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WORKING PAPER ON TEST GUIDELINES FOR BRACHYSCOME (Brachyscome Cass.)

Document prepared by experts from Australia

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I. <u>Subject of these Guidelines</u>

These Test Guidelines apply to all vegetatively propagated varieties of *Brachyscome* Cass. of the family Asteraceae.

II. <u>Material Required</u>

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:

25 rooted cuttings.

2. The plant material supplied should be visibly healthy, not lacking in vigor or affected by any important pests or diseases. It should preferably not be obtained from *in vitro* propagation. If it has been produced by *in vitro* propagation this fact has to be stated by the applicant.

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. 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 10 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. <u>Methods and Observations</u>

1. All observations determined by measurement, weighing or counting should be made on 10 plants or parts of plants taken from 10 plants 3 to 6 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 10 plants, the maximum number of off-types allowed would be 1.

3. Because daylight varies, color determinations made against a color chart should be made either in a suitable cabinet providing artificial daylight or in the middle of the day in a room without direct sunlight. The spectral distribution of the illuminant for artificial daylight should conform with the CIE Standard of Preferred Daylight D 6500 and should fall within the 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. <u>Grouping of Varieties</u>

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) Plant: growth habit (characteristic 1)
- (b) Plant: means of spreading (characteristic 2)
- (c) Leaves: types present (characteristic 14)
- (d) Ray floret: color of upper side (characteristic 62) with the following groups:
 - Gr. 1: white
 - Gr. 2: yellow
 - Gr. 3: pink
 - Gr. 4: purple

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. <u>Legend</u>
- (*) 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. <u>Table of Characteristics/Tableau des caractères/Merkmalstabelle/Tabla de caracteres</u>

	English	français	español	deutsch	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1.	Plant: growth hal	bit				
	basal rosette					
	tufted (basal cluste	ers)				
	bushy					
2.	Plant: means of spreading					
	absent					
	stolons					
	rhizomes					
3.	Plant: height					
	very short (1 cm)					
	short					
	medium					
	tall					
	very tall (100 cm)					
4.	Plant: width					
	very narrow (1 cm)				
	narrow					
	medium					
	broad					
	very broad (200 cm	n)				
5.	Plant: density					
	sparse					
	medium					
	dense					
6.	Branches: numbe	r				
	absent or very few					
	medium					
	many					

	English	français	Español	deutsch	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
7.	Branch: hairiness					
	absent or very slightly hairy					
	slightly hairy					
	strongly hairy					
8.	Branch: attitude					
	erect					
	semi-erect					
	horizontal					
9.	Branch: intensity of anthocyanin coloration	f				
	absent or very weak					
	weak					
	medium					
	strong					
10.	Leaf: color of upper side	r				
	light green					
	medium green					
	dark green					
	bluish green					
	purplish					
11.	Leaf: color of lower side					
	light green					
	medium green					
	dark green					
	bluish green					
	purplish					

	English	français	español	deutsch	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
12.	Leaf: thickness					
	thin					
	medium					
	thick					
13.	Leaf: hairiness					
	absent or very slightly hairy					
	slightly hairy					
	strongly hairy					
14.	Leaves: types present					
	basal only					
	stem only					
	basal and stem					
15.	Basal leaves: presence					
	absent					
	present					
16.	Basal leaves: persistence					
	absent					
	present					
17.	Basal leaves: attitude					
	erect					
	semi-erect					
	horizontal					

	English	français	español	deutsch	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
18.	Basal leaf: length					
	very short (5 mm)					
	short					
	medium					
	long					
	very long (350 mm)					
19.	Basal leaf: width					
	narrow (1 mm)					
	medium					
	broad (40 mm)					
20.	Basal leaf: ratio length/ width					
	small					
	medium					
	large					
21.	Basal leaf: position of broadest part					
	bottom third					
	middle third					
	top third					
22.	Basal leaf: shape					
	oblanceolate					
	spathulate					
	cuneate					
	obovate					
	linear					
	oblong					
	orbicular					
	ovate					

	English	français	español	deutsch	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
23.	Basal leaf: shape of tip					
	pointed					
	rounded					
24.	Basal leaf: attachment					
	petiolate					
	sessile					
	decurrent					
	sheathing					
25.	Basal leaf: shape of margin					
	entire					
	lobed					
26.	Basal leaf: position of lobes					
	at tip only					
	top half					
	all along					
27.	Basal leaf: depth of lobing					
	less than one third of width					
	one third to two thirds of width					
	greater than two thirds of width					
28.	Basal leaf: number of lobes					
	very few (1)					
	few					
	medium					
	many					
	very many (16)					

	English	français	español	deutsch	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
29.	Basal leaf lobe: width					
	narrow					
	medium					
	broad					
30.	Basal leaf lobe: shape of tip					
	pointed					
	rounded					
31.	Basal leaf lobe: secondary lobing					
	absent					
	present					
32.	Stem leaves: presence					
	absent					
	present					
33.	Stem leaf: length					
	very short (5 mm)					
	short					
	medium					
	long					
	very long (350 mm)					
34.	Stem leaf: width					
	narrow (1 mm)					
	medium					
	broad (40 mm)					
35.	Stem leaf: ratio length/width					
	small					
	medium					
	large					

	English	français	español	deutsch	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
36.	Stem leaf: position of broadest part					
	bottom third					
	middle third					
	top third					
37.	Stem leaf: shape					
	oblanceolate					
	spathulate					
	cuneate					
	obovate					
	linear					
	oblong					
	orbicular					
	ovate					
38.	Stem leaf: shape of tip					
	pointed					
	rounded					
39.	Stem leaf: attachment					
	petiolate					
	sessile					
	decurrent					
	sheathing					
40.	Stem leaf: shape of margin					
	entire					
	lobed					

	English	français	español	deutsch	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
41.	Stem leaf: position of lobes					
	at tip only					
	top half					
	all along					
42.	Stem leaf: depth of lobing					
	less than one third of width					
	one third to two thirds of width					
	greater than two thirds of width					
43.	Stem leaf: number of lobes					
	very few (1)					
	few					
	medium					
	many					
	very many (16)					
44.	Stem leaf lobe: width					
	narrow					
	medium					
	broad					
45.	Stem leaf lobe: shape of tip					
	pointed					
	rounded					
46.	Stem leaf lobe: secondary lobing					
	absent					
	present					

	English	français	español	deutsch	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
47.	Flower stem: lengt	h				
	very short (1 cm)					
	short					
	medium					
	long					
	very long (40 cm)					
48.	Flower stem: thickness					
	thin					
	medium					
	thick					
49.	Flower stem: ramification					
	absent					
	present					
50.	Flower stem: hairiness					
	absent or very slightly hairy					
	slightly hairy					
	strongly hairy					
51.	Flower stem: presence of leaves or bracts					
	absent					
	few					
	many					

	English	français	español	deutsch	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
52.	Flower stem: position of majority of leaves					
	concentrated at base end					
	concentrated at flower end					
	distributed along stem					
53.	Flower stem: intensity of anthocyanin coloration					
	absent to very weak					
	weak					
	medium					
	strong					
54.	Flower head: predominant position					
	below foliage level					
	level with to just above foliage					
	high above foliage					
55.	Flower head: diameter					
	very narrow (5 mm)					
	narrow					
	medium					
	broad					
	very broad (50 mm)					

	English	français	español	deutsch	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
56.	Disc: diameter in relation to diameter of flower head					
	less than one third					
	one third to two thirds					
	more than two thirds					
57.	Disc: color					
	yellow					
	black					
58.	Ray florets: number					
	very few (8)					
	few					
	medium					
	many					
	very many (80)					
59.	Ray floret: length					
	very short (1 mm)					
	short					
	medium					
	long					
	very long (15 mm)					
60.	Ray floret: width					
	very narrow (1 mm)					
	narrow					
	medium					
	broad					
	very broad (5 mm)					
61.	Bud: color					
	RHS Colour Chart (indicate reference number)					

	English	français	español	deutsch	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
62.	Ray floret: color of upper side					
	RHS Colour Chart (indicate reference number)					
63.	Ray floret: color of lower side					
	RHS Colour Chart (indicate reference number)					
64.	Ray floret: fading with age					
	absent					
	present					
65.	Ray floret: darken with age					
	absent					
	present					
66.	Time of beginning of flowering					
	early					
	medium					
	late					

VIII. Explanation on the Table of Characteristics

IX. <u>Literature</u>

X. <u>Technical Questionnaire</u>

		Reference Number (not to be filled in by the applicant)		
TECHNICAL QUESTIONNAIRE to be completed in connection with an application for plant breeders' rights				
Genus	Brachyscome Cass.			
	BRACHYSCOME			
Species	(indicate species)			
Applicant (Name and a	ddress)			
Proposed denomination or breeder's reference				
	Genus Species Applicant (Name and ad	to be completed in connection with an application Genus Brachyscome Cass. BRACHYSCOME Species (indicate species) Applicant (Name and address)		

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	2 Method of reproduction				
	_	Cuttings	[]		
	_	In vitro propagation	[]		
	_	Other (specify)	[]		
4.3	Othe	er 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		
5.2 (1)	Plant: growth habit				
	basal rosette		[]		
	tufted (basal clusters)		[]		
	bushy		[]		
5.2 (2)	Plant: means of spreading				
	absent		[]		
	stolons		[]		
	rhizomes		[]		
5.3 (14)	Leaves: types present				
	basal only		[]		
	stem only		[]		
	basal and stem		[]		
5.4i (62)	Ray floret: color of upper side				
	RHS Colour Chart (indicate reference number)				
5.4ii (62)	Ray floret: color of upper side				
	white		1[]		
	yellow		2[]		
	pink		3[]		
	purple		4[]		

6. Similar varieties and differences from these varieties						
	enomination of similar variety	Characteristic in which the similar variety is different ^{o)}	State of expression of similar variety	f State of expression of candidate variety		
0)	In the case of ide	ntical states of expression	ons of both varieties n	lease indicate the size of		
	In the case of identical states of expressions of both varieties, please indicate the size of the difference.					
7.	Additional inform	ation which may help to	o distinguish the variet	y		
7.1	Resistance to pest	s and diseases				
7.2	Special conditions	s for the examination of	the variety			
7.3	Other information	I				
A re	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 (b) Has such au	[] thorization been obtaine	No [] ed?			
	Yes	[]	No []			
If the answer to that question is yes, please attach a copy of such an authorization.						