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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
GENEVA

**TECHNICAL WORKING PARTY
FOR
ORNAMENTAL PLANTS AND FOREST TREES**

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**WORKING PAPER ON DRAFT TECHNICAL GUIDELINES FOR
BRACHYSCOME**

Document prepared by experts from Australia

The attached document TG/BRACHY(proj.1) already incorporates the standard wording of document TGP/7.2, which was adopted by the Technical Committee at its thirty-eighth session in April 2002, and includes some additional standard wording from document TGP/7.1 Draft 1, also agreed at that session.

[Document TG/BRACHY(proj.1) follows]



BRACHY(proj.1)(TWO/35/10)

ORIGINAL: English

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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

BRACHYSCOME**(Brachyscome Cass.)****GUIDELINES****FOR THE CONDUCT OF TESTS****FOR DISTINCTNESS, UNIFORMITY AND STABILITY**

Alternative Names: *

Latin	English	French	German	Spanish
<i>Brachyscome</i> Cass.	Brachyscome	Brachyscome	Brachyscome	Brachyscome

ASSOCIATED DOCUMENTS

These guidelines should be read in conjunction with document TG/ 1/3, "General Introduction to the Examination of Distinctness, Uniformity and Stability and the Development of Harmonized Descriptions of New Varieties of Plants" (hereinafter referred to as 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 Guidelines

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

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:

For vegetatively propagated varieties: 10 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. It should preferably not be obtained from *in vitro* propagation. If it has been produced by *in vitro* propagation this must be declared.

3. Method of Examination

3.1 *Duration of Tests*

The minimum duration of tests should normally be a single growing cycle.

3.2 *Testing Place*

The tests should normally be conducted at one place. If any characteristics of the variety, which are relevant for the examination of DUS, cannot be seen at that place, the variety may be tested at an additional place.

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. In particular, the observations should be made on 3 to 6 month-old plants.

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.

3.4 *Test Design*

3.4.1 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.

3.4.2 For vegetatively propagated varieties each test should be designed to result in a total of at least 10 plants.

3.5 *Number of Plants/Parts of Plants to be Examined*

Unless otherwise indicated, all observations determined by measuring or counting should be made on 10 plants or parts taken from each of 10 plants.

3.6 *Additional Tests*

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

4. Assessment of Distinctness, Uniformity and Stability

4.1 *Distinctness*

4.1.1 *General Recommendations*

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

4.1.2 *Consistent Differences*

The minimum duration of tests recommended in section 3.1 reflects, in general, the need to ensure that any differences in a characteristic are sufficiently consistent.

4.1.3 *Clear Differences*

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

4.2 *Uniformity*

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

4.2.2 The acceptable number of off-type plants tolerated in a sample size of 10 plants is 1 on the basis of a population standard of 1% and an acceptance probability of 95%.

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 tested, either by growing a further generation, or by testing a new seed or plant stock to ensure that it exhibits the same characteristics as those shown by the previous material supplied.

5. Grouping of Varieties and Organization of the Growing Trial

5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness is 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 others 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 trials 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) Spreading varieties only: Plant: way of spreading (characteristic 2)
- (c) Leaves: types present (characteristic 14)
- (d) Ray floret: main color of upper side (characteristic 62) with the following groups:
 - Gr.1: white
 - Gr.2: yellow
 - Gr.3: pink
 - Gr.4: purple

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction.

6. Introduction to the Table of Characteristics

6.1 *Categories of Characteristics*

6.1.1 Standard Test Guidelines Characteristics

Standard Test Guidelines characteristics are those which are approved by UPOV for examination of DUS and from which members of the Union can select those suitable for their particular circumstances.

6.1.2 Asterisked Characteristics

Asterisked characteristics (denoted by *) are those included in the Test Guidelines which are important for the international harmonization of variety descriptions and should always be examined for DUS and included in the variety description by all members of the Union, except when the state of expression of a preceding characteristic or regional environmental conditions render this inappropriate.

6.2 *States of Expression and Corresponding Notes*

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

6.3 *Types of Expression*

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

6.4 *Example Varieties*

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

6.5 *Legend*

(*) Asterisked characteristic –see Section 6.1.2

(QL) Qualitative characteristic –see Section 6.3

(QN) Quantitative characteristic –see Section 6.3

(PQ) Pseudo-Qualitative characteristic –see Section 6.3

(+) See Explanations on the Table of Characteristics in Chapter 8.

7. Table of Characteristics/Tableau des caractères/Merkmalstabelle/Tablades caracteres

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1.	Plant: growth habit					
(+)	basal rosette					
	tufted (basal clusters)					
	bushy					
1a.	Plant: spreading					
	absent					
	present					
2.	<u>Spreading varieties only</u>: Plant: way of spreading					
	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)					

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MoE=Method of Examination

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5.	Plant: density					
	sparse					
	medium					
	dense					
5a.	Plant: presence of stem					
	absent					
	present					
6.	Plant: number of stems					
	few					
	medium					
	many					
7.	Stem: hairiness					
	absent or lightly hairy					
	moderately hairy					
	strongly hairy					
8.	Stem: attitude					
	erect					
	semi-erect					
	horizontal					
9.	Stem: intensity of anthocyanin coloration					
	absent or very weak					
	weak					
	medium					
	strong					

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
13.	Leaf:hairiness					
	absent or slightly hairy					
	moderately 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					
18.	Basal leaf: length					
(+)	very short (5mm)					
	short					
	medium					
	long					
	very long (350mm)					

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
19.	Basalleaf:width					
	narrow(1mm)					
	medium					
	broad(40mm)					
20.	Basalleaf:ratio length/width					
	small					
	medium					
	large					
21.	Basalleaf:position of broades tpart					
	belowmidpoint					
	midpoint					
	abovemidpoint					
22.	Basalleaf:shape					
	oblanceolate					
	spathulate					
	cuneate					
	obovate					
	linear					
	oblong					
	orbicular					
	ovate					
23.	Basalleaf: shape of apex					
	pointed					
	rounded					

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
24.	Basalleaf: attachment					
	petiolate					
	sessile					
	decurrent					
	sheathing					
25.	Basalleaf:margin					
	entire					
	lobed					
26.	<u>Lobed varieties</u> only:Basalleaf: position of lobes					
	at apex only					
	upper half					
	full length					
27.	<u>Lobed varieties</u> only:Basalleaf: depth of lobing					
	less than one third of width					
	one third to two thirds of width					
	greater than two thirds of width					
28.	<u>Lobed varieties</u> only:Basalleaf: number of lobes					
	very few (1)					
	few					
	medium					
	many					
	very many (16)					

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
29.	<u>Lobed varieties</u> only: Basal leaf lobe: width					
	narrow					
	medium					
	broad					
30.	<u>Lobed varieties</u> only: Basal leaf lobe: shape of apex					
	pointed					
	rounded					
31. (+)	<u>Lobed varieties</u> only: Basal leaf lobe: secondary lobing					
	absent					
	present					
10.	Leaf: color of upper side					
	light green					
	medium green					
	dark green					
	bluish green					
	purple					
11.	Leaf: color of lower side					
	light green					
	medium green					
	dark green					
	bluish green					
	purple					

	MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
12.		Leaf:thickness					
		thin					
		medium					
		thick					
32.		Stemleaves: presence					
		absent					
		present					
33.		Stemleaf:length					
		veryshort(5mm)					
		short					
		medium					
		long					
		verylong(350mm)					
34.		Stemleaf:width					
		narrow(1mm)					
		medium					
		broad(40mm)					
35.		Stemleaf:ratio length/width					
		small					
		medium					
		large					
36.		Stemleaf:position ofbroadestpart					
		belowmidpoint					
		midpoint					
		abovemidpoint					

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
37.	Stemleaf:shape					
	oblanceolate					
	spathulate					
	cuneate					
	obovate					
	linear					
	oblong					
	orbicular					
	ovate					
38.	Stemleaf:shape of apex					
	pointed					
	rounded					
39.	Stemleaf: attachment					
	petiolate					
	sessile					
	decurrent					
	sheathing					
40.	Stemleaf:margin					
	entire					
	lobed					
41.	<u>Lobed varieties only</u>:Stemleaf: position of lobes					
	apex only					
	upper half					
	full length					

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
42.	<p><u>Lobed varieties</u> <u>only: Stemleaf:</u> depth of lobing</p> <p>less than one third of width</p> <p>one third to two thirds of width</p> <p>greater than two thirds of width</p>					
43.	<p><u>Lobed varieties</u> <u>only: Stemleaf:</u> number of lobes</p> <p>very few (1)</p> <p>few</p> <p>medium</p> <p>many</p> <p>very many (16)</p>					
44.	<p><u>Lobed varieties</u> <u>only: Stemleaf</u> lobe: width</p> <p>narrow</p> <p>medium</p> <p>broad</p>					
45.	<p><u>Lobed varieties</u> <u>only: Stemleaf</u> lobe: shape of apex</p> <p>pointed</p> <p>rounded</p>					
46.	<p><u>Lobed varieties</u> <u>only: Stemleaf</u> lobe: secondary lobing</p> <p>absent</p> <p>present</p>					

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
MoE						
47.	Flowerstem: length					
	veryshort(1cm)					
	short					
	medium					
	long					
	verylong(40cm)					
48.	Flowerstem: thickness					
	thin					
	medium					
	thick					
49.	Flowerstem: ramification					
	absent					
	present					
50.	Flowerstem: hairiness					
	absentorslightly hairy					
	moderatelyhairy					
	stronglyhairy					
51.	Flowerstem: presenceofleaves orbracts					
	absentorveryfew					
	few					
	medium					
	many					
	verymany					

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
52.	Flowerstem: position of majority of leaves					
	mainly at base end					
	mainly at top end					
	distributed along stem					
53.	Flowerstem: intensity of anthocyanin coloration					
	absent or very weak					
	weak					
	medium					
	strong					
	very strong					
54.	Flowerhead: predominant position in relation to level of foliage					
	below					
	level					
	far above					
55.	Flowerhead: diameter					
	very narrow (5mm)					
	narrow					
	medium					
	broad					
	very broad (50mm)					

MoE	English	français	deutsch	español	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					
(+)	green					
	yellow					
	brown					
	black					
58.	Ray florets: number					
	very few(8)					
	few					
	medium					
	many					
	very many(80)					
59.	Ray floret:length					
	very short(1mm)					
	short					
	medium					
	long					
	very long(15mm)					

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
60.	Rayflore:width					
	verynarrow(1mm)					
	narrow					
	medium					
	broad					
	verybroad(5mm)					
60a.	Rayflore:ratio length/width					
61.	Flowerbud:main color					
(+)	RHSColourChart (indicatereference number)					
62.	Rayflore:main colorofupperside					
	RHSColourChart (indicatereference number)					
62a.	Rayflore: presenceof secondarycoloron upperside					
	absent					
	present					
62b.	Rayflore: secondarycolorof upperside					
	RHSColourChart (indicatereference number)					

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
62c.	Rayflore: position of secondary color on upperside					
	at base					
	at apex					
63.	Rayflore: color of lowerside					
	RHSColourChart (indicate reference number)					

8. ExplanationsontheTableofCharacteristics

9. Literature

10. TechnicalQuestionnaire

TECHNICALQUESTIONNAIRE	Page{x}of{y}	ReferenceNumber:
		Applicationdate: (nottobefilledinbytheapplicant)
TECHNICALQUESTIONNAIRE tobecompletedinconnectionwithanapplicationforplantbreeders'rights		
1. SubjectoftheTechnicalQuestionnaire		
1.1 LatinName	<input type="text" value="BrachyscomeC ass."/>	
1.2 CommonName	<input type="text" value="BRACHYSCOME"/>	
2. Applicant		
Name	<input type="text"/>	
Address	<input type="text"/>	
TelephoneNo.	<input type="text"/>	
FaxNo.	<input type="text"/>	
E-mailaddress	<input type="text"/>	
Breeder(ifdifferentfromapplicant)	<input type="text"/>	
3. Proposeddenominationandbreeder'sreference		
Proposeddenomination (ifavailable)	<input type="text"/>	
Breeder'sreference	<input type="text"/>	

TECHNICALQUESTIONNAIRE	Page{x}of{y}	ReferenceNumber:
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4. Informationonthebreedingschemeandpropagationofthevariety

4.1 BreedingScheme

4.1.1 Varietyresultingfrom:

- (a) controlledcross
(pleasestateparentvarieties)
- (b) partiallyunknowncross
(pleasestateknownparentvariety(ies))
- (c) totallyunknowncross

4.1.2 Mutation
(pleasestateparentvariety)

4.1.3 Discovery
(pleasestatewhere,whenandhowdeveloped)

4.1.4 Other
(pleaseprovidedetails)

4.2 MethodofPropagatingtheVariety

- (a) Cuttings
- (b) *In vitro* propagation
- (c) Other(specifymethod)

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)		
basal rosette		<input type="checkbox"/>
tufted (basal clusters)		<input type="checkbox"/>
bushy		<input type="checkbox"/>

TECHNICALQUESTIONNAIRE	Page{x}of{y}	ReferenceNumber:
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	Characteristics	ExampleVarieties	Note
5.2 (2)	<u>Spreadingvarietiesonly</u> :Plant:wayofspreading		
	stolons		[]
	rhizomes		[]
5.3 (14)	Leaves:typespresent		
	basalonly		[]
	stemonly		[]
	basalandstem		[]
5.4i (62)	Rayfloretp:maincolorofupperside		
	RHSColou rChart(indicatorreferencenumber)		
5.4ii (62)	Rayfloretp:maincolorofupperside		
	white		1[]
	yellow		2[]
	pink		3[]
	purple		4[]

TECHNICALQUESTIONNAIRE	Page{x}of{y}	ReferenceNumber:
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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 Special conditions for the examination of the variety

7.2.1 Are there any special conditions for growing the variety or conducting the examination?

Yes No

7.2.2 If yes, please give details:

7.3 Other information

A representative color photograph 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.

9. 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]