



**European Union  
Community Plant Variety Office**

**PROTOCOL FOR DISTINCTNESS, UNIFORMITY AND STABILITY TESTS**

*Brachyscome* Cass.

**BRACHYSCOME**

**UPOV Species Code: BRCHY**

**Adopted on 1<sup>st</sup> December 2005**

## **I - SUBJECT OF THE PROTOCOL**

The protocol describes the technical procedures to be followed in order to meet the requirement of Council Regulation 2100/94 on Community Plant Variety Rights. The technical procedures have been agreed by the Administrative Council and are based on general UPOV Document TG/1/3 and UPOV Guideline TG/223/1 dated 06/04/2005 for the conduct of tests for Distinctness, Uniformity and Stability. This protocol applies to all varieties of *Brachyscome* Cass. of the family *Asteraceae*.

## **II - SUBMISSION OF PLANT MATERIAL**

### **1. The Community Plant Variety Office (CPVO) is responsible for informing the applicant of:**

- the closing date for the receipt of plant material;
- the minimum amount and quality of plant material required;
- the examination office to which material is to be sent.

The applicant is responsible for ensuring compliance with any customs and plant health requirements.

### **2. Final dates for receipt of documentation and material by the Examination Office:**

The final dates for receipt of requests, technical questionnaires and the final date or submission period for plant material will be decided by the CPVO and each Examination Office chosen.

The Examination Office is responsible for immediately acknowledging the receipt of requests for testing, and technical questionnaires. If no or unsatisfactory plant material is submitted the CPVO should be informed as soon as possible.

### **3. Plant material requirements:**

Information with respect to closing dates and submission requirements of plant material for the technical examination of varieties can be found on the CPVO website ([www.cpvo.europa.eu](http://www.cpvo.europa.eu)) and in the special Issue S2 of the Official Gazette of the Office published yearly in the month of September.

Quality : ..... The plant material supplied should be visibly healthy, not lacking in vigour or affected by any important pest or disease, especially virus.

The plant material must not have undergone any treatment unless the CPVO and the examination office allow or request such treatment. If it has been treated, full details of the treatment must be given

Labelling of sample: ..... - Species  
- File number of the application allocated by the CPVO  
- Breeder's reference  
- Examination reference (if known)  
- Name of applicant  
- The phrase "On request of the CPVO".

### **III - CONDUCT OF TESTS**

#### **1. Variety collection:**

A variety collection will be maintained for the purpose of establishing distinctness of the candidate varieties in test. A variety collection may contain both living material and descriptive information. A variety will be included in a reference collection only if plant material is available to make a technical examination.

Pursuant to Article 7 of Council Regulation No. 2100/94, the basis for a collection should be the following:

- varieties listed or protected at the EU level or at least in one of the EEA Member States;
- varieties protected in other UPOV Member States;
- any other variety in common knowledge.

It is the responsibility of Examination Office to keep the variety collection up to date.

#### **2. Material to be examined:**

Candidate varieties will be directly compared with other candidates for Community plant variety rights tested at the same Examination Office, and with appropriate varieties in the variety collection. When necessary an Examination Office may also include other candidates and varieties.

### 3. Characteristics to be used:

The characteristics to be used in DUS tests and preparation of descriptions shall be those referred to in Annex 1. All the characteristics shall be used, providing that observation of a characteristic is not rendered impossible by the expression of any other characteristic, or the expression of a characteristic is prevented by the environmental conditions under which the test is conducted. In the later case, the CPVO should be informed. In addition the existence of some other regulation e.g. plant health, may make the observation of the characteristic impossible.

The Administrative Council empowers the President, in accordance with Article 23 of Commission Regulation N° 1239/95, to insert additional characteristics and their expressions in respect of a variety.

### 4. Grouping of varieties:

The varieties and candidates to be compared will 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 and which in their various states of expression are fairly evenly distributed throughout the collection. In the case of continuous grouping characteristics overlapping states of expression between adjacent groups is required to reduce the risks of incorrect allocation of candidates to groups. The characters used for grouping are the following:

- (a) Plant: growth type (characteristic 1)
- (b) Leaf: margins (characteristic 9)
- (c) Only varieties with divided leaf margins: Leaf: position of divisions (characteristic 11)
- (d) Flower head: diameter (characteristic 22)
- (e) Ray floret: main colour of upper side (on first day of opening) (characteristic 30) with the following groups:
  - Gr. 1: yellow
  - Gr. 2: white
  - Gr. 3: pink
  - Gr. 4: purple

## 5. Trial designs and growing conditions:

The minimum duration of tests will normally be one growing cycle if the results on distinctness and uniformity are conclusive. Tests will be carried out under conditions ensuring normal growth. The size of the plots will be such that plants or parts of plants may be removed for measuring and counting without prejudice to the observations which must be made up to the end of the growing period.

### The test design is as follows:

As a minimum, each test should include a total of 10 plants for vegetatively propagated varieties and 40 plants for seed propagated varieties. Separate plots for observation and for measuring can only be used if they have been subject to similar environmental conditions.

All observations on single plants for vegetatively propagated varieties determined by measurement or counting should be made on 10 plants or parts taken from each of 10 plants and any other observations should be made on all plants in the test.

All observations on single plants for seed propagated varieties determined by measurement or counting should be made on 20 plants or 20 parts taken from each of 20 plants and any other observations should be made on all plants in the test.

The test should normally be conducted at one place.

The test should be carried out in the open, under conditions ensuring normal growth.

## 6. Special tests

In accordance with Article 83(3) of Council Regulation No. 2100/94 an applicant may claim either in the Technical Questionnaire or during the test that a candidate has a characteristic which would be helpful in establishing distinctness. If such a claim is made and is supported by reliable technical data, a special test may be undertaken providing that a technically acceptable test procedure can be devised.

Special tests will be undertaken, with the agreement of the President of CPVO, where distinctness is unlikely to be shown using the characters listed in the protocol.

## 7. Standards for decisions

### **a) Distinctness**

A candidate variety will be considered to be distinct if it meets the requirements of Article 7 of Council Regulation No. 2100/94.

#### **b) Uniformity**

For the assessment of uniformity of vegetatively propagated varieties and seed-propagated varieties which are self-pollinated, a population standard of 1% with an acceptance probability of at least 95% should be applied.

For a sample size between 6 and 35 plants for vegetatively propagated varieties, only 1 off-type is allowed.

For a sample size between 36 and 82 plants for seed propagated varieties which are self-pollinated, only 2 off-types are allowed.

For the assessment of uniformity of seed propagated open pollinated and hybrid varieties, relative uniformity standards should be applied.

#### **c) Stability**

A candidate will be considered to be sufficiently stable when there is no evidence to indicate that it lacks uniformity.

### **IV - REPORTING OF RESULTS**

After each growing cycle the results will be summarised and reported to the CPVO in the form of a UPOV model interim report in which any problems will be indicated under the headings distinctness, uniformity and stability. Candidates may meet the DUS standards after one growing cycle but in some cases two or more growing cycles may be required. When tests are completed the results will be sent by the Examination Office to the CPVO in the form of a UPOV model final report.

If it is considered that the candidate complies with the DUS standards, the final report will be accompanied by a variety description in the format recommended by UPOV. If not the reasons for failure and a summary of the test results will be included with the final report.

The CPVO must receive interim reports and final reports by the date agreed between the CPVO and the examination office.

Interim reports and final examination reports shall be signed by the responsible member of the staff of the Examination Office and shall expressly acknowledge the exclusive rights of disposal of CPVO.

## **V - LIAISON WITH THE APPLICANT**

If problems arise during the course of the test the CPVO should be informed immediately so that the information can be passed on to the applicant. Subject to prior agreement, the applicant may be directly informed at the same time as the CPVO particularly if a visit to the trial is advisable.

The interim report and final report shall be sent by the Examination Office to the CPVO.

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## ANNEXES TO FOLLOW

### ANNEX I

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#### Legend:

QL Qualitative characteristic

QN Quantitative characteristic

PQ Pseudo-qualitative characteristic

(+) See explanations on the Table of characteristics

(a)- (d) See explanations on the Table of Characteristics

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### ANNEX II

Technical questionnaire



## ANNEX I

### TABLE OF CHARACTERISTICS

CPVO N°	UPOV N°		Characteristics	Examples	Note	
1. (+) QL	1. (+) QL	(a)	Plant: growth type			
				basal clusters	1	
				bushy	2	
2. (+) QN	2. (+) QN	(a)	<u>Only varieties with bushy growth type</u> : Plant: predominant attitude of stems	upright	1	
				semi upright	3	
				horizontal	5	
3. QN	3. QN	(a)	<u>Only varieties with bushy growth type</u> : Plant: number of stems	few	3	
				medium	5	
				many	7	
4. (+) QN	4. (+) QN	(a)	Plant: height including flowers	short	Mardi Gras	3
				medium	Breakoday	5
				tall	Happy Face Pink	7
5. (+) QN	5. (+) QN	(a)	Plant: width including flowers	narrow	Mardi Gras	3
				medium	Breakoday	5
				broad	Happy Face Pink	7

CPVO N°	UPOV N°		Characteristics	Examples	Note
<b>6.</b> <b>QN</b>	<b>6.</b> <b>QN</b>	<b>(a)</b>	<b>Plant: density</b>		
				sparse	3
				medium	5
				dense	7
<b>7.</b> <b>(+)</b> <b>QN</b>	<b>7.</b> <b>(+)</b> <b>QN</b>	<b>(a)</b> <b>(b)</b>	<b>Leaf: length</b>		
				short Breakoday	3
				medium Mardi Gras	5
				long Strawberry Mousse, Piliga Posy	7
				very long Happy Face Pink	9
<b>8.</b> <b>(+)</b> <b>QN</b>	<b>8.</b> <b>(+)</b> <b>QN</b>	<b>(a)</b> <b>(b)</b>	<b>Leaf: width</b>		
				narrow Breakoday, Mardi Gras	3
				medium Misty Mauve	5
				broad Piliga Posy	7
				very broad Happy Face Pink	9
<b>9.</b> <b>(+)</b> <b>QL</b>	<b>9.</b> <b>(+)</b> <b>QL</b>	<b>(a)</b> <b>(b)</b>	<b>Leaf: margins</b>		
				entire	1
				divided	2

CPVO N°	UPOV N°	Characteristics	Examples	Note
<b>10.</b> (+) <b>PQ</b>	<b>10.</b> (+) <b>PQ</b>	(a) <u>Only varieties with entire</u> (b) <u>leaf margins:</u> Leaf: shape		
			ovate	1
			linear	2
			oblong	3
			elliptic	4
			circular	5
			oblanceolate	6
			obovate	7
			spatulate	8
			obtriangular	9
<b>11.</b> (+) <b>QN</b>	<b>11.</b> (+) <b>QN</b>	(a) <u>Only varieties with</u> (b) <u>divided leaf margins:</u> Leaf: position of divisions		
			at apex only	1
			upper half	2
			full length	3
<b>12.</b> (+) <b>QN</b>	<b>12.</b> (+) <b>QN</b>	(a) <u>Only varieties with</u> (b) <u>divided leaf margins:</u> Leaf: depth of divisions in blade from margin to midrib		
			less than one third	1
			one third to two thirds	2
			greater than two thirds	3
<b>13.</b> (+) <b>QL</b>	<b>13.</b> (+) <b>QL</b>	(a) <u>Only varieties with</u> (b) <u>divided leaf margins:</u> Leaf: regularity of lobing		
			regular	1
			irregular	2

CPVO N°	UPOV N°	Characteristics	Examples	Note
<b>14</b> (+) <b>QN.</b>	<b>14.</b> (+) <b>QN</b>	(a) <u>Only varieties with</u> (b) <u>divided leaf margins:</u> Lobe: width of broadest lobe		
			narrow	Breakoday 3
			medium	Misty Mauve 5
			broad	Happy Face Pink 7
<b>15.</b> (+) <b>PQ</b>	<b>15.</b> (+) <b>PQ</b>	(a) <u>Only varieties with</u> (b) <u>divided leaf margins:</u> Lobe: shape		
			deltoid	1
			ovate	2
			linear	3
			oblong	4
			elliptic	5
			circular	6
			oblanceolate	7
			obovate	8
			spatulate	9
			obtriangular	10
<b>16.</b> (+) <b>QL</b>	<b>16.</b> (+) <b>QL</b>	(a) <u>Only varieties with</u> (b) <u>divided leaf margins:</u> Lobe: apex		
			pointed	1
			rounded	2
<b>17.</b> (+) <b>QN</b>	<b>17.</b> (+) <b>QN</b>	(a) <u>Only varieties with</u> (b) <u>divided leaf margins:</u> Lobe: secondary divisions		
			absent to very weak	Strawberry Mousse, Mardi Gras 1
			weak	Misty Mauve 3
			medium	Happy Face Pink, Breakoday 5
			strong	7

CPVO N°	UPOV N°		Characteristics	Examples	Note
<b>18.</b> (+) QN	<b>18.</b> (+) QN	(c)	<b>Flower stem: length</b>		
				short	Happy Face Pink 3
				medium	5
				long	Strawberry Mousse, Misty Mauve 7
<b>19.</b> QN	<b>19.</b> QN	(c)	<b>Flower stem: intensity of anthocyanin coloration</b>		
				weak	3
				medium	5
				strong	7
<b>20.</b> (+) PQ	<b>20.</b> (+) PQ	(c)	<b>Flower: bud colour</b>		
				RHS Colour Chart (indicate reference number)	
<b>21.</b> (+) QN	<b>21.</b> (+) QN	(c)	<b>Flower head: predominant position in relation to foliage</b>		
				same level	1
				moderately above	2
				far above	3
<b>22.</b> (+) QN	<b>22.</b> (+) QN	(c)	<b>Flower head: diameter</b>		
				small	Mardi Gras 3
				medium	Breakoday 5
				large	Piliga Posy, Strawberry Mousse 7
				very large	Happy Face Pink 9

CPVO N°	UPOV N°	Characteristics	Examples	Note
23. (+) QN	23. (+) QN	(c) Flower head: diameter of disc in relation to diameter of flower head		
			less than one third	1
			one third to two thirds	2
			more than two thirds	3
24. QN	24. QN	(c) Flower head: number of ray florets		
			few Mardi Gras	3
			medium Breakoday	5
			many Happy Face Pink	7
25. PQ	25. PQ	Disc: main colour (when no disc florets are open)		
			RHS Colour Chart (indicate reference number)	
26. PQ	26. PQ	Disc: main colour (when all disc florets open)		
			RHS Colour Chart (indicate reference number)	
27. (+) QN	27. (+) QN	(c) (d) Ray floret: length		
			short Mardi Gras	3
			medium Breakoday	5
			long Happy Face Pink	7
28. (+) QN	28. (+) QN	(c) (d) Ray floret: width		
			narrow Compact Amethyst	3
			medium Breakoday	5
			broad Mardi Gras	7

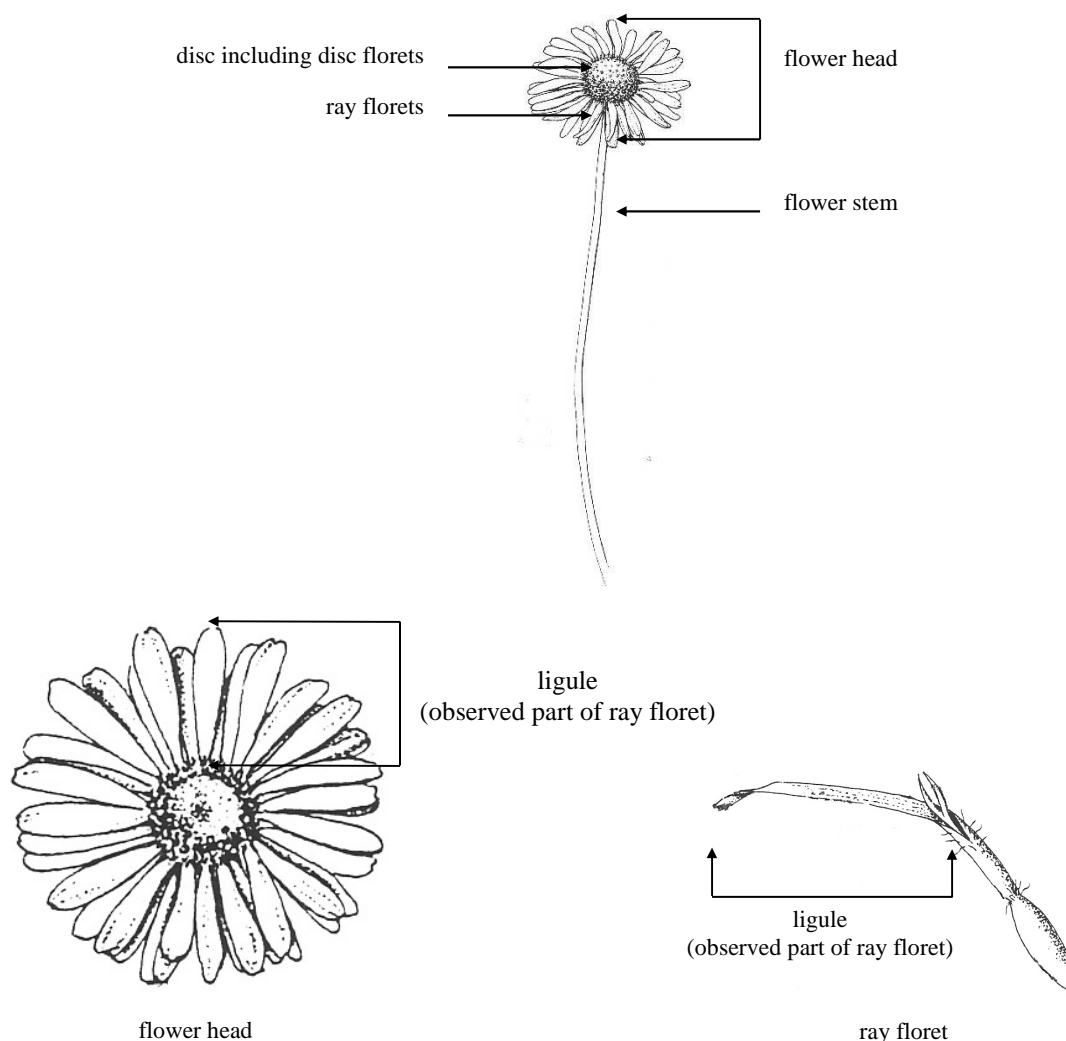
CPVO N°	UPOV N°		Characteristics	Examples	Note
29. (+) PQ	29. (+) PQ	(c)	Ray floret: shape		
		(d)			
				ovate	1
				linear	2
				oblong	3
				elliptic	4
				oblanceolate	5
				obovate	6
				spatulate	7
30. (+) PQ	30. (+) PQ	(d)	Ray floret: main colour of upper side (on first day of opening)		
				RHS Colour Chart (indicate reference number)	
31. PQ	31. PQ	(c)	Ray floret: main colour of upper side		
		(d)		RHS Colour Chart (indicate reference number)	

## EXPLANATIONS ON THE TABLE OF CHARACTERISTICS

### Explanations covering several characteristics

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

- (a) observations should be made when all the plants have at least one flower in which 1/3 of the disc florets are open
- (b) observations on leaves should be made on fully expanded leaves. For bushy plant types, observations should be made on a leaf taken from the middle part of the branch. For basal clusters plant types, observations should be made on a leaf taken from the middle part of the cluster
- (c) observations on the flower stem, flower head, disc and ray florets which should be made when one third of the disc florets in the flower head have opened
- (d) observations on the ray floret should be made without removing the ray floret from the flower head. Observations are made on only the strap shaped corolla or ligule.





Explanations for individual characteristics

Ad. 1: Plant: growth type

Basal Clusters growth type – leaves attached or grouped at the base of the plant (basal)

Bushy growth type – leaves borne on the aerial part of the stem (cauline)

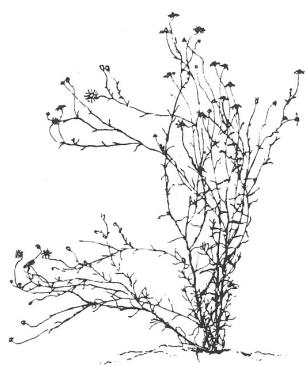


1  
basal clusters



2  
bushy

Ad. 2: Only varieties with bushy growth type: Plant: predominant attitude of stems



1  
upright

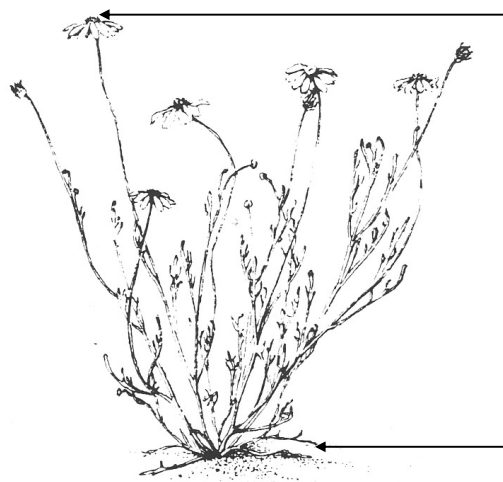


3  
semi-upright



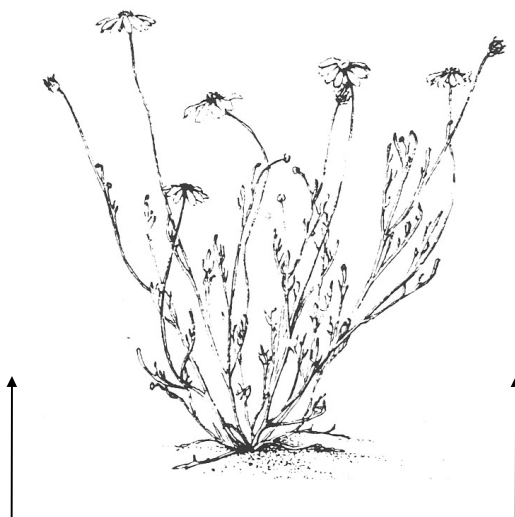
5  
horizontal

Ad. 4: Plant: height including flowers



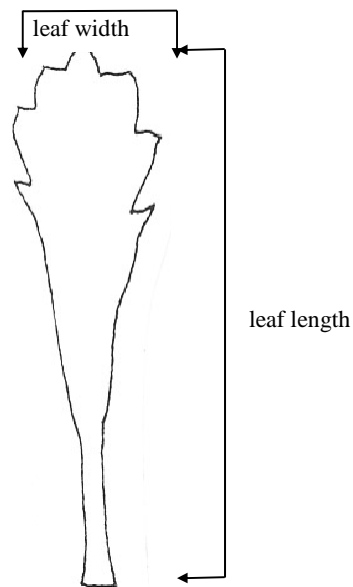
height including flowers

Ad. 5: Plant: width including flowers



width including flowers

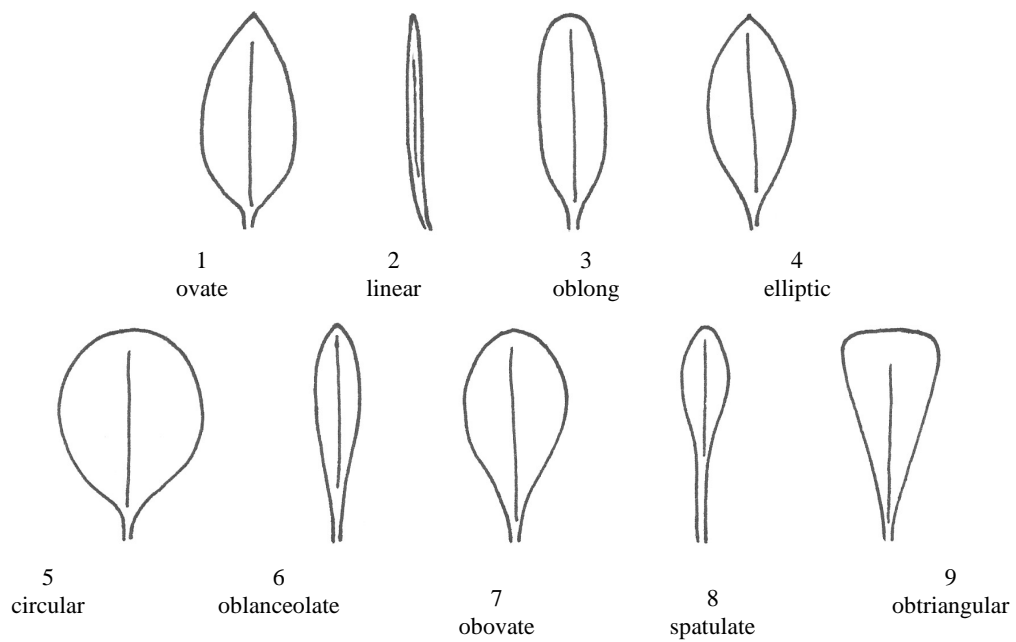
Ads. 7, 8: Leaf: length (7), width (8)



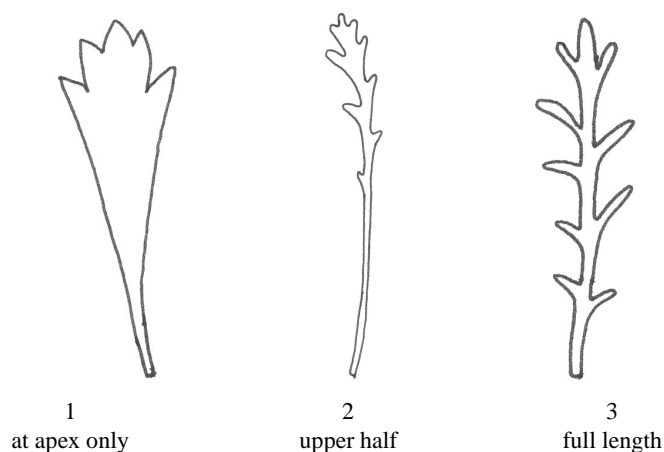
Ad. 9: Leaf: margins

Plants of varieties with leaf margins divided may have occasional individual leaves with margins entire and vice versa.

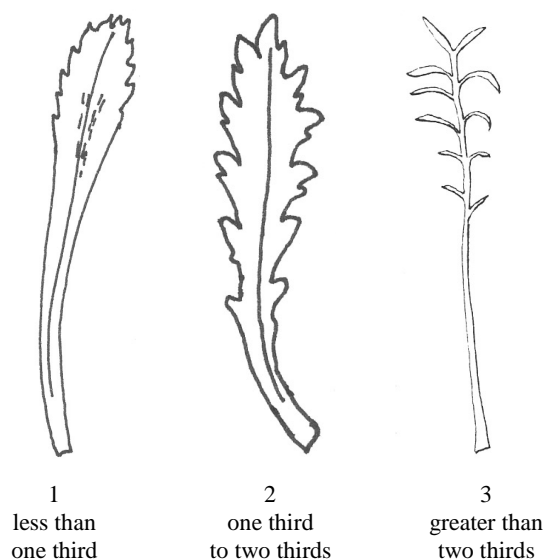
Ad. 10: Only varieties with entire leaf margins: Leaf: shape



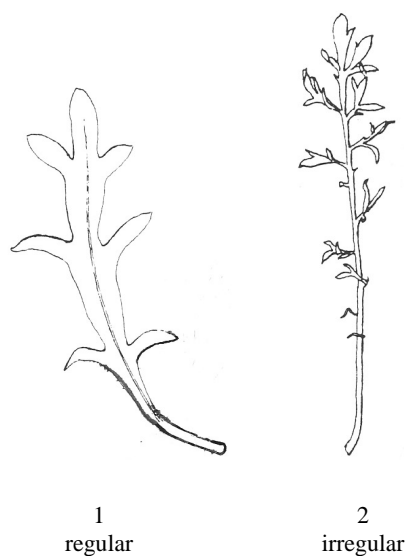
Ad. 11: Only varieties with divided leaf margins: Leaf: position of divisions



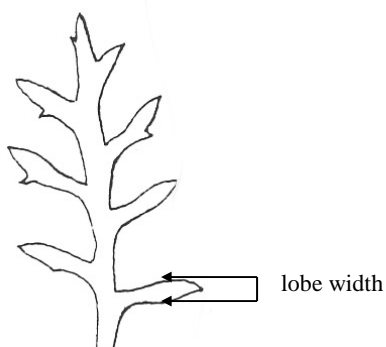
Ad. 12: Only varieties with divided leaf margins: Leaf: depth of divisions in blade from margin to midrib



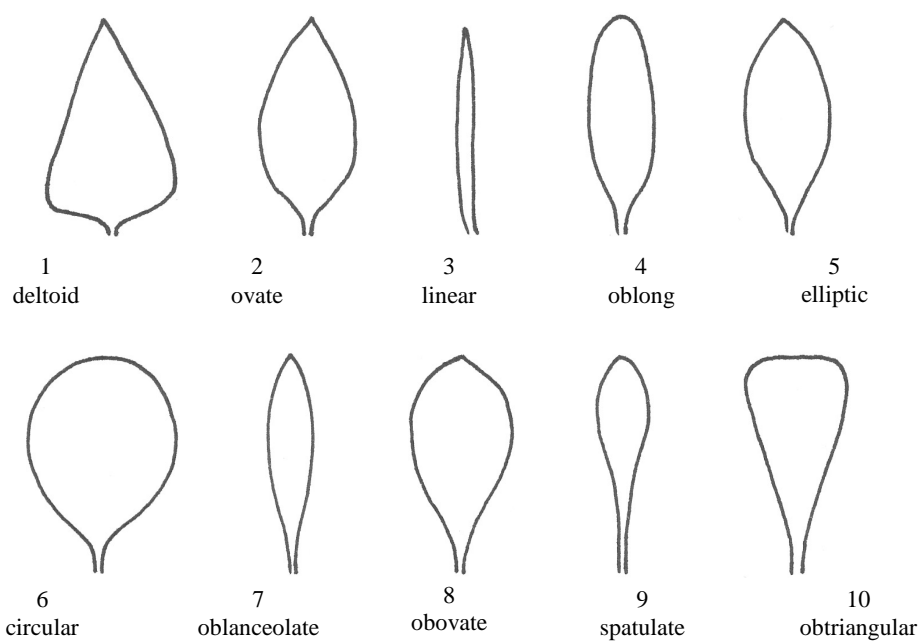
Ad. 13: Only varieties with divided leaf margins: Leaf: regularity of lobing



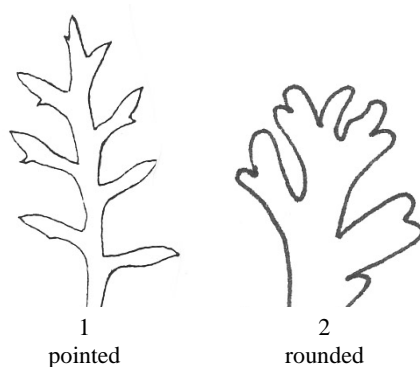
Ad. 14: Only varieties with divided leaf margins: Lobe: width of broadest lobe



Ad. 15: Only varieties with divided leaf margins: Lobe: shape



Ad. 16: Only varieties with divided leaf margins: Lobe: apex

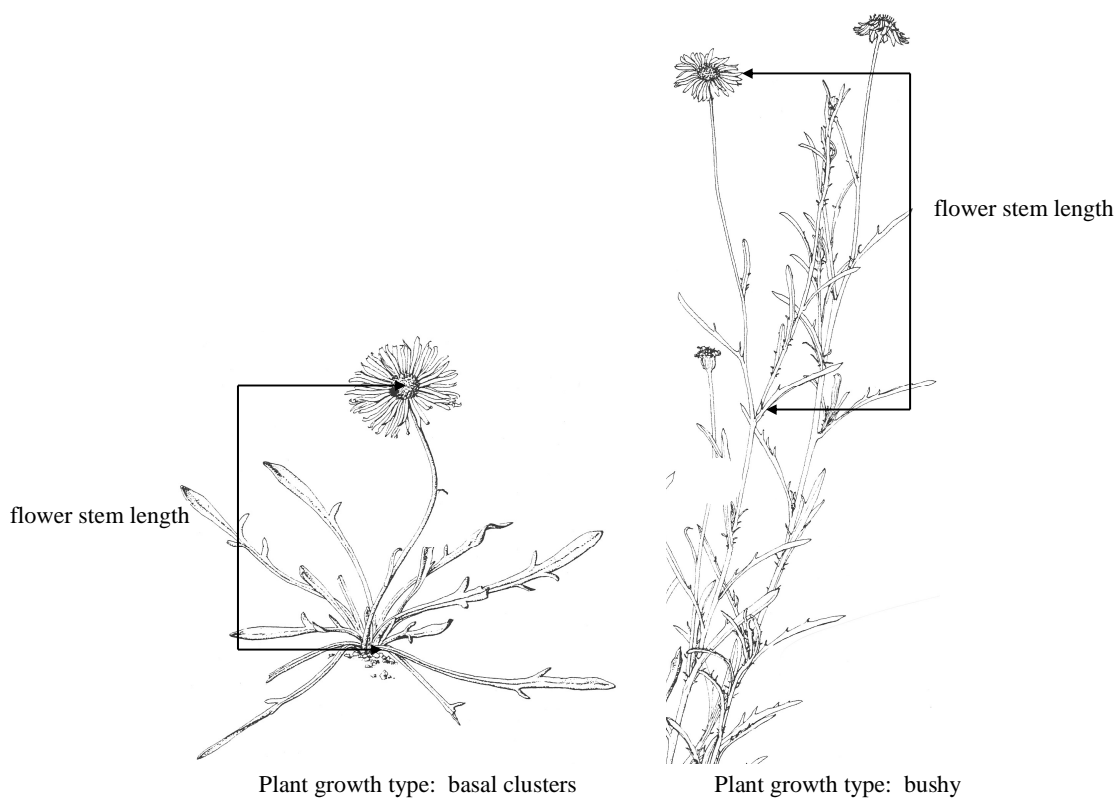


Ad. 17: Only varieties with divided leaf margins: Lobe: secondary divisions



Ad. 18: Flower stem: length

The longest flower stem should be measured. Its length is measured from immediately below the head to the nearest junction with another stem. It may be naked or bear a variable number of small leaves.



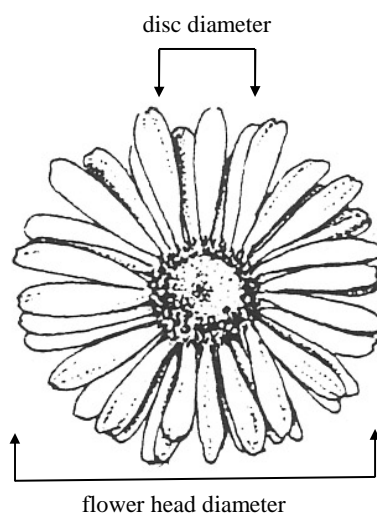
Ad. 20: Flower: bud colour

Observations on the flower bud should be made on the largest bud when it is fully expanded, immediately prior to reflexing of the ray florets.

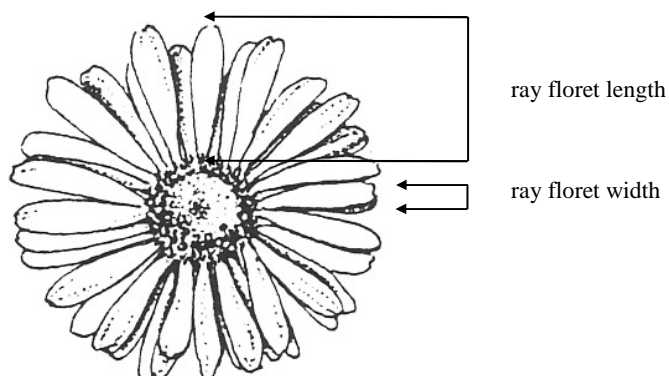
Ad. 21: Flower head: predominant position in relation to foliage



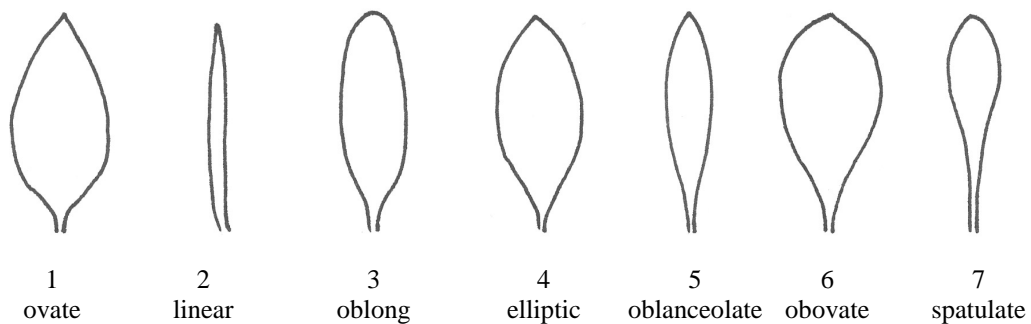
Ads. 22, 23: Flower head: diameter (22), diameter of disc in relation to diameter of flower head (23)



Ads. 27, 28: Ray floret: length (27), width (28)



Ad. 29: Ray floret: shape



Ad. 30: Ray floret: main colour of upper side (on first day of opening)

Observations should be made on the first day that the fully expanded ray florets reflex from the bud position to reveal the disc.



## **LITERATURE**

Clarke, I., Lee, H., 1989: Name that Flower, Melbourne University Press, Melbourne, 260 pp.

Elliot, R.W., Jones, D.L., 1993: Encyclopaedia of Australian plants suitable for cultivation, Volume 2, pp. 370-371, Thomas C. Lothian Pty Ltd., Port Melbourne.

Salkin, Esma *et al.*, 1995: Australian Brachyscomes, Australian Daisy Study Group, 271 pp.

## **ANNEX II**

The Technical Questionnaire is available on the CPVO website under the following reference:  
CPVO-TQ/223/1