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DRAFT

GAZANIA

UPOV Code(s): GAZAN

Gazania Gaertn.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

*prepared by experts from South Africa
to be considered by the
Technical Committee
at its fifty-fifth session, to be held in Geneva,
from 2019-10-28 to 2019-10-29*

Disclaimer: this document does not represent UPOV policies or guidance

Alternative names:*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Gazania</i> Gaertn.	Gazania, Treasure Flower	Gazania	Gazania	Gazania

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 *Gazania* Gaertn..

2. Material Required

2.1 The competent authorities decide on the quantity and quality of the plant material required for testing the variety and when and where it is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must ensure that all customs formalities and phytosanitary requirements are complied with.

2.2 The material is to be supplied in the form of plants capable of expressing all relevant characteristics of the variety during the first growing cycle.

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 Because daylight varies, color determinations made against a color chart should be made either in a suitable cabinet providing artificial daylight or in the middle of the day in a room without direct sunlight. The spectral distribution of the illuminant for artificial daylight should conform with the CIE Standard of Preferred Daylight D 6500 and should fall within the tolerances set out in the British Standard 950, Part I. These determinations should be made with the plant part placed against a white background. The color chart and version used should be specified in the variety description.

3.4 *Test Design*

Each test should be designed to result in a total of at least 10 plants.

3.5 *Additional Tests*

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

4. Assessment of Distinctness, Uniformity and Stability

4.1 *Distinctness*

4.1.1 General Recommendations

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

4.1.2 Consistent Differences

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

4.1.3 Clear Differences

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

4.1.4 Number of Plants or Parts of Plants to be Examined

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

4.1.5 Method of Observation

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

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

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

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

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

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

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

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

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

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

4.2 *Uniformity*

- 4.2.1 It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding uniformity. However, the following points are provided for elaboration or emphasis in these Test Guidelines:
- 4.2.2 These Test Guidelines have been developed for the examination of vegetatively propagated varieties. For varieties with other types of propagation, the recommendations in the General Introduction and document TGP/13 "Guidance for new types and species" Section 4.5 "Testing Uniformity" should be followed.
- 4.2.3 For the assessment of uniformity of vegetatively propagated varieties, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 10 plants, 1 off-type is allowed.

4.3 *Stability*

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

5. Grouping of Varieties and Organization of the Growing Trial

- 5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness are aided by the use of grouping characteristics.
- 5.2 Grouping characteristics are those in which the documented states of expression, even where produced at different locations, can be used, either individually or in combination with other such characteristics: (a) to select varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness; and (b) to organize the growing trial so that similar varieties are grouped together.
- 5.3 The following have been agreed as useful grouping characteristics:
- (a) Plant: growth habit (characteristic 1)
 - (b) Plant: number of leaves with lobing (characteristic 4)
 - (c) Leaf: secondary color (characteristic 8)
 - (d) Flower head: disc type (characteristic 14)
 - (e) Ray floret: color covering the greatest surface area of upper side, with the following groups:
 - Gr. 1: whitish
 - Gr. 2: yellow
 - Gr. 3: orange
 - Gr. 4: pink
 - Gr. 5: red
- 5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction and document TGP/9 "Examining Distinctness".

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*

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

6.2.2 In the case of qualitative and pseudo-qualitative characteristics (see Chapter 6.3), all relevant states of expression are presented in the characteristic. However, in the case of quantitative characteristics with 5 or more states, an abbreviated scale may be used to minimize the size of the Table of Characteristics. For example, in the case of a quantitative characteristic with 9 states, the presentation of states of expression in the Test Guidelines may be abbreviated as follows:

State	Note
small	3
medium	5
large	7

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

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

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

6.3 *Types of Expression*

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

6.4 *Example Varieties*

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

6.5 Legend

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1	2	3	4	5	6	7
	Name of characteristics in English	Nom du caractère en français	Name des Merkmals auf Deutsch	Nombre del carácter en español		
	states of expression	types d'expression	Ausprägungsstufen	tipos de expresión		

1 Characteristic number

2 (*) Asterisked characteristic – see Chapter 6.1.2

3 Type of expression

QL

Qualitative characteristic – see Chapter 6.3

QN

Quantitative characteristic – see Chapter 6.3

PQ

Pseudo-qualitative characteristic – see Chapter 6.3

4 Method of observation (and type of plot, if applicable)

MG, MS, VG, VS

– see Chapter 4.1.5

5 (+)

See Explanations on the Table of Characteristics in Chapter 8.2

6 (a)-(e)

See Explanations on the Table of Characteristics in Chapter 8.1

7 Not applicable

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

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. (*)	PQ	VG	(+)				
	Plant: growth habit	Plante : port	Pflanze: Wuchsform	Planta: hábito de crecimiento			
	upright	dressé	aufrecht	erguida			1
	semi-upright	demi-dressé	halbaufrecht	semierguida			2
	spreading	étalé	breitwüchsig	extendida	Malan's Variegata		3
2.	QN	MG/MS/VG					
	Plant: height	Plante : hauteur	Pflanze: Höhe	Planta: altura			
	short	basse	niedrig	baja	Malpin		3
	medium	moyenne	mittel	medi			5
	tall	haute	hoch	alta	Flogazsun		7
3.	QN	MG/MS/VG					
	Plant: width	Plant : largeur	Pflanze: Breite	Planta: anchura			
	narrow	étroite	schmal	estrecha			3
	medium	moyenne	mittel	media			5
	broad	large	breit	ancha			7
4. (*)	QN	VG	(+)				
	Plant: number of leaves with lobing	Plante : nombre de feuilles présentant une découpure des bords	Pflanze: Anzahl der Blätter mit Lappung	Planta: número de hojas con lobulado			
	absent or very few	nul ou très faible	fehlend oder sehr gering	nulo o muy bajo	Suga813		1
	few	faible	gering	bajo			2
	medium	moyen	mittel	medio	Suga407		3
	many	élevé	hoch	alto			4
	very many	très élevé	sehr hoch	muy alto	Suga602		5
5.	QN	MG/MS/VG	(+)	(a)			
	Leaf: length	Feuille : longueur	Blatt: Länge	Hoja: longitud			
	short	courte	kurz	corta	Gazte		3
	medium	moyenne	mittel	media	G414		5
	long	longue	lang	larga	Suga602		7

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
6.	QN	MG/MS/VG	(+)	(a)				
	Leaf: width	Feuille : largeur	Blatt: Breite	Hoja: anchura				
	narrow	étroite	schmal	estrecha	Gazte		3	
	medium	moyenne	mittel	media	NPN13		5	
	broad	large	breit	ancha	G414		7	
7. (*)	QN	VG	(a), (b)					
	Leaf: intensity of green color	Feuille : intensité de la couleur verte	Blatt: Intensität der Grünfärbung	Hoja: intensidad del color verde				
	light	claire	hell	claro			1	
	medium	moyenne	mittel	medio	Suga602		2	
	dark	foncée	dunkel	oscuro	G414		3	
8. (*)	PQ	VG	(a), (b)					
	Leaf: secondary color	Feuille : couleur secondaire	Blatt: Sekundärfarbe	Hoja: color secundario				
	none	aucune	keine	ninguno	G414		1	
	whitish	blanchâtre	weißlich	blanquecino	Gazte		2	
	yellowish	jaunâtre	gelblich	amarillento	Malan's Variegata		3	
9.	QN	VG	(a)					
	Leaf: glossiness	Feuille : brillance	Blatt: Glanz	Hoja: brillo				
	absent or very weak	nulle ou très faible	fehlend oder sehr gering	nulo o muy leve	Suga602		1	
	weak	faible	gering	leve			2	
	medium	moyenne	mittel	medio	Malpin		3	
	strong	forte	stark	intenso			4	
	very strong	très forte	sehr stark	muy intenso	Flogazsun		5	
10. (*)	QN	VG	(a)					
	Leaf: pubescence	Feuille : pubescence	Blatt: Behaarung	Hoja: pubescencia				
	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy escasa	Flogazsun		1	
	weak	faible	gering	escasa			2	
	medium	moyenne	mittel	media	Malpin, Suga602		3	
	strong	forte	stark	abundante			4	
	very strong	très forte	sehr stark	muy abundante	Suga813		5	

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
11. (*)	QN	MG/MS/VG				
	Peduncle: length	Pédoncule : longueur	Blattstiel: Länge	Pedúnculo: longitud		
	short	court	kurz	corto	Malpin	3
	medium	moyen	mittel	medio	G414	5
	long	long	lang	largo	Flogazsun	7
12.	QN	VG	(+)			
	Peduncle: anthocyanin coloration	Pédoncule : pigmentation anthocyanique	Blattstiel: Anthocyanfärbung	Pedúnculo: pigmentación antocianica		
	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy leve	Sunhara	1
	weak	faible	gering	leve		2
	medium	moyenne	mittel	media	Flogazora, Flogazsun	3
	strong	forte	stark	intensa		4
	very strong	très forte	sehr stark	muy intensa		5
13. (*)	QN	MG/MS/VG	(+)	(c)		
	Flower head: diameter	Capitule : diamètre	Blütenkopf: Durchmesser	Capítulo: diámetro		
	small	petit	klein	pequeño	Malpin	3
	medium	moyen	mittel	medio	Flogazsun	5
	large	grand	groß	grande	Suga415	7
14. (*)	QL	VG	(+)	(c)		
	Flower head: disc type	Capitule : type de disque	Blütenkopf: Typ der Scheibe	Capítulo: tipo de disco		
	daisy	marguerite	Margerite	margarita	Malpin	1
	anemone	anémone	Anemone	anémona	Suga407	2
15.	QN	MS/VG	(+)	(c)		
	Flower head: size of disc in relation to flower head	Capitule : taille du disque par rapport au capitule	Blütenkopf: Größe der Scheibe im Verhältnis zum Blütenkopf	Capítulo: tamaño del disco en relación con el capítulo		
	very small	très petit	sehr klein	muy pequeño	New Day Clear Orange	1
	small	petit	klein	pequeño		2
	medium	moyen	mittel	medio	Malan's Variegata	3
	large	grand	groß	grande		4
	very large	très grand	sehr groß	muy grande	G414	5

	English		français		deutsch		español		Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
16.	QN	MG/MS/VG	(c)							
	Flower head: number of ray florets	Capitule : nombre de fleurs ligulées	Blütenkopf: Anzahl Zungenblüten		Capítulo: número de flores liguladas					
	very few	très faible	sehr gering		muy bajo		Gazte			1
	few	faible	gering		bajo					2
	medium	moyen	mittel		medio		Suga407			3
	many	élevé	hoch		alto					4
	very many	très élevé	sehr hoch		muy alto		G414			5
17. (*)	QN	MG/MS/VG	(+)	(c), (d)						
	Ray floret: length	Fleur ligulée : longueur	Zungenblüte: Länge		Flor ligulada: longitud					
	very short	très courte	sehr kurz		muy corta		Suga813			1
	short	courte	kurz		corta					2
	medium	moyenne	mittel		media		G414			3
	long	longue	lang		larga					4
	very long	très longue	sehr lang		muy larga		Suga407			5
18. (*)	QN	MG/MS/VG	(+)	(c), (d)						
	Ray floret: width	Fleur ligulée : largeur	Zungenblüte: Breite		Flor ligulada: anchura					
	very narrow	très étroite	sehr schmal		muy estrecha		Suga813			1
	narrow	étroite	schmal		estrecha					2
	medium	moyenne	mittel		media		Sugajale			3
	broad	large	breit		ancha					4
	very broad	très large	sehr breit		muy ancha		NPN13			5
19. (*)	QN	MS/VG	(+)	(c), (d)						
	Ray floret: ratio length/width	Fleur ligulée : rapport longueur/largeur	Zungenblüte: Verhältnis Länge/Breite		Flor ligulada: relación longitud/anchura					
	very low	très bas	sehr klein		muy baja		New Day Clear Orange			1
	low	bas	klein		baja					2
	medium	moyen	mittel		media		Sugaja			3
	high	élevé	groß		alta					4
	very high	très élevé	sehr groß		muy alta		Big Kiss White			5

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
20.	QN	VG	(+)	(c), (d)				
	Ray floret: profile in cross section	Fleur ligulée : profil en section transversale	Zungenblüte: Profil im Querschnitt	Flor ligulada: perfil en sección transversal				
	concave	concave	konkav	cóncavo	G414		1	
	flat	plat	flach	plano			2	
	convex	convexe	konvex	convexo	NPN13		3	
21. (*)	QN	VG	(+)	(c), (d)				
	Ray floret: curvature of longitudinal axis	Fleur ligulée : courbure de l'axe longitudinal	Zungenblüte: Biegung der Längsachse	Flor ligulada: curvatura del eje longitudinal				
	moderately incurving	légèrement incurvé	mäßig aufgebogen	moderadamente incurvado			1	
	weakly incurving	faiblement incurvé	leicht aufgebogen	ligeramente incurvado	NPN13		2	
	straight	droit	gerade	recto	G414		3	
	weakly recurving	faiblement courbé	leicht zurückgebogen	ligeramente recurvado	Malpin, Suga407		4	
	moderately recurving	légèrement courbé	mäßig zurückgebogen	moderadamente recurvado			5	
22. (*)	PQ	VG	(+)	(c), (d)				
	Ray floret: shape of apex	Fleur ligulée : forme du sommet	Zungenblüte: Form der Spitze	Flor ligulada: forma del ápice				
	acute	aigu	spitz	agudo	Suga407		1	
	obtuse	obtus	stumpf	obtuso	NPN13		2	
	rounded	arrondi	abgerundet	redondeado	Suga813		3	

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
23. (*)	PQ	VG	(c), (d), (e)				
	Ray floret: color one	Fleur ligulée : première couleur	Zungenblüte: Farbe eins	Flor ligulada: primer color			
	RHS Colour Chart (indicate reference number)	Code RHS de couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)			
24. (*)	PQ	VG	(+)	(c), (d), (e)			
	Ray floret: distribution of color one	Fleur ligulée : répartition de la première couleur	Zungenblüte: Verteilung von Farbe eins	Flor ligulada: distribución del primer color			
	at base	à la base	an der Basis	en la base			1
	basal 1/3	tiers basal	basal 1/3	en el tercio basal			2
	basal 2/3	deux tiers basaux	basal 2/3	en los dos tercios basales			3
	middle 1/3	tiers médian	Mitte 1/3	en el tercio medio			4
	distal 2/3	deux tiers distaux	distal 2/3	en los dos tercios distales			5
	distal 1/3	tiers distal	distal 1/3	en el tercio distal			6
	at apex	au sommet	an der Spitze	en el ápice			7
	central stripe basal 1/3	bande centrale tiers basal	Mittelstreifen basal 1/3	franja central en el tercio basal			8
	central stripe basal 2/3	bande centrale deux tiers basaux	Mittelstreifen basal 2/3	franja central en los dos tercios basales			9
	central stripe middle 1/3	bande centrale tiers médian	Mittelstreifen Mitte 1/3	franja central en el tercio medio			10
	central stripe distal 2/3	bande centrale deux tiers distaux	Mittelstreifen distal 2/3	franja central en los dos tercios distales			11
	central stripe distal 1/3	bande centrale tiers distal	Mittelstreifen distal 1/3	franja central en el tercio distal			12
	central stripe throughout	bande centrale partout	Mittelstreifen überall	franja central en la totalidad			13
	basal spot	tache basale	Basalfleck	mancha basal			14
	lateral zone basal 1/3	zone latérale tiers basal	laterale Zone basal 1/3	en la zona lateral del tercio basal			15
	lateral zone basal 2/3	zone latérale deux tiers basaux	laterale Zone basal 2/3	en la zona lateral de los dos tercios basales			16
	lateral zone distal 2/3	zone latérale deux tiers distaux	laterale Zone distal 2/3	en la zona lateral de los dos tercios distales			17
	lateral zone distal 1/3	zone latérale tiers distal	laterale Zone distal 1/3	en la zona lateral del tercio distal			18
	lateral zone	zone latérale	laterale Zone	en la zona lateral			19
	marginal zone	zone marginale	Randbereich	en la zona del borde			20
	throughout	partout	überall	en la totalidad			21

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
25.	PQ	VG	(c), (d), (e)				
	Ray floret: color two	Fleur ligulée : deuxième couleur	Zungenblüte: Farbe zwei	Flor ligulada: segundo color			
	RHS Colour Chart (indicate reference number)	Code RHS de couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)			
26.	PQ	VG	(+)	(c), (d), (e)			
	Ray floret: distribution of color two	Fleur ligulée : répartition de la deuxième couleur	Zungenblüte: Verteilung von Farbe zwei	Flor ligulada: distribución del segundo color			
	none	aucune	keine	ausente			1
	at base	à la base	an der Basis	en la base			2
	basal 1/3	tiers basal	basal 1/3	en el tercio basal			3
	basal 2/3	deux tiers basaux	basal 2/3	en los dos tercios basales			4
	middle 1/3	tiers médian	Mitte 1/3	en el tercio medio			5
	distal 2/3	deux tiers distaux	distal 2/3	en los dos tercios distales			6
	distal 1/3	tiers distal	distal 1/3	en el tercio distal			7
	at apex	au sommet	an der Spitze	en el ápice			8
	central stripe basal 1/3	bande centrale tiers basal	Mittelstreifen basal 1/3	franja central en el tercio basal			9
	central stripe basal 2/3	bande centrale deux tiers basaux	Mittelstreifen basal 2/3	franja central en los dos tercios basales			10
	central stripe middle 1/3	bande centrale tiers médian	Mittelstreifen Mitte 1/3	franja central en el tercio medio			11
	central stripe distal 2/3	bande centrale deux tiers distaux	Mittelstreifen distal 2/3	franja central en los dos tercios distales			12
	central stripe distal 1/3	bande centrale tiers distal	Mittelstreifen distal 1/3	franja central en el tercio distal			13
	central stripe throughout	bande centrale partout	Mittelstreifen überall	franja central en la totalidad			14
	basal spot	tache basale	Basalfleck	mancha basal			15
	lateral zone basal 1/3	zone latérale tiers basal	laterale Zone basal 1/3	en la zona lateral del tercio basal			16
	lateral zone basal 2/3	zone latérale deux tiers basaux	laterale Zone basal 2/3	en la zona lateral de los dos tercios basales			17
	lateral zone distal 2/3	zone latérale deux tiers distaux	laterale Zone distal 2/3	en la zona lateral de los dos tercios distales			18
	lateral zone distal 1/3	zone latérale tiers distal	laterale Zone distal 1/3	en la zona lateral del tercio distal			19
	lateral zone	zone latérale	laterale Zone	en la zona lateral			20
	marginal zone	zone marginale	laterale Zone	en la zona del borde			21

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
27.	PQ	VG	(c), (d), (e)				
	Ray floret: color three	Fleur ligulée : troisième couleur	Zungenblüte: Farbe drei	Flor ligulada: tercer color			
	RHS Colour Chart (indicate reference number)	Code RHS de couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)			
28.	PQ	VG	(+)	(c), (d), (e)			
	Ray floret: distribution of color three	Fleur ligulée : répartition de la troisième couleur	Zungenblüte: Verteilung von Farbe drei	Flor ligulada: distribución del tercer color			
	none	aucune	keine	ausente			1
	at base	à la base	an der Basis	en la base			2
	basal 1/3	tiers basal	basal 1/3	en el tercio basal			3
	basal 2/3	deux tiers basaux	basal 2/3	en los dos tercios basales			4
	middle 1/3	tiers médian	Mitte 1/3	en el tercio medio			5
	distal 2/3	deux tiers distaux	distal 2/3	en los dos tercios distales			6
	distal 1/3	tiers distal	distal 1/3	en el tercio distal			7
	at apex	au sommet	an der Spitze	en el ápice			8
	central stripe basal 1/3	bande centrale tiers basal	Mittelstreifen basal 1/3	franja central en el tercio basal			9
	central stripe basal 2/3	bande centrale deux tiers basaux	Mittelstreifen basal 2/3	franja central en los dos tercios basales			10
	central stripe middle 1/3	bande centrale tiers médian	Mittelstreifen Mitte 1/3	franja central en el tercio medio			11
	central stripe distal 2/3	bande centrale deux tiers distaux	Mittelstreifen distal 2/3	franja central en los dos tercios distales			12
	central stripe distal 1/3	bande centrale tiers distal	Mittelstreifen distal 1/3	franja central en el tercio distal			13
	central stripe throughout	bande centrale partout	Mittelstreifen durchgehend	franja central en la totalidad			14
	basal spot	tache basale	Basalfleck	mancha basal			15
	lateral zone basal 1/3	zone latérale tiers basal	laterale Zone basal 1/3	en la zona lateral del tercio basal			16
	lateral zone basal 2/3	zone latérale deux tiers basaux	laterale Zone basal 2/3	en la zona lateral de los dos tercios basales			17
	lateral zone distal 2/3	zone latérale deux tiers distaux	laterale Zone distal 2/3	en la zona lateral de los dos tercios distales			18
	lateral zone distal 1/3	zone latérale tiers distal	laterale Zone distal 1/3	en la zona lateral del tercio distal			19
	lateral zone	zone latérale	laterale Zone	en la zona lateral			20
	marginal zone	zone marginale	laterale Zone	en la zona del borde			21

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
29.	PQ	VG	(c), (d), (e)				
	Ray floret: color four	Fleur ligulée : quatrième couleur	Zungenblüte: Farbe vier	Flor ligulada: cuarto color			
	RHS Colour Chart (indicate reference number)	Code RHS de couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)			
30.	PQ	VG	(+)	(c), (d), (e)			
	Ray floret: distribution of color four	Fleur ligulée : répartition de la quatrième couleur	Zungenblüte: Verteilung von Farbe vier	Flor ligulada: distribución del cuarto color			
	none	aucune	keine	ausente			1
	at base	à la base	an der Basis	en la base			2
	basal 1/3	tiers basal	basal 1/3	en el tercio basal			3
	basal 2/3	deux tiers basaux	basal 2/3	en los dos tercios basales			4
	middle 1/3	tiers médian	Mitte 1/3	en el tercio medio			5
	distal 2/3	deux tiers distaux	distal 2/3	en los dos tercios distales			6
	distal 1/3	tiers distal	distal 1/3	en el tercio distal			7
	at apex	au sommet	an der Spitze	en el ápice			8
	central stripe basal 1/3	bande centrale tiers basal	Mittelstreifen basal 1/3	franja central en el tercio basal			9
	central stripe basal 2/3	bande centrale deux tiers basaux	Mittelstreifen basal 2/3	franja central en los dos tercios basales			10
	central stripe middle 1/3	bande centrale tiers médian	Mittelstreifen Mitte 1/3	franja central en el tercio medio			11
	central stripe distal 2/3	bande centrale deux tiers distaux	Mittelstreifen distal 2/3	franja central en los dos tercios distales			12
	central stripe distal 1/3	bande centrale tiers distal	Mittelstreifen distal 1/3	franja central en el tercio distal			13
	central stripe throughout	bande centrale partout	Mittelstreifen durchgehend	franja central en la totalidad			14
	basal spot	tache basale	Basalfleck	mancha basal			15
	lateral zone basal 1/3	zone latérale tiers basal	laterale Zone basal 1/3	en la zona lateral del tercio basal			16
	lateral zone basal 2/3	zone latérale deux tiers basaux	laterale Zone basal 2/3	en la zona lateral de los dos tercios basales			17
	lateral zone distal 2/3	zone latérale deux tiers distaux	laterale Zone distal 2/3	en la zona lateral de los dos tercios distales			18
	lateral zone distal 1/3	zone latérale tiers distal	laterale Zone distal 1/3	en la zona lateral del tercio distal			19
	lateral zone	zone latérale	laterale Zone	en la zona lateral			20
	marginal zone	zone marginale	laterale Zone	en la zona del borde			21

	English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
31. (*)	PQ	VG	(c), (d)				
	Ray floret: basal spot eye-marking		Fleur ligulée : repère visuel de la tache basale	Zungenblüte: Basalfleck Augenzeichnung	Flor ligulada: ojo de la mancha basal		
	none		aucun	keine	ausente	G414	1
	white		blanc	weiß	blanco	Flogazhip	2
	yellow		jaune	gelb	amarillo	Flogazsun	3
32. (*)	PQ	VG	(+)	(c)			
	<u>Only varieties with disc type: daisy:</u> Disc: color		<u>Seulement les variétés avec type de disque : margerite :</u> Disque : couleur	<u>Nur Sorten mit Scheibentyp: Margerite:</u> Scheibe: Farbe	<u>Solo variedades con tipo de disco: margarita:</u> Disco: color		
	yellow		jaune	gelb	amarillo	Flogazsun	1
	orange		orange	orange	naranja	NPN13	2
	red purple		rouge pourpre	rotpurpurn	púrpura rojizo	Takatu Red	3
33. (*)	QN	VG	(+)	(c)			
	<u>Only varieties with disc type: anemone:</u> Disc floret: length		<u>Seulement les variétés avec type de disque : anémone :</u> Fleuron : longueur	<u>Nur Sorten mit Scheibentyp: Anemone:</u> Scheibenblüte: Länge	<u>Solo variedades con tipo de disco: anémone:</u> Flósculo del disco: longitud		
	very short		très court	sehr kurz	muy corto	Suga415	1
	short		court	kurz	corto		2
	medium		moyen	mittel	medio	G414	3
	long		long	lang	largo		4
	very long		très long	sehr lang	muy largo	Suga407	5
34. (*)	PQ	VG	(c)				
	<u>Only varieties with disc type: anemone:</u> Disc floret: type		<u>Seulement les variétés avec type de disque : anémone :</u> Fleuron : type	<u>Nur Sorten mit Scheibentyp: Anemone:</u> Scheibenblüte: Typ	<u>Solo variedades con tipo de disco: anémone:</u> Flósculo del disco: tipo		
	predominantly funnel shaped		le plus souvent en entonnoir	überwiegend trichterförmig	predominantemente en forma de embudo	Vesuvius	1
	equally funnel shaped and petaloid		autant en entonnoir que pétaloïde	gleichermaßen trichterförmig und petaloid	en forma de embudo y petaloide por igual	G414, Sunhara	2
	predominantly petaloid		le plus souvent pétaloïde	überwiegend petaloid	predominantemente petaloide	Suga407	3
35. (*)	PQ	VG	(b), (c)				
	<u>Only varieties with disc type: anemone:</u> Disc floret: main color		<u>Seulement les variétés avec type de disque : anémone :</u> Fleuron : couleur principale	<u>Nur Sorten mit Scheibentyp: Anemone:</u> Scheibenblüte: Hauptfarbe	<u>Solo variedades con tipo de disco: anémone:</u> Flósculo del disco: color principal		
	RHS Colour Chart (indicate reference number)		Code RHS de couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		

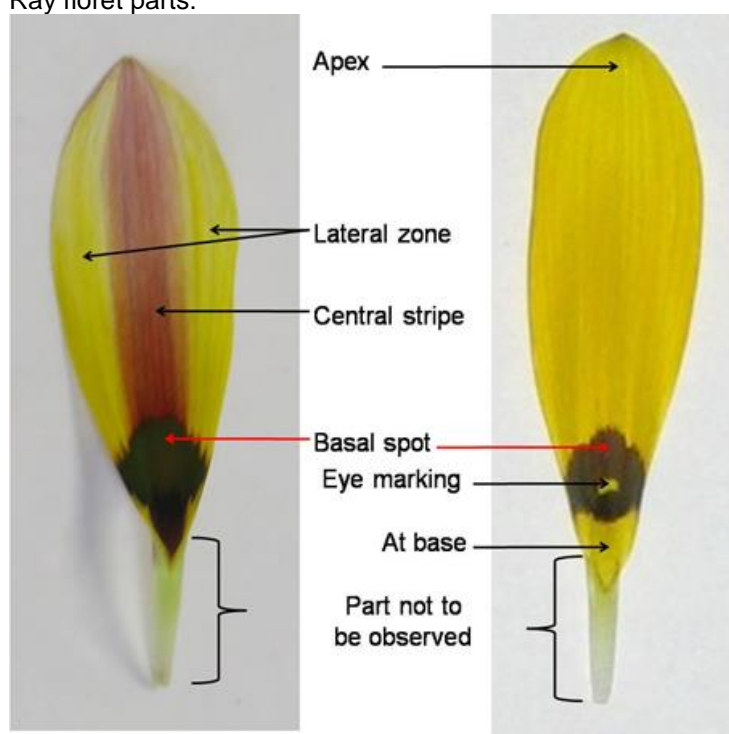
8. Explanations on the Table of Characteristics

8.1 *Explanations covering several characteristics*

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

- (a) Observations should be made on the upper side of fully developed leaves from the middle part of the plant. If there are only rosette leaves, fully developed rosette leaves should be observed. Pubescence should be removed when making observations on leaf color.
- (b) The main color is the color with the largest surface area. The secondary color is the color with the second largest surface area. In cases where the area of the main and secondary color are too similar to reliably decide which color has the largest area, the darker color is considered to be the main color.
- (c) Observations should be made on a fresh, fully open flower head.
- (d) Observations on the ray floret should be made on a ray floret from the outer whorl.

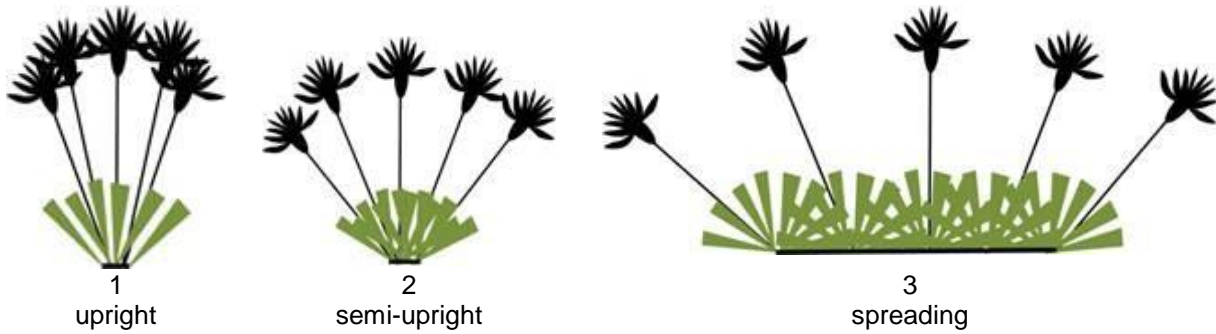
Ray floret parts:



- (e) This Guideline makes provision for four colors; if there are more, the color[s] with the smallest surface area[s] should be discounted. The basal spot eye-marking should also be excluded. Where the characteristic refers to colors as "one", "two" etc., they are to be recorded in the order that they appear on the RHS chart, i.e. color one is the one with the lowest number, color two with the second lowest and so on. If two colors are on the same leaf of the chart, for example Green 137A and Green 137D, 137A is regarded as the lower numbered color. It should be noted that under this system, ranking is independent of surface area, so the color covering the greatest surface area may be classified as color three or four.

8.2 Explanations for individual characteristics

Ad. 1: Plant: growth habit



upright - The majority of leaves and inflorescences are in upright positions and originate from a single growing shoot.

semi-upright - The majority of leaves and inflorescences are in semi-upright positions and originate from a single or few growing shoots.

spreading - The position of the leaves can vary from horizontal to upright, while the majority of inflorescences are in semi-upright positions and originate from many growing shoots.

Ad. 4: Plant: number of leaves with lobing

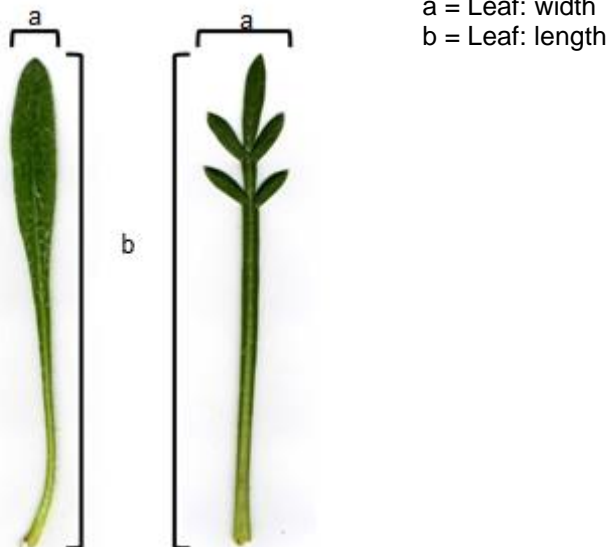
Leaf lobing might be absent in some leaves, and present in other leaves of the same plant.

absent or very few - <20% of leaves per plant are lobed

medium - 40% - 60% of leaves per plant are lobed

very many - >80% of leaves per plant are lobed

Ad. 5: Leaf: length



Observations should be made on the predominant leaf type.

Ad. 6: Leaf: width

See Ad. 5

Ad. 12: Peduncle: anthocyanin coloration

To be observed on the middle third of the peduncle.

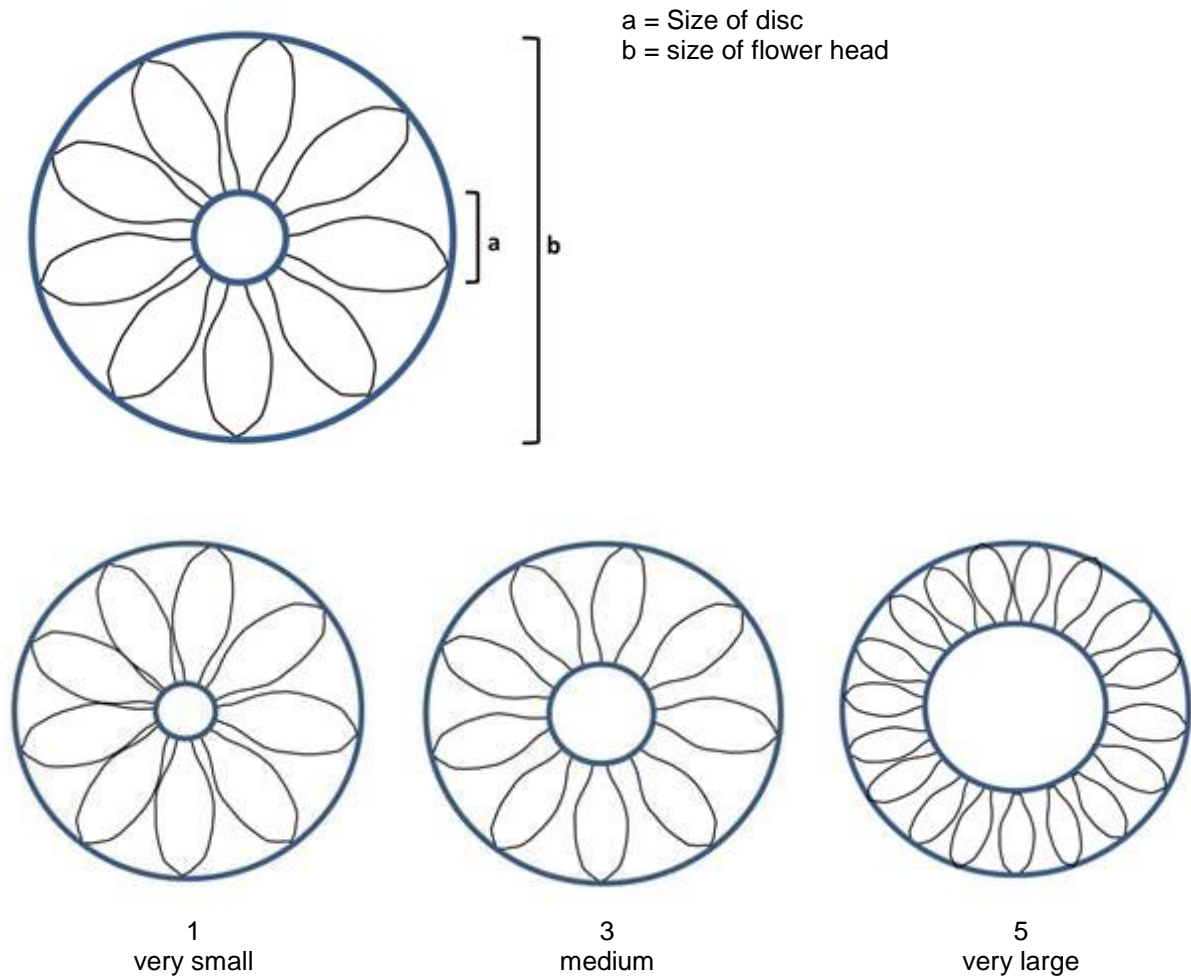
Ad. 13: Flower head: diameter



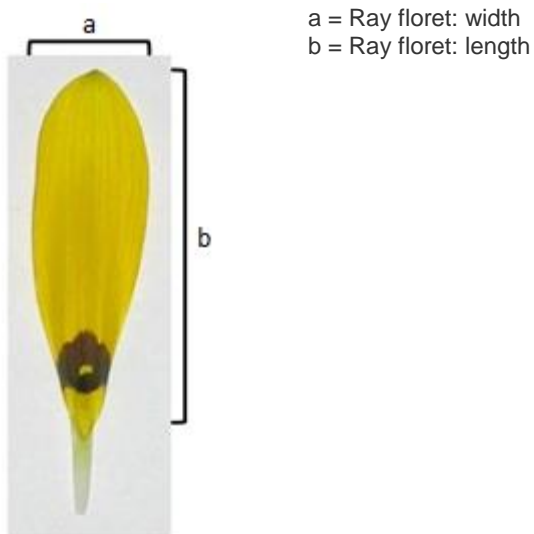
Ad. 14: Flower head: disc type

1. daisy: flower heads with a clearly defined central disc.
2. anemone: flower heads with a central "cushion" "(disc)" of petaloid disc florets.

Ad. 15: Flower head: size of disc in relation to flower head



Ad. 17: Ray floret: length



Ad. 18: Ray floret: width

See Ad. 17

Ad. 19: Ray floret: ratio length/width



1
very low



3
medium



5
very high

Ad. 20: Ray floret: profile in cross section

Observations should be made at the 'mid-point' of the ray floret.



1
concave



2
flat



3
convex

Ad. 21: Ray floret: curvature of longitudinal axis



1
moderately incurving



3
straight



5
moderately recurving

Ad. 22: Ray floret: shape of apex



1
acute

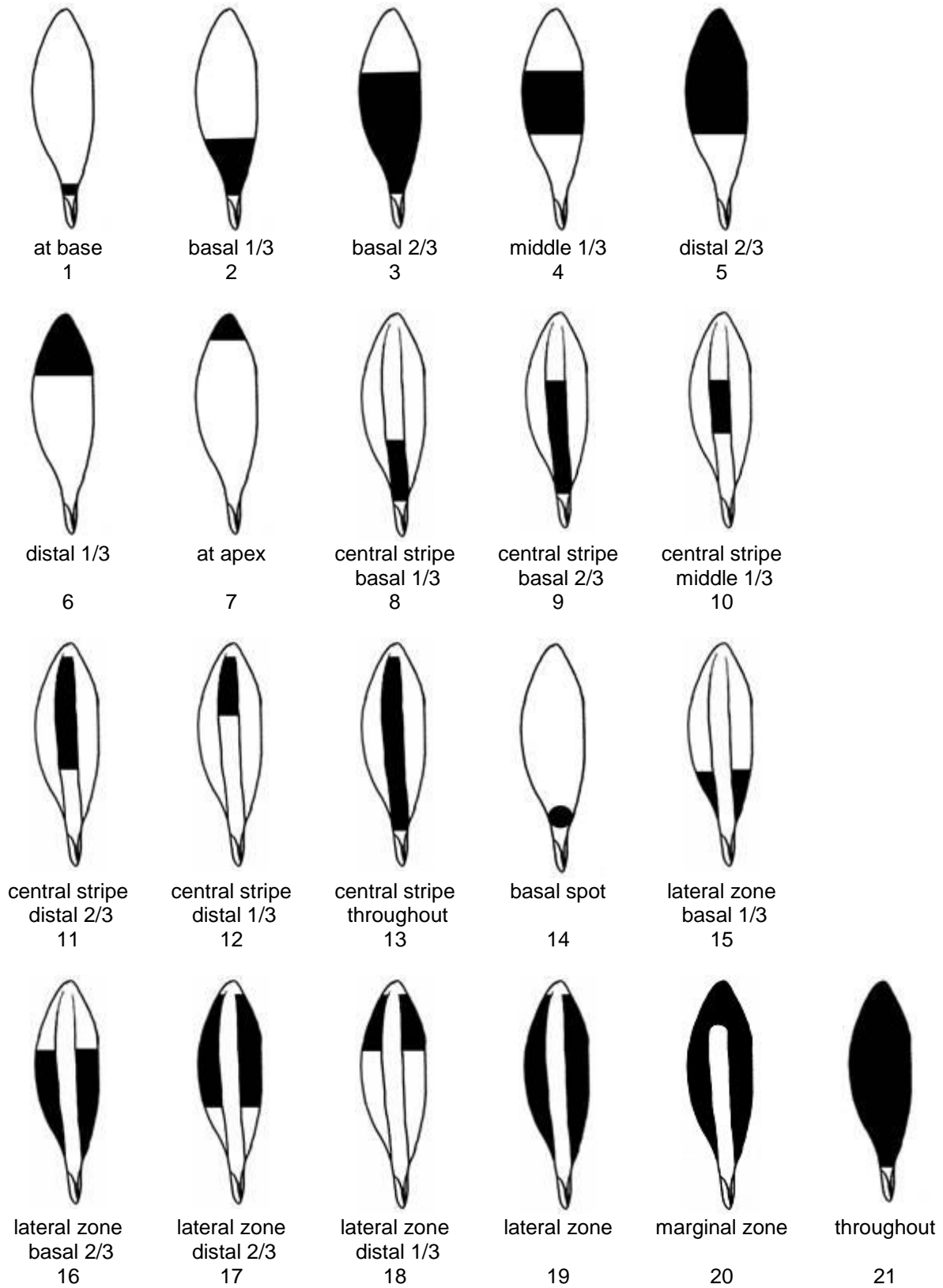


2
obtuse

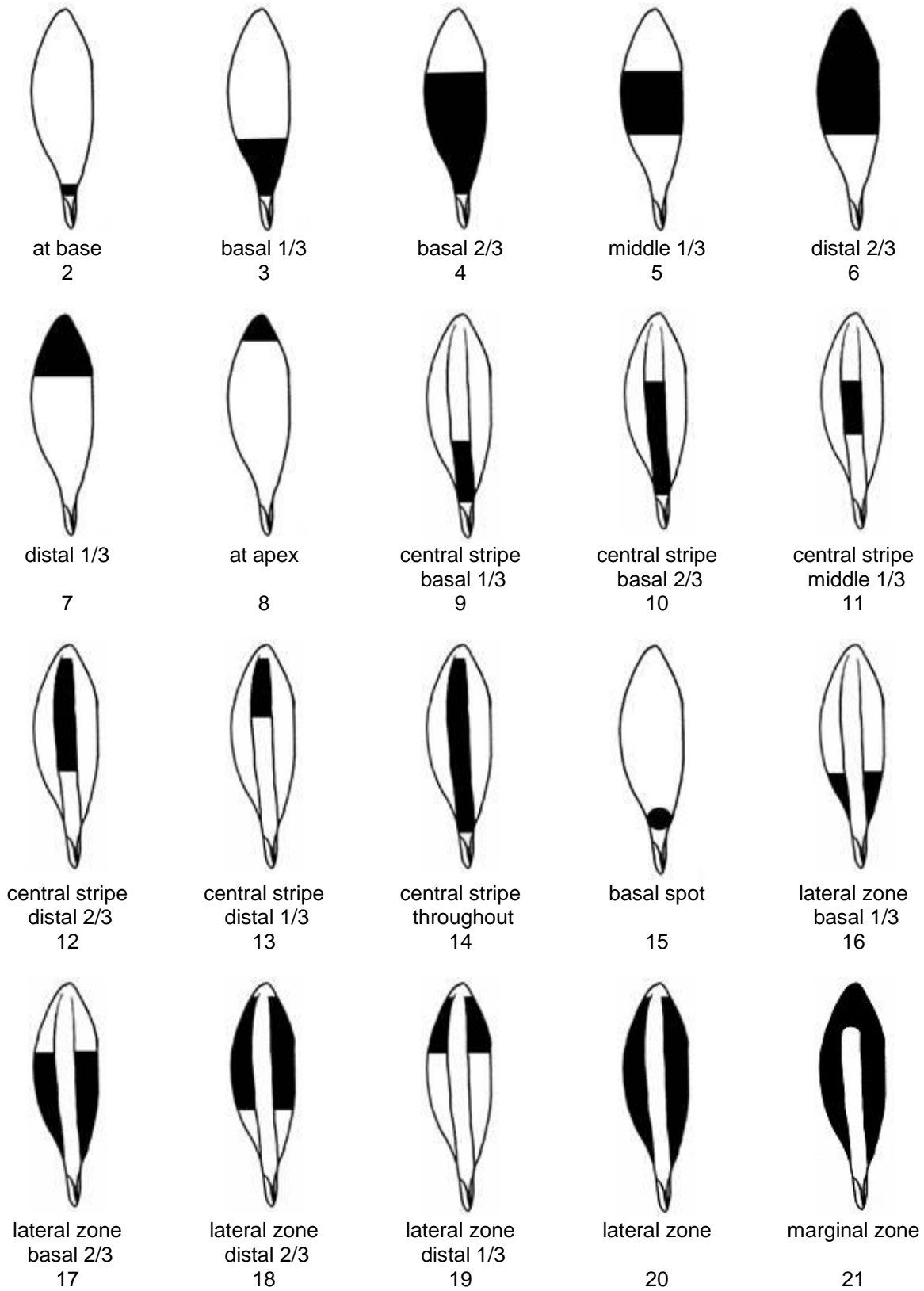


3
rounded

Ad. 24: Ray floret: distribution of color one



Ad. 26: Ray floret: distribution of color two



Ad. 28: Ray floret: distribution of color three

See Ad. 26

Ad. 30: Ray floret: distribution of color four

See Ad. 26

Ad. 32: Only varieties with disc type: daisy: Disc: color

Observations should be made when the anthers in the outer 2 to 3 rows of disc florets have dehisced.

Ad. 33: Only varieties with disc type: anemone: Disc floret: length

Observations should be made on petaloid disc floret from the outer whorl, when at least 75% of the disc florets have opened.



9. Literature

Leistner, O.A. (ed.), 2000: Seed plants of southern Africa: families and genera. Strelitzia 10. National Botanical Institute. Pretoria, Gauteng, ZA, p. 139.

Magee, A.R., Boatwright, J.S., Mucina, L., 2011: *Gazania lanata* and *G. splendidissima*: Two new species of Asteraceae (tribe Arctotideae) from the Greater Capensis, with an updated key for the genus. South African Journal of Botany, 77, pp. 86 to 93.

Trinder-Smith, T.H., 2003: The Levyns Guide to the Plant Genera of the Southwestern Cape. Contributions from the Bolus Herbarium Number 21. Red Roof Design cc, Cape Town, ZA, p. 311.

10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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	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="Gazania Gaertn."/>
1.2	Common name	<input type="text" value="Gazania, Treasure Flower"/>
1.3	Species (please complete):	<input type="text"/>

2.	Applicant	
	Name	<input type="text"/>
	Address	<input type="text"/>
	Telephone No.	<input type="text"/>
	Fax No.	<input type="text"/>
	E-mail address	<input type="text"/>
	Breeder (if different from applicant)	<input type="text"/>

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:
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#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)

(.....) x (.....)
female parent male parent

(b) partially known cross
(please state known parent variety(ies))

(.....) x (.....)
female parent male parent

(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)

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:
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4.2	Method of propagating the variety	
4.2.1	Vegetative propagation	
(a)	Cuttings	[]
(b)	<i>In vitro</i> propagation	[]
(c)	Division	[]
(d)	Other (state method)	[]
4.2.2	Other (Please provide details)	[]
	<input type="text"/>	

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the note which best corresponds).

Characteristics	Example Varieties	Note
5.1 Plant: growth habit (1)		
upright		1 []
semi-upright		2 []
spreading	Malan's Variegata	3 []
5.2 Plant: number of leaves with lobing (4)		
absent or very few	Suga813	1 []
few		2 []
medium	Suga407	3 []
many		4 []
very many	Suga602	5 []
5.3 Leaf: secondary color (8)		
none	G414	1 []
whitish	Gazte	2 []
yellowish	Malan's Variegata	3 []
5.4 Flower head: disc type (14)		
daisy	Malpin	1 []
anemone	Suga407	2 []
5.5 Ray floret: color covering the greatest surface area of upper side, with the following groups:		
whitish	Big Kiss White	1 []
yellow	Suga415	2 []
orange	New Day Clear Orange	3 []
pink	Malpin	4 []
red	NPN13	5 []

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

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

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the similar variety(ies)	Describe the expression of the characteristic(s) for your candidate variety
<i>Example</i>	<i>Leaf: length</i>	<i>short</i>	<i>medium</i>
Comments:			

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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#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 displaying its main distinguishing feature(s), should accompany the Technical Questionnaire. The photograph will provide a visual illustration of the candidate variety which supplements the information provided in the Technical Questionnaire.

The key points to consider when taking a photograph of the candidate variety are:

- Indication of the date and geographic location
- Correct labeling (breeder's reference)
- Good quality printed photograph (minimum 10 cm x 15 cm) and/or sufficient resolution electronic format version (minimum 960 x 1280 pixels)"

Further guidance on providing photographs with the Technical Questionnaire is available in document TGP/7 "Development of Test Guidelines", Guidance Note 35 (<http://www.upov.int/tgp/en/>).

[The link provided may be deleted by members of the Union when developing authorities' own test guidelines.]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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8. Authorization for release

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

Yes [] No []

(b) Has such authorization been obtained?

Yes [] No []

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

9. 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