe: color of spots					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					
104. (*) (+)	Apical lobe: brindle					
QL	(c) absent					1
	(d) present					9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
105.	Apical lobe: color of brindle					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					
106.	Apical lobe: banded					
	(*) (+)					
QL	(c) absent					1
	(d) present					9
107.	Apical lobe: color of banding					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					
108.	Apical lobe: edge					
	(*) (+)					
QL	(c) absent					1
	(d) present					9
109.	Apical lobe: color of edge					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					
110.	Lateral lobe: ground color					
PQ	(c) RHS Colour Chart (d) (indicate reference number)					
111.	Lateral lobe: shading					
	(+) (c) absent					1
	(d) present				Dancing Sunlight Suzy	9

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
112. Lateral lobe: color of shading					
PQ (c) RHS Colour Chart (d) (indicate reference number)					
113. Lateral lobe: spots					
(+)					
QL (c) absent					1
(d) present					9
114. Lateral lobe: color of spots					
PQ (c) RHS Colour Chart (d) (indicate reference number)					
115. Lateral lobe: brindle					
(+)					
QL (c) absent					1
(d) present				Kurisu	9
116. Lateral lobe: color of brindle					
PQ (c) RHS Colour Chart (d) (indicate reference number)					
117. Lateral lobe: banded					
(+)					
QL (c) absent					1
(d) present					9
118. Lateral lobe: color of banding					
PQ (c) RHS Colour Chart (d) (indicate reference number)					

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
119. Lateral lobe: edge					
(+)					
QL (c) absent					1
(d) present					9
120. Lateral lobe: color of edge					
PQ (c) RHS Colour Chart					
(d) (indicate reference number)					
121. Callus: color					
PQ (c) white					1
yellow					2
orange					3
red					5
red purple					4
yellow brown					6
brown					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 flowers should be made on fully expanded flowers.
- (d) Observations on the color of leaf, sepal, petal, apical lobe of lip and lateral lobe of lip should be made on the upper side.

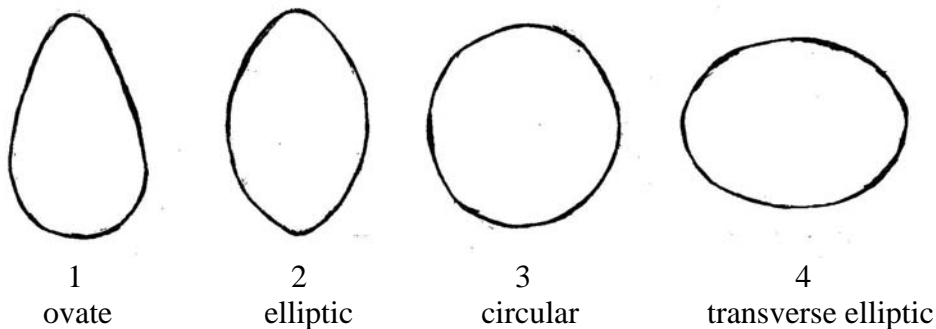
8.2 *Explanations for individual characteristics*

Ad. 1: Plant: size

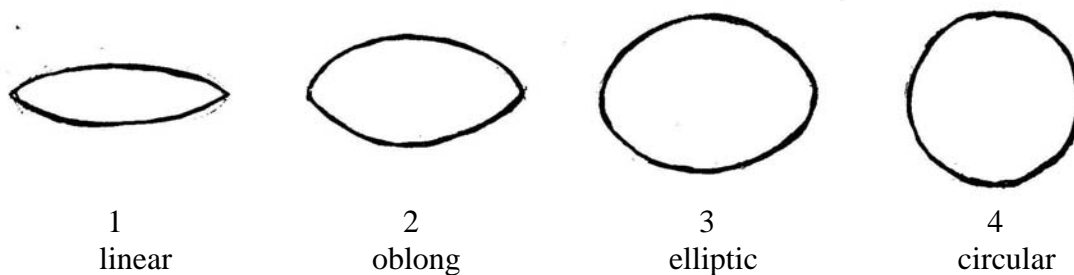
The size of plant is evaluated by observation of whole plant size including leaf, peduncle and inflorescence.

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.

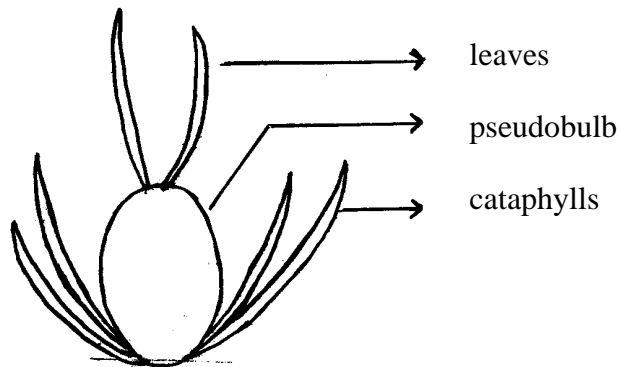


Ad. 5: Pseudobulb: shape in cross section

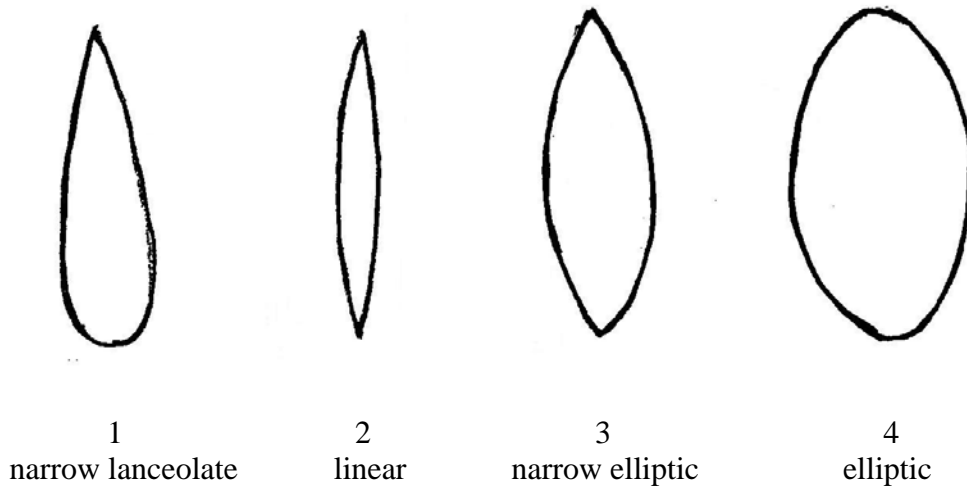


Ad. 7: Pseudobulb: number of cataphylls

Ad. 8: Pseudobulb: number of leaves



Ad. 11: Leaf : shape

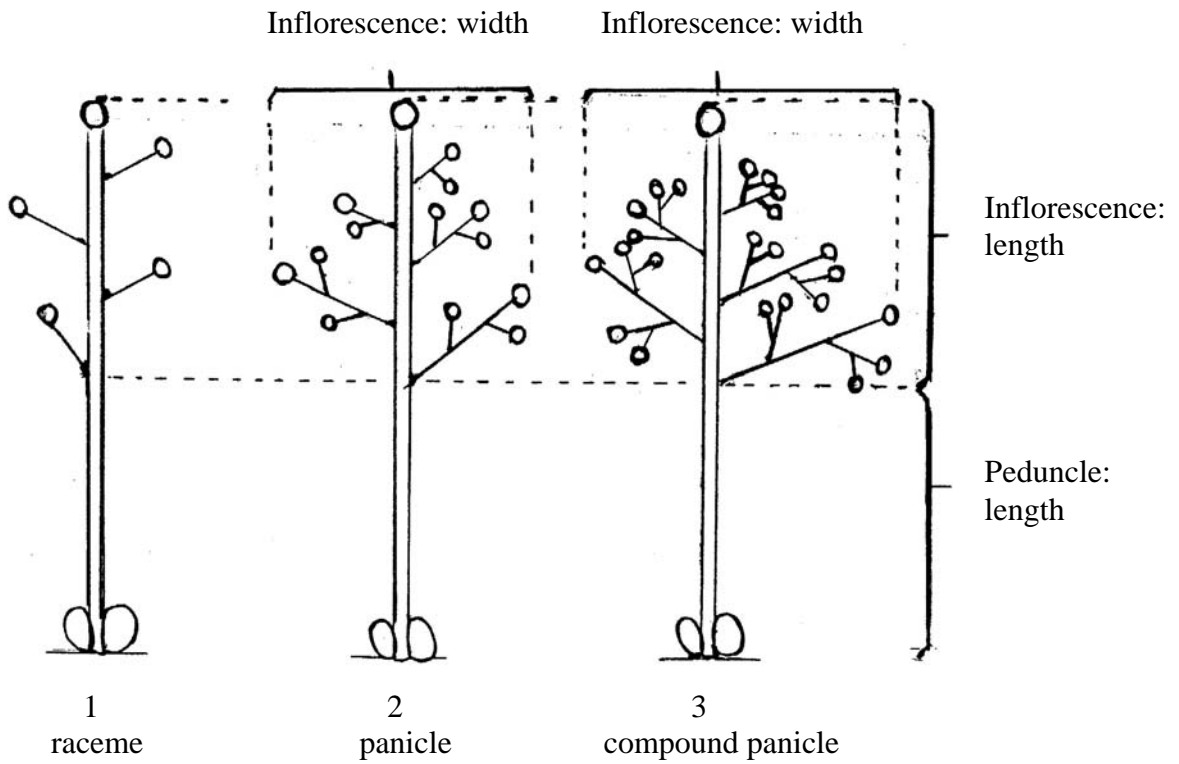


Ad. 14: Inflorescence: type

Ad. 15: Inflorescence: length

Ad. 16: Panicle and compound panicle type only: Inflorescence : width

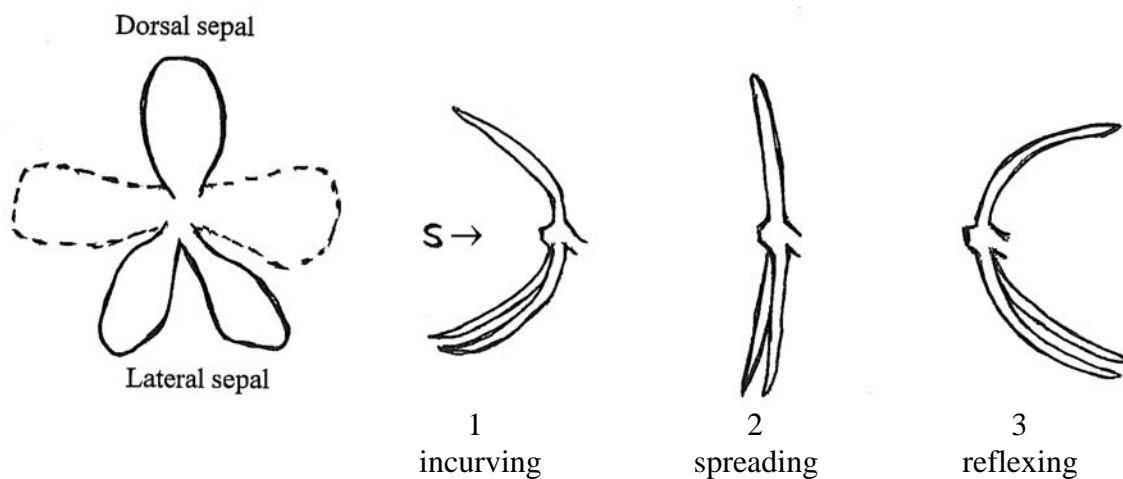
Ad. 18: Peduncle : length



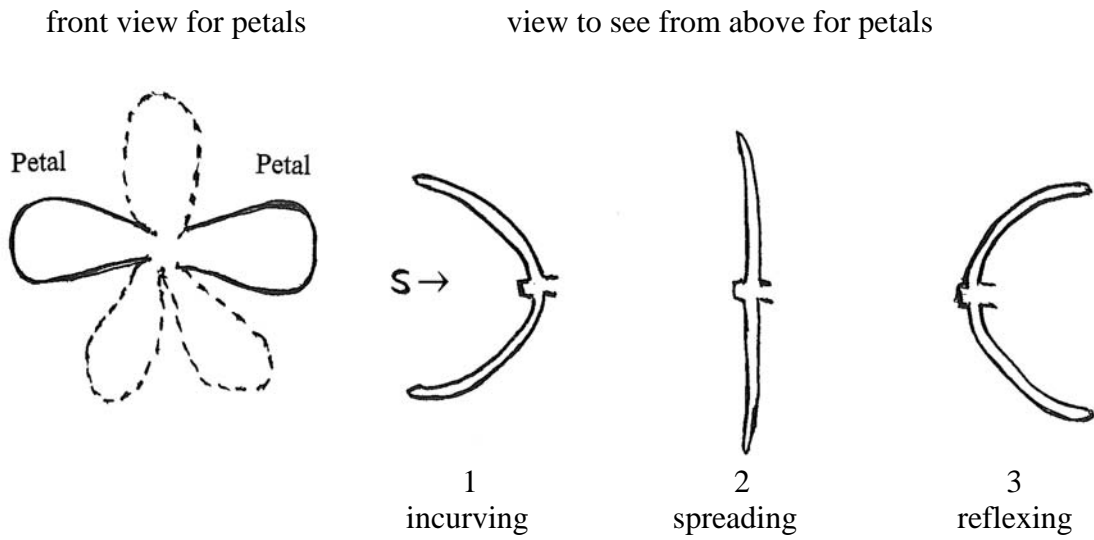
Ad. 21: Flower: general appearance of sepals

front view for sepals

view to see from side for sepals

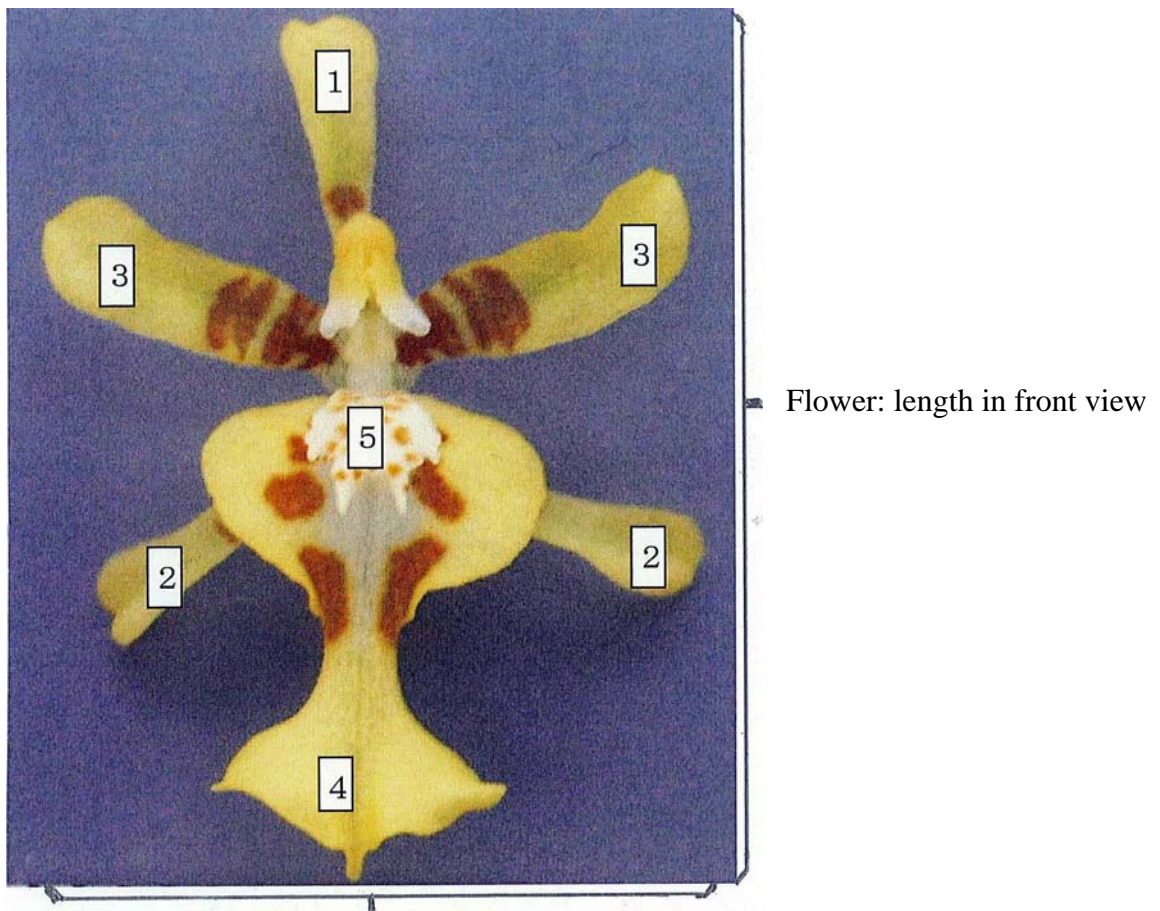


Ad. 22: Flower: general appearance of petals



Ad. 23: Flower: length in front view

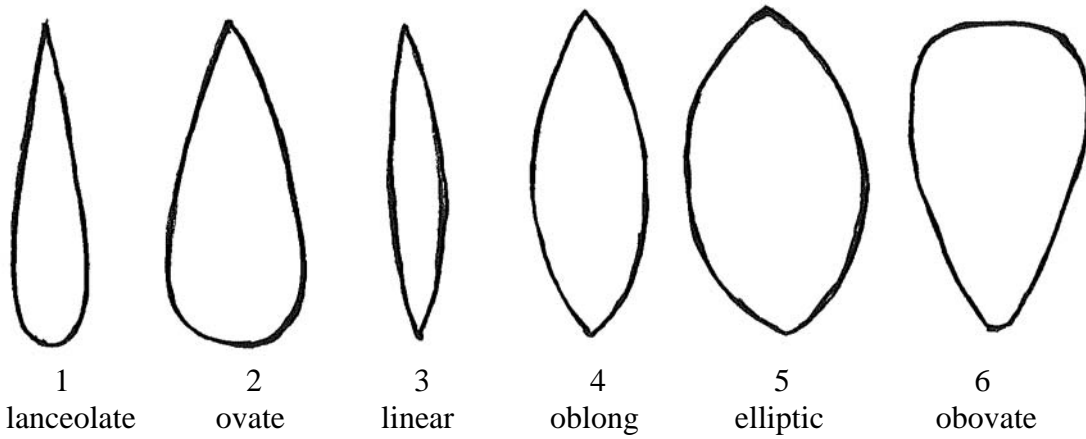
Ad. 24: Flower: width in front view



Flower: width in front view

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

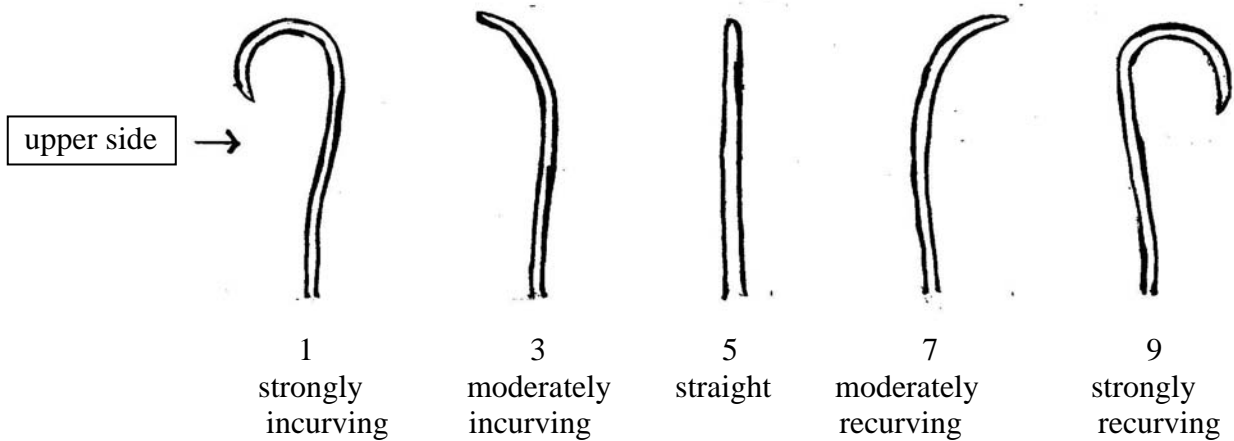
Ad. 28: Dorsal sepal: shape



Ad. 29: Dorsal sepal: curvature of longitudinal axis

Ad. 50: Lateral sepal: curvature of longitudinal axis

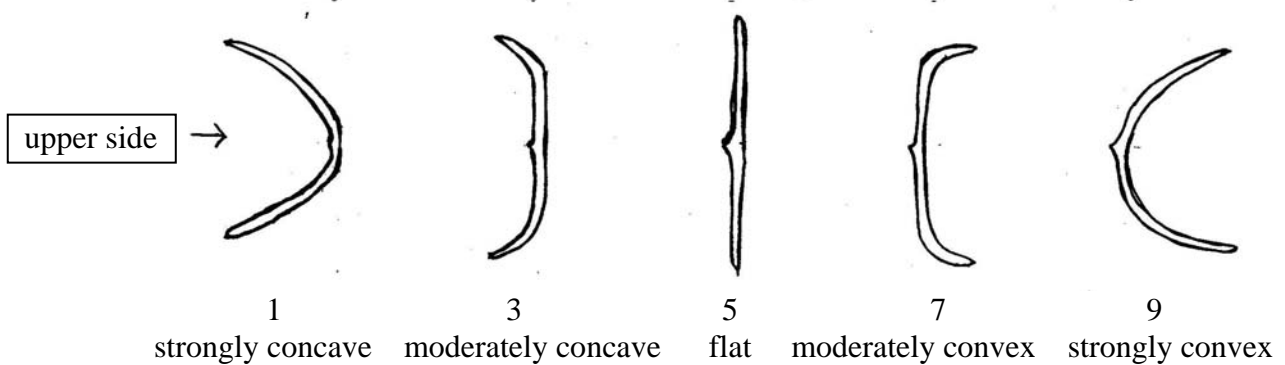
Ad. 72: Petal: curvature of longitudinal axis



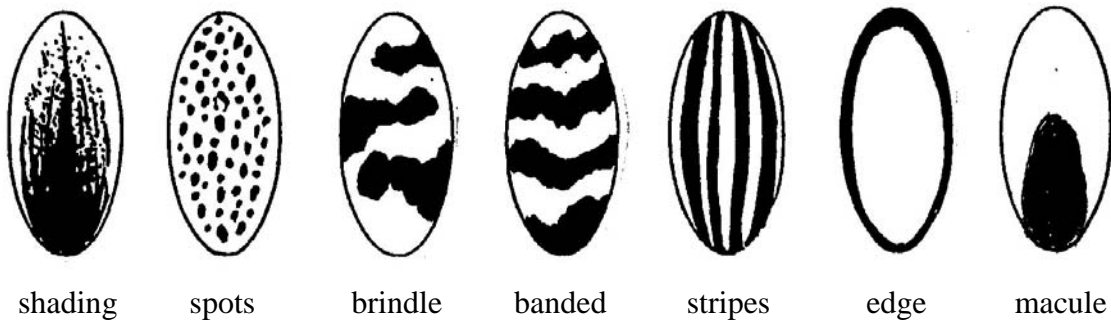
Ad. 30: Dorsal sepal: cross section

Ad. 51: Lateral sepal: cross section

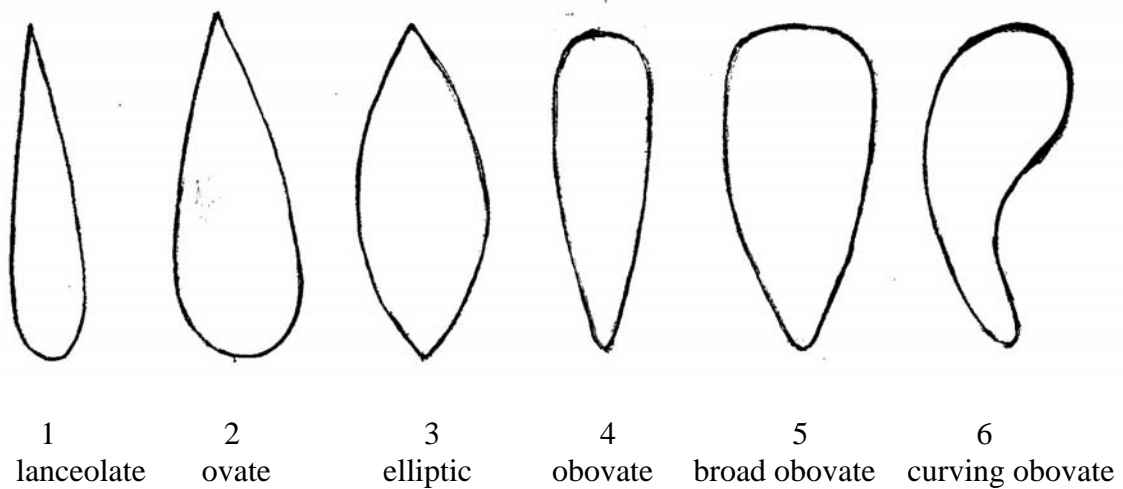
Ad. 73: Petal: cross section



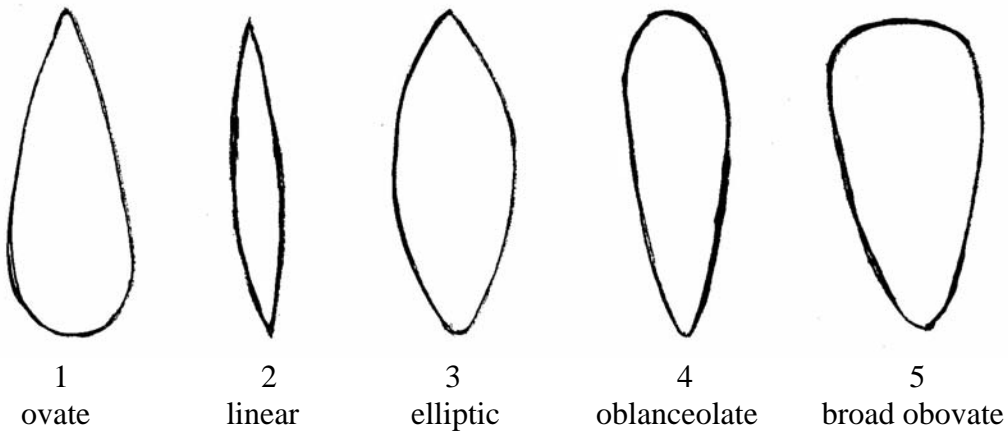
- Ad. 33: Dorsal sepal: shading
- Ad. 35: Dorsal sepal: spots
- Ad. 37: Dorsal sepal: brindle
- Ad. 39: Dorsal sepal: banded
- Ad. 41: Dorsal sepal: stripes
- Ad. 43: Dorsal sepal: edge
- Ad. 45: Dorsal sepal: macule
- Ad. 55: Lateral sepal: shading
- Ad. 57: Lateral sepal: spots
- Ad. 59: Lateral sepal: brindle
- Ad. 61: Lateral sepal: banded
- Ad. 63: Lateral sepal: stripes
- Ad. 65: Lateral sepal: edge
- Ad. 67: Lateral sepal: macule
- Ad. 77: Petal: shading
- Ad. 79: Petal: spots
- Ad. 81: Petal: brindle
- Ad. 83: Petal: banded
- Ad. 85: Petal: stripes
- Ad. 87: Petal: edge
- Ad. 89: Petal: macule



Ad. 49: Lateral sepal: shape

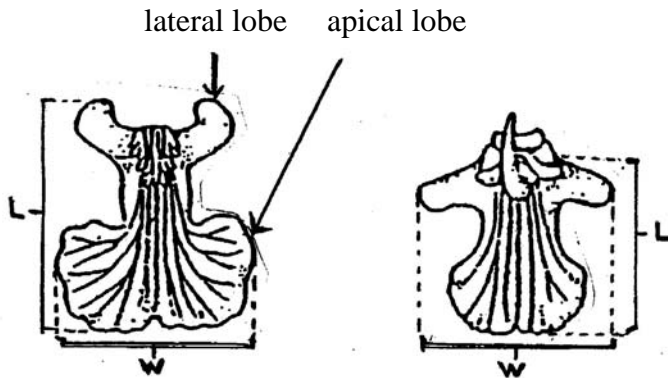


Ad. 71: Petal : shape

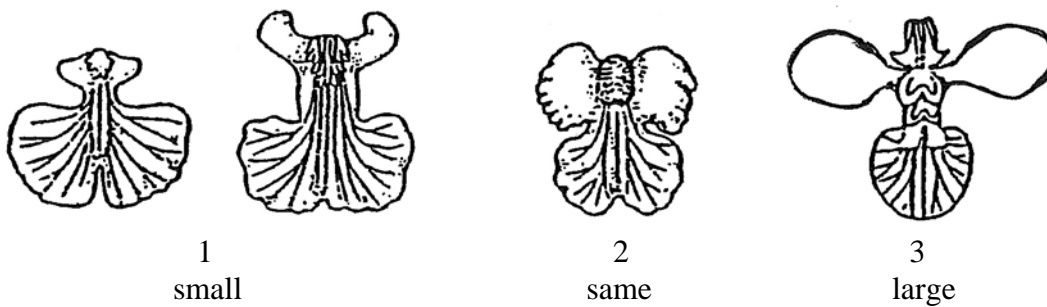


Ad. 91: Lip: length

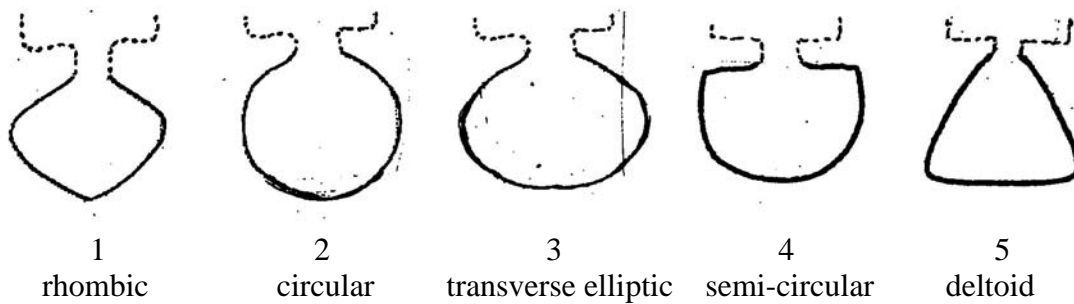
Ad. 92: Lip: width



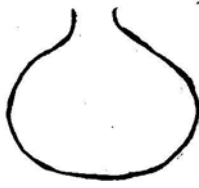
Ad. 93: Lip: size of lateral lobes in relation to apical lobe



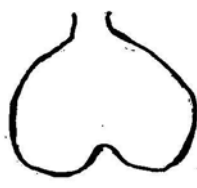
Ad. 95: Apical lobe : shape



Ad. 96: Apical lobe: incision of apex



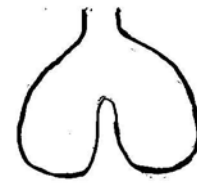
1
absent or very weak



2
weak



3
medium



4
strong

Ad. 100: Apical lobe: shading

Ad. 102: Apical lobe: spots

Ad. 104: Apical lobe: brindle

Ad. 106: Apical lobe: banded

Ad. 108: Apical lobe: edge

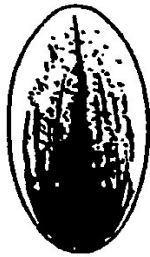
Ad. 111: Lateral lobe: shading

Ad. 113: Lateral lobe: spots

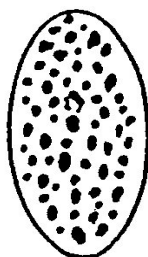
Ad. 115: Lateral lobe: brindle

Ad. 117: Lateral lobe: banded

Ad. 119: Lateral lobe: edge



shading



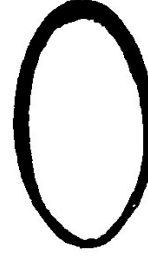
spots



brindle



banded



edge

9. Literature

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

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.

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		
1.1 Genus		
1.1.1 Botanical Name	<input type="text" value="Oncidium Sw."/>	
1.1.2 Common name	<input type="text" value="Oncidium"/>	
1.2 Species (please complete)		
1.2.1 Botanical Name	<input type="text"/>	
1.2.2 Common name	<input type="text"/>	
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"/>	

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

3. Proposed denomination and breeder's reference

Proposed denomination
(if available)

Breeder's reference

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

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

4.1 Breeding scheme

Variety resulting from:

4.1.1 Crossing

- (a) controlled cross []
(please state parent varieties)
- (b) partially known cross []
(please state known parent variety(ies))
- (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)

4.2 Method of propagating the variety

4.2.1 Vegetative propagation

- (a) cuttings []
- (b) *in vitro* propagation []
- (c) other (state method) []

4.2.2 Seed []

4.2.3 Other []
(please provide details)

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:
-------------------------	-----------------	-------------------

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)		
small	Twinkle Fragrance Fantasy	3[]
medium	Kinsei Abe No.4	5[]
large	Kurisu	7[]
5.2 Flower: width in front view (24)		
narrow	Kurisu	3[]
medium	Golden Sunset Taka	5[]
broad	Ella Flambeau	7[]
5.3 Petal: ground color (76)		
white		1[]
yellow		2[]
orange		3[]
pink		4[]
red		5[]
violet		6[]
brown		7[]
5.4 Petal: shading (77)		
absent		1[]
present	Dancing Sunlight Suzy	9[]
5.5 Petal: spots (79)		
absent		1[]
present	Makalii Gotoh	9[]

TECHNICAL QUESTIONNAIRE		Page {x} of {y}	Reference Number:
Characteristics	Example Varieties		Note
5.6 Petal: brindle (81)			
absent			1[]
present			9[]
5.7 Petal: banded (83)			
absent			1[]
present			9[]
5.8 Petal: stripes (85)			
absent			1[]
present	Haruka		9[]
5.9 Petal: edge (87)			
absent			1[]
present	Kinsei		9[]
5.10 Petal: macule (89)			
absent			1[]
present	Sunlight Siesta Ruru		9[]
5.11 Apical lobe: ground color (99)			
white			1[]
yellow			2[]
orange			3[]
pink			4[]
red			5[]
violet			6[]
brown			7[]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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6. Similar varieties and differences from these varieties

Please use the following table and box for comments to provide information on how your candidate variety differs from the variety (or varieties) which, to the best of your knowledge, is (or are) most similar. This information may help the examination authority to conduct its examination of distinctness in a more efficient way.

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the similar variety(ies)	Describe the expression of the characteristic(s) for your candidate variety
<i>Example</i>	<i>Flower: width in front view</i>	<i>medium</i>	<i>broad</i>

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

#7. Additional information which may help in the examination of the variety

7.1 In addition to the information provided in sections 5 and 6, are there any additional characteristics which may help to distinguish the variety?

Yes [] No []

(If yes, please provide details)

7.2 Are there any special conditions for growing the variety or conducting the examination?

Yes [] No []

(If yes, please provide details):

7.3 Other information

A representative color photograph of the variety should accompany the Technical Questionnaire.

8. Authorization for release

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

Yes [] No []

(b) Has such authorization been obtained?

Yes [] No []

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

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

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

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

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

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

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

Please provide details for where you have indicated "yes".

.....

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

Applicant's name

Signature

Date

[End of document]