E

TG/176/5(proj.4)
ORIGINAL: English
DATE: 2013-02-08

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

OSTEOSPERMUM;
OSTEOSPERMUM x DIMORPHOTHECA *

UPOV Code: OSTEO; OSDIM

Osteospermum L.;
hybrids with *Dimorphotheca* Vaill. ex Moench

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from Germany

to be considered by the

Technical Committee at its forty-ninth session,
to be held in Geneva from March 18 to 20, 2013

Alternative Names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Osteospermum L.	Osteospermum	Ostéospermum	Osteospermum, Kapmargerite, Kapkörbchen	Osteospermum
Osteospermum L. x *Dimorphotheca* Vaill. ex Moench				

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.]

TABLE OF CONTENTS PAGE

1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Osteospermum* L. and its hybrids with *Dimorphotheca* Vaill..

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 rooted cuttings.

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

15 rooted cuttings.

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. Except where otherwise indicated, the optimum stage of development for the assessment of the characteristics is at the time of full flowering.

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

3.4.1 Each test should be designed to result in a total of at least 15 plants.

3.4.2 The design of the tests should be such that plants or parts of plants may be removed for measurement or counting without prejudice to the observations which must be made up to the end of the growing cycle.

3.5 Additional Tests

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

4. Assessment of Distinctness, Uniformity and Stability

4.1 Distinctness

4.1.1 General Recommendations

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

4.1.2 Consistent Differences

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

4.1.3 Clear Differences

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

4.1.4 Number of Plants / Parts of Plants to be Examined

Unless otherwise indicated, for the purposes of distinctness, 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, disregarding any off-type plants.

4.1.5 Method of Observation

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

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 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 15 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) Leaf: variegation (characteristic 6)
(c) Disc: type (characteristic 12)
(d) Plant: inward rolling of longitudinal margins on ray florets (characteristic 23)
(e) Ray floret: main color of basal part (characteristic 27) with the following groups:
  Gr. 1: white
  Gr. 2: yellow
  Gr. 3: orange
  Gr. 4: pink
  Gr. 5: red
  Gr. 6: purple
  Gr. 7: violet
(f) Ray floret: main color of middle part (characteristic 28) with the following groups:
  Gr. 1: white
  Gr. 2: yellow
  Gr. 3: orange
  Gr. 4: pink
  Gr. 5: red
  Gr. 6: purple
  Gr. 7: violet

(g) Ray floret: main color of apical part (characteristic 29) with the following groups:
Gr. 1: white
Gr. 2: yellow
Gr. 3: orange
Gr. 4: pink
Gr. 5: red
Gr. 6: purple
Gr. 7: violet

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

(*)	Asterisked characteristic	– see Chapter 6.1.2
QL	Qualitative characteristic	– see Chapter 6.3
QN	Quantitative characteristic	– see Chapter 6.3
PQ	Pseudo-qualitative characteristic	– see Chapter 6.3
MG, MS, VG, VS		– see Chapter 4.1.5
(a)-(d)	See Explanations on the Table of Characteristics in Chapter 8.1	
(+)	See Explanations on the Table of Characteristics in Chapter 8.2.	

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

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. **(*)** **(+)**	**VG**	**Plant: growth habit**	**Plante : port**	**Pflanze: Wuchsform**	**Planta: porte**		
PQ		upright	dressé	aufrecht	erguido	SUMIPAS 0904	1
		semi-upright	demi-dressé	halbaufrecht	semierguido	SAKOST 8077	2
		spreading	divergent	breitwüchsig	rastrero	Duetiswila	3
2. **(*)** **(+)**	**VG/ MS**	**Plant: height**	**Plante : hauteur**	**Pflanze: Höhe**	**Planta: altura**		
QN		short	basse	niedrig	baja	Sir Rossa	3
		medium	moyenne	mittel	media	Balserimlav	5
		tall	haute	hoch	alta	Sunny Henry	7
3. **(+)**	**VG/ MS**	**Leaf: length**	**Feuille : longueur**	**Blatt: Länge**	**Hoja: longitud**		
QN	**(a)**	short	courte	kurz	corta	Sir Rossa	3
		medium	moyenne	mittel	media	KLEOE 05115	5
		long	longue	lang	larga	SUNBRE 0905	7
4. **(+)**	**VG/ MS**	**Leaf: width**	**Feuille : largeur**	**Blatt: Breite**	**Hoja: anchura**		
QN	**(a)**	narrow	étroite	schmal	estrecha	Balvoyelo	3
		medium	moyenne	mittel	media	Duetirevel	5
		broad	large	breit	ancha	Sir Whit	7
5. **(*)** **(+)**	**VG**	**Leaf: indentation of margin**	**Feuille : denticulation du bord**	**Blatt: Randeinschnitte**	**Hoja: indentación del borde**		
QN	**(a)**	absent or very shallow	absente ou très peu profonde	fehlend oder sehr flach	ausente o muy poco profunda		1
		shallow	peu profonde	flach	poco profunda		3
		medium	moyenne	mittel	media		5
		deep	profonde	tief	profunda		7
		very deep	très profonde	sehr tief	muy profunda		9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
6. **(*)** **(+)**	**VG**	**Leaf: variegation**	**Feuille : panachure**	**Blatt: Panaschierung**	**Hoja: variegación**		
QL	**(a)**	absent	absente	fehlend	ausente	Sunny Henry	1
		present	présente	vorhanden	presente	Silver Sparkler	9
7.	**VG**	**Leaf: intensity of green color**	**Feuille : intensité de la couleur verte**	**Blatt: Intensität der Grünfärbung**	**Hoja: intensidad del color verde**		
QN	**(a)**	light	claire	hell	claro		1
		medium	moyenne	mittel	medio	Sir Rossa	2
		dark	foncée	dunkel	oscuro	SUNOST 1001	3
8. **(+)**	**VG**	**Young flower head: main color of ray floret**	**Jeune capitule : couleur principale de la fleur ligulée**	**Junger Blütenstand: Hauptfarbe der Zungenblüte**	**Capítulo joven: color principal de la flor ligulada**		
PQ		RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		
9. **(*)** **(+)**	**VG**	**Flower head: paracorolla**	**Capitule : para corolle**	**Blütenstand: Nebenkrone**	**Capítulo: paracorola**		
QL	**(b)**	absent	absente	fehlend	ausente		1
		present	présente	vorhanden	presente		9
10. **(*)** **(+)**	**VG/ MS**	**Flower head: number of ray florets**	**Capitule : nombre de fleurs ligulées**	**Blütenstand: Anzahl Zungenblüten**	**Capítulo: número de flores liguladas**		
QN	**(b)**	few	faible	gering	bajo	Balvoyelo	3
		medium	moyen	mittel	medio	Sunny Xandra	5
		many	élevé	groß	alto		7
11. **(*)**	**VG/ MS**	**Flower head: diameter**	**Capitule : diamètre**	**Blütenstand: Durchmesser**	**Capítulo: diámetro**		
QN	**(b)**	small	petit	klein	pequeño	Sir Whit	3
		medium	moyen	mittel	medio		5
		large	grand	groß	grande	Sakcadnucop	7
12. **(*)** **(+)**	**VG**	**Disc: type**	**Disque : type**	**Scheibe: Typ**	**Disco: tipo**		
QL	**(b)**	daisy	marguerite	margeritenförmig	margarita	Sunny Henry	1
		anemone	anémone	anemonenförmig	anémona	KLEOE 10180	2

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
13.	**VG/ MS**	**Only varieties with disc: type: daisy** **Disc: diameter**	**Variétés avec disque seulement : type : marguerite : Disque : diamètre**	**Nur Sorten mit Scheibe: Typ: margeritenförmig:** **Scheibe: Durchmesser**	**Únicamente variedades con disco: tipo: margarita: Disco: diámetro**		
QN	**(b)**	very small	très petit	sehr klein	muy pequeño		1
		small	petit	klein	pequeño	Sir Whit	2
		medium	moyenne	mittel	medio		3
		large	grand	groß	grande	Sunny Xandra	4
		very large	très grand	sehr groß	muy grande		5
14.	**VG/ MS**	**Only varieties with disc: type: anemone** **Disc: diameter**	**Variétés avec disque seulement : type : anémone : Disque : diamètre**	**Nur Sorten mit Scheibe: Typ: anemonenförmig:** **Scheibe: Durchmesser**	**Únicamente variedades con disco: tipo: anémona: Disco: diámetro**		
QN	**(b)**	very small	très petit	sehr klein	muy pequeño		1
		small	petit	klein	pequeño		2
		medium	moyenne	mittel	medio		3
		large	grand	groß	grande		4
		very large	très grand	sehr groß	muy grande		5
15. **(*)** **(+)**	**VG**	**Only varieties with disc: type: daisy** **Disc: color**	**Variétés avec disque seulement : type : marguerite : Disque : couleur**	**Nur Sorten mit Scheibe: Typ: margeritenförmig:** **Scheibe: Farbe**	**Únicamente variedades con disco: tipo: margarita: Disco: color**		
PQ		light grey	gris clair	hellgrau	gris claro		1
		yellow	jaune	gelb	amarillo		2
		yellow green	vert jaune	gelbgrün	verde amarillento		3
		medium grey green	vert gris moyen	mittel graugrün	verde gris medio		4
		dark grey green	vert gris foncé	dunkel graugrün	verde gris oscuro		5
		dark grey	gris foncé	dunkelgrau	gris oscuro		6
		purple	pourpre	purpurn	púrpura		7
		violet	violet	violett	violeta		8
		light blue	bleu clair	hellblau	azul claro		9
		dark blue	bleu foncé	dunkelblau	azul oscuro		10
		brown	brun	braun	marrón		11
		black	noir	schwarz	negro		12

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
16. **(+)**	**VG**	**Only varieties with disc: type: anemone: Plant: predominant type of disc floret**	**Variétés avec disque seulement : type : anémone : Plante : type prédominant de fleuron**	**Nur Sorten mit Scheibe: Typ: anemonenförmig: Pflanze: überwiegender Typ der Scheibenblüte**	**Únicamente variedades con disco: tipo: anémona: Planta: tipo predominante de flósculo del disco**		
PQ		funnel shaped	en entonnoir	trichterförmig	en forma de embudo		1
		petaloid and funnel shaped	pétaloïde et en entonnoir	petaloid und trichterförmig	petaloide y en forma de embudo		2
		petaloid	pétaloïde	petaloid	petaloide		3
17. **(*)** **(+)**	**VG**	**Funnel shaped disc floret: main color of outer side of corolla tube**	**Fleuron en entonnoir : couleur principale de la face externe du tube de la corolle**	**Trichterförmige Scheibenblüte: Hauptfarbe der Außenseite der Kronröhre**	**Flósculo del disco en forma de embudo: color principal de la cara externa del tubo de la corola**		
PQ		RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		
18. **(+)**	**VG**	**Petaloid disc floret: main color of upper side**	**Fleuron pétaloïde : couleur principale de la face supérieure**	**Petaloide Scheibenblüte: Hauptfarbe der Oberseite**	**Flósculo del disco petaloide: color principal de la cara superior**		
PQ		RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		
19. **(*)**	**VG/ MS**	**Ray floret: length**	**Fleur ligulée : longueur**	**Zungenblüte: Länge**	**Flor ligulada: longitud**		
QN	**(b)**	short	courte	kurz	corta		3
		medium	moyenne	mittel	media	Balvoyelo	5
		long	longue	lang	larga	Sunny Xandra	7
20. **(+)**	**VG/ MS**	**Ray floret: width**	**Fleur ligulée : largeur**	**Zungenblüte: Breite**	**Flor ligulada: anchura**		
QN	**(b)**	very narrow	très étroite	sehr schmal	muy estrecha		1
		narrow	étroite	schmal	estrecha	SUNPIX 0804	2
		medium	moyenne	mittel	media		3
		broad	large	breit	ancha	KLEOE 06123	4
		very broad	très large	sehr breit	muy ancha		5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
21. **(+)**	**VG/ MS**	**Ray floret: length/width ratio**	**Fleur ligulée : rapport longueur/largeur**	**Zungenblüte: Verhältnis Länge/Breite**	**Flor ligulada: relación longitud/anchura**		
QN	**(b)**	very low	très bas	sehr klein	muy baja		1
		low	bas	klein	baja		2
		medium	moyen	mittel	media		3
		high	élevé	groß	alta		4
		very high	très élevé	sehr groß	muy alta		5
22. **(+)**	**VG**	**Ray floret: shape of apex**	**Fleur ligulée : forme du sommet**	**Zungenblüte: Form der Spitze**	**Flor ligulada: forma del ápice**		
PQ	**(b)**	acute	aigu	spitz	aguda		1
		obtuse	obtus	stumpf	obtusa		2
		rounded	arrondi	abgerundet	redondeada		3
		truncate	tronqué	gerade	truncada		4
23. **(*)** **(+)**	**VG**	**Plant: inward rolling of longitudinal margins on ray florets**	**Plante : enroulement vers l'intérieur des bords longitudinaux sur les fleurs ligulées**	**Pflanze: Einrollen der Längsränder der Zungenblüten**	**Planta: curvatura interna de los bordes longitudinales de las flores liguladas**		
QN	**(b)**	absent on all flower heads	absent sur tous les capitules	an allen Blütenständen fehlend	ausente en todos los capítulos	Sunny Henry	1
		present on some flower heads	présent sur certains capitules	an einigen Blütenständen vorhanden	presente en algunos capítulos	Osjaseclipur	2
		present on all flower heads	présent sur tous les capitules	an allen Blütenständen vorhanden	presente en todos los capítulos	Balserlabli	3
24. **(*)** **(+)**	**VG**	**Ray floret: proportion with rolled margin**	**Fleur ligulée : proportion avec bord enroulé**	**Zungenblüte: Anteil mit eingerolltem Rand**	**Flor ligulada: proporción con borde curvado**		
QN	**(b)**	less than one-third	moins d'un tiers	weniger als ein Drittel	menos de un tercio		1
		one-third to less than one-half	un tiers à moins de la moitié	ein Drittel bis weniger als die Hälfte	de un tercio a menos de la mitad		2
		one-half to two-thirds	la moitié à deux tiers	die Hälfte bis zwei Drittel	de la mitad a dos tercios		3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
25. **(*)** **(+)**	**VG**	**Only varieties with disc: type: daisy:** **Ray floret: width of ring at base**	**Variétés avec disque seulement : type : marguerite :** **Fleur ligulée : largeur de l'anneau à la base**	**Nur Sorten mit Scheibe: Typ: margeritenförmig:** **Zungenblüte: Breite des Rings an der Basis**	**Únicamente variedades con disco: tipo: margarita:** **Flor ligulada: anchura del anillo de la base**		
QN	**(c)**	absent or very narrow	absent ou très étroit	fehlend oder sehr schmal	ausente o muy estrecho	Sunny Henry	1
	(d)	narrow	étroit	schmal	estrecho	SUMIPAS 02	2
		medium	moyen	mittel	medio	Sunny Felix	3
		broad	large	breit	ancho	Balserimlav	4
		very broad	très large	sehr breit	muy ancho		5
26.	**VG**	**Ray floret: color of ring at base**	**Fleur ligulée : couleur de l'anneau à la base**	**Zungenblüte: Farbe des Rings an der Basis**	**Flor ligulada: color del anillo de la base**		
PQ	**(c)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		
27. **(*)** **(+)**	**VG**	**Ray floret: main color of basal part**	**Fleur ligulée : couleur principale de la partie basale**	**Zungenblüte: Hauptfarbe des basalen Teils**	**Flor ligulada: color principal de la parte basal**		
PQ	**(c)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		
28. **(*)** **(+)**	**VG**	**Ray floret: main color of middle part**	**Fleur ligulée : couleur principale de la partie médiane**	**Zungenblüte: Hauptfarbe des mittleren Teils**	**Flor ligulada: color principal de la parte central**		
PQ	**(c)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		
29. **(*)** **(+)**	**VG**	**Ray floret: main color of apical part**	**Fleur ligulée : couleur principale de la partie apicale**	**Zungenblüte: Hauptfarbe des apikalen Teils**	**Flor ligulada: color principal de la parte apical**		
PQ	**(c)** **(d)**	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		
30. **(+)**	**VG**	**Ray floret: conspicuousness of longitudinal stripes**	**Fleur ligulée : visibilité des stries longitudinales**	**Zungenblüte: Ausprägung der Längsstreifen**	**Flor ligulada: visibilidad de las rayas longitudinales**		
QN	**(c)**	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausentes o muy débiles		1
		weak	faible	gering	débiles		2
		medium	moyenne	mittel	medias		3
		strong	forte	stark	fuertes		4

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
31. (*) (+)	**VG**	**Ray floret: color of tip**	**Fleur ligulée : couleur du sommet**	**Zungenblüte: Farbe der Spitze**	**Flor ligulada: color de la punta**		
QN	**(c)**	same as color of apical part	identique à celle de la partie apicale	genauso wie die Farbe des apikalen Teils	del mismo color que la parte apical		1
		slightly different from color of apical part	légèrement différente de celle de la partie apicale	etwas anders als die Farbe des apikalen Teils	ligeramente distinto del color de la parte apical		2
		strongly different from color of apical part	très différente de celle de la partie apicale	deutlich anders als die Farbe des apikalen Teils	muy distinto del color de la parte apical		3
32. (*) (+)	**VG**	**Ray floret: color group of lower side**	**Fleur ligulée : groupe de couleurs sur la face inférieure**	**Zungenblüte: Farbgruppe der Unterseite**	**Flor ligulada: grupo de color de la parte inferior**		
PQ		very light brown	brun très clair	sehr hellbraun	marrón muy claro		1
		very light yellow to light yellow	jaune très clair à jaune clair	sehr hellgelb bis hellgelb	amarillo muy claro a amarillo claro		2
		medium yellow to dark yellow	jaune moyen à jaune foncé	mittelgelb bis dunkelgelb	amarillo medio a amarillo oscuro		3
		yellow brown	brun jaune	gelbbraun	marrón amarillento		4
		orange with brown stripes	orange à bandes brunes	orange mit braunen Streifen	naranja con líneas marrones		5
		orange to brown orange	orange à orange brun	orange bis braunorange	naranja a marrón anaranjado		6
		red brown to dark brown	rouge brun à brun foncé	rotbraun bis dunkelbraun	marrón rojizo a marrón oscuro		7
		purple	pourpre	purpurn	púrpura		8
		violet	violet	violett	violeta		9
		brown purple to brown violet	pourpre brun à violet brun	braunpurpurn bis braunviolett	púrpura amarronado a violeta amarronado		10
		blue	bleu	blau	azul		11
		yellowish white with purple stripe	blanc jaunâtre à bandes pourpres	gelblich weiß mit purpurnem Streifen	blanco amarillento con línea púrpura		12
		yellow with green stripe	jaune à bandes vertes	gelb mit grünem Streifen	amarillo con línea verde		13
		yellow with brown stripe	jaune à bandes brunes	gelb mit braunem Streifen	amarillo con línea marrón		14

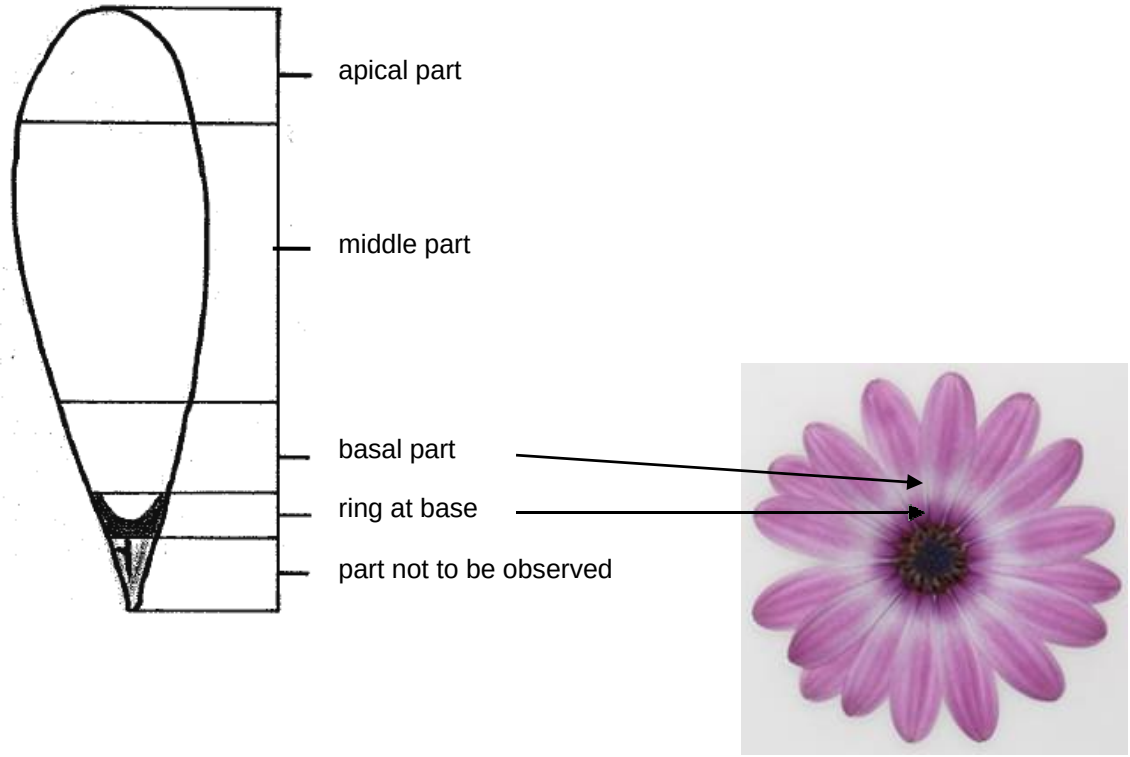
8. Explanations on the Table of Characteristics

8.1 Explanations covering several characteristics

Observations should be made at the time of full flowering.

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 upper side of fully developed leaves from the middle part of the plant.
(b) Observations on the flower head, the disc and the ray floret should be made when nearly all disc florets have opened.
(c) Observations on the color of the ray floret should be made on the upper side of the ray floret when two to three rows of disc florets have opened.
(d) Diagram of parts of the ray floret:



8.2 Explanations for individual characteristics

Ad. 1: Plant: growth habit

1
upright

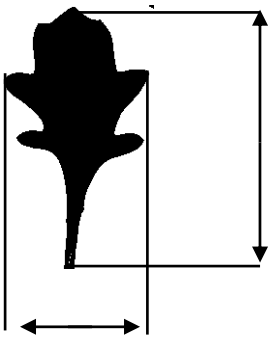
2
semi-upright

3
spreading

Ad. 2: Plant: height

The plant height should be observed on the longest shoot from the ground to the flower head.

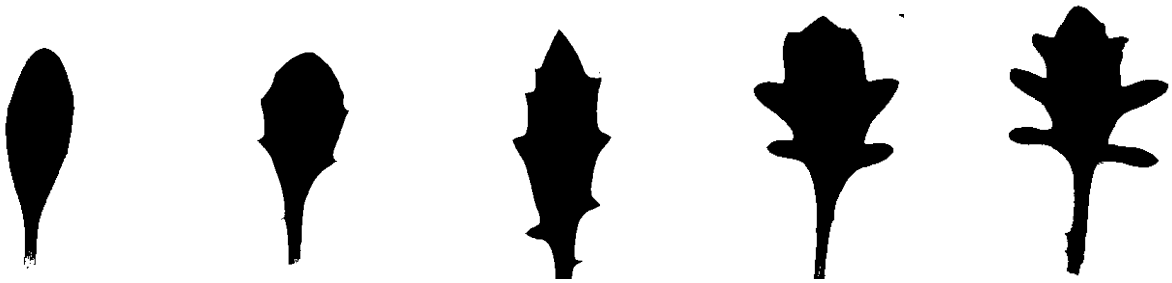
Ad. 3: Leaf: length
Ad. 4: Leaf: width



Leaf: length

Leaf: width

Ad. 5: Leaf: indentation of margin



1
absent or very shallow

3
shallow

5
medium

7
deep

9
very deep

Ad. 6: Leaf: variegation

1
absent

9
present

Ad. 8: Young flower head: main color of ray floret

Observations should be made on the upper side of the ray floret when all ray florets are fully expanded and there are no open disc florets.

The main color is the color with the largest surface area. In cases where the areas of the main and secondary color are too similar to reliably decide which color has the largest area, the darkest color is considered to be the main color.

Ad. 9: Flower head: paracorolla

The paracorolla is a secondary or inner corolla; a corona of the flower head.

1
absent

9
present

Ad. 10: Flower head: number of ray florets

The paracorolla should be excluded when observing the number of ray florets.

Ad. 12: Disc: type

1
daisy

2
anemone
(funnel shaped disc floret)

2
anemone
(petaloid disc floret)

Ad. 15: Only varieties with disc: type: daisy: Disc: color

The observation should be done when there are no open disc florets.

Ad. 16: Only varieties with disc: type: anemone: Plant: predominant type of disc floret

1
funnel shaped

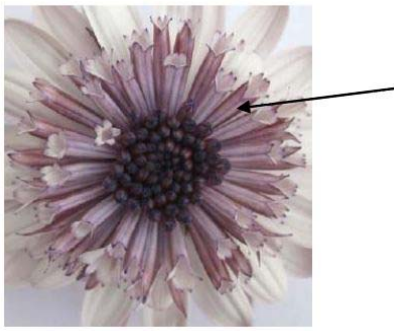
3
petaloid

State 2 (disc floret type funnel shaped and petaloid) means that flower heads with funnel shaped disc florets and petaloid disc florets in approximately the same amount are present on all plants of the variety.

Ad. 17: Funnel shaped disc floret: main color of outer side of corolla tube

The main color is the color with the largest surface area. In cases where the areas of the main and secondary color are too similar to reliably decide which color has the largest area, the darkest color is considered to be the main color.

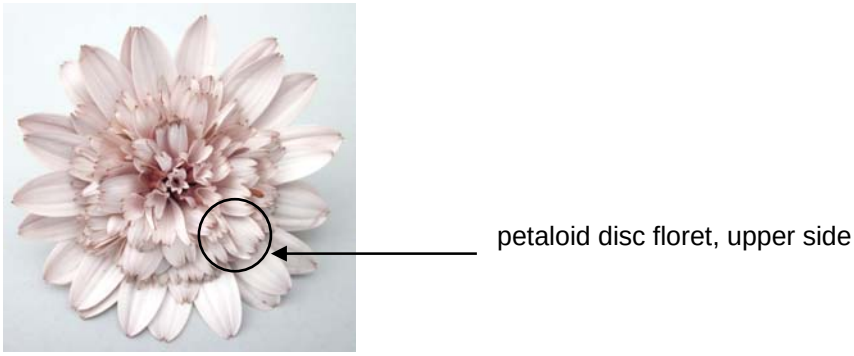
The observation should be done when two-thirds of the disc florets are open.



Ad. 18: Petaloid disc floret: main color of upper side

The main color is the color with the largest surface area. In cases where the areas of the main and secondary color are too similar to reliably decide which color has the largest area, the darkest color is considered to be the main color.

The observation should be done when two-thirds of the disc florets are open.



Ad. 20: Ray floret: width

For ray florets with inward rolling of longitudinal margins, observe the broadest part.

Ad. 21: Ray floret: length/width ratio

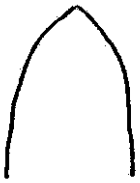
1
very low

3
medium

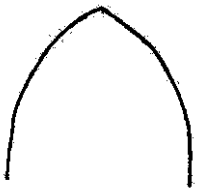
5
very high

Ad. 22: Ray floret: shape of apex

To be observed excluding incisions.

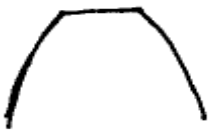


1
acute



2
obtuse

3
rounded



4
truncate

Ad. 23: Plant: inward rolling of longitudinal margins on ray florets

absent

present

State 2 (inward rolling of longitudinal margins present on some flower heads) means that inward rolling is present on some flower heads of all plants of the variety.

Ad. 24: Ray floret: proportion with rolled margin

In varieties with both types of flower heads (ray florets with and without rolled margin) observe only the flower heads with rolled margin.

1
less than one-third

2
one-third to less than one-half

3
one-half to two-thirds

Ad. 25: Only varieties with disc: type: daisy: Ray floret: width of ring at base

1
absent or very narrow

2
narrow

3
medium

4
broad

5
very broad

Ad. 27: Ray floret: main color of basal part
Ad. 28: Ray floret: main color of middle part
Ad. 29: Ray floret: main color of apical part

The main color is the color with the largest surface area. In cases where the areas of the main and secondary color are too similar to reliably decide which color has the largest area, the darkest color is considered to be the main color. In varieties with inward rolling ray floret margins, the lower side of the ray floret is visible when viewing the upper side of the flower. In these cases, the color of the visible lower side is not to be considered a color of the upper side.

Ad. 30: Ray floret: conspicuousness of longitudinal stripes

The conspicuousness is determined by the color contrast.

1
absent or very weak

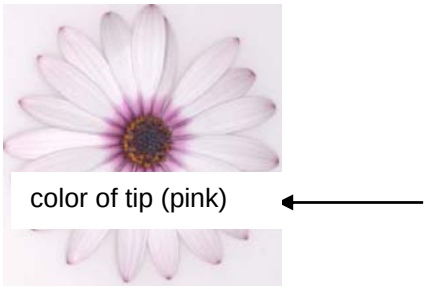
2
weak

3
medium

4
strong

Ad. 31: Ray floret: color of tip

1
same as color of apical part



3
strongly different from color of apical part

Ad. 32: Ray floret: color group of lower side

Observations should be made when two to three rows of disc florets have opened.

9. Literature

Heywood, V.H. (ed.), 1993: Flowering Plants of the World. B.T. Batsford. 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 Genus	*Osteospermum* L.	
1.2 Species (please complete)		
1.2.1 Botanical name		[ ]
1.2.2 Common name		
1.3 Hybrid	Osteospermum L. x Dimorphotheca Vaill. ex Moench	[ ]
Species (please complete)		
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)

(……..) 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:

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 Other [ ]
(please provide details)

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: growth habit**		
	upright	SUMIPAS 0904	1[ ]
	semi-upright	SAKOST 8077	2[ ]
	spreading	Duetiswila	3[ ]
5.2 (2)	**Plant: height**		
	very short		1[ ]
	very short to short		2[ ]
	short	Sir Rossa	3[ ]
	short to medium		4[ ]
	medium	Balserimlav	5[ ]
	medium to tall		6[ ]
	tall	Sunny Henry	7[ ]
	tall to very tall		8[ ]
	very tall		9[ ]
5.3 (6)	**Leaf: variegation**		
	absent	Sunny Henry	1[ ]
	present	Silver Sparkler	9[ ]
5.4 (12)	**Disc: type**		
	daisy	Sunny Henry	1[ ]
	anemone	KLEOE 10180	2[ ]
5.5 (23)	**Plant: inward rolling of longitudinal margins on ray florets**		
	absent on all flower heads	Sunny Henry	1[ ]
	present on some flower heads	Osjaseclipur	2[ ]
	present on all flower heads	Balserlabli	3[ ]

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

	Characteristics	Example Varieties	Note
5.6 (25)	**<u>Only varieties with disc: type: daisy</u>: Ray floret: width of ring at base**		
	absent or very narrow	Sunny Henry	1[ ]
	narrow	SUMIPAS 02	2[ ]
	medium	Sunny Felix	3[ ]
	broad	Balserimlav	4[ ]
	very broad		5[ ]
5.7i (27)	**Ray floret: main color of basal part**		
	RHS Colour Chart (indicate reference number)	.....	
5.7ii (27)	**Ray floret: main color of basal part**		
	white		1[ ]
	yellow		2[ ]
	orange		3[ ]
	pink		4[ ]
	red		5[ ]
	purple		6[ ]
	violet		7[ ]
	other color (indicate which)	.....	8[ ]
5.8i (28)	**Ray floret: main color of middle part**		
	RHS Colour Chart (indicate reference number)	.....	
5.8ii (28)	**Ray floret: main color of middle part**		
	white		1[ ]
	yellow		2[ ]
	orange		3[ ]
	pink		4[ ]
	red		5[ ]
	purple		6[ ]
	violet		7[ ]
	other color (indicate which)	.....	8[ ]

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

	Characteristics	Example Varieties	Note
5.9i (29)	**Ray floret: main color of apical part**		
	RHS Colour Chart (indicate reference number)	.....	
5.9ii (29)	**Ray floret: main color of apical part**		
	white		1[ ]
	yellow		2[ ]
	orange		3[ ]
	pink		4[ ]
	red		5[ ]
	purple		6[ ]
	violet		7[ ]
	other color (indicate which)	.....	8[ ]
5.10 (32)	**Ray floret: color group of lower side**		
	very light brown		1[ ]
	very light yellow to light yellow		2[ ]
	medium yellow to dark yellow		3[ ]
	yellow brown		4[ ]
	orange with brown stripes		5[ ]
	orange brown to orange		6[ ]
	red brown to dark brown		7[ ]
	purple		8[ ]
	violet		9[ ]
	brown purple to brown violet		10[ ]
	blue		11[ ]
	yellowish white with purple stripe		12[ ]
	yellow with green stripe		13[ ]
	yellow with brown stripe		14[ ]
	other color group (indicate which)	.....	15[ ]

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	*Ray floret: width*	*broad*	*narrow*

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 image 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”.

……

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]