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INTERNATIONAL UNION
FOR THE PROTECTION
OF NEW VARIETIES OF
PLANTS

UNION INTERNATIONALE
POUR LA PROTECTION
DES OBTENTIONS
VÉGÉTALES

INTERNATIONALER
VERBAND ZUM SCHUTZ
VON PFLANZEN-
ZÜCHTUNGEN

UNIÓN INTERNACIONAL
PARA LA PROTECCIÓN
DE LAS OBTENCIONES
VEGETALES

DRAFT

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

OSTEOSPERMUM

(Osteospermum ecklonis (DC.) Norl.)

These Guidelines should be read in conjunction with document TG/1/2, which contains explanatory notes on the general principles on which the Guidelines have been established.

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I. Subject of these Guidelines

These Test Guidelines apply to all vegetatively propagated varieties of *Osteospermum ecklonis* (DC.) Norl. of the family Compositae.

II. Material Required

1. The competent authorities decide when, where and in what quantity and quality the plant material required for testing the variety is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must make sure that all customs formalities are complied with. As a minimum, the following quantity of plant material is recommended:

20 rooted cuttings, not treated with growth retardants.

2. The plant material supplied should be visibly healthy, not lacking in vigor or affected by any important pests or diseases.

3. The plant material must not have undergone any treatment unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

III. Conduct of Tests

1. A test should normally be conducted for one growing period. If distinctness and/or uniformity cannot be sufficiently established in one growing period, the test should be extended for a second growing period.

2. The tests should normally be conducted at one place. If any important characteristics of the variety cannot be seen at that place, the variety may be tested at an additional place.

3. The tests should be carried out under conditions ensuring normal growth (conditions for the Northern Hemisphere).

Time of submission of
plant material: Mid-December.

Planting of plants for
the test: Mid-May: containers in the open.

Soil: Porous substrate with clay and good aeration.

Fertilization: Liquid feed according to soil analysis; relatively high amounts.

Irrigation: Drip irrigation, soil uniformly moist.

Temperature: December 18°C, End of January to Mid-April 5°C, Mid-April to
Mid-May 12°C.

The size of the plots should be such that plants or parts of plants may be removed for measurement and counting without prejudice to the observations which must be made up to the

end of the growing period. Each test should include a total of 20 plants. Separate plots for observation and for measuring can only be used if they have been subject to similar environmental conditions.

4. Additional tests for special purposes may be established.

IV. Methods and Observations

1. All observations determined by measurement or counting should be made on 10 plants or parts taken from each of 10 plants 6 to 8 months old.

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 20 plants, the maximum number of off-types allowed would be 1.

3. Unless otherwise indicated, all observations should be made on typical organs of 20 plants at the time of full flowering.

4. 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 tolerance set out in the British Standard 950, Part I. These determinations should be made with the plant part placed against a white background.

V. Grouping of Varieties

1. The collection of varieties to be grown should be divided into groups to facilitate the assessment of distinctness. Characteristics which are suitable for grouping purposes are those which are known from experience not to vary, or to vary only slightly, within a variety. Their various states of expression should be fairly evenly distributed throughout the collection.

2. It is recommended that the competent authorities use the following characteristics for grouping varieties:

- (a) Inflorescence: shape of ray floret (characteristic 11)
- (b) Ray floret: color of middle of upper side (characteristic 15) with the following groups:
 - Gr. 1: white
 - Gr. 2: yellow
 - Gr. 3: blue pink
 - Gr. 4: red
 - Gr. 5: purple
 - Gr. 6: violet

VI. Characteristics and Symbols

1. To assess distinctness, uniformity and stability, the characteristics and their states as given in the Table of Characteristics should be used.

2. Notes (numbers), for the purposes of electronic data processing, are given opposite the states of expression for each characteristic.

3. Legend

(*) Characteristics that should be used on all varieties in every growing period over which examinations are made and always be included in the variety descriptions, except when the state of expression of a preceding characteristic or regional environmental conditions render this impossible.

(+) See Explanations on the Table of Characteristics in Chapter VIII.

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

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. Plant: attitude of shoots (*)	Plante: port des tiges	Pflanze: Haltung der Triebe	Planta: porte de los tallos		
erect	dressé	aufrecht	erecto	Nairobi	1
semi-erect	demi-dressé	halbaufrecht	semierecto	Sunny Boy	3
horizontal	horizontal	waagrecht	horizontal	Sirius	5
semi-drooping	demi-retombant	halbhängend	semicolgante	Tanga	7
drooping	retombant	hängend	colgante	White Flash	9
2. Shoot: length (*)	Tige: longueur	Trieb: Länge	Tallo: longitud		
short	courte	kurz	corto	Prince	3
medium	moyenne	mittel	medio	Polarstern	5
long	longue	lang	largo	Tanga	7
3. Leaf: length (including petiole) (*)	Feuille: longueur (y compris le pétiole)	Blatt: Länge (einschließlich Stiel)	Hoja: longitud (incluido el peciolo)		
short	courte	kurz	corta	Prince	3
medium	moyenne	mittel	media	Nairobi	5
long	longue	lang	larga	Pink Clio	7
4. Leaf: width (*)	Feuille: largeur	Blatt: Breite	Hoja: anchura		
narrow	étroite	schmal	estrecha		3
medium	moyenne	mittel	media	Sunny Lady	5
broad	large	breit	ancha	Arctur	7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5. Leaf: degree of lobing	Feuille: degré de découpage du bord	Blatt: Stärke der Lappung	Hoja: intensidad de lobulado		
absent or very weak	nul ou très faible	fehlend oder sehr gering	ausente o muy débil	Pink Clío	1
weak	faible	gering	débil	Sunny Girl	3
medium	moyen	mittel	medio	Sparkler	5
strong	fort	stark	fuerte	Buttermilk	7
very strong	très fort	sehr stark	muy fuerte	Zulu	9
6. (*) Leaf: variegation	Feuille: panachure	Blatt: Panaschierung	Hoja: variegación		
absent	absente	fehlend	ausente	Sparkler	1
present	présente	vorhanden	presente	Silver Sparkler	9
7. <u>Only varieties without variegation:</u> Leaf: green color of upper side	<u>Uniquement pour les variétés sans panachure :</u> Feuille: couleur verte du bord supérieur	<u>Nur Sorten ohne Panaschierung:</u> Blatt: Grünfärbung der Oberseite	<u>Sólo variedades sin variegación:</u> Hoja: color verde del haz		
light	claire	hell	claro		3
medium	moyenne	mittel	medio	Sunny Lady	5
dark	foncée	dunkel	oscuro	Dakar	7
8. Inflorescence: number of complete ray floret whorls	Inflorescence: nombre de verticilles complets de fleurs ligulées	Blütenstand: Anzahl vollständiger Zungenblütenkreise	Inflorescencia: número de verticilos completos de flores liguladas		
only one	un seul	nur einer	uno	Sparkler	1
one or two	un ou deux	einer oder zwei	uno o dos	Zulu	2
at least three	au moins trois	mindestens drei	al menos tres	Durban	3

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
9. Inflorescence: (*) presence of incomplete ray floret whorls	Inflorescence: présence de verticilles incomplets de fleurs ligulées	Blütenstand: Vorhandensein von unvollständigen Zungenblüten- kreisen	Inflorescencia: presencia de verticilos incompletos de flores liguladas		
absent	absents	fehlend	ausente	Sparkler	1
present	présents	vorhanden	presente	Dakar	9
10. Inflorescence: (*) diameter	Inflorescence: diamètre	Blütenstand: Durchmesser	Inflorescencia: diámetro		
small	petit	klein	pequeño	Prince	3
medium	moyen	mittel	medio	Sunny Lady	5
large	grand	groß	grande	Tanga	7
11. Inflorescence: (*) shape of ray floret	Inflorescence: forme de la fleur ligulée	Blütenstand: Form der Zungenblüte	Inflorescencia: forma de la flor ligulada		
elliptic only	seulement elliptique	nur elliptisch	solamente elíptica	Sunny Lady	1
spatulate only	seulement spatulée	nur spatelförmig	solamente espatulada	Namaqua	2
elliptic and spatulate	elliptique et cuillère	elliptisch und spatelförmig	elíptica y espatulada	Melmak	3
12. Ray floret: length	Fleur ligulée: longueur	Zungenblüte: Länge	Flor ligulada: longitud		
short	courte	kurz	corta	Pink Clio	3
medium	moyenne	mittel	media	Sunny Lady	5
long	longue	lang	larga	Lusaka	7
13. Ray floret: width	Fleur ligulée: largeur	Zungenblüte: Breite	Flor ligulada: anchura		
narrow	étroite	schmal	estrecha	Prince	3
medium	moyenne	mittel	media	Sunny Lady	5
broad	large	breit	ancha	Sirius	7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
14. Ray floret: color of <u>margin</u> of upper side RHS Colour Chart (indicate reference number)	Fleur ligulée: couleur du <u>bord</u> de la face supérieure Code RHS des couleurs (indiquer le numéro de référence)	Zungenblüte: Farbe des <u>Randes</u> der Oberseite RHS-Farbkarte (Nummer angeben)	Flor ligulada: color del <u>borde</u> del haz Carta de colores RHS (indicar número de referencia)		
15. Ray floret: color of <u>middle</u> of upper side RHS Colour Chart (indicate reference number)	Fleur ligulée: couleur du <u>milieu</u> de la face <u>supérieure</u> Code RHS des couleurs (indiquer le numéro de référence)	Zungenblüte: Farbe der <u>Mitte</u> der Oberseite RHS-Farbkarte (Nummer angeben)	Flor ligulada: color de la parte <u>central</u> del <u>haz</u> Carta de colores RHS (indicar número de referencia)		
16. Ray floret: color of <u>base</u> of upper side RHS Colour Chart (indicate reference number)	Fleur ligulée: couleur de la <u>base</u> de la face supérieure Code RHS des couleurs (indiquer le numéro de référence)	Zungenblüte: Farbe der <u>Basis</u> der Oberseite RHS-Farbkarte (Nummer angeben)	Flor ligulada: color de la <u>base</u> del haz Carta de colores RHS (indicar número de referencia)		
17. Ray floret: main color of <u>middle</u> of lower side	Fleur ligulée: couleur principale du <u>milieu</u> de la face <u>inférieure</u>	Zungenblüte: Farbe der <u>Mitte</u> der <u>Unterseite</u>	Flor ligulada: color principal de la parte <u>central</u> del <u>envés</u>		
yellowish white	blanc jaunâtre	gelblichweiß	blanco amarillento	Zimba	1
yellow	jaune	gelb	amarillo		2
light blue	bleu clair	hellblau	azul claro	Polarstern	3
violet blue	violet-bleu	violettblau	azul violeta	Castor	4
blue violet	bleu-violet	blauviolett	violeta azulado	Sunny Girl	5
brown violet	brun-violet	braunviolett	violeta marrón	Lila Polarstern	6
yellow brown	jaune-brun	gelbbraun	marrón amarillento	Lemon Symphony	7
red brown	rouge brun	rotbraun	marrón rojizo	Saturn	8
brown	brun	braun	marrón	Beira	9
brown purple	brun-pourpre	braunpurpur	púrpura marrón	Sunny Pavlos	10
purple	pourpre	purpur	púrpura	Sunny Lady	11

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
18. Disc: color (*)	Disque: couleur	Scheibe: Farbe	Disco: color		
white	blanc	weiß	blanco	Swazi	1
grey green	vert grisâtre	graugrün	verde-gris	Lemon Olympia	2
yellow	jaune	gelb	amarillo	Zulu	3
light blue	bleu clair	hellblau	azul claro	Sunny Silvia	4
dark blue	bleu foncé	dunkelblau	azul oscuro	Gustaf	5
violet	violet	violett	violeta	Mira	6
purple	pourpre	purpur	púrpura	Pluto	7
black	noir	schwarz	negro		8
19. Time of beginning of flowering	Époque du début de floraison	Zeitpunkt des Blühbeginns	Época de comienzo de la floración		
early	précoce	früh	temprana		3
medium	moyenne	mittel	media	Sunny Boy	5
late	tardive	spät	tardía	Zulu	7

VIII. Explanation on the Table of Characteristics

No specific explanations.

IX. Literature

Heywood, V.H. (ed.): Flowering Plants of The World. B T Batsford Ltd., London, 1993, G.B.

X. Technical Questionnaire

	Reference Number (not to be filled in by the applicant)
<p>TECHNICAL QUESTIONNAIRE to be completed in connection with an application for plant breeders' rights</p>	
1. Species	<p style="text-align: center;"><i>Osteospermum ecklonis</i> (DC.) Norl. OSTEOSPERMUM</p>
2. Applicant (Name and address)	
3. Proposed denomination or breeder's reference	

4. Information on origin, maintenance and reproduction of the variety

4.1 Origin

(a) Seedling (indicate parent varieties)

..... []

(b) Mutation (indicate parent variety)

..... []

(c) Discovery (indicate where and when)

..... []

(d) Other (specify)

..... []

4.2 Method of reproduction

– Cuttings []

– *In vitro* propagation []

– Other (specify)

..... []

4.3 Other information

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

Characteristics	Example Varieties	Note
5.1 Plant: attitude of shoots (1)		
erect	Nairobi	1[]
semi-erect	Sunny Boy	3[]
horizontal	Sirius	5[]
semi-drooping	Tanga	7[]
drooping	White Flash	9[]
5.2 Leaf: variegation (6)		
absent	Sparkler	1[]
present	Silver Sparkler	9[]
5.3 Inflorescence: number of complete ray floret whorls (8)		
only one	Sparkler	1[]
one or two	Zulu	2[]
at least three	Durban	3[]
5.4 Inflorescence: shape of ray floret (11)		
elliptic only	Sunny Lady	1[]
spatulate only	Namaqua	2[]
elliptic and spatulate	Melmak	3[]

Characteristics	Example Varieties	Note
5.5i Ray floret: color of <u>middle</u> of <u>upper</u> side (15)		
RHS Colour Chart (indicate reference number)	
5.5ii Ray floret: color of <u>middle</u> of <u>upper</u> side (15)		
white	Sparkler	1[]
yellow	Zulu	2[]
blue pink	Sunny Silvia	3[]
red		4[]
purple	Sirius	5[]
violet	Mira	6[]
other color (indicate color)	7[]

6. Similar varieties and differences from these varieties

Denomination of similar variety	Characteristic in which the similar variety is different ^{o)}	State of expression of similar variety	State of expression of candidate variety
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^{o)} In the case of identical states of expressions of both varieties, please indicate the size of the difference.

7. Additional information which may help to distinguish the variety

7.1 Resistance to pests and diseases

7.2 Special conditions for the examination of the variety

7.3 Other information

A representative color photo of the variety should be added to 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 that question is yes, please attach a copy of such an authorization.

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