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UPOV

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT

MOKARA *

UPOV Code: MOKAR

Mokara

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from Singapore

to be considered by the Technical Committee at its forty-fifth session, to be held in Geneva from March 30 to April 1, 2009

Alternative Names: *

Botanical name	*English*	*French*	*German*	*Spanish*
Mokara Please note the below combinations for genus *Mokara* *Arachnis* x *Ascocentrum* x *Vanda;* *Ascocenda* (*Ascocentrum* x *Vanda*) x *Arachnis;* *Aranda* (*Arachnis* x *Vanda*) x *Ascocentrum;* *Ascorachnis* (*Ascocentrum* x *Arachnis*) x *Vanda;* *Ascocenda* x *Aranda; Ascocenda* x *Ascorachnis;* *Aranda* x *Ascorachnis* Selfing or sibing of *Mokara* *Mokara* x *Arachnis; Mokara* x *Ascocentrum;* *Mokara* x *Vanda; Mokara* x *Ascocenda;* *Mokara* x *Aranda; Mokara* x *Ascorachnis*	Mokara	Mokara	Mokara	Mokara

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

ASSOCIATED DOCUMENTS

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

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

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of artificial hybrid genus *Mokara*, of the family *Orchidaceae*. The genus *Mokara* is a manmade genus that consists of 3 natural genus combinations of (*Arachnis* x *Ascocentrum* x *Vanda*) in the parental background. *Mokara* can also have the combination make-up of following genera:

Ascocenda (*Ascocentrum* x *Vanda*) x *Arachnis*
Aranda (*Arachnis* x *Vanda*) x *Ascocentrum*
Ascorachnis (*Ascocentrum* x *Arachnis*) x *Vanda*
Ascocenda x *Aranda*
Ascocenda x *Ascorachnis*
Aranda x *Ascorachnis*
Mokara x *Arachnis*
Mokara x *Ascocentrum*
Mokara x *Vanda*
Mokara x *Ascocenda*
Mokara x *Aranda*
Mokara x *Ascorachnis*

Progeny resulting in the selfing or sibing of *Mokara* also applies to this test guideline. Selfings refers to a population resulting from the self pollination of the *Mokara* flowers of the same plant, while Siblings refers to a population resulting from the cross pollination of 2 different *Mokara* flowers of different or the same varieties.

GREX INFORMATION**:** For example, in the case of *Mokara* Chark Kuan ‘Orange’, the generic name is *Mokara*, the grex epithet is Chark Kuan, and the cultivar epithet is ‘Orange’. The grex epithet can be the name of a person; many orchids are named after the breeder, or other prominent people. Such a cultivar is the individual plant and all its vegetatively propagated progeny that are identical to it.

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 young plants that have produced the first inflorescence, but not flowered yet.

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

10 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 The optimum stage of development for the assessment of each characteristic is indicated by a number in the second column of the Table of Characteristics. The stages of development denoted by each number are described at the end of Chapter 8.

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

3.4 *Test Design*

3.4.1 Each test should be designed to result in a total of at least 10 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 *Number of Plants / Parts of Plants to be Examined*

Unless otherwise indicated, all observations should be made on 10 plants or parts 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 differences observed between varieties may be so clear that more than one growing cycle is not necessary. In addition, in some circumstances, the influence of the environment is not such that more than a single growing cycle is required to provide assurance that the differences observed between varieties are sufficiently consistent. One means of ensuring that a difference in a characteristic, observed in a growing trial, is sufficiently consistent is to examine the characteristic in at least two independent growing cycles.

4.1.3 Clear Differences

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

4.2 Uniformity

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

4.2.2 For the assessment of uniformity, a population standard of 1% with 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.

4.3 Stability

4.3.1 In practice, it is not usual to perform tests of stability that produce results as certain as those of the testing of distinctness and uniformity. However, experience has demonstrated that, for many types of variety, when a variety has been shown to be uniform, it can also be considered to be stable.

4.3.2 Where appropriate, or in cases of doubt, stability may be tested, either by growing a further generation, or by testing a new plant stock to ensure that it exhibits the same characteristics as those shown by the previous material supplied.

5. Grouping of Varieties and Organization of the Growing Trial

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

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

5.3 The following have been agreed as useful grouping characteristics:

(a) Plant: width (characteristic 1)
(b) Inflorescence: number of flowers (characteristic 9)
(c) Flower: length (characteristic 13)
(d) Flower: width (characteristic 14)
(e) Dorsal sepal: base color (characteristic 21)
(f) Lateral sepal: base color (characteristic 39)
(g) Petal: base color (characteristic 57)
(h) Lip: apical lobe: base color (characteristic 74)
(i) Lip: color of throat (characteristic 105)

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

6. Introduction to the Table of Characteristics

6.1 Categories of Characteristics

6.1.1 Standard Test Guidelines Characteristics

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

6.1.2 Asterisked Characteristics

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

6.2 States of Expression and Corresponding Notes

States of expression are given for each characteristic to define the characteristic and to harmonize descriptions. Each state of expression is allocated a corresponding numerical note for ease of recording of data and for the production and exchange of the description.

6.3 Types of Expression

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

6.4 Example Varieties

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

6.5 Legend

(*) 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

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

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

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
1. (*) (+)		**Plant: width**	**Plante : largeur**	**Pflanze: Breite**	**Planta: anchura**		
QN		narrow	étroite	schmal	estrecha	Bangkok Gold	3
		medium	moyenne	mittel	media	Chark Kuan 'Pink'	5
		broad	large	breit	ancha	Dear Heart	7
2.		**Leaf: attitude**	**Feuille : port**	**Blatt: Haltung**	**Hoja: porte**		
(+)							
QN	**(a)**	semi-erect	demi-dressé	halbaufrecht	semierecto	Sunkist	1
		horizontal	horizontal	waagerecht	horizontal	Chark Kuan 'Pink'	2
		semi-pendulous	demi-retrombant	halbhängend	semicolgante	Dear Heart	3
3. (*)		**Leaf: length**	**Feuille : longueur**	**Blatt: Länge**	**Hoja: longitud**		
QN	**(a)**	short	courte	kurz	corta	Bangkok Gold	3
		medium	moyenne	mittel	media	Khaw Phaik Suan	5
		long	longue	lang	larga	Dear Heart	7
4. (*) (+)		**Leaf: width**	**Feuille : largeur**	**Blatt: Breite**	**Hoja: anchura**		
QN	**(a)**	narrow	étroite	schmal	estrecha	Bangkok Gold	3
		medium	moyenne	mittel	media	Sunkist	5
		broad	large	breit	ancha	Dear Heart	7
5.	**VG**	**Leaf: emarginated tip**	**Feuille : pointe émarginée**	**Blatt: eingekerbte Spitze**	**Hoja: punta escotada**		
(+)							
QL	**(a)**	absent	absent	fehlend	ausente	Dinah Shore	1
		present	présent	vorhanden	presente	Bangkok Gold	9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
6. (*) (+)		**Leaf: folding**	**Feuille : pliure**	**Blatt: Faltung**	**Hoja: plegado**		
QN	**(a)**	weak	faible	gering	débil	Chark Kuan 'Pink'	3
		medium	moyenne	mittel	medio	Five Friendships Gold	5
		strong	forte	stark	fuerte	Chao Praya Gold	7
7.		**Leaf: intensity of green color of upper side**	**Feuille : intensité de la couleur verte de la face supérieure**	**Blatt: Intensität der Grünfärbung der Oberseite**	**Hoja: intensidad del color verde del haz**		
QN	**(a)**	light	claire	hell	claro	Singa Gold	3
		medium	moyenne	mittel	medio	Mak Chin On	5
		dark	foncée	dunkel	oscuro	Dinah Shore	7
8. (*) (+)		**Inflorescence: length of flowering part**	**Inflorescence : longueur de la partie en floraison**	**Blütenstand: Länge des blühenden Teils**	**Inflorescencia: longitud de la parte florecida**		
QN	**(b)**	short	courte	kurz	corta	Lions Gold	3
		medium	moyenne	mittel	media	Chao Praya Gold	5
		long	longue	lang	larga	Dear Heart	7
9. (*)		**Inflorescence: number of flowers**	**Inflorescence : nombre de fleurs**	**Blütenstand: Anzahl Blüten**	**Inflorescencia: número de flores**		
QN	**(b)**	few	faible	gering	bajo	Lions Gold	3
		medium	moyen	mittel	medio	Luenberger Gold, Singa Gold	5
		many	élevé	groß	alto	Dear Heart, Dinah Shore	7
10.		**Inflorescence: branching**	**Inflorescence : ramification**	**Blütenstand: Verzweigung**	**Inflorescencia: ramificación**		
QL	**(b)**	absent	absente	fehlend	ausente	Five Friendships Gold	1
		present	présente	vorhanden	presente	Dear Heart	9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
11. (*) (+)		**Peduncle: length**	**Pédoncule : longueur**	**Blütenstandsstiel: Länge**	**Pedúnculo: longitud**		
QN	**(b)**	short	court	kurz	corto	Margaret Thatcher	3
		medium	moyen	mittel	medio	Khaw Phaik Suan	5
		long	long	lang	largo	Dear Heart	7
12. (*)		**Pedicel: length**	**Pédicelle : longueur**	**Blütenstiel: Länge**	**Pedicelo: longitud**		
QN	**(b)**	short	court	kurz	corto	Margaret Thatcher	1
	(c)	medium	moyen	mittel	medio	Bangkok Gold	2
	(e)	long	long	lang	largo	Mak Chin On	3
13. (*) (+)		**Flower: length**	**Fleur : longueur**	**Blüte: Länge**	**Flor: longitud**		
QN	**(b)**	short	courte	kurz	corta	Margaret Thatcher	3
	(c)	medium	moyenne	mittel	media	Bangkok Gold	5
		long	longue	lang	larga	Mak Chin On	7
14. (*) (+)		**Flower: width**	**Fleur : largeur**	**Blüte: Breite**	**Flor: anchura**		
QN	**(b)**	narrow	étroite	schmal	estrecha	Margaret Thatcher	3
	(c)	medium	moyenne	mittel	media	Khaw Phaik Suan	5
		broad	large	breit	ancha	Chark Kuan ‘Pink’	7
15.		**Flower: fragrance**	**Fleur : parfum**	**Blüte: Duft**	**Flor: fragancia**		
QL	**(b)**	absent	absent	fehlend	ausente	Singa Gold	1
		present	présent	vorhanden	presente	Lions Gold	9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
16.		**Dorsal sepal: curvature in longitudinal axis**	**Sépale dorsal : courbure de l'axe longitudinal**	**Dorsales Kelchblatt: Biegung in der Längsachse**	**Sépalo dorsal: curvatura en el eje longitudinal**		
QN	**(b)**	strongly concave	fortement concave	stark konkav	fuertemente cóncavo	Willie How	1
	(e)	weakly concave	faiblement concave	schwach konkav	débilmente cóncavo	Sunkist	3
		straight	droit	gerade	recto	Singa Gold	5
		weakly convex	faiblement convexe	schwach konvex	débilmente convexo	Red	7
		strongly convex	fortement convexe	stark konvex	fuertemente convexo		9
17.		**Dorsal sepal: curvature in cross section**	**Sépale dorsal : courbure en section transversale**	**Dorsales Kelchblatt: Biegung im Querschnitt**	**Sépalo dorsal: curvatura en sección transversal**		
QN	**(b)**	strongly concave	fortement concave	stark konkav	fuertemente cóncavo		1
	(f)	weakly concave	faiblement concave	schwach konkav	débilmente cóncavo		3
		straight	droit	gerade	recto	Chao Praya Gold	5
		weakly convex	faiblement convexe	schwach konvex	débilmente convexo	Red	7
		strongly convex	fortement convexe	stark konvex	fuertemente convexo	Khaw Phaik Suan	9
18. (*)		**Dorsal sepal: length**	**Sépale dorsal : longueur**	**Dorsales Kelchblatt: Länge**	**Sépalo dorsal: longitud**		
QN	**(b)**	short	court	kurz	corto	Margaret Thatcher	1
	(c)	medium	moyen	mittel	medio	Khaw Phaik Suan	2
	(g)	long	long	lang	largo	Chark Kuan 'Pink'	3
19. (*)		**Dorsal sepal: width**	**Sépale dorsal : largeur**	**Dorsales Kelchblatt: Breite**	**Sépalo dorsal: anchura**		
QN	**(b)**	narrow	étroit	schmal	estrecho	Margaret Thatcher	1
	(c)	medium	moyen	mittel	medio	Khaw Phaik Suan	2
	(g)	broad	large	breit	ancho	Chark Kuan 'Pink'	3

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
20. (*)		**Dorsal sepal: shape**	**Sépale dorsal : forme**	**Dorsales Kelchblatt: Form**	**Sépalo dorsal: forma**		
PQ	**(b)**	narrow obovate	obovale étroit	schmal verkehrt eiförmig	obovado estrecho	Luenberger Gold	1
	(h)	medium obovate	obovale moyen	mittel verkehrt eiförmig	obovado medio	Dinah Shore	2
		broad obovate	obovale large	breit verkehrt eiförmig	obovado ancho	Five Friendships Gold	3
		spatulate	spatulé	spatelförmig	espatulado	Red	4
21. (*)		**Dorsal sepal: base color**	**Sépale dorsal : couleur de base**	**Dorsales Kelchblatt: Grundfarbe**	**Sépalo dorsal: color de la base**		
PQ	**(b)** **(d)** **(i)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
22.		**Dorsal sepal: shading**	**Sépale dorsal : ombrage**	**Dorsales Kelchblatt: Schattierung**	**Sépalo dorsal: sombreado**		
QL	**(b)**	absent	absent	fehlend	ausente	Chao Praya Gold	1
	(d)	present	présent	vorhanden	presente	Lions Gold	9
23.		**Dorsal sepal: distribution of shade**	**Sépale dorsal : distribution de l'ombrage**	**Dorsales Kelchblatt: Ausdehnung der Schattierung**	**Sépalo dorsal: distribución del sombreado**		
QN	**(b)**	small	petite	klein	pequeño	Singa Gold	1
	(d)	medium	moyenne	mittel	medio	Five Friendships Gold	2
		large	grande	groß	grande	Lions Gold	3
24.		**Dorsal sepal: color of shade**	**Sépale dorsal : couleur de l'ombre**	**Dorsales Kelchblatt: Farbe der Schattierung**	**Sépalo dorsal: color del sombreado**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
25.		**Dorsal sepal: edging**	**Sépale dorsal : bord**	**Dorsales Kelchblatt: Rand**	**Sépalo dorsal: borde**		
QL	**(b)**	absent	absent	fehlend	ausente	Chao Praya Gold	1
	(d)	present	présent	vorhanden	presente		9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
26.		**Dorsal sepal: color of edging**	**Sépale dorsal : couleur du bord**	**Dorsales Kelchblatt: Farbe des Randes**	**Sépalo dorsal: color del borde**		
PQ	**(b)**	RHS Colour Chart	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
	(d)	(indicate reference number)					
27.		**Dorsal sepal: stripes**	**Sépale dorsal : stries**	**Dorsales Kelchblatt: Streifen**	**Sépalo dorsal: franjas**		
QL	**(b)**	absent	absentes	fehlend	ausentes	Chao Praya Gold	1
	(d)	present	présentes	vorhanden	presentes		9
28.		**Dorsal sepal: color of stripes**	**Sépale dorsal : couleur des stries**	**Dorsales Kelchblatt: Farbe der Streifen**	**Sépalo dorsal: color de las franjas**		
PQ	**(b)**	RHS Colour Chart	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
	(d)	(indicate reference number)					
29.		**Dorsal sepal: netting**	**Sépale dorsal : réticulation**	**Dorsales Kelchblatt: Netz**	**Sépalo dorsal: retícula**		
QL	**(b)**	absent	absente	fehlend	ausente	Chao Praya Gold	1
	(d)	present	présente	vorhanden	presente	Mak Chin On	9
30.		**Dorsal sepal: color of netting**	**Sépale dorsal : couleur de la réticulation**	**Dorsales Kelchblatt: Farbe des Netzes**	**Sépalo dorsal: color de retícula**		
PQ	**(b)**	RHS Colour Chart	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
	(d)	(indicate reference number)					
31.		**Dorsal sepal: spots**	**Sépale dorsal : taches**	**Dorsales Kelchblatt: Flecken**	**Sépalo dorsal: puntos**		
QL	**(b)**	absent	absentes	fehlend	ausentes	Chao Praya Gold	1
	(d)	present	présentes	vorhanden	presentes	Five Friendships Gold	9
32.		**Dorsal sepal: size of spots**	**Sépale dorsal : taille des taches**	**Dorsales Kelchblatt: Größe der Flecken**	**Sépalo dorsal: tamaño de los puntos**		
QN	**(b)**	small	petites	klein	pequeños	Luenberger Gold	1
	(d)	medium	moyennes	mittel	medios	Five Friendships Gold	2
		large	grandes	groß	grandes	Dinah Shore	3

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
33.		**Dorsal sepal: color of spots**	**Sépale dorsal : couleur des taches**	**Dorsales Kelchblatt: Farbe der Flecken**	**Sépalo dorsal: tamaño de los puntos**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
34.		**Lateral sepal: curvature in longitudinal axis**	**Sépale latéral : courbure de l'axe longitudinal**	**Seitliches Kelchblatt: Biegung in der Längsachse**	**Sépalo lateral: curvatura en el eje longitudinal**		
QN	**(b)**	strongly concave	fortement concave	stark konkav	fuertemente cóncavo	Willie How	1
	(e)	weakly concave	faiblement concave	schwach konkav	débilmente cóncavo	Dear Heart	3
		straight	droit	gerade	recto	Dinah Shore	5
		weakly convex	faiblement convexe	schwach konvex	débilmente convexo		7
		strongly convex	fortement convexe	stark konvex	fuertemente convexo		9
35.		**Lateral sepal: curvature in cross section**	**Sépale latéral : courbure en section transversale**	**Seitliches Kelchblatt: Biegung im Längsschnitt**	**Sépalo lateral: curvatura en sección transversal**		
QN	**(b)**	strongly concave	fortement concave	stark konkav	fuertemente cóncavo		1
	(f)	weakly concave	faiblement concave	schwach konkav	débilmente cóncavo		3
		straight	droit	gerade	recto		5
		weakly convex	faiblement convexe	schwach konvex	débilmente convexo	Dinah Shore	7
		strongly convex	fortement convexe	stark konvex	fuertemente convexo	Red	9
36. (*)		**Lateral sepal: length**	**Sépale latéral : longueur**	**Seitliches Kelchblatt: Länge**	**Sépalo lateral: longitud**		
QN	**(c)**	short	court	kurz	corto	Margaret Thatcher	1
	(d)	medium	moyen	mittel	medio	Mak Chin On	2
	(g)	long	long	lang	largo	Chark Kuan 'Pink'	3
37. (*) (+)		**Lateral sepal: width**	**Sépale latéral : largeur**	**Seitliches Kelchblatt: Breite**	**Sépalo lateral: anchura**		
QN	**(b)**	narrow	étroit	schmal	estrecho	Margaret Thatcher	1
	(c)	medium	moyen	mittel	medio	Mak Chin On	2
	(g)	broad	large	breit	ancho	Chark Kuan 'Pink'	3

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
38. (*) (+)		**Lateral sepal: shape**	**Sépale latéral : forme**	**Seitliches Kelchblatt: Form**	**Sépalo lateral: forma**		
PQ	**(b)**	elliptic	elliptique	elliptisch	elíptico		1
		narrow obovate	obovale étroit	schmal verkehrt eiförmig	obovado estrecho		2
		medium obovate	obovale moyen	mittel verkehrt eiförmig	obovado medio	Singa Gold	3
		broad obovate	obovale large	breit verkehrt eiförmig	obovado ancho	Five Friendships Gold	4
39. (*)		**Lateral sepal: base color**	**Sépale latéral : couleur de base**	**Seitliches Kelchblatt: Grundfarbe**	**Sépalo lateral: color de la base**		
PQ	**(b) (d) (i)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
40.		**Lateral sepal: shading**	**Sépale latéral : ombrage**	**Seitliches Kelchblatt: Schattierung**	**Sépalo lateral: sombreado**		
QL	**(b)**	absent	absent	fehlend	ausente	Chao Praya Gold	1
	(d)	present	présent	vorhanden	presente	Lions Gold	9
41.		**Lateral sepal: distribution of shade**	**Sépale latéral : distribution de l'ombre**	**Seitliches Kelchblatt: Ausdehnung der Schattierung**	**Sépalo lateral: distribución del sombreado**		
QN	**(b)**	small	petite	klein	pequeño	Singa Gold	1
	(d)	medium	moyenne	mittel	medio	Lions Gold	2
		large	large	groß	grande	Five Friendships Gold	3
42.		**Lateral sepal: color of shade**	**Sépale latéral : couleur de l'ombre**	**Seitliches Kelchblatt: Farbe der Schattierung**	**Sépalo lateral: color del sombreado**		
PQ	**(b) (d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
43.		**Lateral sepal: edging**	**Sépale latéral : bord**	**Seitliches Kelchblatt: Rand**	**Sépalo lateral: borde**		
QL	**(b)**	absent	absent	fehlend	ausente	Chao Praya Gold	1
	(d)	present	présent	vorhanden	presente		9
44.		**Lateral sepal: color of edging**	**Sépale latéral : couleur du bord**	**Seitliches Kelchblatt: Farbe des Randes**	**Sépalo lateral: color del borde**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
45.		**Lateral sepal: stripes**	**Sépale latéral : stries**	**Seitliches Kelchblatt: Streifen**	**Sépalo lateral: franjas**		
QL	**(b)**	absent	absentes	fehlend	ausentes	Chao Praya Gold	1
	(d)	present	présentes	vorhanden	presentes		9
46.		**Lateral sepal: color of stripes**	**Sépale latéral : couleur des stries**	**Seitliches Kelchblatt: Farbe der Streifen**	**Sépalo lateral: color de las franjas**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
47.		**Lateral sepal: netting**	**Sépale latéral : réticulation**	**Seitliches Kelchblatt: Netz**	**Sépalo lateral: retícula**		
QL	**(b)**	absent	absente	fehlend	ausente	Chao Praya Gold	1
	(d)	present	présente	vorhanden	presente	Mak Chin On	9
48.		**Lateral sepal: color of netting**	**Sépale latéral : couleur de la réticulation**	**Seitliches Kelchblatt: Farbe des Netzes**	**Sépalo lateral: color de retícula**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
49.		**Lateral sepal: spots**	**Sépale latéral : taches**	**Seitliches Kelchblatt: Flecken**	**Sépalo lateral: puntos**		
QL	**(b)**	absent	absentes	fehlend	ausentes	Chao Praya Gold	1
	(d)	present	présentes	vorhanden	presentes	Five Friendships Gold	9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
50.		**Lateral sepal: size of spots**	**Sépale latéral : taille des taches**	**Seitliches Kelchblatt: Größe der Flecken**	**Sépalo lateral: tamaño de los puntos**		
QN	**(b)**	small	petites	klein	pequeños	Luenberger Gold	1
	(d)	medium	moyennes	mittel	medios	Five Friendships Gold	2
		large	grandes	groß	grandes	Dinah Shore	3
51.		**Lateral sepal: color of spots**	**Sépale latéral : couleur des taches**	**Seitliches Kelchblatt: Farbe der Flecken**	**Sépalo lateral: color de los puntos**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
52.		**Petal: curvature in longitudinal axis**	**Pétale : courbure de l'axe longitudinal**	**Blütenblatt: Biegung in der Längsachse**	**Pétalo: curvatura en el eje longitudinal**		
QN	**(b)**	strongly concave	fortement concave	stark konkav	fuertemente cóncavo		1
	(e)	weakly concave	faiblement concave	schwach konkav	débilmente cóncavo	Sunkist	3
		straight	droit	gerade	recto	Singa Gold	5
		weakly convex	faiblement convexe	schwach konvex	débilmente convexo	Dinah Shore	7
		strongly convex	fortement convexe	stark konvex	fuertemente convexo		9
53.		**Petal: curvature in cross section**	**Pétale : courbure en section transversale**	**Blütenblatt: Biegung im Querschnitt**	**Pétalo: curvatura en sección transversal**		
QN	**(b)**	strongly concave	fortement concave	stark konkav	fuertemente cóncavo		1
	(f)	weakly concave	faiblement concave	schwach konkav	débilmente cóncavo		3
		straight	droit	gerade	recto	Singa Gold	5
		weakly convex	faiblement convexe	schwach konvex	débilmente convexo	Dinah Shore	7
		strongly convex	fortement convexe	stark konvex	fuertemente convexo		9
54. **(*)** **(+)**		**Petal: length**	**Pétale : longueur**	**Blütenblatt: Länge**	**Pétalo: longitud**		
QN	**(b)**	short	court	kurz	corto	Margaret Thatcher	3
	(d)	medium	moyen	mittel	medio	Luenberger Gold	5
	(g)	long	long	lang	largo	Chark Kuan 'Pink'	7

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
55. (*) (+)		**Petal: width**	**Pétale : largeur**	**Blütenblatt: Breite**	**Pétalo: anchura**		
QN	**(g)**	narrow	étroit	schmal	estrecho	Margaret Thatcher	1
		medium	moyen	mittel	medio	Luenberger Gold	2
		broad	large	breit	ancho	Chark Kuan 'Pink'	3
56. (*)		**Petal: shape**	**Pétale : forme**	**Blütenblatt: Form**	**Pétalo: forma**		
PQ	**(b)**	narrow obovate	obovale étroit	schmal verkehrt eiförmig	obovado estrecho		1
	(h)	medium obovate	obovale moyen	mittel verkehrt eiförmig	obovado medio	Chark Kuan 'Pink'	2
		broad obovate	obovale large	breit verkehrt eiförmig	obovado ancho	Five Friendships Gold	3
		spatulate	spatulé	spatelförmig	espatulado	Lions Gold	4
57. (*)		**Petal: base color**	**Pétale : couleur de base**	**Blütenblatt: Grundfarbe**	**Pétalo: color de la base**		
PQ	**(b) (d) (i)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
58.		**Petal: shading**	**Pétale : ombrage**	**Blütenblatt: Schattierung**	**Pétalo: sombreado**		
QL	**(b)**	absent	absent	fehlend	ausente	Chao Praya Gold	1
	(d)	present	présent	vorhanden	presente	Lions Gold	9
59.		**Petal: distribution of shade**	**Pétale : distribution de l'ombre**	**Blütenblatt: Ausdehnung der Schattierung**	**Pétalo: distribución del sombreado**		
QN	**(b)**	small	petite	klein	pequeño	Singa Gold	1
	(d)	medium	moyenne	mittel	medio	Sunkist	2
		large	grande	groß	grande	Lions Gold	3
60.		**Petal: color of shade**	**Pétale : couleur de l'ombre**	**Blütenblatt: Farbe der Schattierung**	**Pétalo: color del sombreado**		
PQ	**(b) (d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
61.		**Petal: edging**	**Pétale : bord**	**Blütenblatt: Rand**	**Pétalo: borde**		
QL	**(b)**	absent	absent	fehlend	ausente	Chao Praya Gold	1
	(d)	present	présent	vorhanden	presente		9
62.		**Petal: color of edging**	**Pétale : couleur du bord**	**Blütenblatt: Farbe des Randes**	**Pétalo: color del borde**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
63.		**Petal: stripes**	**Pétale : stries**	**Blütenblatt: Streifen**	**Pétalo: franjas**		
QL	**(b)**	absent	absentes	fehlend	ausentes	Chao Praya Gold	1
	(d)	present	présentes	vorhanden	presentes		9
64.		**Petal: color of stripes**	**Pétale : couleur des stries**	**Blütenblatt: Farbe der Streifen**	**Pétalo: color de las franjas**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
65.		**Petal: netting**	**Pétale : réticulation**	**Blütenblatt: Netz**	**Pétalo: retícula**		
QL	**(b)**	absent	absente	fehlend	ausente	Chao Praya Gold	1
	(d)	present	présente	vorhanden	presente	Mak Chin On	9
66.		**Petal: color of netting**	**Pétale : couleur de la réticulation**	**Blütenblatt: Farbe des Netzes**	**Pétalo: color de retícula**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
67.		**Petal: spots**	**Pétale : taches**	**Blütenblatt: Flecken**	**Pétalo: puntos**		
QL	**(b)**	absent	absentes	fehlend	ausentes	Chao Praya Gold	1
	(d)	present	présentes	vorhanden	presentes	Five Friendships Gold	9
68.		**Petal: size of spots**	**Pétale : taille des taches**	**Blütenblatt: Größe der Flecken**	**Pétalo: tamaño de los puntos**		
QN	**(b)**	small	petite	klein	pequeños	Luenberger Gold	1
	(d)	medium	moyenne	mittel	medios	Five Friendships Gold	2
		large	grande	groß	grandes	Dinah Shore	3

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
69.		**Petal: color of spots**	**Pétale : couleur des taches**	**Blütenblatt: Farbe der Flecken**	**Pétalo: color de los puntos**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
70. **(*)** **(+)**		**Lip: length of apical lobe**	**Labelle : longueur du lobe apical**	**Lippe: Länge des apikalen Lappens**	**Labio: longitud del lóbulo apical**		
QN	**(b)**	short	court	kurz	corto	Dinah Shore	1
	(c)	medium	moyen	mittel	medio	Khaw Phaik Suan	2
		long	long	lang	largo	Chark Kuan 'Pink'	3
71. **(*)** **(+)**		**Lip: width of apical lobe**	**Labelle : largeur du lobe apical**	**Lippe: Breite des apikalen Lappens**	**Labio: anchura del lóbulo apical**		
QN	**(b)**	narrow	étroite	schmal	estrecho	Singa Gold	1
	(c)	medium	moyenne	mittel	medio	Chark Kuan 'Pink'	2
		broad	large	breit	ancho	Lions Gold	3
72. **(*)** **(+)**		**Lip: apical lobe: lobing of apex**	**Labelle : lobe apical : découpure du sommet**	**Lippe: apikaler Lappen: Lappung der Spitze**	**Labio: lóbulo apical: lobulado del ápice**		
QL	**(b)**	absent	absente	fehlend	ausente	Dinah Shore	1
		present	présente	vorhanden	presente	Chark Kuan 'Pink'	9
73. **(+)**		**Lip: apical lobe: protrusion on ventral side**	**Labelle : lobe apical: protrusion sur la face ventrale**	**Lippe: apikaler Lappen: Hervor-stehen an der Bauchseite**	**Labio: lóbulo apical: protrusión en el lado ventral**		
QN	**(b)**	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Khaw Phaik Suan	1
		weak	faible	gering	débil	Dinah Shore	2
		strong	forte	stark	fuerte	Chark Kuan 'Pink'	3
74. **(*)**		**Lip: apical lobe: base color**	**Labelle : lobe apical : couleur de base**	**Lippe: apikaler Lappen: Grundfarbe**	**Labio: lóbulo apical: color de la base**		
PQ	**(b)** **(d)** **(i)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
75.		**Lip: apical lobe: shading**	**Labelle : lobe apical : ombrage**	**Lippe: apikaler Lappen: Schattierung**	**Labio: lóbulo apical: sombreado**		
QL	**(b)**	absent	absent	fehlend	ausente	Chao Praya Gold	1
	(d)	present	présent	vorhanden	presente	Five Friendships Gold	9
76.		**Lip: apical lobe: distribution of shade**	**Labelle : lobe apical : distribution de l'ombre**	**Lippe: apikaler Lappen: Ausdehnung der Schattierung**	**Labio: lóbulo apical: distribución del sombreado**		
QN	**(b)**	small	petite	klein	pequeño		1
	(d)	medium	moyenne	mittel	medio	Five Friendships Gold	2
		large	large	groß	grande	Lions Gold	3
77.		**Lip: apical lobe: color of shade**	**Labelle : lobe apical : couleur de l'ombre**	**Lippe: apikaler Lappen: Farbe der Schattens**	**Labio: lóbulo apical: color del sombreado**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
78.		**Lip: apical lobe: edging**	**Labelle : lobe apical : bord**	**Lippe: apikaler Lappen: Rand**	**Labio: lóbulo apical: borde**		
QL	**(b)**	absent	absent	fehlend	ausente	Chao Praya Gold	1
	(d)	present	présent	vorhanden	presente		9
79.		**Lip: apical lobe: color of edging**	**Labelle : lobe apical : couleur de l'ombre**	**Lippe: apikaler Lappen: Farbe des Randes**	**Labio: lóbulo apical: color del borde**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
80.		**Lip: apical lobe: stripes**	**Labelle : lobe apical : stries**	**Lippe: apikaler Lappen: Streifen**	**Labio: lóbulo apical: franjas**		
QL	**(b)**	absent	absentes	fehlend	ausentes	Chao Praya Gold	1
	(d)	present	présente	vorhanden	presentes	Lions Gold	9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
81.		**Lip: apical lobe: color of stripes**	**Labelle : lobe apical : couleur des stries**	**Lippe: apikaler Lappen: Farbe der Streifen**	**Labio: lóbulo apical: color de las franjas**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
82.		**Lip: apical lobe: netting**	**Labelle : lobe apical : réticulation**	**Lippe: apikaler Lappen: Netz**	**Labio: lóbulo apical: retícula**		
QL	**(b)**	absent	absente	fehlend	ausente	Chao Praya Gold	1
	(d)	present	présente	vorhanden	presente		9
83.		**Lip: apical lobe: color of netting**	**Labelle : lobe apical : couleur de la réticulation**	**Lippe: apikaler Lappen: Farbe des Netzes**	**Labio: lóbulo apical: color de retícula**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
84.		**Lip: apical lobe: spots**	**Labelle : lobe apical : taches**	**Lippe: apikaler Lappen: Flecken**	**Labio: lóbulo apical: puntos**		
QL	**(b)**	absent	absentes	fehlend	ausentes	Chao Praya Gold	1
	(d)	present	présentes	vorhanden	presentes		9
85.		**Lip: apical lobe: size of spots**	**Labelle : lobe apical : taille des taches**	**Lippe: apikaler Lappen: Größe der Flecken**	**Labio: lóbulo apical: tamaño de los puntos**		
QN	**(b)**	small	petites	klein	pequeños		1
	(d)	medium	moyennes	mittel	medios		2
		large	grandes	groß	grandes		3
86.		**Lip: apical lobe: color of spots**	**Labelle : lobe apical : couleur des taches**	**Lippe: apikaler Lappen: Farbe der Flecken**	**Labio: lóbulo apical: tamaño de los puntos**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
87. (*)		**Lip: lateral lobe: base color**	**Labelle : lobe latéral : couleur de base**	**Lippe: seitlicher Lappen: Grundfarbe**	**Labio: lóbulo lateral: color de la base**		
PQ	**(b)** **(d)** **(i)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
88.		**Lip: lateral lobe: shading**	**Labelle : lobe latéral : ombrage**	**Lippe: seitlicher Lappen: Schattierung**	**Labio: lóbulo lateral: sombreado**		
QL	**(b)**	absent	absent	fehlend	ausente	Chao Praya Gold	1
	(d)	present	présent	vorhanden	presente	Five Friendships Gold	9
89.		**Lip: lateral lobe: distribution of shade**	**Labelle : lobe latéral : distribution de l'ombre**	**Lippe: seitlicher Lappen: Ausdehnung des Schattens**	**Labio: lóbulo lateral: distribución del sombreado**		
QN	**(b)**	small	petite	klein	pequeño		1
	(d)	medium	moyenne	mittel	medio	Dinah Shore	2
		large	large	groß	grande	Five Friendships Gold	3
90.		**Lip: lateral lobe: color of shade**	**Labelle : lobe latéral : couleur de l'ombre**	**Lippe: seitlicher Lappen: Farbe der Schattierung**	**Labio: lóbulo lateral: color del sombreado**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
91.		**Lip: lateral lobe: edging**	**Labelle : lobe latéral : bord**	**Lippe: seitlicher Lappen: Rand**	**Labio: lóbulo lateral: borde**		
QL	**(b)**	absent	absent	fehlend	ausente	Chao Praya Gold	1
	(d)	present	présent	vorhanden	presente		9
92.		**Lip: lateral lobe: color of edging**	**Labelle : lobe latéral : couleur de l'ombre**	**Lippe: seitlicher Lappen: Farbe des Randes**	**Labio: lóbulo lateral: color del borde**		
PQ	**(b)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
93.		**Lip: lateral lobe: stripes**	**Labelle : lobe latéral : stries**	**Lippe: seitlicher Lappen: Streifen**	**Labio: lóbulo lateral: franjas**		
QL	**(b)**	absent	absentes	fehlend	ausentes	Chao Praya Gold	1
	(d)	present	présentes	vorhanden	presentes		9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
94.		**Lip: lateral lobe: color of stripes**	**Labelle : lobe latéral : couleur des stries**	**Lippe: seitlicher Lappen: Farbe der Streifen**	**Labio: lóbulo lateral: color de las franjas**		
PQ	**(b)**	RHS Colour Chart	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
	(d)	(indicate reference number)					
95.		**Lip: lateral lobe: netting**	**Labelle : lobe latéral : réticulation**	**Lippe: seitlicher Lappen: Netz**	**Labio: lóbulo lateral: retícula**		
QL	**(b)**	absent	absente	fehlend	ausente	Chao Praya Gold	1
	(d)	present	présente	vorhanden	presente		9
96.		**Lip: lateral lobe: color of netting**	**Labelle : lobe latéral : couleur de la réticulation**	**Lippe: seitlicher Lappen: Farbe des Netzes**	**Labio: lóbulo lateral: color de retícula**		
PQ	**(b)**	RHS Colour Chart	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
	(d)	(indicate reference number)					
97.		**Lip: lateral lobe: spots**	**Labelle : lobe latéral : taches**	**Lippe: seitlicher Lappen: Flecken**	**Labio: lóbulo lateral: puntos**		
QL	**(b)**	absent	absentes	fehlend	ausentes	Chao Praya Gold	1
	(d)	present	présentes	vorhanden	presentes	Chark Kuan ‘Pink’	9
98.		**Lip: lateral lobe: size of spots**	**Labelle : lobe latéral : taille des taches**	**Lippe: seitlicher Lappen: Größe der Flecken**	**Labio: lóbulo lateral: tamaño de los puntos**		
QN	**(b)**	small	petites	klein	pequeños	Luenberger Gold	1
	(d)	medium	moyennes	mittel	medios	Five Friendshios Gold	2
		large	grandes	groß	grandes	Chark Kuan ‘Pink’	3
99.		**Lip: lateral lobe: color of spots**	**Labelle : lobe latéral : couleur des taches**	**Lippe: seitlicher Lappen: Farbe der Flecken**	**Labio: lóbulo lateral: color de los puntos**		
PQ	**(b)**	RHS Colour Chart	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
	(d)	(indicate reference number)					
100. (*) (+)		**Column: base color (color on upper side)**	**Colonne : couleur de base (couleur sur la face supérieure)**	**Columna: Grundfarbe (Farbe der Oberseite)**	**Columna: color de la base (color en el lado superior)**		
PQ	**(b)**	RHS Colour Chart	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
	(i)	(indicate reference number)					

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
101. **(+)**		**Column: shade on upper side**	**Colonne : ombre sur la face supérieure**	**Columna: Schattierung auf der Oberseite**	**Columna: sombreado en el lado superior**		
	(b)	absent	absente	fehlend	ausente	Chao Praya Gold	1
QL		present	présente	vorhanden	presente	Sunkist	9
102.		**Column: color of shade on upper side**	**Colonne : couleur de l'ombre sur la face supérieure**	**Columna: Farbe der Schattierung auf der Oberseite**	**Columna: color del sombreado en el lado superior**		
PQ	**(b)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
103.		**Column: spots on upper side**	**Colonne : taches sur la face supérieure**	**Columna: Flecken auf der Oberseite**	**Columna: puntos en el lado superior**		
QL	**(b)**	absent	absentes	fehlend	ausentes	Chao Praya Gold	1
		present	présentes	vorhanden	presentes		9
104.		**Column: color of spots on upper side**	**Colonne : couleur des taches sur la face supérieure**	**Columna: Farbe der Flecken auf der Oberseite**	**Columna: color de los puntos en el lado superior**		
PQ	**(b)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
105.		**Lip: color of throat**	**Labelle : couleur de la gorge**	**Lippe: Farbe des Schlundes**	**Labio: color de la garganta**		
PQ	**(b)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		

8. Explanations on the Table of Characteristics

8.1 Explanations covering several characteristics

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

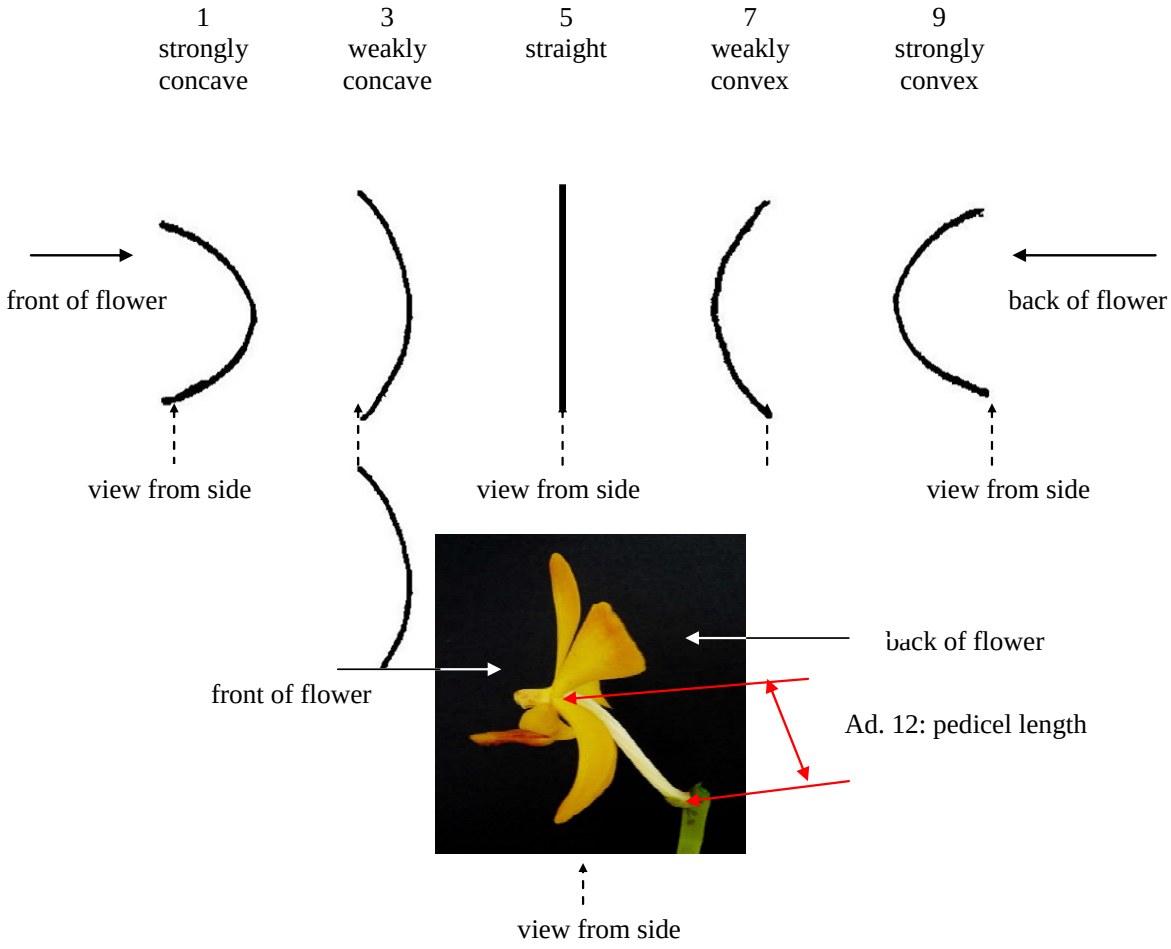
(a) Observations on the leaf should be made on the longest leaf of a flowering plant. Width of the leaf is observed by its natural spread (not by opening and flattening of the folded leaf.). Length of the leaf is measured following the natural curvature of the leaf.

(b) Observations on the inflorescence should be made at the time when 50% of the flowers on the inflorescence have opened. Observations on the flowers should be made on the most recently fully opened flower 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.

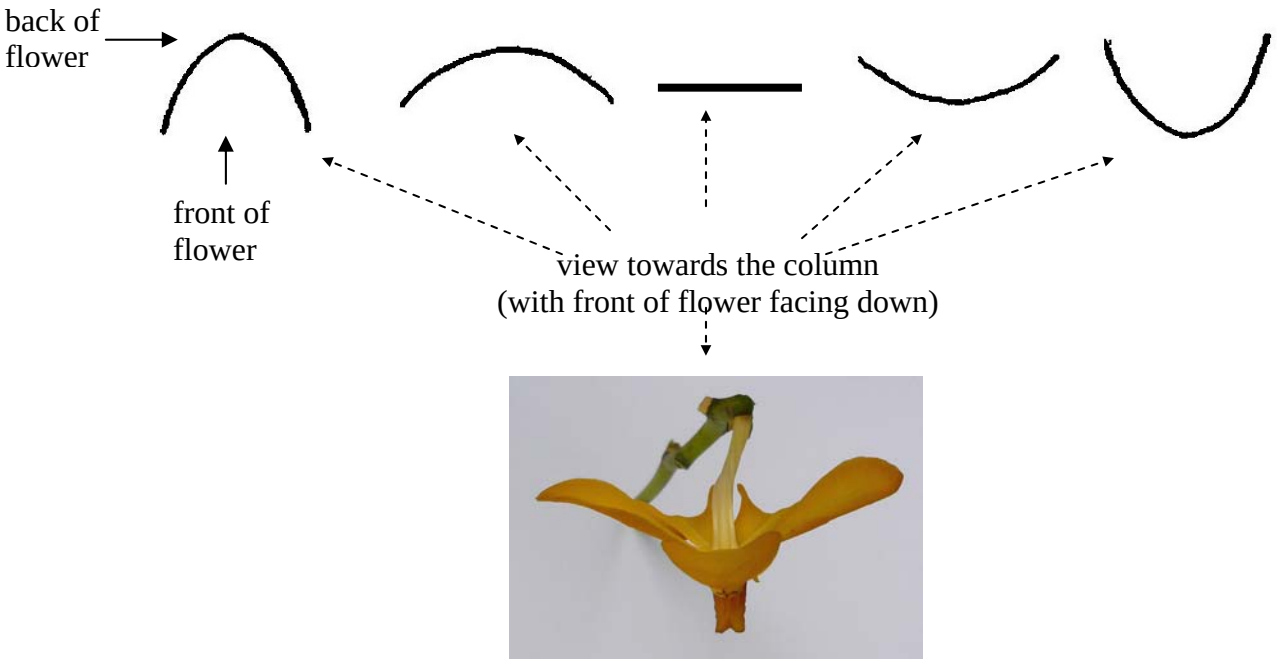
(d) Observations on the color of the sepal, the petal and the lip should be made on the front (inner) side.

(e) Char. 12: Pedicel: length
Char. 16: Dorsal sepal: curvature in longitudinal axis
Char. 34: Lateral sepal: curvature in longitudinal axis
Char. 52: Petal: curvature in longitudinal axis

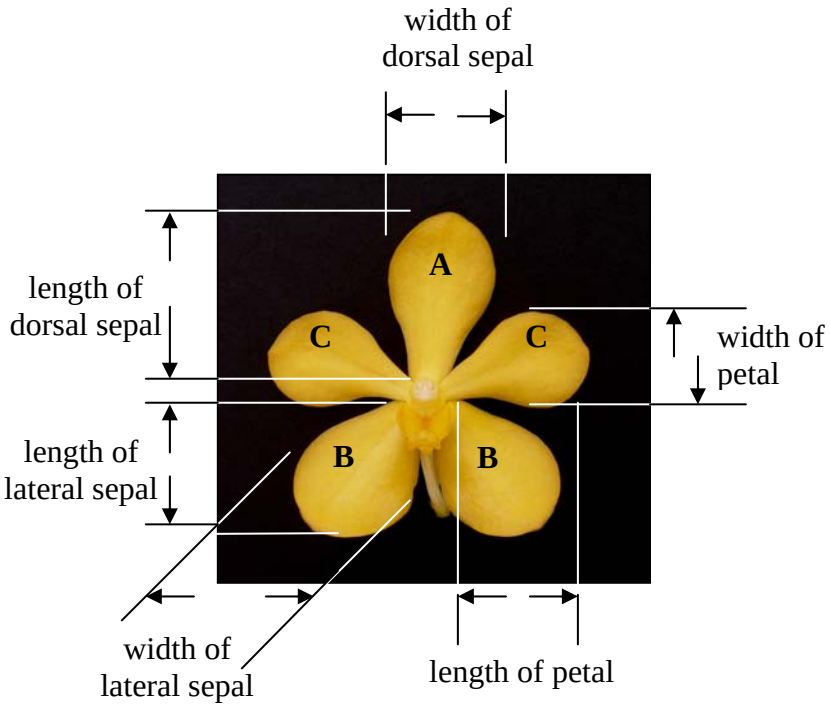


(f) Char. 17: Dorsal sepal: curvature in cross section
Char. 35: Lateral sepal: curvature in cross section
Char. 53: Petal: curvature in cross section

1	3	5	7	9
strongly concave	weakly concave	straight	weakly convex	strongly convex

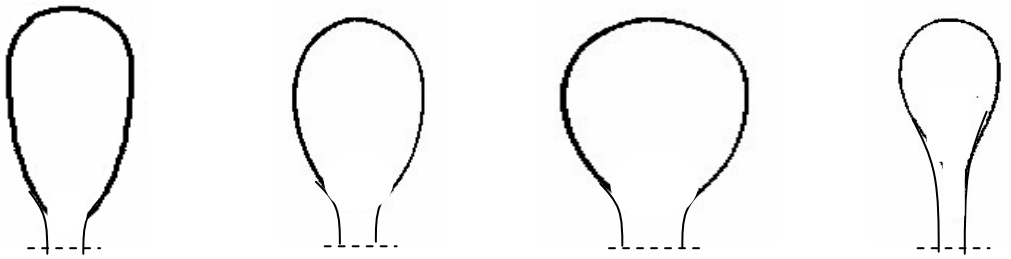


(g) Char. 18: Dorsal sepal: length
Char. 19: Dorsal sepal: width
Char. 36: Lateral sepal: length
Char. 37: Lateral sepal: width
Char. 54: Petal: length
Char. 55: Petal: width



A: Dorsal sepal
B: Lateral sepal
C: Petal

(h) Char. 20: Dorsal sepal: shape
Char. 56: Petal: shape



1 narrow obovate

2 medium obovate

3 broad obovate

4 spatulate

(i) Char. 21: Dorsal sepal: base color
Char. 39: Lateral sepal: base color
Char. 57: Petal: base color
Char. 74: Lip: apical lobe: base color
Char. 87: Lip: lateral lobe: base color
Char. 100: Column: base color (color on upper side)

The base color is the color that most closely matches the color of the underside of the organ concerned.

8.2 Explanations for individual characteristics

Ad. 1: Plant: width (natural leaf spread excluding inflorescence)

width
(natural leaf spread excluding inflorescence)

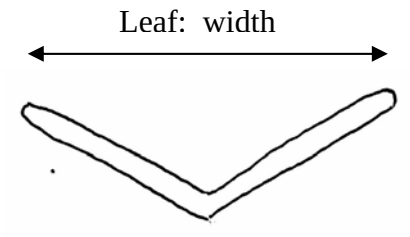
Ad. 2: Leaf: attitude

1
semi-erect

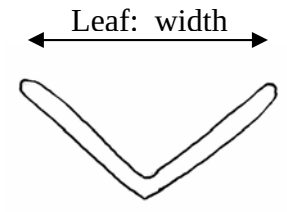
2
horizontal

3
semi-pendulous

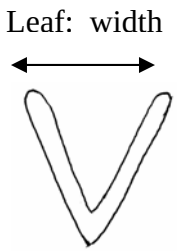
Ad. 4: Leaf: width
Ad. 6: Leaf: folding



3
weak



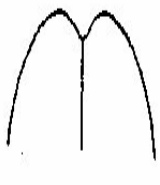
5
medium



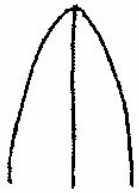
7
strong

Folding of the leaf is observed at the mid-point of the leaf length.

Ad. 5: Leaf: emarginated tip

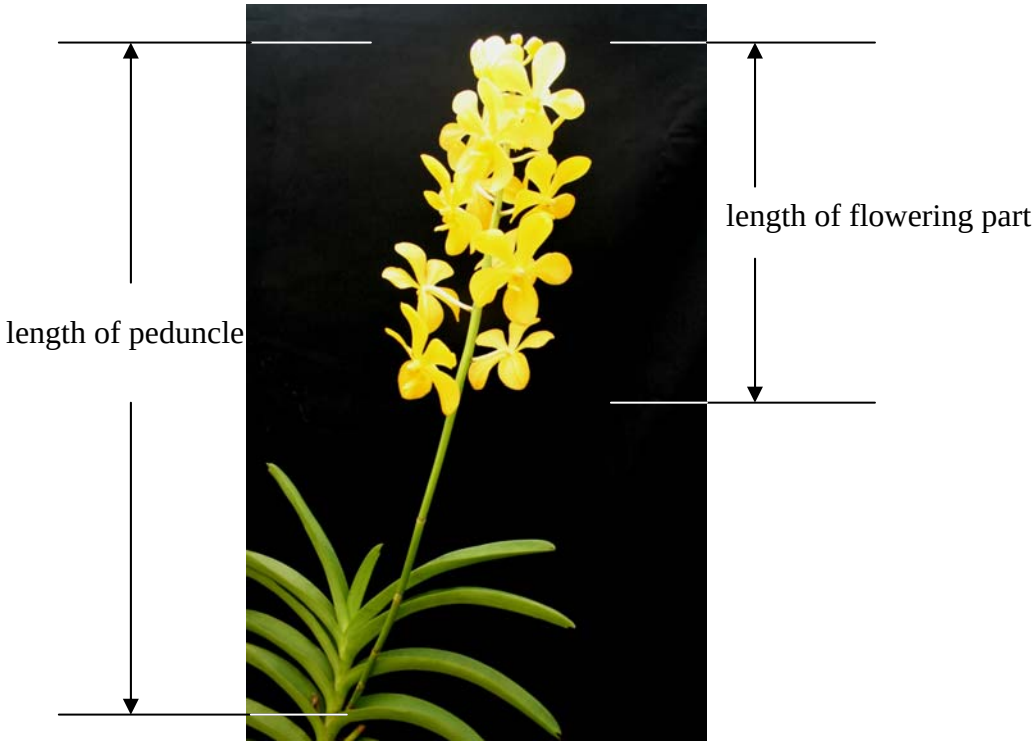


1
absent

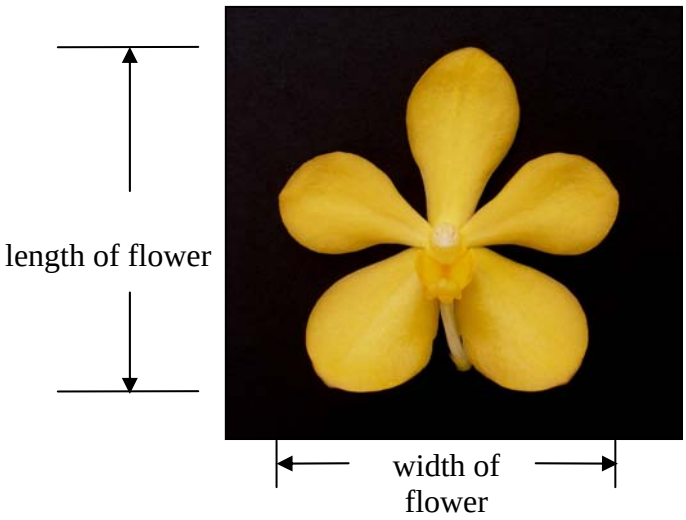


9
present

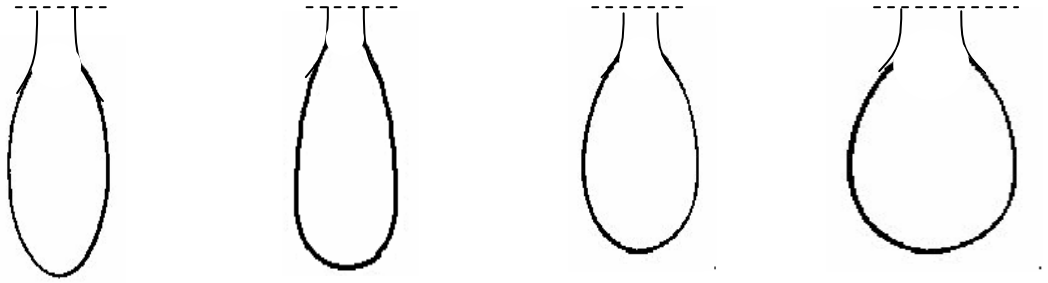
Ad. 8: Inflorescence: length of flowering part
Ad. 11: Peduncle: length



Ad. 13: Flower: length
Ad. 14: Flower: width

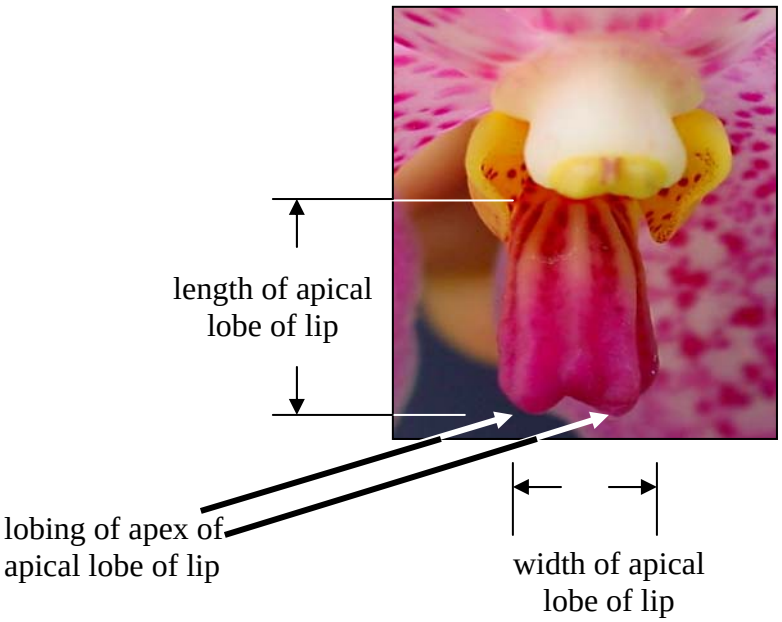


Ad. 38: Lateral sepal: shape

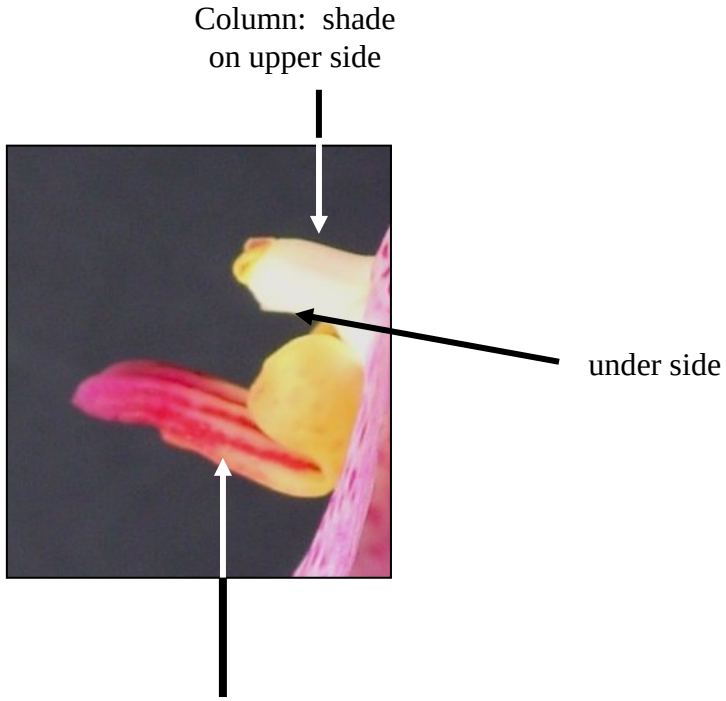


1 elliptic | 2 narrow obovate | 3 medium obovate | 4 broad obovate

Ad. 70: Lip: length of apical lobe
Ad. 71: Lip: width of apical lobe
Ad. 72: Lip: apical lobe: lobing of apex



Ad. 73: Lip: apical lobe: protrusion on ventral side
Ad. 100: Column: base color (color on upper side)
Ad. 101: Column: shade on upper side



9. Literature

Yam, T.W., 1986: Orchids of the Singapore Botanic Gardens. Singapore.

Yam, T.W., and Aung, T, 1998: Fascinating Mokaras. Malayan Orchid Review. Vol. 32, pp. 39-44.

10. Technical Questionnaire

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

	Application date: (not to be filled in by the applicant)

TECHNICAL QUESTIONNAIRE
to be completed in connection with an application for plant breeders' rights

1. Subject of the Technical Questionnaire

1.1 Botanical name	*Mokara*
1.2 Common name	Mokara

2. Applicant

Name	
Address	
Telephone No.	
Fax No.	
E-mail address	
Breeder (if different from applicant)	

3. Proposed denomination and breeder's reference

Proposed denomination (if available)	
Breeder's reference	

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

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

4.1 Breeding scheme

Variety resulting from:

4.1.1 Crossing

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

4.1.2 Mutation [ ]
(please state parent variety)

4.1.3 Discovery and development [ ]
(please state where and when discovered and how developed)

4.1.4 Other [ ]
(please provide details)

4.2 Method of propagating the variety

4.2.1 Vegetative propagation

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

4.2.2 Seed [ ]

4.2.3 Other [ ]
(please provide details)

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

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

5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the note which best corresponds).

	Characteristics	Example Varieties	Note
5.1 (1)	**Plant: width**		
	narrow	Bangkok Gold	3 [ ]
	medium	Chark Kuan 'Pink'	5 [ ]
	broad	Dear Heart	7 [ ]
5.2 (9)	**Inflorescence: number of flowers**		
	few	Lions Gold	3 [ ]
	medium	Luenberger Gold, Singa Gold	5 [ ]
	many	Dear Heart, Dinah Shore	7 [ ]
5.3 (13)	**Flower: length**		
	short	Margaret Thatcher	3 [ ]
	medium	Bangkok Gold	5 [ ]
	long	Mak Chin On	7 [ ]
5.4 (14)	**Flower: width**		
	narrow	Margaret Thatcher	3 [ ]
	medium	Khaw Phaik Suan	5 [ ]
	broad	Chark Kuan 'Pink'	7 [ ]

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

	Characteristics	Example Varieties	Note
5.5i (21)	**Dorsal sepal: base color**		
	RHS Colour Chart (indicate reference number)		
5.5ii (21)	**Dorsal sepal: base color**		
	green		1 [ ]
	white		2 [ ]
	yellow	Chao Praya Gold	3 [ ]
	orange	Singa Gold	4 [ ]
	red	Dinah Shore	5 [ ]
	purple	Dear Heart	6 [ ]
5.6i (39)	**Lateral sepal: base color**		
	RHS Colour Chart (indicate reference number)		
5.6ii (39)	**Lateral sepal: base color**		
	green		1 [ ]
	white		2 [ ]
	yellow	Chao Praya Gold	3 [ ]
	orange	Singa Gold	4 [ ]
	red	Dinah Shore	5 [ ]
	purple	Dear Heart	6 [ ]

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

	Characteristics	Example Varieties	Note
5.7i (57)	**Petal: base color**		
	RHS Colour Chart (indicate reference number)		
5.7ii (57)	**Petal: base color**		
	green		1 [ ]
	white		2 [ ]
	yellow	Chao Praya Gold	3 [ ]
	orange	Singa Gold	4 [ ]
	red	Dinah Shore	5 [ ]
	purple	Dear Heart	6 [ ]
5.8i (74)	**Lip: apical lobe: base color**		
	RHS Colour Chart (indicate reference number)		
5.8ii (74)	**Lip: apical lobe: base color**		
	green		1 [ ]
	white		2 [ ]
	yellow	Chao Praya Gold	3 [ ]
	orange	Singa Gold	4 [ ]
	red	Dinah Shore	5 [ ]
	purple	Chark Kuan ‘Pink’	6 [ ]

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

	Characteristics	Example Varieties	Note
5.9i (105)	**Lip: color of throat**		
	RHS Colour Chart (indicate reference number)		
5.9ii (105)	**Lip: color of throat**		
	green		1 [ ]
	white		2 [ ]
	yellow	Colopso Jambo	3 [ ]
	orange	Chao Praya Gold	4 [ ]
	red	Khaw Phaik Suan	5 [ ]
	purple	Dinah Shore	6 [ ]

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

6. Similar varieties and differences from these varieties

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

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the **similar** variety(ies)	Describe the expression of the characteristic(s) for **your** candidate variety
Example	*petal: main color*	*orange*	*orange red*

Comments:

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

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

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

Yes [ ] No [ ]

(If yes, please provide details)

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

Yes [ ] No [ ]

(If yes, please provide details)

7.3 Other information

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

8. Authorization for release

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

Yes [ ] No [ ]

(b) Has such authorization been obtained?

Yes [ ] No [ ]

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

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

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

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

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

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

(a) Microorganisms (e.g. virus, bacteria, phytoplasma) Yes [ ] No [ ]

(b) Chemical treatment (e.g. growth retardant, pesticide) Yes [ ] No [ ]

(c) Tissue culture Yes [ ] No [ ]

(d) Other factors Yes [ ] No [ ]

Please provide details for where you have indicated “yes”.

……

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

Signature Date

[End of document]