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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS GENEVA



ONCIDIUM

UPOV Code: ONCID

Oncidium Sw. and intergeneric hybrids of

Oncidium Sw.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by experts from Japan

to be considered by the

Technical Working Party for Ornamental Plants and Forest Trees at its forty-third session, to be held in Cuernavaca, Morelos State, Mexico, from September 20 to 24, 2010

Alternative Names:

 Botanical name
 English
 French
 German
 Spanish

 Oncidium Sw.
 Oncidium

 Intergeneric hybrids of Oncidium Sw.
 Intergeneric hybrids of Oncidium Sw.
 Intergeneric hybrids of Oncidium Sw.

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. <u>Subject of these Test Guidelines</u>

These Test Guidelines apply to all varieties of of *Oncidium* Sw. and intergeneric hybrids of *Oncidium* Sw. 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, to be supplied by the applicant, should be:

9 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. The color chart and version used should be specified in the variety description.

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3.4 Test Design

- 3.4.1 Each test should be designed to result in a total of at least 9 plants.
- 3.4.2 The design of the tests should be such that plants or parts of plants may be removed for measurement or counting without prejudice to the observations which must be made up to the end of the growing cycle.

3.5 Additional Tests

Additional tests, for examining relevant characteristics, may be established.

4. Assessment of Distinctness, Uniformity and Stability

4.1 Distinctness

4.1.1 General Recommendations

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

4.1.2 Consistent Differences

The differences observed between varieties may be so clear that more than one growing cycle is not necessary. In addition, in some circumstances, the influence of the environment is not such that more than a single growing cycle is required to provide assurance that the differences observed between varieties are sufficiently consistent. One means of ensuring that a difference in a characteristic, observed in a growing trial, is sufficiently consistent is to examine the characteristic in at least two independent growing cycles.

4.1.3 Clear Differences

Determining whether a difference between two varieties is clear depends on many factors, and should consider, in particular, the type of expression of the characteristic being examined, i.e. whether it is expressed in a qualitative, quantitative, or pseudo-qualitative manner. Therefore, it is important that users of these Test Guidelines are familiar with the recommendations contained in the General Introduction prior to making decisions regarding distinctness.

4.1.4 Number of Plants / Parts of Plants to be Examined

Unless otherwise indicated, all observations for the purposes of distinctness should be made on 9 plants or parts taken from each of 9 plants, disregarding any off-type plants.

4.1.5 Method of Observation

The recommended method of observing the characteristic for the purposes of distinctness is indicated by the following key in the second column of the Table of Characteristics (see document TGP/9 "Examining Distinctness", Section 4 "Observation of characteristics"):

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MG: single measurement of a group of plants or parts of plants

MS: measurement of a number of individual plants or parts of plants

VG: visual assessment by a single observation of a group of plants or parts of plants

VS: visual assessment by observation of individual plants or parts of plants

Type of observation: visual (V) or measurement (M)

"Visual" observation (V) is an observation made on the basis of the expert's judgment. For the purposes of this document, "visual" observation refers to the sensory observations of the experts and, therefore, also includes smell, taste and touch. Visual observation includes observations where the expert uses reference points (e.g. diagrams, example varieties, side-by-side comparison) or non-linear charts (e.g. color charts). Measurement (M) is an objective observation against a calibrated, linear scale e.g. using a ruler, weighing scales, colorimeter, dates, counts, etc.

Type of record: for a group of plants (G) or for single, individual plants (S)

For the purposes of distinctness, observations may be recorded as a single record for a group of plants or parts of plants (G), or may be recorded as records for a number of single, individual plants or parts of plants (S). In most cases, "G" provides a single record per variety and it is not possible or necessary to apply statistical methods in a plant-by-plant analysis for the assessment of distinctness."

In cases where more than one method of observing the characteristic is indicated in the Table of Characteristics (e.g. VG/MG), guidance on selecting an appropriate method is provided in document TGP/9, Section 4.2.

4.2 Uniformity

- 4.2.1 It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding uniformity. However, the following points are provided for elaboration or emphasis in these Test Guidelines:
- 4.2.1 For the assessment of uniformity, a population standard of 95% and an acceptance probability of at least 1% should be applied. In the case of a sample size of 9 plants, 1 off-type is allowed.

4.3 Stability

- 4.3.1 In practice, it is not usual to perform tests of stability that produce results as certain as those of the testing of distinctness and uniformity. However, experience has demonstrated that, for many types of variety, when a variety has been shown to be uniform, it can also be considered to be stable.
- 4.3.2 Where appropriate, or in cases of doubt, stability may be further examined by testing a new plant stock to ensure that it exhibits the same characteristics as those shown by the initial material supplied.

5. Grouping of Varieties and Organization of the Growing Trial

- 5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness are aided by the use of grouping characteristics.
- 5.2 Grouping characteristics are those in which the documented states of expression, even where produced at different locations, can be used, either individually or in combination with other such characteristics: (a) to select varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness; and (b) to organize the growing trial so that similar varieties are grouped together.
- 5.3 The following have been agreed as useful grouping characteristics:

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

- (a) Plant: size (characteristic 1)
- (b) Flower: width in front view (characteristic 24)
- (c) Petal: ground color (characteristic 62) 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 63)
- (e) Petal: spots (characteristic 64)
- (f) Petal: brindle (characteristic 65)
- (g) Petal: banded (characteristic 66)
- (h) Petal: stripes (characteristic 67)
- (i) Petal: edge (characteristic 68)
- (j) Petal: macule (characteristic 69)
- (k) Apical lobe: ground color (characteristic 78) 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

6. <u>Introduction to the Table of Characteristics</u>

6.1 Categories of Characteristics

6.1.1 Standard Test Guidelines Characteristics

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

6.1.2 Asterisked Characteristics

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

6.2 States of Expression and Corresponding Notes

- 6.2.1 States of expression are given for each characteristic to define the characteristic and to harmonize descriptions. Each state of expression is allocated a corresponding numerical note for ease of recording of data and for the production and exchange of the description.
- 6.2.2 In the case of qualitative and pseudo-qualitative characteristics (see Chapter 6.3), all relevant states of expression are presented in the characteristic. However, in the case of quantitative characteristics with 5 or more states, an abbreviated scale may be used to minimize the size of the Table of Characteristics. For example, in the case of a quantitative characteristic with 9 states, the presentation of states of expression in the Test Guidelines may be abbreviated as follows:

| State | Note |
|--------|------|
| small | 3 |
| medium | 5 |
| large | 7 |

However, it should be noted that all of the following 9 states of expression exist to describe varieties and should be used as appropriate:

| State | Note |
|---------------------|------|
| very small | 1 |
| very small to small | 2 |
| small | 3 |
| small to medium | 4 |
| medium | 5 |
| medium to large | 6 |
| large | 7 |
| large to very large | 8 |
| very large | 9 |

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

6.3 Types of Expression

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

- 6.4 Example Varieties
- **6.4.1** Where appropriate, example varieties are provided to clarify the states of expression of each characteristic.
- 6.4.2 Some variety denominations are preceded by group names (GREX). General remark: a particular grouping on the basis of known parentage, of which the unit is the GREX, is in long standing use in orchids.
- 6.4.3 The variety denominations are placed between single quotation marks (e.g. Ella 'Flambeau').
- 6.5 Legend
- (*) Asterisked characteristic see Chapter 6.1.2
- QL Qualitative characteristic see Chapter 6.3
- QN Quantitative characteristic see Chapter 6.3
- PQ Pseudo-qualitative characteristic see Chapter 6.3

MG, MS, VG, VS – see Chapter 4.1.5

- (a)-(d) See Explanations on the Table of Characteristics in Chapter 8.1.
- (+) See Explanations on the Table of Characteristics in Chapter 8.2.

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

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

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

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| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|-------------------|------------|------------------------------|----------|---------|---------|--|---------------|
| 9. | VG/ MS | Leaf: length | | | | | |
| QN | (b) | short | | | | Twinkle 'Fragrance Fantasy' | 3 |
| | | medium | | | | Dancing Sunlight 'Suzy' | 5 |
| | | long | | | | 'Shimizu Parasol Papurikon' | 7 |
| 10. (*) | VG/ MS | Leaf: width | | | | | |
| QN | (b) | narrow | | | | 'Sakura no Sato', 'Yellow Days' | 3 |
| | | medium | | | | Dancing Sunlight 'Suzy' | 5 |
| | | broad | | | | | 7 |
| 11. (*) (+) | VG | Leaf: shape | | | | | |
| PQ | (b) | narrow lanceolate | | | | Barbie 'Strawberry Delight' Morning Medley 'Sakurako' | 1 |
| | | linear | | | | 'Haruka' | 2 |
| | | | | | | 'Kaori no Izumi' | |
| | | narrow elliptic | | | | | 3 |
| | | medium elliptic | | | | | 4 |
| 12. | VG | Leaf: shape in cross section | s | | | | |
| QN | (b) | concave | | | | Kinsei 'Yellow Days' | 1 |
| | | flat | | | | Ella 'Flambeau' | 2 |
| | | convex | | | | | 3 |
| | | | | | | | |

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|---|---|------------|---|--|
| - | 1 | Z | - | |

| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|-------------------|-----------|--|----------|---------|---------|---|---------------|
| 13. | VG | Leaf: intensity of green color | | | | | |
| QN | (c) | light | | | | | 1 |
| | | medium | | | | Sunlight Siesta 'Ruru' | 2 |
| | | dark | | | | Kinsei Dancing Sunlight 'Nancy' | 3 |
| 14. (*) (+) | VG | Inflorescence: type | | | | | |
| QL | | raceme | | | | 'Poco-A-Poco Yellow' | 1 |
| | | simple panicle | | | | Misaki Wave 'Yurara' | 2 |
| | | compound panicle | | | | Dancing Sunlight 'Ami' | 3 |
| 15. (+) | VG /MS | Inflorescence: leng | th | | | | |
| QN | | short | | | | | 3 |
| | | medium | | | | 'Monshirotyo no Cafe' | 5 |
| | | long | | | | 'Kurisu' | 7 |
| 16. | VG/ MS | Excluding varieties with inflorescence | <u>.</u> | | | | |
| (+) | | type:raceme: Inflorescence: widt | th | | | | |
| 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 | | | | 'Yasukaspa Akane' | 5 |
| | | many | | | | Sunlight Siesta 'Ruru' | 7 |
| | | | | | | | |

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| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|-------------------|-----------|--|----------|---------|---------|---|---------------|
| 18. (*) (+) | VG/ MS | Peduncle: length | | | | | |
| QN | | short | | | | 'Sakura no Sato' 'Kaoli no Izumi' | 3 |
| | | medium | | | | Sunlight Siesta 'Ruru' | 5 |
| | | long | | | | Ella 'Flambeau' | 7 |
| 19. (*) | VG/ MS | Peduncle: thickness | | | | | |
| QN | | thin | | | | Twinkle 'Fragrance Fantasy' | 1 |
| | | medium | | | | 'Kurisu' | 2 |
| | | thick | | | | | 3 |
| 20. (*) (+) | VG | Peduncle: anthocyanin coloration | | | | | |
| QN | | absent or weak | | | | 'Monshirotyo no Cafe' | 1 |
| | | moderate | | | | 'Kurisu' | 2 |
| | | strong | | | | Dancing Sunlight 'Nancy' | 3 |
| 21. (*) (+) | VG | Flower: general appearance of sepals | ; | | | | |
| QN | | incurving | | | | Mayfair 'Yellow Angel' | 1 |
| | | spreading | | | | Kinsei 'Shimizu Parasol Papurikon' | 2 |
| | | reflexing | | | | Dancing Sunlight 'Ami' | 3 |

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| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|-------------------|-----------|--------------------------------------|----------|---------|---------|---|---------------|
| 22. (*) (+) | VG | Flower: general appearance of petals | 1 | | | | |
| QN | | incurving | | | | Kinsei 'Yellow Days' | 1 |
| | | spreading | | | | Dancing Sunlight 'Ami' | 2 |
| | | reflexing | | | | 'Shimizu Parasol Papurikon' | 3 |
| 23. (*) (+) | | Flower: length in front view | | | | | |
| QN | | short | | | | 'Kurisu' | 3 |
| | | medium | | | | Dancing Sunlight 'Ami' | 5 |
| | | long | | | | Makalii 'Gotoh' | 7 |
| 24. (*) (+) | | Flower: width in front view | | | | | |
| QN | | narrow | | | | 'Kurisu' | 3 |
| | | medium | | | | Golden Sunset 'Taka' | 5 |
| | | broad | | | | Ella 'Flambeau' | 7 |
| 25. | VG | Flower: fragrance | | | | | |
| QL | | absent | | | | 'Pink Sugar' Sunlight Siesta 'Ruru' | 1 |
| | | present | | | | 'Only One' | 9 |
| 26. (*) | VG/ MS | Dorsal sepal: length | | | | | |
| QN | | short | | | | Kukoo 'YMC-2' 'Yellow Days' | 1 |
| | | medium | | | | Kinsei 'Abe No.4' | 2 |
| | | long | | | | Makalii 'Gotoh' | 3 |

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| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|-------------------|-----------|--|----------|---------|---------|---|---------------|
| 27. (*) | VG/ MS | Dorsal sepal: width | | | | | |
| QN | | narrow | | | | 'Kurisu' | 1 |
| | | medium | | | | Kukoo 'YMC-2' Morning Medley 'Sakurako' | 2 |
| | | broad | | | | Kinsei 'Abe No.4' | 3 |
| 28. (*) (+) | VG | Dorsal sepal: shape | | | | | |
| PQ | | lanceolate | | | | 'Shell white' | 1 |
| | | ovate | | | | Ella 'Flambeau' | 2 |
| | | linear | | | | Sunlight Siesta 'Ota' | 3 |
| | | narrow elliptic | | | | 'Haruka' Dancing Sunlight 'Nancy' | 4 |
| | | medium elliptic | | | | Misaki Wave 'Yurara' 'Yellow Days' | 5 |
| | | obovate | | | | 'Kaori no Izumi' | 6 |
| 29. (*) (+) | VG | Dorsal sepal: curvature of longitudinal axis | | | | | |
| QN | | strongly incurving | | | | | 1 |
| | | moderately incurving | g | | | Sang-Chan 'Nihao' 'Yellow Days' | 3 |
| | | straight | | | | Makalii 'Gotoh' | 5 |
| | | moderately recurving | g | | | Ella 'Flambeau' | 7 |
| | | strongly recurving | | | | | 9 |

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|---|----|---|
|---|----|---|

| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note Nota |
|----------------|-----|--|----------|---------|---------|--|--------------|
| 30. | VG | Dorsal sepal: cross section | | | | | |
| (+) | | section | | | | | |
| QN | | strongly concave | | | | | 1 |
| | | moderately concave | | | | Stardust 'Snow' | 3 |
| | | flat | | | | Kukoo 'YMC-2' 'Only You' | 5 |
| | | moderately convex | | | | 'Shell white' 'Yellow Days' | 7 |
| | | strongly convex | | | | | 9 |
| 31. | VG | Dorsal sepal: undulation of margin | | | | | |
| QL | | absent or weak | | | | 'Only You' | 1 |
| | | moderate | | | | 'Yellow Days' | 2 |
| | | strong | | | | | 3 |
| 32. (*) | VG | Dorsal sepal: ground color | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 33. | VG | Dorsal sepal: diffused over color | | | | | |
| (+) | | (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 34. | VG | Dorsal sepal: color of spots (if present) | | | | | |
| (+) | | | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |

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| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|----------------|-----------|--|----------|---------|---------|--|---------------|
| 35. (+) | VG | Dorsal sepal: color of brindle (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 36. (+) | VG | Dorsal sepal: color of bands (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 37. (+) | VG | Dorsal sepal: color of stripes (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 38. (+) | VG | Dorsal sepal: color of margin (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 39. (+) | VG | Dorsal sepal: color of macule (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 40. (*) | VG/ MS | Lateral sepal: lengt | h | | | | |
| QN | | short | | | | Kukoo 'YMC-2' 'Yellow Days' | 1 |
| | | medium | | | | Kinsei 'Abe No.4' | 2 |
| | | long | | | | Makalii 'Gotoh' | 3 |

TG/ONCID(proj.3) Oncidium, 2010-07-30 - 18 -

| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|--------------------|-----------|---|----------|---------|---------|---|---------------|
| 41. (*) | VG/ MS | Lateral sepal: width | ı | | | | |
| QN | | narrow | | | | Dancing Sunlight 'Ami' | 1 |
| | | medium | | | | Ella 'Flambeau' | 2 |
| | | broad | | | | Makalii 'Gotoh' | 3 |
| 42. (*) (+) | VG | Lateral sepal: shape | , | | | | |
| PQ | | 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 |
| 43. (*) (+) | VG | Lateral sepal: curvature of longitudinal axis | | | | | |
| QN | | strongly incurving | | | | | 1 |
| | | moderately incurving | ; | | | 'Haruka' 'Yellow Days' | 3 |
| | | straight | | | | 'Only You' | 5 |
| | | moderately recurving | ; | | | Makalii 'Gotoh' | 7 |
| | | strongly recurving | | | | 'Pink Sugar' Dancing Sunlight 'Nancy' | 9 |

TG/ONCID(proj.3) Oncidium, 2010-07-30 - 19 -

| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note, Nota |
|----------------|-----|--|----------|---------|---------|---|---------------|
| 44. | VG | Lateral sepal: cross | | | | | |
| (+) | | section | | | | | |
| QN | | strongly concave | | | | | 1 |
| | | moderately concave | | | | Stardust 'Snow' | 3 |
| | | flat | | | | Ella 'Flambeau' | 5 |
| | | moderately convex | | | | Golden Fancy Charm | 7 |
| | | strongly convex | | | | | 9 |
| 45. | VG | Lateral sepal: twisting | | | | | |
| QN | | absent or weak | | | | Dancing Sunlight 'Ami' | 1 |
| | | moderate | | | | | 2 |
| | | strong | | | | | 3 |
| 46. (*) | VG | Lateral sepal: undulation of margin | | | | | |
| QN | | absent or weak | | | | 'Haruka' 'Kaori no Izumi' | 1 |
| | | moderate | | | | 'Monshirotyo no Cafe' | 2 |
| | | strong | | | | | 3 |
| 47. (*) | VG | Lateral sepal: ground color | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |

TG/ONCID(proj.3) Oncidium, 2010-07-30 - 20 -

| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|-----|-----|--|----------|---------|---------|--|---------------|
| 48. | VG | Lateral sepal: diffused over color | | | | | |
| (+) | | (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 49. | VG | Lateral sepal: color of spots (if present) | | | | | |
| (+) | | of spots (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 50. | VG | Lateral sepal: color | | | | | |
| (+) | | of brindle (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 51. | VG | Lateral sepal: color of bands (if | | | | | |
| (+) | | present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 52. | VG | Lateral sepal: color of stripes (if | | | | | |
| (+) | | present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 53. | VG | Lateral sepal: color of margin (if | | | | | |
| (+) | | present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |

TG/ONCID(proj.3) Oncidium, 2010-07-30 - 21 -

| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|--------------------|-----------|--|----------|---------|---------|---|---------------|
| 54. (+) | VG | Lateral sepal: color of macule (if present) | | | | | |
| (+) | | (ii present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 55 . (*) | VG/ MS | Petal: length | | | | | |
| QN | | short | | | | 'Haruka' 'Fight Yuko' | 1 |
| | | medium | | | | Ella 'Flambeau' | 2 |
| | | long | | | | Makalii 'Gotoh' | 3 |
| 56. (*) | VG/ MS | Petal: width | | | | | |
| QN | | narrow | | | | 'Only You' | 1 |
| | | medium | | | | Potpourri 'Fight Yuko' | 2 |
| | | broad | | | | Kinsei 'Abe No.4' | 3 |
| 57. (*) (+) | VG | Petal: shape | | | | | |
| PQ | | ovate | | | | | 1 |
| | | linear | | | | Golden Sunset 'Taka' Sunlight Siesta'Ota' | 2 |
| | | elliptic | | | | | 3 |
| | | oblanceolate | | | | Dancing Sunlight 'Ami' | 4 |
| | | broad obovate | | | | Yasukasupa Komachi | 5 |

TG/ONCID(proj.3) Oncidium, 2010-07-30 - 22 -

| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|-------------------|----|---------------------------------------|----------|---------|---------|--|---------------|
| 58. (*) (+) | VG | Petal: curvature of longitudinal axis | | | | | |
| QN | | strongly incurving | | | | | 1 |
| | | moderately incurving | | | | Kukoo 'YMC-2' 'Yellow Days' | 3 |
| | | straight | | | | 'Kaori no Izumi' | 5 |
| | | moderately recurving | | | | Dancing Sunlight 'Ami' | 7 |
| | | strongly recurving | | | | | 9 |
| 59. | VG | Petal: cross section | | | | | |
| (+) | | | | | | | |
| QN | | strongly concave | | | | | 1 |
| | | moderately concave | | | | Stardust 'Snow' | 3 |
| | | flat | | | | Kukoo 'YMC-2' 'Yellow Days' | 5 |
| | | moderately convex | | | | 'Shell white' 'Monshirotyo no Cafe' | 7 |
| | | strongly convex | | | | Potpourri | 9 |
| 60. | VG | Petal: twisting | | | | | |
| QN | | absent or weak | | | | Dancing Sunlight 'Ami' | 1 |
| | | moderate | | | | | 2 |
| | | strong | | | | | 3 |
| 61. | VG | Petal: undulation of margin | | | | | |
| QN | | absent or weak | | | | 'Haruka' Sunlight Siesta 'Ruru' | 1 |
| | | moderate | | | | 'Yellow Days' | 2 |
| | | strong | | | | | 3 |

TG/ONCID(proj.3) Oncidium, 2010-07-30 - 23 -

| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|----------------|-----|--|----------|---------|---------|--|---------------|
| 62. (*) | VG | Petal: ground color | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 63. (+) | VG | Petal: diffused over color (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 64. | VG | Petal: color of spots (if present) | | | | | |
| (+) PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 65. (+) | VG | Petal: color of brindle (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 66. | VG | Petal: color of bands (if present) | 1 | | | | |
| (+) PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 67. | VG | Petal: color of stripes | | | | | |
| (+) | | (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 68. (+) | VG | Petal: color of margin (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |

TG/ONCID(proj.3) Oncidium, 2010-07-30 - 24 -

| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|--------------------|-----------|--|----------|---------|---------|---|---------------|
| 69. | VG | Petal: color of macule | | | | | |
| (+) | | (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 70. (*) (+) | VG/ MS | Lip: length | | | | | |
| QN | | short | | | | Dancing Sunlight 'Ami' | 1 |
| | | medium | | | | Makalii 'Gotoh' | 2 |
| | | long | | | | Ella 'Flambeau' | 3 |
| 71. (*) (+) | VG/ MS | Lip: width | | | | | |
| QN | | narrow | | | | Makalii 'Gotoh' 'Kaoli no Izumi' | 1 |
| | | medium | | | | Golden Sunset 'Taka' 'Monshirotyo no Cafe' | 2 |
| | | broad | | | | Ella 'Flambeau' | 3 |
| 72. (*) (+) | VG | Lip: size of lateral lobe in relation to apical lobe | | | | | |
| QN | | smaller | | | | Misaki Wave 'Yurara' 'Shimizu Prasol Papurikon' | 1 |
| | | same size | | | | Dancing Sunlight 'Ami' | 2 |
| | | larger | | | | 'Haruka' 'Only One' | 3 |
| 73. | VG | Lip: undulation of margin | | | | | |
| QN | | absent or weak | | | | Dancing Sunlight 'Ami' | 1 |
| | | moderate | | | | | 2 |
| | | strong | | | | | 3 |

TG/ONCID(proj.3) Oncidium, 2010-07-30 - 25 -

| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|-------------------|----|---|----------|---------|---------|--|---------------|
| 74. (*) (+) | VG | Apical lobe: shape | | | | | |
| PQ | | rhombic | | | | 'Only You' | 1 |
| | | circular | | | | | 2 |
| | | oblate | | | | Shangri la | 3 |
| | | flabellate | | | | 'Pink Sugar' 'Monshirotyo no Cafe' | 4 |
| | | obdeltate | | | | | 5 |
| 75. (*) (+) | VG | Apical lobe: indentation of apex | | | | | |
| QN | | absent or very weak | | | | 'Yasukasupa Akane' | 1 |
| | | weak | | | | Dancing Sunlight 'Ami' | 2 |
| | | medium | | | | 'Pink Sugar' 'Shimizu Prasol Papurikon' | 3 |
| | | strong | | | | 'Haruka' 'Yellow Days' | 4 |
| 76. (*) | VG | Apical lobe: curvature of longitudinal axis | | | | | |
| QN | 1 | incurving | | | | Mayfair 'Yellow Angel' 'Yellow Days' | 1 |
| | | straight | | | | 'Pink Sugar' 'Shimizu Prasol Papurikon' | 2 |
| | | recurving | | | | Kinsei 'Only You' | 3 |

| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|----------------|-----|--|----------|---------|---------|---|---------------|
| 77. | VG | Apical lobe: cross section | | | | | |
| QN | | concave | | | | 'Kaori no Izumi' | 1 |
| | | flat | | | | Kinsei 'Abe No.4' | 2 |
| | | convex | | | | 'Only You' | 3 |
| 78. (*) | VG | Apical lobe: ground color | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 79. | VG | Apical lobe: diffused | l | | | | |
| (+) | | (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 80. (+) | VG | Apical lobe: color of spots (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 81. | VG | Apical lobe: color of brindle | | | | | |
| (+) | | (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 82. | VG | Apical lobe: color of bands | | | | | |
| (+) | | (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 83. | VG | Apical lobe: color of margin | | | | | |
| (+) | | (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |

TG/ONCID(proj.3) Oncidium, 2010-07-30 - 27 -

| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note, Nota |
|----------------|-----|--|----------|---------|---------|---|---------------|
| 84. | VG | Lateral lobe: ground | l | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 85. (+) | VG | Lateral lobe: diffused over color (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 86. | VG | Lateral lobe: color | | | | | |
| (+) | | of spots (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 87. | VG | Lateral lobe: color | | | | | |
| (+) | | of brindle (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 88. | VG | Lateral lobe: color | | | | | |
| (+) | | of bands (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 89. | VG | Lateral lobe: color of margin | | | | | |
| (+) | | (if present) | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |

TG/ONCID(proj.3) Oncidium, 2010-07-30 - 28 -

| | | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|-----|----|---------------|----------|---------|---------|--|---------------|
| 90. | VG | Callus: color | | | | | |
| PQ | | 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.

Ground color is the color of the inner tissue layer, which in most case develops first.

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

- (a) Observations on pseudobulb should be made on the flowering pseudobulb.
- (b) Observations on leaf should be made on the longest leaf of a flowering pseudobulb.
- (c) Observations on the color of leaf should be made on the upper side, and on the sepal, petal, apical lobe of lip and lateral lobe of lip should be made on the inner side.

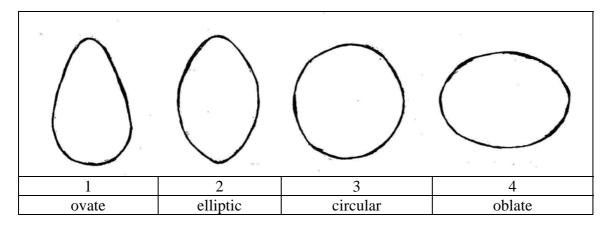
8.2 Explanations for individual characteristics

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

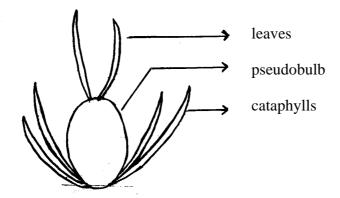
The shape in longitudinal section should be observed shape in longitudinal section of the most broad part of pseudobulb.



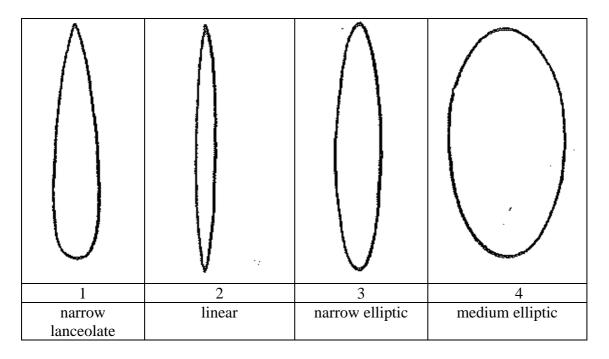
Ad. 5: Pseudobulb: shape in cross section

| 1 | 2 | 3 | 4 |
|--------|--------------|---------------|----------|
| linear | broad oblate | narrow oblate | circular |

Ad. 7: Pseudobulb: number of cataphylls
Ad. 8: Pseudobulb: number of leaves



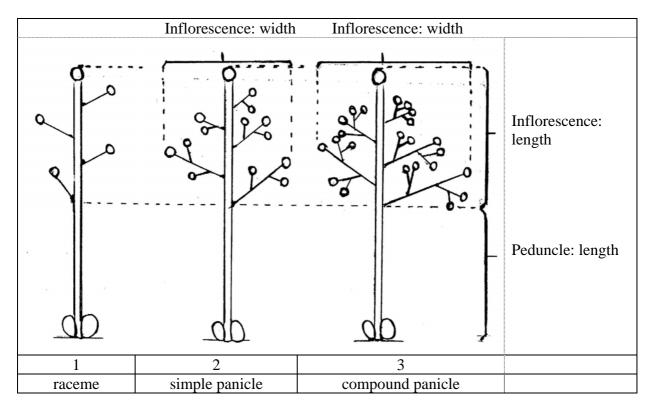
Ad. 11: Leaf: shape



Ad. 14: Inflorescence: type
Ad. 15: Inflorescence: length

Ad. 16: Excluding varieties with inflorescence: Inflorescence: width

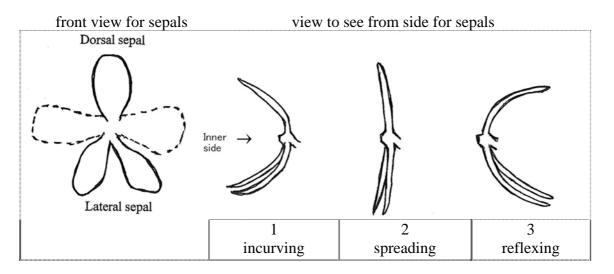
Ad. 18: Peduncle: length



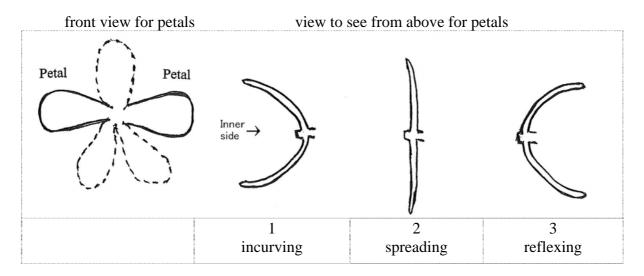
Ad. 20: Peduncle: anthocyanin coloration

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

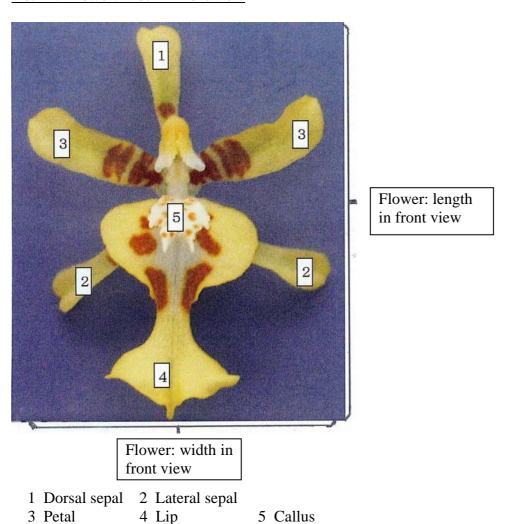
Ad. 21: Flower: general appearance of sepals



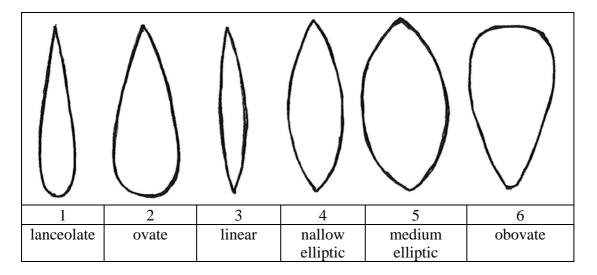
Ad. 22: Flower: general appearance of petals



Ad. 23: Flower: length in front view Ad. 24: Flower: width in front view



Ad. 28: Dorsal sepal: shape



Ad. 29: Dorsal sepal: curvature of longitudinal axis

Ad. 43: Lateral sepal: curvature of longitudinal axis

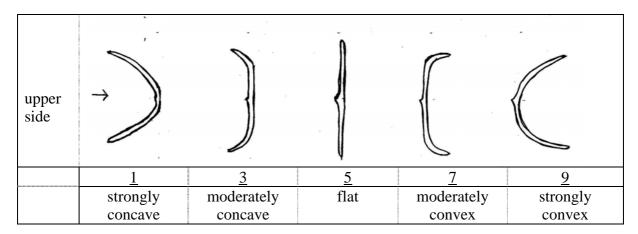
Ad. 58: Petal: curvature of longitudinal axis

| inner side | → () | | | | |
|---------------|--------------|------------|----------|------------|-----------|
| | 1 | 2 | 3 | 4 | 5 |
| | strongly | moderately | straight | moderately | strongly |
| | incurving | incurving | | recurving | recurving |

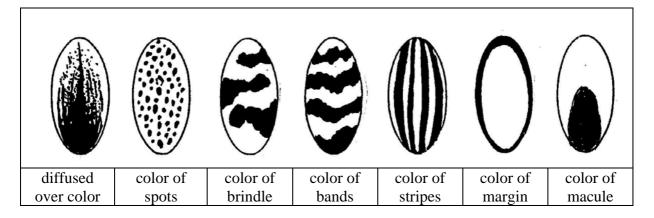
Ad. 30: Dorsal sepal: cross section

Ad. 44: Lateral sepal: cross section

Ad. 59: Petal: cross section



- Ad. 33: Dorsal sepal: diffused over color (if present)
- Ad. 34: Dorsal sepal: color of spots (if present)
- Ad. 35: Dorsal sepal: color of brindle (if present)
- Ad. 36: Dorsal sepal: color of bands (if present)
- Ad. 37: Dorsal sepal: color of stripes (if present)
- Ad. 38: Dorsal sepal: color of margin (if present)
- Ad. 39: Dorsal sepal: color of macule (if present)
- Ad. 48: Lateral sepal: diffused over color (if present)
- Ad. 49: Lateral sepal: color of spots (if present)
- Ad. 50: Lateral sepal: color of brindle (if present)
- Ad. 51: Lateral sepal: color of bands (if present)
- Ad. 52: Lateral sepal: color of stripes (if present)
- Ad. 53: Lateral sepal: color of margin (if present) Ad. 54: Lateral sepal: color of macule (if present)
- Ad. 63: Petal: diffused over color (if present)
- Ad. 64: Petal: color of spots (if present)
- Ad. 65: Petal: color of brindle (if present)
- Ad. 66: Petal: color of bands (if present)
- Ad. 67: Petal: color of stripes (if present)
- Ad. 68: Petal: color of margin (if present)
- Ad. 69: Petal: color of macule (if present)

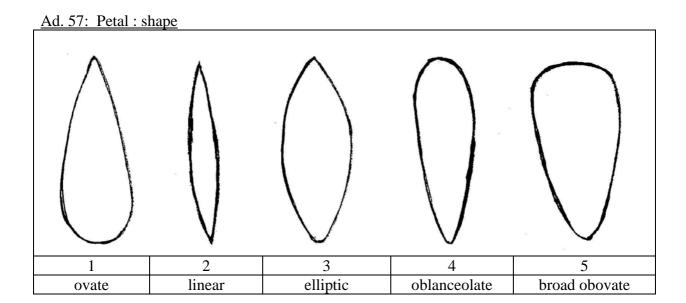


- Ad. 33: Dorsal sepal: diffused over color (if present)
- Ad. 48: Lateral sepal: diffused over color (if present)
- Ad. 63: Petal: diffused over color (if present)
- Ad. 79: Apical lobe: diffused over color (if present)
- Ad. 85: Lateral lobe: diffused over color (if present)

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

Ad. 42: Lateral sepal: shape

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



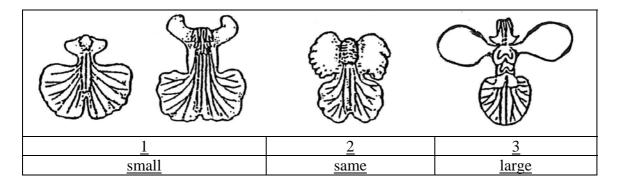
obovate

obovate

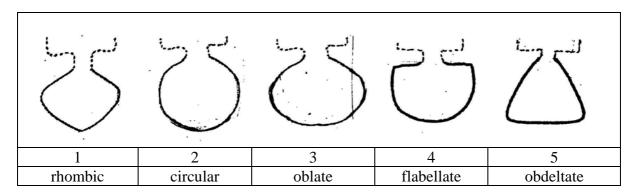
Ad. 71: Lip: width
lateral lobe apical lobe

Ad. 70: Lip: length

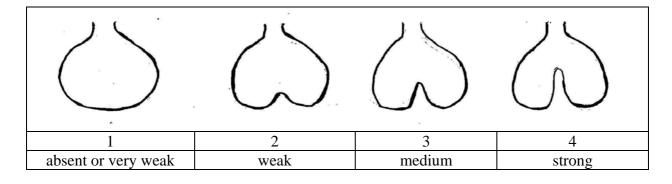
Ad. 72: Lip: size of lateral lobes in relation to apical lobe



Ad. 74: Apical lobe: shape



Ad. 75: Apical lobe: indentation of apex



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Ad. 79: Apical lobe: diffused over color (if present)

Ad. 80: Apical lobe: color of spots (if present)

Ad. 81: Apical lobe: color of brindle (if present)

Ad. 82: Apical lobe: color of bands (if present)

Ad. 83: Apical lobe: color of edge (if present)

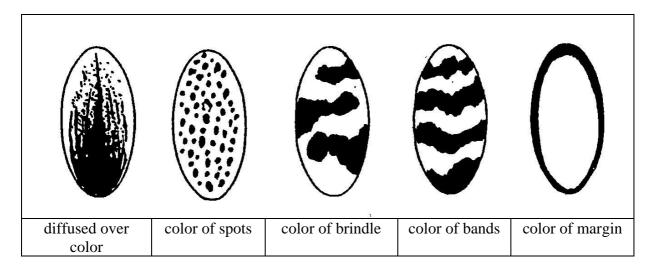
Ad. 85: Lateral lobe: diffused over color (if present)

Ad. 86: Lateral lobe: color of spots (if present)

Ad. 87: Lateral lobe: color of brindle (if present)

Ad. 88: Lateral lobe: color of bands (if present)

Ad. 89: Lateral lobe: color of edge (if present)



8.3 Explanation of the origin of example varieties

| No. | Denomination | GREX | Seed parent | Pollen parent |
|-----|--------------------------------|------------------|-------------|-------------------|
| 1 | Dancing Sunlight 'Suzy' | Dancing Sunlight | Cochlioda | Oncidium |
| 2 | Dancing Sunlight Ami | Dancing Sunlight | Cochlioda | Oncidium |
| 3 | Dancing Sunlight Nancy | Dancing Sunlight | Cochlioda | Oncidium |
| 4 | Ella 'Flambeau' | Ella | Gomesa | Oncidium |
| 5 | Fight Yuko' | | Oncidium | Oncidium |
| 6 | Haru Ichiban' | | Mutant of | f <i>Oncidium</i> |
| 7 | Haruka' | | Ionopsis | Oncidium |
| 8 | Kaori no Izumi' | | Oncidium | Oncidium |
| 9 | Kinsei 'Abe No.4' | Kinsei | Oncidium | Oncidium |
| 10 | Kukoo 'YMC-2' | Kukoo | Zelenkoa | Oncidium |
| 11 | Kurisu' | | Cochlioda | Oncidium |
| 12 | Makalii 'Gotoh' | Makalii | Oncidium | Oncidium |
| 13 | Mayfair 'Yellow Angel' | Mayfair | Oncidium | Cyrtocidium |
| 14 | Misaki Wave 'Yurara' | Misaki Wave | Cyrtocidium | Oncidium |
| 15 | Monshirotyo no Café' | | Oncidium | Oncidium |
| 16 | Morning Medley 'Sakurako' | Morning Medley | Cochlioda | Oncidium |
| 17 | Only One' | | Oncidium | Oncidium |
| 18 | Only You' | | Oncidium | Oncidium |
| 19 | Pink Sugar' | | Ionopsis | Oncidium |
| 20 | Poco-A-Poco Yellow' | | Oncidium | Ionopsis |
| 21 | Sakura no Sato' | | Ionopsis | Oncidium |
| 22 | Sang-Chan 'Nihao' | Sang Chan | Cyrtocidium | Cyrtochilum |
| 23 | Shell white' | | Cyrtocidium | Oncidium |
| 24 | Shimizu Parasol Papurikon' | | Oncidium | Oncidium |
| 25 | Sunlight Siesta 'Ota' | Sunlight Siesta | Cochlioda | Oncidium |
| 26 | Sunlight Siesta 'Ruru' | Sunlight Siesta | Cochlioda | Oncidium |
| 27 | Twinkle 'Fragrance Fantasy' | Twinkle | Oncidium | Oncidium |
| 28 | Yasukasupa Akane' | | Oncidium | Oncidium |
| 29 | Yasukasupa Koharu' | | Oncidium | Oncidium |
| 30 | Yasukasupa Komachi' | | Oncidium | Oncidium |
| 31 | Yellow Days' | | Mutant of | Oncidium |

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9. <u>Literature</u>

Karasawa, K., 1989: Orchid Atlas Volume 7. 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

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Yoneda, K., 2003: The Grand Dictionary of Flower Horticulture Volume 15 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. <u>Technical Questionnaire</u>

| 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 Ques | tionnaire(please indicat | te the relevant genus or hybrid) | | | |
| - | 1.1.1 Botanical name | ncidium SW. | | | | |
| - | 1.1.2 Common name | ncidium | [] | | | |
| - | 1.2.1 Botanical name hy | hybrid between <i>Oncidium</i> Sw. and <i>Cochlioda</i> Lindl. | | | | |
| - | 1.2.2 Common name | Oncidioda [] | | | | |
| 2. | Applicant | | | | | |
| I | Name | | | | | |
| 1 | Address | | | | | |
| | | | | | | |
| | | | | | | |
| ŗ | Telephone No. | | | | | |
|] | Fax No. | | | | | |
|] | E-mail address | | | | | |
|] | Breeder (if different from app | licant) | | | | |
| | | | | | | |

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| TEC | CHNICAL QUESTIONNAIR | RE | Page {x} of {y} | Reference Number: | |
|-----|--------------------------------------|-------|-------------------|-------------------|--|
| 3. | Proposed denomination and | d bro | eeder's reference | | |
| | Proposed denomination (if available) | | | | |
| | Breeder's reference | | | | |

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

| l.1.1 Crossi | ัทฐ | | |
|--------------|--|--------|--------------------------------|
| | (a) controlled cross (please state parent var | ietie | [] s) |
| (| female parent | X | () male parent |
| | (b) partially known cross (please state known par | rent | variety(ies)) |
| (| female parent | X | () male parent |
| | (c) unknown cross | | [] |
| 4.1.2 | Mutation (please state parent variety) | | [] |
| 4.1.3 | Discovery and development (please state where and when | ı dise | [] covered and how developed) |
| 4.1.4 | Other (please provide details) | | [] |

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

| TECHNICAL QU | ESTIONNAIRE | Page {x} of {y} | Reference Number: | |
|------------------|---------------------|-----------------|-------------------|---|
| 4.2 Method of pr | opagating the varie | ety | | |
| 4.2.1 V | egetative propagati | on | | |
| (a | a) cuttings | | [] | |
| (b | o) in vitro propag | ation | [] | |
| (0 | c) other (state me | thod) | [] | |
| | | | | |
| 4.2.2 | Seed | | [] | |
| 4.2.3 | Other | | [] | |
| | (please provide det | ails) | | - |
| | | | | |

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 (1) | Plant: size | | |
| | very small | | 1[] |
| | very small to small | | 2[] |
| | small | Twinkle 'Fragrance Fantasy' | 3[] |
| | small to medium | | 4[] |
| | medium | Kinsei 'Abe No.4' | 5[] |
| | medium to large | | 6[] |
| | large | 'Kurisu' | 7[] |
| | large to very large | | 8[] |
| | very large | | 9[] |
| 5.2 (24) | Flower: width in front view | | |
| | very narrow | | 1[] |
| | very narrow to narrow | | 2[] |
| | narrow | 'Kurisu' | 3[] |
| | narrow to medium | | 4[] |
| | medium | Golden Sunset 'Taka' | 5[] |
| | medium to broad | | 6[] |
| | broad | Ella 'Flambeau' | 7[] |
| | broad to very broad | | 8[] |
| | very broad | | 9[] |

| | Characteristics | Example Varieties | Note |
|-------------|---|-------------------|------|
| 5.3 (62) | Petal: ground color | | |
| | white | | 1[] |
| | yellow | | 2[] |
| | orange | | 3[] |
| | pink | | 4[] |
| | red | | 5[] |
| | violet | | 6[] |
| | brown | | 7[] |
| 5.4 (63) | Petal: diffused over color (if present) | | |
| | white | | 1[] |
| | yellow | | 2[] |
| | orange | | 3[] |
| | pink | | 4[] |
| | red | | 5[] |
| | violet | | 6[] |
| | brown | | 7[] |
| 5.5 (64) | Petal: color of spots | | |
| | white | | 1[] |
| | yellow | | 2[] |
| | orange | | 3[] |
| | pink | | 4[] |
| | red | | 5[] |
| | violet | | 6[] |
| | brown | | 7[] |

| | Characteristics | Example Varieties | Note |
|-------------|-------------------------|-------------------|------|
| 5.6 (65) | Petal: color of brindle | | |
| | white | | 1[] |
| | yellow | | 2[] |
| | orange | | 3[] |
| | pink | | 4[] |
| | red | | 5[] |
| | violet | | 6[] |
| | brown | | 7[] |
| 5.7 (66) | Petal: color of bands | | |
| | white | | 1[] |
| | yellow | | 2[] |
| | orange | | 3[] |
| | pink | | 4[] |
| | red | | 5[] |
| | violet | | 6[] |
| | brown | | 7[] |
| 5.8 (67) | Petal: color of stripes | | |
| | white | | 1[] |
| | yellow | | 2[] |
| | orange | | 3[] |
| | pink | | 4[] |
| | red | | 5[] |
| | violet | | 6[] |
| | brown | | 7[] |

| | Characteristics | Example Varieties | Note |
|--------------|---------------------------|-------------------|------|
| 5.9 (68) | Petal: color of margin | | |
| | white | | 1[] |
| | yellow | | 2[] |
| | orange | | 3[] |
| | pink | | 4[] |
| | red | | 5[] |
| | violet | | 6[] |
| | brown | | 7[] |
| 5.10 (69) | Petal: color of macule | | |
| | white | | 1[] |
| | yellow | | 2[] |
| | orange | | 3[] |
| | pink | | 4[] |
| | red | | 5[] |
| | violet | | 6[] |
| | brown | | 7[] |
| 5.11 (78) | Apical lobe: ground color | | |
| | white | | 1[] |
| | yellow | | 2[] |
| | orange | | 3[] |
| | pink | | 4[] |
| | red | | 5[] |
| | violet | | 6[] |
| | brown | | 7[] |

| TECHNICAL QUESTIONNAIRE | | Page {x} o | of {y} | Reference Nu | ımber: | |
|---|--|------------|--------|---|--|--|
| 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 | variety(ies) similar to which your candidate | | | the expression aracteristic(s) he similar hety(ies) | Describe the expression of the characteristic(s) for your candidate variety | |
| Example | Petal: ground color | | yellow | | white | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Comments: | | | | | | |

| TEC | HNICAL QUESTIONNAIRE | Pag | $e \{x\} of \{y\}$ | 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 condition | ns for | growing the varie | ety or conducting the examination? | | |
| | Yes [] | No | [] | | | |
| | (If yes, please provide details) | | | | | |
| 7.3 | Other information | | | | | |

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

Does the variety require prior authorization for release under legislation concerning

Yes [] No []

Authorization for release

8.

(b) Has such authorization been obtained?

Yes [] No []

the protection of the environment, human and animal health?

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

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

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| TECI | <u>HNICA</u> | L QUESTIONNAIRE | Page $\{x\}$ of $\{y\}$ | Reference N | umber: | |
|---|--|--------------------------|--------------------------|-------------|---------|--------|
| 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) l | Microorganisms (e.g. vir | us, bacteria, phytoplasi | na) | Yes [] | No [] |
| | (b) (| Chemical treatment (e.g. | growth retardant, pesti | cide) | Yes [] | No [] |
| | (c) | Tissue culture | | | Yes [] | No [] |
| | (d) (| Other factors | | | Yes [] | No [] |
| | Please provide details for where you have indicated "yes". | | | | | |
| | | | | | | |
| 9.3 Has the plant material to be examined been tested for the presence of virus or other pathogens? | | | | | | |
| Yes [] (please provide details as specified by the Authority) | | | | | | |
| | No [] | | | | | |
| 10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct: | | | | | | |
| | Applicant's name | | | | | |
| | Signati | ure | | Date [| | |

[End of document]