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 GENEVA

DRAFT

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GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from The Netherlands

*to be considered by the
 Technical Working Party for Ornamental Plants and Forest Trees at its
 fortieth session, to be held in Kunming, China from July 2 to 6, 2007*

Alternative Names:*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
Vriesea Lindl.	Vriesea	Vriesea	Vriesea	Vriesea

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 *Vriesea* Lindl. of the family *Bromeliaceae*.

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 of commercial standard, one month before flower induction .

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

Seed propagated: 50 plants.

Vegetative propagated: 25 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 Unless otherwise stated, all observations should be made at the time of full flowering.

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."

3.4 *Test Design*

3.4.1 Seed propagated varieties: each test should be designed to result in a total of at least 45 plants

3.4.2 Vegetative propagated varieties: each test should be designed to result in a total of at least 20 plants

3.4.3 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 on single plants should be made on 10 plants or parts taken from each of 10 plants and any other observations made on all plants in the test.

3.6 *Additional Tests*

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

4. Assessment of Distinctness, Uniformity and Stability

4.1 *Distinctness*

4.1.1 *General Recommendations*

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

4.1.2 *Consistent Differences*

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

4.1.3 Clear Differences

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

4.2 *Uniformity*

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

4.2.2 For the assessment of uniformity, a population standard of 1 % and an acceptance probability of at least 95 % should be applied. In the case of a sample size of 25 plants, 1 off-type is allowed, in case of 50 plants 2 off-types 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, the 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: height (inflorescence excluded) (characteristic 1)
- (b) Flower bract: number of colors of lower side (characteristic 33)
- (c) Flower bract: main color of lower side (characteristic 35) with the following groups:
 - Gr. 1: white
 - Gr. 2: green
 - Gr. 3: yellow
 - Gr. 4: orange
 - Gr. 5: orange red
 - Gr. 6: purple pink
 - Gr. 7: red
 - Gr. 8: red purple
 - Gr. 9: purple

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)-(c) 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. G (+)	Plant: height (inflorescence excluded)	Plante: hauteur (inflorescence exclue)	Pflanze: Höhe (ohne Blütenstand)	Planta: altura (inflorescencia excluida)		
QN (a)	very short	très basse	sehr niedrig	muy baja		1
	short	basse	niedrig	baja		3
	medium	moyenne	mittel	media		5
	tall	haute	hoch	alta		7
	very tall	très haute	sehr hoch	muy alta		9
2.	Plant: diameter	Plante: diamètre	Pflanze: Durchmesser	Planta: diámetro		
QN (a)	very small	très petit	sehr klein	muy pequeño		1
	small	petit	klein	pequeño		3
	medium	moyen	mittel	medio		5
	large	grand	groß	grande		7
	very large	très grand	sehr groß	muy grande		9
3.	Plant: number of leaves	Plante: nombre de feuilles	Pflanze: Anzahl Blätter	Planta: número de hojas		
QN (a)	very few	très petit	sehr gering	muy bajo		1
	few	petit	gering	bajo		3
	medium	moyen	mittel	medio		5
	many	grand	groß	alto		7
	very many	très grand	sehr groß	muy alto		9
4.	Leaf sheath: length	Gaine de la feuille: longueur	Blattscheide: Länge	Vaina: longitud		
QN (a)	short	courte	kurz	corta		3
(b)	medium	moyenne	mittel	media		5
	long	longue	lang	larga		7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5.	Leaf sheath: width	Gaine de la feuille: largeur	Blattscheide: Breite	Vaina: anchura		
QN	(a) narrow	étroite	schmal	estrecha		3
	(b) medium	moyenne	mittel	media		5
	broad	large	breit	ancha		7
6.	Leaf blade: length	Limbe: longueur	Blattspreite: Länge	Limbo: longitud		
QN	(a) very short	très court	sehr kurz	muy corto		1
	(b) short	court	kurz	corto		3
	medium	moyen	mittel	medio		5
	long	long	lang	largo		7
	very long	très long	sehr lang	muy largo		9
7.	Leaf blade: width	Limbe: largeur	Blattspreite: Breite	Limbo: anchura		
QN	(a) very narrow	très étroit	sehr schmal	muy estrecho		1
	(b) narrow	étroit	schmal	estrecho		3
	medium	moyen	mittel	medio		5
	broad	large	breit	ancho		7
	very broad	très large	sehr breit	muy ancho		9
8.	Leaf blade: shape of apex	Limbe: forme du sommet	Blattspreite: Form der Spitze	Limbo: forma del ápice		
PQ	(a) narrow acuminate	étroitement acuminé	schmal zugespitzt	estrecha acuminada		1
	(b) medium acuminate	moyennement acuminé	mittel zugespitzt	acuminada media		2
	broad acuminate	largement acuminé	breit zugespitzt	acuminada ancha		3
	narrow acute	étroitement aigu	schmal spitz	aguda estrecha		4
	medium acute	moyennement aigu	mittelspitz	aguda media		5
	broad acute	largement aigu	breit spitz	aguda ancha		6

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
9.	Leaf blade: main color of upper side	Limbe: couleur principale de la face supérieure	Blattspreite: Hauptfarbe an der Oberseite	Limbo: color principal del haz		
PQ	(a) light green	vert clair	hellgrün	verde claro		1
	(b) medium green	vert moyen	mittelgrün	verde medio		2
	dark green	vert foncé	dunkelgrün	verde oscuro		3
	grey green	vert-gris	graugrün	verde gris		4
	red purple	rouge-pourpre	rotpurpurn	púrpura rojizo		5
	purple	pourpre	purpurn	púrpura		6
	red brown	rouge-brun	rotbraun	marrón rojizo		7
10.	Leaf blade: variegation	Limbe:	Blattspreite:	Limbo:		
QL	(a) absent	absente	fehlend	ausente		1
	present	présente	vorhanden	presente		9
11.	Leaf blade: presence of pattern of upper side	Limbe:	Blattspreite:	Limbo:		
QL	(a) absent	absente	fehlend	ausente	Saturn, Venus	1
	present	présente	vorhanden	presente	Style, Era	9
12.	Leaf blade: pattern (as for 11)	Limbe:	Blattspreite:	Limbo:		
PQ	(a) with a flush	floue	geflammt	difusa		1
	striped	en stries	in Streifen	en bandas		2
	banded					3
	marbled					4
	spotted					5
	marbled and spotted					6
	with a margin					7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
13.	Leaf blade: color of pattern of upper side (see 12)	Limbe: couleur secondaire de la face supérieure	Blattspreite: sekundäre Farbe an der Oberseite	Limbo: color secundario del haz		
PQ (a)	light green	vert clair	hellgrün	verde claro		1
	medium green	vert moyen	mittelgrün	verde medio		2
	dark green	vert foncé	dunkelgrün	verde oscuro		3
	grey green	vert-gris	graugrün	verde gris		4
	red purple	rouge-pourpre	rotpurpurn	púrpura rojizo	Style	5
	purple	pourpre	purpurn	púrpura		6
	red brown	rouge-brun	rotbraun	marrón rojizo	Era	7
14.	Leaf blade: main color of lower side	Limbe: couleur principale de la face inférieure	Blattspreite: Hauptfarbe an der Unterseite	Limbo: color principal del envés		
PQ (a)	light green	vert clair	hellgrün	verde claro		1
	medium green	vert moyen	mittelgrün	verde medio		2
	dark green	vert foncé	dunkelgrün	verde oscuro		3
	grey green	vert-gris	graugrün	verde gris		4
	red purple	rouge-pourpre	rotpurpurn	púrpura rojizo		5
	purple	pourpre	purpurn	púrpura		6
	red brown	rouge-brun	rotbraun	marrón rojizo		7
15.	Leaf blade: presence of pattern of lower side	Limbe: supérieure	Blattspreite: Oberseite	Limbo:		
QL (a)	absent	absente	fehlend	ausente	Saturn, Venus	1
	present	présente	vorhanden	presente	Style, Era	9
16.	Leaf blade: anthocyanin coloration of lower side	Limbe: pigmentation anthocyanique de la face inférieure	Blattspreite: Anthocyanfärbung an der Unterseite	Limbo: coloración antociánica del envés		
QL (a)	absent	nulle	fehlend	ausente	Pluto	1
	present	présente	vorhanden	presente	Era, Saturn	9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
17.	Leaf blade: distribution of anthocyanin coloration of lower side	Limbe: répartition de la pigmentation anthocyannique de la face inférieure	Blattspreite: Verteilung der Anthocyanfärbung an der Unterseite	Limbo: distribución de la coloración antociánica del envés		
PQ (a)	as a flush	floue	geflammt	difusa	Saturn	1
	in stripes	en stries	in Streifen	en bandas	Era	2
18.	Inflorescence: growing					
OL (a)	from centre					1
	from lateral leaf axil					2
19.	Inflorescence: color of stem bracts					
PQ (c)	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Tabla de colores RHS (indíquese el número de referencia)		
20.	Inflorescence: position in relation to plant height					
QL (a)	below					1
	same level					2
	above					3
21.	Inflorescence: branches	Inflorescence: ramification	Blütenstand: verzweigung	Inflorescencia: ramificación		
(+)						
QL (a)	absent	nulle	fehlend	ausente	Era, Venus	1
	present	présente	vorhanden	presente	Pluto, Goldstar	9
22.	Inflorescence: number of branches	Inflorescence: ramification	Blütenstand: verzweigung	Inflorescencia: ramificación		
QN (a)	few	petit	gering	bajo		3
	medium	moyen	mittel	medio		5
	many	grand	groß	alto		7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
23.	Inflorescence: attitude					
QL (a)	erect					1
	drooping					2
24.	Inflorescence: length	Inflorescence: longueur	Blütenstand: Länge der haupt	Inflorescencia: longitud		
(+)						
QN (c)	very short	très courte	sehr kurz	muy corta		1
	short	courte	kurz	corta		3
	medium	moyenne	mittel	media		5
	tall	longue	lang	alta		7
	very tall	très longue	sehr lang	muy alta		9
25.	Inflorescence: length of flowering part	Inflorescence: longueur de la partie florifère	Blütenstand: Länge des blühenden Teils	Inflorescencia: longitud de la parte floral		
(+)						
QN (c)	short	courte	kurz	corta		3
	medium	moyenne	mittel	media		5
	long	longue	lang	larga		7
	very long	très longue	sehr lang	muy larga		9
26.	Inflorescence: diameter of flowering part	Inflorescence: diamètre de la partie florifère	Blütenstand: Durchmesser des blühenden Teils	Inflorescencia: diámetro de la parte floral		
(+)						
QN (c)	very small	très petit	sehr klein	muy pequeño		1
	small	petit	klein	pequeño		3
	medium	moyen	mittel	medio		5
	large	grand	groß	grande		7
	very large	très grand	sehr groß	muy grande		9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
27.	Inflorescence: bracts					
QL	(c) free					1
	adpressed					2
28.	Inflorescence: shape of main spike	Inflorescence: de la partie florifère	Blütenstand: Forme haupt	Inflorescencia: de la parte floral		
PQ	(c) oblong					1
	elliptic				Era	2
	narrow ovate					3
	ovate				Clementine	4
	obovate					5
29.	Inflorescence: number of flower bracts of main spike	Inflorescence: nombre de bractées	Blütenstand: Anzahl Deckblätter	Inflorescencia: número de brácteas		
QN	(c) very few	très faible	sehr gering	muy bajo		1
	few	faible	gering	bajo		3
	medium	moyen	mittel	medio		5
	many	élevé	groß	alto		7
	very many	très élevé	sehr groß	muy alto		9
30.	Flower bract: length	Bractée: longueur	Deckblatt: Länge	Bráctea: longitud		
QN	(c) very short	très courte	sehr kurz	muy corta		1
	short	courte	kurz	corta		3
	medium	moyenne	mittel	media		5
	long	longue	lang	larga		7
	very long	très longue	sehr lang	muy larga		9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
31.	Flower bract: width	Bractée: largeur	Deckblatt: Breite	Bráctea: anchura		
QN (c)	very narrow	très étroite	sehr schmal	muy estrecha		1
	narrow	étroite	schmal	estrecha		3
	medium	moyenne	mittel	media		5
	broad	large	breit	ancha		7
	very broad	très large	sehr breit	muy ancha		9
32.	Flower bract: width of tip	Bractée: largeur de l'extrémité	Deckblatt: Breite der Spitze	Bráctea: anchura de la punta		
QN (c)	narrow	étroite	schmal	estrecha		1
	medium	moyenne	mittel	media		2
	broad	large	breit	ancha		3
33.	G Flower bracts: number of colors of lower side					
QL (c)	one					1
	two					2
34.	Flower bract: main color of upper side	Bractée: couleur principale de la face supérieure	Deckblatt: Hauptfarbe der Oberseite	Bráctea: color principal del haz		
PQ (c)	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Tabla de colores RHS (indíquese el número de referencia)		
35.	G Flower bract: main color of lower side	Bractée: couleur principale de la face inférieure	Deckblatt: Hauptfarbe der Unterseite	Bráctea: color principal del envés		
PQ (c)	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Tabla de colores RHS (indíquese el número de referencia)		
36.	Flower bract: secondary color of lower side	Bractée: couleur secondaire de la face inférieure	Deckblatt: sekundäre Farbe der Unterseite	Bráctea: color secundario del envés		
PQ (c)	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Tabla de colores RHS (indíquese el número de referencia)		

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
37.	Flower: color of calyx	Fleur: couleur du calice	Blüte: Farbe des Kelchs	Flor: color del cáliz		
PQ (c)	whitish					1
	yellowish					2
	greenish					3
38.	Petal: length	Pétale: longueur	Kronblatt: Länge	Pétalo: longitud		
QN (c)	short	courte	kurz	corta		3
	medium	moyenne	mittel	media		5
	long	longue	lang	larga		7
39.	Petal: width	Pétale: largeur	Kronblatt: Breite	Pétalo: anchura		
QN (c)	small	petit	klein	pequeño		3
	medium	moyen	mittel	medio		5
	large	grand	groß	grande		7
40.	Petal: color of top	Pétale: couleur de la bout	Kronblatt: Farbe der spitze	Pétalo: color de la punta		
PQ (c)	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Tabla de colores RHS (indíquese el número de referencia)		
41.	Flower: color of ovary	Fleur: couleur de l'ovaire	Blüte: Farbe des Fruchtknotens	Flor: color del ovario		
PQ (c)	white	blanc	weiß	blanco	Pluto, Clementine	1
	light yellow	jaune clair	hellgelb	amarillo claro		2
	light green	vert clair	hellgrün	verde claro	Era, Venus	3
42.	Flower: color of style	Fleur: couleur du style	Blüte: Farbe des Griffels	Flor: color del estilo		
PQ (c)	white	blanc	weiß	blanco		1
	light yellow	jaune clair	hellgelb	amarillo claro	Era, Saturn	2
	medium yellow	jaune moyen	mittelgelb	amarillo medio		3
	yellow green	vert-jaune	gelbgrün	verde amarillento	Pluto, Goldstar	4

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
43.	Flower: color of stigma	Fleur: couleur du stigate	Blüte: Farbe der Narbe	Flor: color del estigma		
PQ (c)	white	blanc	weiß	blanco		1
	light yellow	jaune clair	hellgelb	amarillo claro	Style	2
	light green	vert clair	hellgrün	verde claro	Clementine	3
	medium green	vert moyen	mittelgrün	verde medio	Venus, Saturn	4

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:

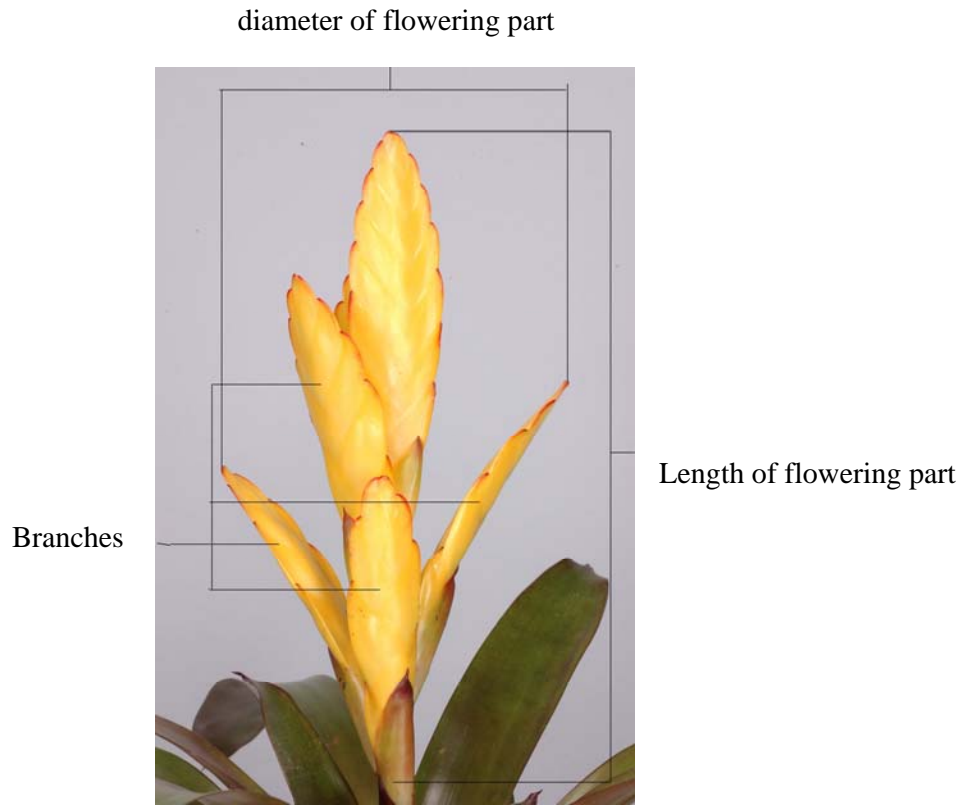
- (a) Observations on plant, leaves and inflorescence should be made when flowers are opened in the middle third of the main spike
- (b) Observations on leaves should be made on largest leaves of the rosette.
- (c) Observations on flowers should be made on fully expanded flowers in the middle third of the main spike.

8.2 *Explanations for individual characteristics*

Ad. 1 and 20: Plant: height (inflorescence excluded) (1), Inflorescence length (20)



Ad. 18, 21 and 22: Inflorescence: branches (16), length of flowering part (21), diameter of flowering part (22)



Ad. 12: Leaf blade: pattern



with a
flush

striped

band

marbled

spotted

marbled
and
spotted

with a
margin

9. Literature

Baensch, U. and Baensch, U., 1994: Blooming Bromeliads, Tropic Beauty Publishers, Nassau/Bahamas, ISBN 0-9641056-0-8, BS.

Rauh, W., 1981: Bromelien, Verlag Eugen Ulmer, Stuttgart, ISBN 3-8001-6029-3, DE.

Rauh, W., 1990: The Bromeliad Lexicon, Blandford, London, GB.

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	<input type="text" value="Vriesea Lindl."/>	
1.2 Common name	<input type="text" value="Vriesea"/>	
2. Applicant		
Name	<input type="text"/>	
Address	<input type="text"/>	
Telephone No.	<input type="text"/>	
Fax No.	<input type="text"/>	
E-mail address	<input type="text"/>	
Breeder (if different from applicant)	<input type="text"/>	
3. Proposed denomination and breeder's reference		
Proposed denomination (if available)	<input type="text"/>	
Breeder's reference	<input type="text"/>	

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)"	[]
<div style="border: 1px solid black; height: 20px; width: 400px; margin: 0 auto;"></div>		
4.2 Method of propagating the variety		
(a)	cuttings	[]
(b)	<i>in vitro</i> propagation	[]
(c)	other (state method)	[]

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:
<p>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).</p>		
Characteristics	Example Varieties	Note
<p>5.1 Plant: height (inflorescence excluded) (1)</p> <p>very short</p> <p>short</p> <p>medium</p> <p>tall</p> <p>very tall</p>		<p>1[]</p> <p>3[]</p> <p>5[]</p> <p>7[]</p> <p>9[]</p>
<p>5.2 Flower bract: number of colors (33)</p> <p>one</p> <p>two</p>		<p>1 []</p> <p>2 []</p>
<p>5.3i Flower bract: main color of lower side (35)</p> <p>RHS Colour Chart (indicate reference number)</p>		
<p>5.3ii Bract: main color of lower side (35)</p> <p>white</p> <p>green</p> <p>yellow</p> <p>orange</p> <p>orange red</p> <p>purple pink</p> <p>red</p> <p>red purple</p> <p>purple</p>		<p>1[]</p> <p>2[]</p> <p>3[]</p> <p>4[]</p> <p>5[]</p> <p>6[]</p> <p>7[]</p> <p>8[]</p> <p>9[]</p>

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:	
<p>6. Similar varieties and differences from these varieties</p> <p><i>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.</i></p>			
Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the similar variety(ies)	Describe the expression of the characteristic(s) for your candidate variety
<i>Example</i>	<i>Plant: height</i>	<i>short</i>	<i>tall</i>
<p>Comments:</p>			

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:								
<p>#7. Additional information which may help in the examination of the variety</p> <p>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?</p> <p>Yes [] No []</p> <p>(If yes, please provide details)</p> <p>7.2 Are there any special conditions for growing the variety or conducting the examination?</p> <p>Yes [] No []</p> <p>(If yes, please provide details)</p> <p>7.3 Other information</p> <p>7.3.1 Main use</p> <table data-bbox="483 1003 1230 1182"><tr><td>(a) garden plant</td><td>[]</td></tr><tr><td>(b) pot plant</td><td>[]</td></tr><tr><td>(c) cut-flower</td><td>[]</td></tr><tr><td>(d) other</td><td>[]</td></tr></table> <p>(please provide details)</p> <p>“A representative color photograph of the variety should accompany the Technical Questionnaire.”</p>			(a) garden plant	[]	(b) pot plant	[]	(c) cut-flower	[]	(d) other	[]
(a) garden plant	[]									
(b) pot plant	[]									
(c) cut-flower	[]									
(d) other	[]									
<p>8. Authorization for release</p> <p>(a) Does the variety require prior authorization for release under legislation concerning the protection of the environment, human and animal health?</p> <p>Yes [] No []</p> <p>(b) Has such authorization been obtained?</p> <p>Yes [] No []</p> <p>If the answer to (b) is yes, please attach a copy of the authorization.</p>										

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:												
<p>9. Information on plant material to be examined or submitted for examination.</p> <p>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.</p> <p>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:</p> <table data-bbox="324 777 1380 1029"><tr><td>(a) Microorganisms (e.g. virus, bacteria, phytoplasma)</td><td>Yes []</td><td>No []</td></tr><tr><td>(b) Chemical treatment (e.g. growth retardant, pesticide)</td><td>Yes []</td><td>No []</td></tr><tr><td>(c) Tissue culture</td><td>Yes []</td><td>No []</td></tr><tr><td>(d) Other factors</td><td>Yes []</td><td>No []</td></tr></table> <p>Please provide details for where you have indicated “yes”.</p> <p>.....</p>			(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 []
(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 []												
<p>10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:</p> <table data-bbox="324 1365 1396 1491"><tr><td>Applicant's name</td><td colspan="2"><input type="text"/></td></tr><tr><td>Signature</td><td><input type="text"/></td><td>Date <input type="text"/></td></tr></table>			Applicant's name	<input type="text"/>		Signature	<input type="text"/>	Date <input type="text"/>						
Applicant's name	<input type="text"/>													
Signature	<input type="text"/>	Date <input type="text"/>												

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