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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT

PHALAEOPSIS

(Phalaenopsis Blume)

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

Alternative Names: *

<i>Latin</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Phalaenopsis Blume</i>	Phalaenopsis	Phalaenopsis	Phalaenopsis	Phalaenopsis

ASSOCIATED DOCUMENTS

These guidelines should be read in conjunction with document TG/1/3, "General Introduction to the Examination of Distinctness, Uniformity and Stability and the Development of Harmonized Descriptions of New Varieties of Plants" (hereinafter referred to as 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 Guidelines

These Test Guidelines apply to all varieties of *Phalaenopsis* Blume 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 two -year old plants that have not previously flowered.

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

- (a) Vegetatively propagated varieties: 10 plants;
- (b) Seed-propagated varieties: 50 plants.

2.4 In the case of seed, the seed should meet the minimum requirements for germination, species and analytical purity, health and moisture content, specified by the competent authority. In cases where the seed is to be stored, the germination capacity should be as high as possible and should be stated by the applicant.

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

2.6 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 *Duration of Tests*

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

3.2 *Testing Place*

The tests should normally be conducted at one place. If any characteristics of the variety, which are relevant for the examination of DUS, cannot be seen at that place, the variety may be tested at an additional place.

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 It is recommended that the tests be conducted in a greenhouse under the following conditions:

Time of submission of plant material:	Second half of March (Northern hemisphere)
Planting:	April
Substrate:	Porous with good aeration Size of pot: medium
Optimum temperature:	21-30 °C
Fertilizer:	From April to July
High temperature treatment:	September to October: minimum temperature: 25 °C
Low temperature treatment : (flower differentiation)	November -December: night temperature: 18-25 °C day temperature: 25-28 °C
Shading:	Winter season: 30% Summer season: 60- 70% (Optimum: 15,000-30,000 lux)

3.3.3 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. de

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 10 plants.

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

Unless otherwise indicated, all observations determined by measuring or counting should be made on 10 plants or part taken from each of 10 plants.

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 minimum duration of tests recommended in section 3.1 reflects, in general, the need to ensure that any differences in a characteristic are sufficiently consistent.

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 Vegetatively propagated varieties: 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 10 plants, 1 off-type is allowed.

4.2.3. Seed-propagated varieties: for the assessment of uniformity of seed-propagated varieties, the recommendations in the General Introduction for cross-pollinated or hybrid varieties should be followed, as appropriate.

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 seed or plant stock to ensure that it exhibits the same characteristics as those shown by the previous materials 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 is 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 others 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 trials 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 19)
- (c) Petal: color pattern (characteristic 45)
- (d) Petal main color (characteristic 46) with the following groups:

- Gr.1: white
- Gr.2: yellow
- Gr.3: green
- Gr.4: orange
- Gr.5: pink
- 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*

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

6.4.2 The Table of Characteristics mainly contains species because of the small number of varieties currently in existence. All 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. 'Blushfull').

6.5 *Legend*

(*) Asterisked characteristic –see Section 6.1.2

QL Qualitative characteristic –see Section 6.3

QN Quantitative characteristic –see Section 6.3

PQ Pseudo-Qualitative characteristic –see Section 6.3

(a)-(d) See Explanations on the Table of Characteristics in Chapter 8, Section 8.1

(+) See Explanations on the Table of Characteristics in Chapter 8, Section 8.2

7. Table of Characteristics/Tableau des caractères/Merkmalstabelle/Tablades caracteres

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. (*)	Plant: size	Plante: taille	Pflanze: Größe	Planta: tamaño		
QN	very small	très petite	sehr klein	muy pequeña		1
	small	petite	klein	pequeña	CherrySong 'Doll'	3
	medium	moyenne	mittel	media	'Maihime'	5
	large	grande	groß	grande	Cygnus 'Renaissance'	7
	very large	très grande	sehr groß	muy grande		9
2. (*)	(a) Leaf: length	Feuille: longueur	Blatt: Länge	Hoja: longitud		
QN	short	courte	kurz	corta	CherrySong 'Doll'	3
	medium	moyenne	mittel	media		5
	long	longue	lang	larga		7
3. (*)	(a) Leaf: width	Feuille: largeur	Blatt: Breite	Hoja: anchura		
QN	narrow	étroite	schmal	estrecha	CherrySong 'Doll'	3
	medium	moyenne	mittel	media	'Maihime'	5
	broad	large	breit	ancha		7
4. (*)	(a) Leaf: shape	Feuille: forme	Blatt: Form	Hoja: forma		
PQ	linear	linéaire	linear	lineal		1
	narrow ovate	ovale étroite	schmaleiförmig	ovale estrecha	HappySheena 'Kirara'	2
	oblong	oblongue	rechteckig	oblonga	Cygnus 'Empire'	3
	narrow obovate	obovale étroite	schmal verkehrt eiförmig	obovale estrecha		4
5. (*)	(a) Leaf: shape of apex	Feuille: forme du sommet	Blatt: Form der Spitze	Hoja: forma del ápice		
PQ	acute	aigu	spitz	agudo	Cygnus 'Renaissance'	1
	obtuse	obtus	stumpf	obtuso	'Maihime'	2
	emarginate	émarginé	eingekerbt	emarginado	HappySheena 'Kirara'	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
6.	(a) Leaf: symmetry of apex	Feuille: symétrie du sommet	Blatt: Symmetrie der Spitze	Hoja: simetría del ápice		
QL	asymmetric	asymétrique	asymmetrisch	asimétrico		1
	symmetric	symétrique	symmetrisch	simétrico		2
7.	(a) Leaf: attitude	Feuille: port	Blatt: Haltung	Hoja: porte		
QN	semi-erect	demi-dressée	halbaufrecht	semierecta	Cygnus 'Renaissance'	3
	horizontal	horizontale	waagrecht	horizontal	'Maihime'	5
	semi-pendulous	demi-retombante	halbhängend	semicolgante	'OW Bonnie Vasquez'	7
8.	(a) Leaf: color of upper side	Feuille: couleur de la face supérieure	Blatt: Farbe der Oberseite	Hoja: color del haz		
PQ	yellowish green	vert jaunâtre	gelblich grün	verde amarillento	Kahori 'Cupid'	1
	light green	vert clair	hell grün	verde claro		2
	medium green	vert moyen	mittel grün	verde medio	Cygnus 'Renaissance'	3
	dark green	vert foncé	dunkel grün	verde oscuro	'Maihime'	4
9.	(a) Leaf: anthocyanin coloration	Feuille: pigmentation anthocyanique	Blatt: Anthocyanfärbung	Hoja: pigmentación antocianica		
QL	absent	absente	fehlend	ausente		1
	present	présente	vorhanden	presente		9
10.	(b) Inflorescence: type	Inflorescence: type	Blütenstand: Typ	Inflorescencia: tipo		
QL	solitary	unique	einzel	solitaria		1
	raceme	grappe	traubenartig	racimo	'Maihime'	2
	compound raceme	panicule	zusammengesetzt traubenartig	racimos compuestos	Cherry Song 'Doll'	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
11. (*) (+)	(b) Inflorescence: length (c)	Inflorescence: longueur	Blütenstand:Länge	Inflorescencia: longitud		
QN	short	courte	kurz	corta	ZumaAussieDelight 'ZC'	3
	medium	moyenne	mittel	media	BeautySheena 'Ran Ran'	5
	long	longue	lang	larga	EmotionalMoon 'Kinryu'	7
12. (*)	(b) Inflorescence: numberofflowers (c)	Inflorescence: nombredefleurs	Blütenstand:Anzahl Blüten	Inflorescencia: númerodeflores		
QN	few	rare	gering	bajo	Kahori'Cupid'	3
	medium	asseznombreuses	mittel	medio	CherrySong'Doll'	5
	many	nombreuses	groß	alto	'Toki no mai'	7
13. (*)	(b) Peduncle:length (c)	Pédoncule:longueur	Blütenstandstiel: Länge	Pedúnculo:longitud		
QN	short	court	kurz	corto	ZumaAussieDelight 'ZC'	3
	medium	moyen	mittel	medio	CherrySong'Doll'	5
	long	long	lang	largo	Cygnus'Renaissance'	7
14. (*)	(b) Peduncle:thickness (c)	Pédoncule: épaisseur	Blütenstandstiel: Dicke	Pedúnculo:grosor		
QN	thin	fin	dünn	delgado		3
	medium	moyen	mittel	medio	BeautySheena 'Ran Ran'	5
	thick	épais	dick	grueso	Cygnus'Renaissance'	7
15. (*)	(b) Peduncle: anthocyanin coloration (c)	Pédoncule: pigmentation anthocyanique	Blütenstandstiel: Anthocyanfärbung	Pedúnculo: pigmentación antociánica		
QL	absent	absente	fehlend	ausente		1
	present	présente	vorhanden	presente	CherrySong'Doll'	9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
16. (*)	(b) Flower: general impression of petals and sepals	Fleur: impression générale des pétales et sépales	Blüte: allgemeiner Eindruck der Blütenblätter und Kelchblätter	Flor: disposición general de los pétalos y los sépalos		
PQ	incurving	incurvés	aufgebogen	curvados hacia arriba		
	spreading	étalés	breitwüchsig	extendidos	Cygnus 'Renaissance'	2
	reflexing	réfléchis	zurückgebogen	curvados hacia abajo		3
17. (*)	(b) Flower: texture of the surface of sepals and petals	Fleur: texture de la surface des sépales et pétales	Blüte: Textur der Oberflächen der Kelchblätter und der Blütenblätter	Flor: textura de la superficie de los sépalos y los pétalos		
QL	smooth	lisse	glatt	lisa		1
	rough	rugueuse	rauh	rugosa		2
18. (*) (+)	(b) Flower: length in front view (c)	Fleur: longueur en vue de face	Blüte: Länge in der Vorderansicht	Flor: longitud en perspectiva frontal		
QN	short	courte	kurz	corta		3
	medium	moyenne	mittel	media	Zuma Aussie Delight 'ZC'	5
	long	longue	lang	larga	Cygnus 'Renaissance'	7
19. (*) (+)	(b) Flower: width in front view (c)	Fleur: largeur en vue de face	Blüte: Breite in der Vorderansicht	Flor: anchura en perspectiva frontal		
QN	narrow	étroite	schmal	estrecha		3
	medium	moyenne	mittel	media	Zuma Aussie Delight 'ZC'	5
	broad	large	breit	ancha	Cygnus 'Renaissance'	7
20. (*) (+)	(b) Flower: arrangement of petals	Fleur: disposition des pétales	Blüte: Anordnung der Blütenblätter	Flor: disposición de los pétalos		
QN	open	ouverts	offen	abierta		1
	touching	tangents	sich berührend	tocándose	Grace Palm 'Miwa'	2
	overlapping	chevauchants	überlappend	solapándose	Musashino Moon 'Ohgane No.4'	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
21.	(b) Flower: fragrance	Fleur:parfum	Blüte:Duft	Flor:fragancia		
QL	absent	absent	fehlend	ausente		1
	present	présent	vorhanden	presente	Cygnus‘Renaissance’	9
22.	(b) Sepal:shape	Sépale:forme	Kelchblatt:Form	Sépalo:forma		
(*)						
PQ	linear	linéaire	linear	lineal		1
	ovate	ovale	eiförmig	oval		2
	elliptic	elliptique	elliptisch	elíptica	Cygnus‘Renaissance’	3
	obovate	obovale	verkehreiförmig	oboval	‘OWBonnieVasquez’	4
	round	rond	rund	redonda		5
23.	(b) Sepal:length	Sépale:longueur	Kelchblatt:Länge	Sépalo:longitud		
(*)	(c)					
QN	short	court	kurz	corto	CherrySong‘Doll’	3
	medium	moyen	mittel	medio	ZumaAussieDelight ‘ZC’	5
	long	long	lang	largo	Cygnus‘Renaissance’	7
24.	(b) Sepal:width	Sépale:largeur	Kelchblatt:Breite	Sépalo:anchura		
(*)	(c)					
QN	narrow	étroit	schmal	estrecho		3
	medium	moyen	mittel	medio	ZumaAussieDelight ‘ZC’	5
	broad	large	breit	ancho	Cygnus‘Renaissance’	7
25.	(b) Sepal:curvature of longitudinalaxis	Sépale:courburede l’axelongitudinal	Kelchblatt:Biegung derLängsachse	Sépalo:curvatura delejlongitudinal		
(*)						
QN	incurving	incurvé	aufgebogen	curvadohaciaarriba	Cygnus‘Renaissance’	1
	straight	droit	gerade	plano	BeautyShe ena ‘Rin Rin’	2
	recurving	retombant	zurückgebogen	curvadohaciaabajo	ZumaAussieDelight ‘ZC’	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
26.	(b) Sepal: shape in cross section	Sépale: forme en section transversale	Kelchblatt: Form im Querschnitt	Sépalo: forma en sección transversal		
QN	concave	concave	konkav	cóncavo		1
	flat	plate	flach	plano	Zuma Aussie Delight 'ZC'	2
	convex	convexe	konvex	convexo	Cygnus 'Renaissance'	3
27.	(b) Sepal: twisting	Sépale: torsion	Kelchblatt: Drehung	Sépalo: torsión		
QL	absent	absente	fehlend	ausente		1
	present	présente	vorhanden	presente		9
28.	(b) Sepal: undulation of margin (*)	Sépale: ondulation du bord	Kelchblatt: Randwellung	Sépalo: ondulación del margen		
QL	absent	absente	fehlend	ausente		1
	present	présente	vorhanden	presente	Kenneth Schubert 'Marumi Blue'	9
29.	(b) Dorsal sepal: (*) (d) number of colors	Sépale dorsale: nombre de couleurs	Dorsales Kelchblatt: Anzahl Farben	Sépalo dorsal: número de colores		
QL	one	une	eine	uno	Cygnus 'Renaissance'	1
	two	deux	zwei	dos	Beauty Sheen a 'Ran Ran'	2
	three	trois	drei	tres	Zuma's Pixie 'Malibu'	3
	more than three	plus de trois	mehrs als drei	más de tres		4

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
30. (*)	(b) Dorsals epal: color pattern (d)	Sépaledorsal: répartition de la couleur	Dorsales Kelchblatt: Farbverteilung	Sépalo dorsal: distribución del color		
QL	even	unicolore	gleichmäßig	demismo color		1
	shaded	dégradée	schattiert	sombreado	BeautySheena 'Rin Rin'	2
	edged	bordée	gerändert	ribeteado	CherrySong 'Doll'	3
	striped	striée	gestreift	estriado		4
	netted	réticulée	netzartig	reticulado	HappySheena 'Koala'	5
	spotted	tachetée	fleckig	manchado	Carmen 'Himiko'	6
	shaded and striped	dégradée et striée	schattiert und gestreift	sombreado y estriado		7
	striped and spotted	striée et tachetée	gestreift und fleckig	estriado y manchado		8
	edged and striped	bordée et striée	gerändert und gestreift	ribeteado y estriado		9
31. (*)	(b) Dorsals epal: main color (d)	Sépaledorsal: couleur principale	Dorsales Kelchblatt: Hauptfarbe	Sépalo dorsal: color principal		
PQ	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indique el número de referencia)		
32. (*)	(b) Dorsal sepal: secondary color (d)	Sépaledorsal: couleur secondaire	Dorsales Kelchblatt: sekundäre Farbe	Sépalo dorsal: color secundario		
PQ	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indique el número de referencia)		
33. (*)	(b) Laterals epal: number of colors (d)	Sépale latéral: nombre de couleurs	Seitliches Kelchblatt: Anzahl Farben	Sépalo lateral: número de colores		
QL	one	une	eine	uno	Cygnus 'Renaissance'	1
	two	deux	zwei	dos	BeautySheena 'Ran Ran'	2
	three	trois	drei	tres	Zuma's Pixie 'Malibu'	3
	more than three	plus de trois	mehrs als drei	más de tres		4

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
34. (*)	(b) Laterals epal: color (d) pattern	Sépale latéral: répartition de la couleur	Seitliches Kelchblatt: Farbverteilung	Sépalo lateral: distribución del color		
QL	even	unicolore	gleichmäßig	del mismo color		1
	shaded	dégradée	schattiert	sombreado	Kahori 'Cupid'	2
	edged	bordée	gerändert	ribeteado	Cherry Song 'Doll'	3
	striped	striée	gestreift	estriado		4
	netted	réticulée	netzartig	reticulado	Happy Sheena 'Koala'	5
	spotted	tachetée	fleckig	manchado	Carmen 'Himiko'	6
	shaded and striped	dégradée et striée	schattiert und gestreift	sombreado y estriado		7
	shaded and netted	dégradée et réticulée	schattiert und netzartig	sombreado y reticulado		8
	shaded and spotted	dégradée et tachetée	schattiert und fleckig	sombreado y manchado		9
	striped and spotted	striée et tachetée	gestreift und fleckig	estriado y manchado		10
	edged and striped and spotted	bordée, striée et tachetée	gerändert und gestreift und fleckig	ribeteado, estriado y manchado		11
35. (*)	(b) Laterals epal: main color (d) color	Sépale latéral: couleur principale	Seitliches Kelchblatt: Hauptfarbe	Sépalo lateral: color principal		
PQ	RHSC colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indique el número de referencia)		
36. (*)	(b) Lateral sepal: secondary color (d) secondary color	Sépale latéral: couleur secondaire	Seitliches Kelchblatt: sekundäre Farbe	Sépalo lateral: color secundario		
PQ	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indique el número de referencia)		

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
37. (*)	(b) Petal:shape	Pétale:forme	Blütenblatt:Form	Pétalo:forma		
PQ	linear	linéaire	linear	lineal		1
	ovate	ovale	eiförmig	oval	CherrySong ‘Doll’	2
	elliptic	elliptique	elliptisch	elíptica		3
	obovate	obovale	verkehrteiförmig	oboval	‘SayakaSpringHeart’	4
	rhombic	losangique	rautenförmig	rómbica		5
	semi-circular	demi-arrondi	halbkreisförmig	semicircular	Cygnus ‘Renaissance’	6
38. (*)	(b) Petal:length	Pétale:longueur	Blütenblatt:Länge	Pétalo:longitud		
	(c)					
QN	short	court	kurz	corto	CherrySong ‘Doll’	3
	medium	moyen	mittel	medio	‘PuritiUman’	5
	long	long	lang	largo	Cygnus ‘Renaissance’	7
39. (*)	(b) Petal:width	Pétale:largeur	Blütenblatt:Breite	Pétalo:anchura		
	(c)					
QN	narrow	étroit	schmal	estrecho	CherrySong ‘Doll’	3
	medium	moyen	mittel	medio	‘Buraitohato’	5
	broad	large	breit	ancho	Cygnus ‘Renaissance’	7
40. (*)	(b) Petal:curvatureof longitudinalaxis	Pétale:courburede l’axelongitudinal	Blütenblatt:Biegung derLängsachse	Pétalo:curvatura delejlongitudinal		
QN	incurving	incurvé	aufgebogen	curvadohaciaarriba	BeautySheena ‘Ran Ran’	1
	straight	droit	gerade	recto	Cygnus ‘Renaissance’	2
	recurving	retombant	zurückgebogen	curvadohaciaabajo	ZumaAussieDelight ‘ZC’	3
41. (*)	(b) Petal:shape incross section	Pétale:formeen sectiontransversale	Blütenblatt:Form imQuerschnitt	Pétalo:formaen seccióntransversal		
QN	concave	concave	konkav	cóncavo		1
	flat	plat	flach	plano	ZumaAussieDelight ‘ZC’	2
	convex	convexe	konvex	convexo	Cygnus ‘Renaissance’	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
42.	(b) Petal: twisting	Pétale:torsion	Blütenblatt: Drehung	Pétalo:torsión		
QL	absent	absente	fehlend	ausente		1
	present	présente	vorhanden	presente	‘SawatdiiKha’	9
43.	(b) Petal:undulationof margin	Pétale:ondulation dubord	Blütenblatt: Randwellung	Pétalo:ondulación delmargen		
QL	absent	absente	fehlend	ausente		1
	present	présente	vorhanden	presente	ZumaAussieDelight ‘ZC’	9
44.	(b) Petal:numberof (*)(d) colors	Pétale:nombrede couleurs	Blütenblatt:Anzahl Farben	Pétalo:númerode colores		
QL	one	une	eine	uno	Cygnus‘Renaissance’	1
	two	deux	zwei	dos	CherrySong‘Doll’	2
	three	trois	drei	tres	‘Kyokomachi’	3
	morethanthree	plusdetrois	mehralsdrei	másdetres		4
45.	(b) Petal:color pattern (*)(d)	Pétale:répartition descouleurs	Blütenblatt: Farbverteilung	Pétalo:distribución delcolor		
QL	even	unicolore	gleichmäßig	delmismocolor		1
	shaded	dégradée	schattiert	sombreado	Kahori‘Cupid’	2
	edged	bordée	gerändert	ribeteado	CherrySong‘Doll’	3
	striped	striée	gestreift	estriado		4
	netted	réticulée	netzartig	reticulado	HappySheena‘Koala’	5
	spotted	tachetée	fleckig	manchado	Carmen‘Himiko’	6
	shaded andstriped	dégradéeetstriée	schattiertund gestreift	sombreadoyestriado		7
	shaded andspotted	dégradéeettachetée	schattiertundfleckig	sombreadoy manchado		8
	shaded and striped andspotted	dégradée,striéeet tachetée	schattiertund gestreiftundfleckig	sombreado,estriadoy manchado		9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
46. (*)	(b) Petal: main color (d)	Pétale: couleur principale	Blütenblatt: Hauptfarbe	Pétalo: color principal		
PQ	RHSColourChart (indicatereference number)	Code RHSdes couleurs(indiquerle numéroderéférence)	RHS-Farbkarte (Nummerangeben)	Cartadecolores RHS (indíqueseelnúmero dereferencia)		
47. (*)	(b) <u>Shadedvarieties</u> (d) <u>only: Petal: extent of shade</u>	<u>Variétésdégradées</u> <u>seulement:Pétale: étendueudégradé</u>	<u>Nurschattierte</u> <u>Sorten:Blütenblatt: Ausdehnungder Schattierung</u>	<u>Sólovariedades</u> <u>sombreadas:Péta lo: alcancedel sombreado</u>		
QN	small	petite	gering	pequeño		3
	medium	moyenne	mittel	medio		5
	large	grande	groß	grande		7
48. (*)	(b) Petal: secondary color (d)	Pétale: couleur secondaire	Blütenblatt: sekundäreFarbe	Pétalo: color secundario		
PQ	RHSColourChart (indicatereference number)	Code RHSdes couleurs(indiquerle numéroderéférence)	RHS-Farbkarte (Nummerangeben)	CartadecoloresRHS (indíqueseelnúmero dereferencia)		
49. (*)	(b) Lip: length of apical lobe (c) (+)	Labelle: longue ur dulobeapical	Lippe: Längedes apikalenLappens	Labio: longituddel lóbuloapical		
QN	short	court	kurz	corto	CherrySong ‘Doll’	3
	medium	moyen	mittel	medio	‘Maihime’	5
	long	long	lang	largo		7
50. (*)	(b) Lip: width of apical lobe (c) (+)	Labelle: largeurdu lobeapical	Lippe: Breitedes apikalenLappens	Labio: anchuradel lóbuloapical		
QN	narrow	étroit	schmal	estrecho	CherrySong ‘Doll’	3
	medium	moyen	mittel	medio	‘Maihime’	5
	broad	large	breit	ancho		7
51. (*)	(b) Lip: presence of whiskers	Labelle: présence de cirres	Lippe: Vorhandensein von Haaren	Labio: presencia de patillas		
QL	absent	absents	fehlend	ausentes	CherrySong ‘Doll’	1
	present	présents	vorhanden	presentes	Cygnus ‘Renaissance’	9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
52.	(b) Lip: length of whiskers relatively to length of apical lobe	Labelle: longueur des cirrès par rapport au lobe apical	Lippe: Längeder Haare im Verhältnis zur Länge des apikalen Lappens	Labio: longitudde las patillas en relación con la longitud del óbulo apical		
(+)						
QN	short	courts	kurz	cortas	‘Maihime’	3
	medium	moyens	mittel	medias	HappySheena ‘Koala’	5
	long	longs	lang	largas	Cygnus ‘Renaissance’	7
53.	(*) Lip: shape of apical lobe	Labelle: forme du lobe apical	Lippe: Formdes apikalen Lappens	Labio: fórmadel lóbulo apical		
PQ	obdeltoid	obdeltoïde	verkehrt-deltaförmig	obdeltoïde	Cygnus ‘Renaissance’	1
	ovate	ovale	eiförmig	oval		2
	elliptic	elliptique	elliptisch	elíptica	Carmen ‘Himiko’	3
	obovate	obovale	verkehrt-eiförmig	oboval	Kahori ‘Cupid’	4
	orbicular	orbiculaire	kreisförmig	orbical		5
	rhombic	losangique	rautenförmig	rómbica	‘SawatdiiCa’	6
	deltoid	deltoïde	deltaförmig	deltoïde		7
	semi-circular	demi-arrondi	halbkreisförmig	semicircular		8
54.	(b) Lip: bump and ridge on apical lobe	Labelle: bosset arêtes sur le lobe apical	Lippe: Höcker und Wulst am apikalen Lappen	Labio: chichón y cresta en el óbulo apical		
(+)						
QL	absent	absentes	fehlend	ausente		1
	present	présentes	vorhanden	presente	Goldiana ‘hagimoto’	9
55.	(*) Lip: type of shape of lateral lobe	Labelle: type de forme du lobe latéral	Lippe: Typ der Formdes Seitenlappens	Labio: tipo de forma del óbulo lateral		
(+)						
PQ	type I	type I	Typ I	tipo I	Zuma Aussie Delight ‘ZC’	1
	type II	type II	Typ II	tipo II	Carmen ‘Himiko’	2
	type III	type III	Typ III	tipo III	Cherry Song ‘Doll’	3
	type IV	type IV	Typ IV	tipo IV	Kahori ‘Cupid’	4
	type V	type V	Typ V	tipo V	Cygnus ‘Renaissance’	5

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
56. (*) (+)	(b) Lip: type of curvature of lateral lobe	Labelle: type de courbure du lobe latéral	Lippe: Typ der Biegung des Seitenlappens	Labio: tipo de curvatura del lóbulo lateral		
PQ	type I	type I	Typ I	tipo I	Cygnus 'Renaissance'	1
	type II	type II	Typ II	tipo II	Cherry Song 'Doll'	2
	type III	type III	Typ III	tipo III		3
57. (*)	(b) Lip: size of lateral lobe relative to apical lobe	Labelle: taille du lobe latéral par rapport au lobe apical	Lippe: Größe des Seitenlappens im Verhältnis zum apikalen Lappen	Labio: tamaño del lóbulo lateral en relación con el lóbulo apical		
QN	smaller	plus petit	kleiner	más pequeño	Cherry Song 'Doll'	3
	same	identique	gleich groß	del mismo tamaño	Beauty Sheena 'Ran Ran'	5
	larger	plus grand	größer	más grande	Cygnus 'Renaissance'	7
58. (*) (d)	Lip: number of colors	Labelle: nombre de couleurs	Lippe: Anzahl Farben	Labio: número de colores		
QL	one	une	eine	uno		1
	two	deux	zwei	dos		2
	three	trois	drei	tres		3
	more than three	plus de trois	mehrs als drei	más de tres		4
59. (*) (d)	Lip: color pattern of apical lobe	Labelle: répartition de la couleur du lobe apical	Lippe: Farbverteilung des apikalen Lappens	Labio: distribución del color en el lóbulo apical		
QL	even	unicolore	gleichmäßig	del mismo color		1
	shaded	dégradée	schattiert	sombreado	Kahori 'Cupid'	2
	edged	bordée	gerändert	ribeteado	'OW Bonnie Vasquez'	3
	striped	striée	gestreift	estriado	Happy Sheena 'Koala'	4
	netted	réticulée	netzartig	reticulado		5
	spotted	tachetée	fleckig	manchado		6

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
60. (*)	(b) Lip: main color of apical lobe (d)	Labelle: couleur principale du lobe apical	Lippe: Hauptfarbe des apikalen Lappens	Labio: color principal en el lóbulo apical		
PQ	RHSColourChart (indicator reference number)	Code RHSdes couleurs(indiquer le numéro de référence)	RHS-Farbkarte (Nummerangeben)	Carta de colores RHS (indique el número de referencia)		
61. (*)	(b) Lip: color of pattern of apical lobe (d)	Labelle: couleur du motif du lobe apical	Lippe: Farbverteilung des apikalen Lappens	Labio: distribución del color en el lóbulo apical		
PQ	RHSColourChart (indicator reference number)	Code RHSdes couleurs(indiquer le numéro de référence)	RHS-Farbkarte (Nummerangeben)	Carta de colores RHS (indique el número de referencia)		
62. (*)	(b) Lip: color pattern of lateral lobe (d)	Labelle: répartition de la couleur du lobe latéral	Lippe: Farbverteilung des Seitenlappens	Labio: distribución del color en el lóbulo lateral		
QL	even	unicolore	gleichmäßig	del mismo color		1
	shaded	dégradée	schattiert	sombreado	Zuma Aussie Delight 'ZC'	2
	edged	bordée	gerändert	ribeteado		3
	striped	striée	gestreift	estriado	Carmen 'Himiko'	4
	netted	réticulée	netzartig	reticulado		5
	spotted	tachetée	fleckig	manchado	Beauty Sheena 'Ran Ran'	6
63. (*)	(b) Lip: main color of lateral lobe (d)	Labelle: couleur principale du lobe latéral	Lippe: Hauptfarbe des Seitenlappens	Labio: color principal del lóbulo lateral		
PQ	RHSColourChart (indicator reference number)	Code RHSdes couleurs(indiquer le numéro de référence)	RHS-Farbkarte (Nummerangeben)	Carta de colores RHS (indique el número de referencia)		
64. (*)	(b) Lip: color of pattern of lateral lobe (d)	Labelle: couleur du motif du lobe latéral	Lippe: Farbverteilung des Seitenlappens	Labio: distribución del color en el lóbulo lateral		
PQ	RHSColourChart (indicator reference number)	Code RHSdes couleurs(indiquer le numéro de référence)	RHS-Farbkarte (Nummerangeben)	Carta de colores RHS (indique el número de referencia)		

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
65. (b) Lip: callus		Labelle:callus	Lippe:Kallus	Labio:callo		
QL	prominent	proéminent	herausragend	prominente	Cygnus 'Renaissance'	1
	flat	plat	flach	plano	Zuma Aussie Delight 'ZC'	2
66. (b) Lip: pubescence		Labelle:pilosité	Lippe:Behaarung	Labio:pubescencia		
QL	absent	absente	fehlend	ausente	Cygnus 'Renaissance'	1
	present	présente	vorhanden	presente	Zuma's Pixie 'Malibu'	9
67. (b) Column: color of apex		Colonne:couleur du sommet	Säule:Farbe der Spitze	Columna:color del ápice		
(+)						
PQ	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indique el número de referencia)		

8. ExplanationsontheTableofCharacteristics

8.1 *Explanationscoveringseveralcharacteristics*

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

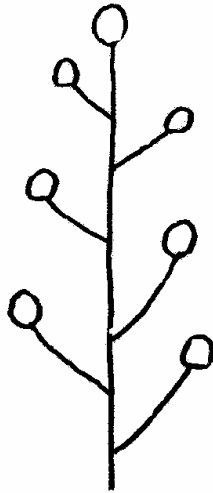
- (a) Observations on the leaf should be made on the longest leaf of a flowering plant.
- (b) Observations on the inflorescence and the flower should be made at the time when 50% of the flowers on the inflorescence have opened, on the most recently fully opened flower on the inflorescence before the color starts to fade.
- (c) Observations on the length and width of the flower and parts of the flower should be made on the unextended organ.
- (d) Observations on the color of the sepal, the petal and the lip should be made on the inside.

8.2 *Explanationforindividualcharacteristics*

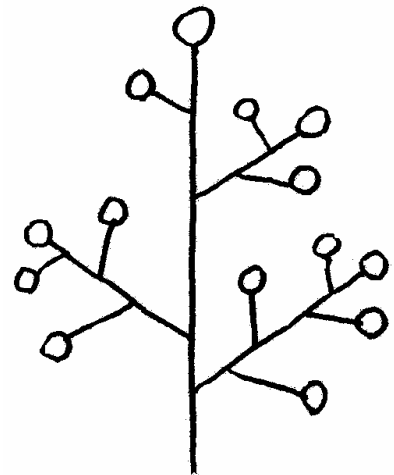
Ad.10:Inflorescence:type



1
solitary

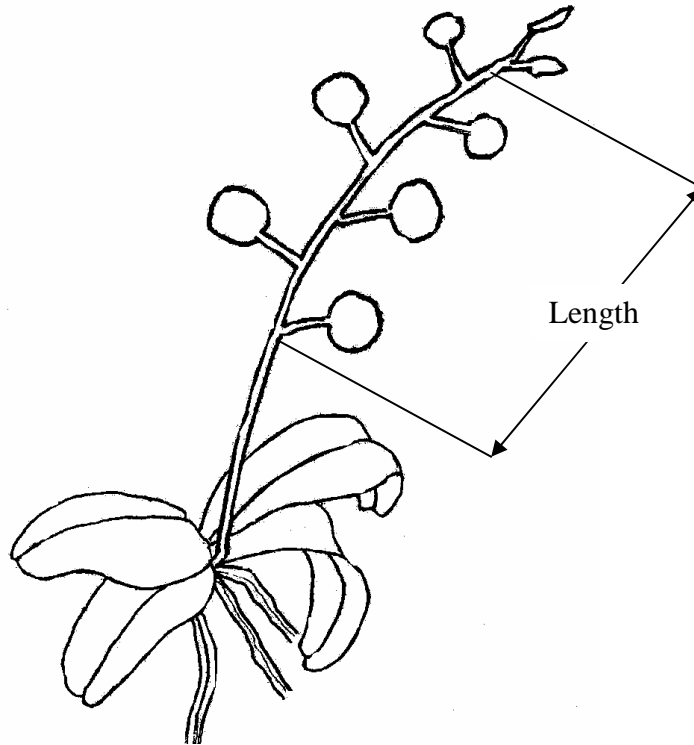


2
raceme



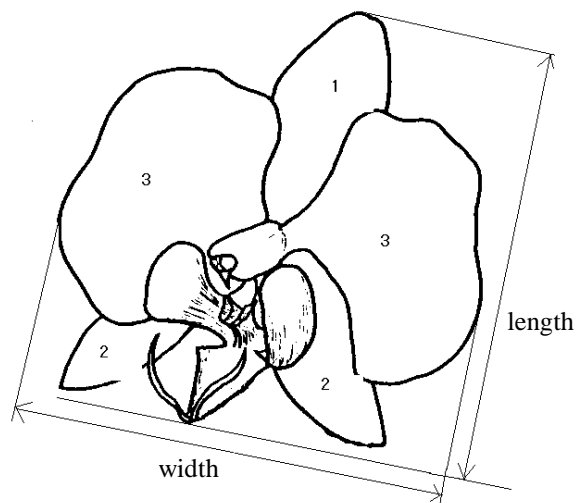
3
compoundraceme

Ad.11:Inflorescence:length

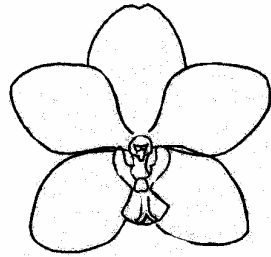


Ad.18 and 19: Flower: length in front view (18) and width in front view (19)

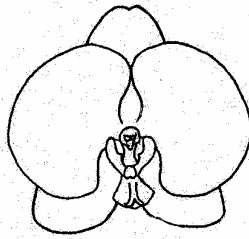
- 1: Dorsalsepal
- 2: Lateralsepal
- 3: Petal



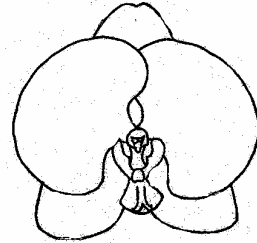
Ad.20:Flower:arrangementofpetals



1
open



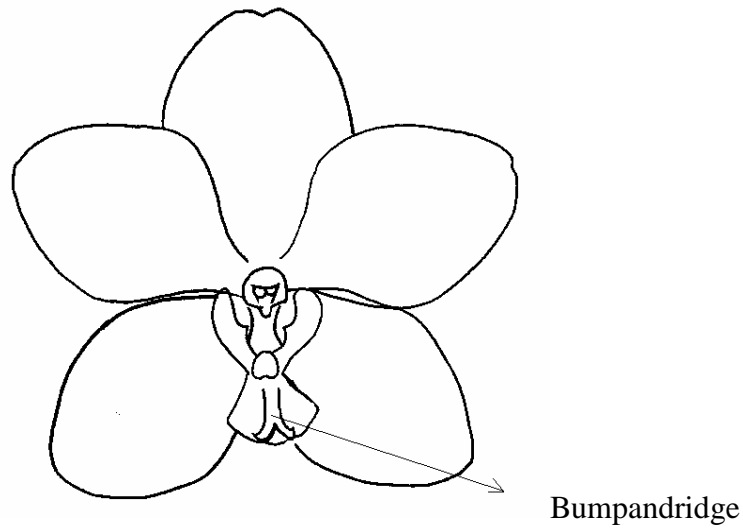
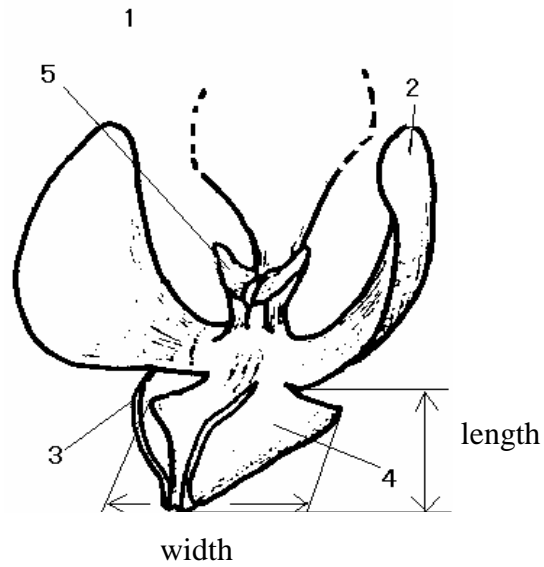
2
touching



3
overlapping

Ad. 49, 50, 52 and 54 : Lip: length of apical lobe (49), width of apical lobe (50), length of whiskers relative to length of apical lobe (52) and bump and ridge on apical lobe (54)

- 1: Column
- 2: Lip:lateral lobe
- 3: Lip:whiskers
- 4: Lip:apical lobe
- 5: Lip:callus



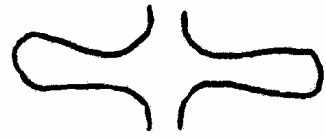
Ad.55: Lip: type of shape of lateral lobe



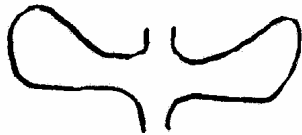
1
type I



2
type II



3
type III

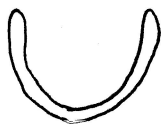


4
type IV



5
type V

Ad. 56: Lip: type of curvature of lateral lobe



1
type I



2
type II



3
type III

Ad.67: Column: color of apex

All observations on the color of the column should be made on the

dorsal side.

9. Literature

Karasawa,K.,1994: “OrchidAtlas ”,Vol.8VandaandPhalaenopsis,OrchidAtlasPublishing Society,c/oYasakaSyobo,Inc.,Tokyo,Japan .

Karasawa,K.,1996:“Orchids”,pp.510 -538,YamatoKeikokusha,Tokyo,Japan(Japanese).

“Encyclopedia of Horticulture”, Vol. 9, pp. 71-75, Seibun -Do Shinkosha, Tokyo, Japan (Japanese).

“The Grand Dictionary of Horticulture”, Vol. 5, pp. 483-491, Shougakukan, Tokyo, Japan (Japanese).

10. TechnicalQuestionnaire

TECHNICALQUESTIONNAIRE	Page{x}of{y}	ReferenceNumber:
		Applicationdate: (nottobefilledinbytheapplicant)
TECHNICALQUESTIONNAIRE tobecompletedinconnectionwithanapplicationforplantbreeders'rights		
1. SubjectoftheTechnicalQuestionnaire		
1.1 Genus		
1.1.1 <i>LatinName</i>	<input type="text" value="PhalaenopsisBlume"/>	
1.1.2 CommonName	<input type="text" value="Phalaenopsis"/>	
1.2 Species(pleasecomplete)		
1.2.1 <i>LatinName</i>	<input type="text"/>	
1.2.2 CommonName	<input type="text"/>	
2. Applicant		
Name	<input type="text"/>	
Address	<input type="text"/>	
TelephoneNo.	<input type="text"/>	
FaxNo.	<input type="text"/>	
E-mailaddress	<input type="text"/>	
Breeder(ifdifferentfromapplicant)	<input type="text"/>	

TECHNICALQUESTIONNAIRE	Page{x}of{y}	ReferenceNumber:
------------------------	--------------	------------------

3. Proposeddenomin ationandbreeder'sreference

Proposeddenomination
(ifavailable)

Breeder'sreference

4. Informationonthebreedingschemeandpropagationofthevariety

4.1 BreedingScheme

Varietyresultingfrom:

4.1.1 Crossing

(a) controlledcross
(pleasestateparentvarieties)

(b) partiallyunknowncross
(pleasestateknownparentvariety(ies))

(c) totallyunknowncross

4.1.2 Mutation
(pleasestateparentvariety)

4.1.3 Discovery
(pleasestatewhere,w henandhowdeveloped)

4.1.4 Other
(pleaseprovidedetails)

4.2 MethodofPropagatingtheVariety

(a) cuttings

(b) *invitro* propagation

(c) other(statemethod)

TECHNICALQUESTIONNAIRE	Page{x}of{y}	ReferenceNumber:
------------------------	--------------	------------------

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)		
verysmall		1[]
small	CherrySong‘Doll’	3[]
medium	‘Maihime’	5[]
large	Cygnus‘Renaissance’	7[]
verylarge		9[]
5.2 Flower: width in front view (19)		
narrow		3[]
medium	ZumaAussieDelight‘ZC’	5[]
broad	Cygnus‘Renaissance’	7[]
5.3 Petal: color pattern (45)		
even		1[]
shaded	Kahori‘Cupid’	2[]
edged	CherrySong‘Doll’	3[]
striped		4[]
netted	HappySheena‘Koala’	5[]
spotted	Carmen‘Himiko’	6[]
shaded and striped		7[]
shaded and spotted		8[]
shaded and striped and spotted		9[]

TECHNICALQUESTIONNAIRE	Page {x} of {y}	ReferenceNumber:
------------------------	-----------------	------------------

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 Special conditions for the examination of the variety

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

Yes No

7.2.2 If yes, please give details:

7.3 Other information

A representative color photograph of the whole plant and one of the flower 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.

9. 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]