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

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WORKING PAPER ON TEST GUIDELINES FOR WAXFLOWER  
(*Chamelaucium* Desf.)

*Document prepared by experts from Australia*

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I. Subject of these Guidelines

These Test Guidelines apply to all vegetatively propagated varieties of *Chamelaucium* Desf. of the family Myrtaceae and their hybrids.

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:

10 young plants.

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 in the glasshouse or in the field 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. Methods and Observations

1. All observations determined by measurement, weighing or counting should be made on 10 plants or parts of plants taken from each of 10 plants, 18 to 24 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. All observations on the fully developed leaf should be made on mature, non-axillary leaves. The color should be observed on the upper side.
4. Unless otherwise indicated, all observations on the flower and parts of the flower should be made 10 to 14 days after the flower first opens.
5. The petal color should be recorded after removing petals from the flower.
6. 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) Flower: diameter (characteristic 16)
  - (b) Flower (10-14 days after opening): main color of petal (characteristic 18) with the following groups:
    - Gr. 1: white
    - Gr. 2: yellow
    - Gr. 3: pink
    - Gr. 4: red
    - Gr. 5: purple
  - (c) Time of beginning of flowering (characteristic 30)

#### 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 Beispielsorten Variedades ejemplo	Note/ Nota
<b>1. Leaf: attitude</b>					
[4.] erect					1
semi-erect					2
horizontal					3
<b>2. Leaf: length</b>					
[1.] short					3
medium					5
long					7
<b>3. Leaf: thickness</b>					
[2.] thin					3
medium				Lady Stephanie	5
thick				Pristine, Tickled Pink	7
<b>4. Leaf: hook at apex</b>					
[3.] absent					1
present				Niribi	9
<b>5. <u>Pot varieties</u> <u>excluded: Flowering</u> <u>branch: thickness</u> <u>(60 cm from apex)</u></b>					
thin					3
medium				Purple Pride	5
thick				Niribi	7
<b>6. Flowering branch: angle of lateral</b>					
small				Jasper	3
medium				Eric John	5
large					7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>7. Flowering branch: predominant location of flowers</b>					
distal					1
along flowering branch					2
<b>8. Inflorescence: (* number of flowers</b>					
few					3
medium				Mullering Brook	5
many				Pearl Buttons, Purple Pride	7
<b>9. Flower bud: shape (before cap dehiscence)</b>					
[11.] spheroid					1
ovoid					2
pyriform					3
<b>10. Flower bud: horns</b>					
[12.] none				Blondie	1
one				Madonna	2
two				Albany Pearl	3
<b>11. Flower bud cap: texture</b>					
[13.] shiny					1
papery					2

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>12. <u>Varieties with shiny flower bud cap</u> only: Flower bud cap: main color (before cap dehiscence)</b>					
[14.] green					1
pink					2
orange					3
brown					4
red					5
purple					6
<b>13. <u>Varieties with papery flower bud cap</u> only: Flower bud cap: main color (before cap dehiscence)</b>					
[15.] light brown					1
red					2
<b>14. Flower bud: apical color (after cap dehiscence)</b>					
[16.] white					1
cream					2
yellow					3
pink					4
red					5
purple					6
<b>15. Flower: type (*)</b>					
[9.] single					1
double				Double Devil	2

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>16. Flower: diameter</b>					
<b>(*)</b>					
[10.]	small			Lady Jennifer	3
	medium			Mullering Brook, White Spring	5
	large			Niribi, Purple Pride	7
<b>17. Flower (on first day</b>					
<b>(*) of opening): main</b>					
<b>color of petal</b>					
[24.]	RHS Colour Chart (indicate reference number)				
<b>18. Flower (10-14 days</b>					
<b>(*) after opening): main</b>					
<b>color of petal</b>					
[25.]	RHS Colour Chart (indicate reference number)				
<b>19. Flower (4 weeks</b>					
<b>(*) after opening): main</b>					
<b>color of petal</b>					
[26.]	RHS Colour Chart (indicate reference number)				
<b>20. Flower (on first day</b>					
<b>(*) of opening): color of</b>					
<b>waxy center</b>					
[17.]	yellow green				1
	light green				2
	medium green				3
	dark green				4
	red brown				5



English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>21. Flower (4 weeks after opening): color of waxy center</b>					
[18.] yellow green					1
light green					2
medium green					3
dark green					4
red brown					5
<b>22. Calyx tube: longitudinal furrowing</b>					
[19.] absent				Niribi, Purple Pride	1
present				Mullering Brook	9
<b>23. Calyx tube: shape</b>					
[20.] obconical				Purple Pride	1
flared				Niribi	2
<b>24. Calyx tube: diameter at widest part</b>					
[21.] small					3
medium				Purple Pride	5
large				Niribi	7
<b>25. Calyx tube: color at middle part</b>					
[22.] yellow					1
green					2
brown					3
<b>26. Calyx lobe: color</b>					
[23.] green					1
red					2
brown					3

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>27. Stamen collar: color</b>					
[28.] white					1
pink					2
red					3
purple					4
<b>28. Staminode: width at (+) base</b>					
[27.] narrow				Purple Pride	3
medium				Niribi	5
broad					7
<b>29. Style: color</b>					
white					1
pink					2
red					3
purple					4
<b>30. Time of beginning of flowering</b>					
very early					1
early				Mullering Brook	3
medium				Purple Pride	5
late				Pearl Buttons	7
very late				Oneg	9

VIII. Explanation on the Table of Characteristics

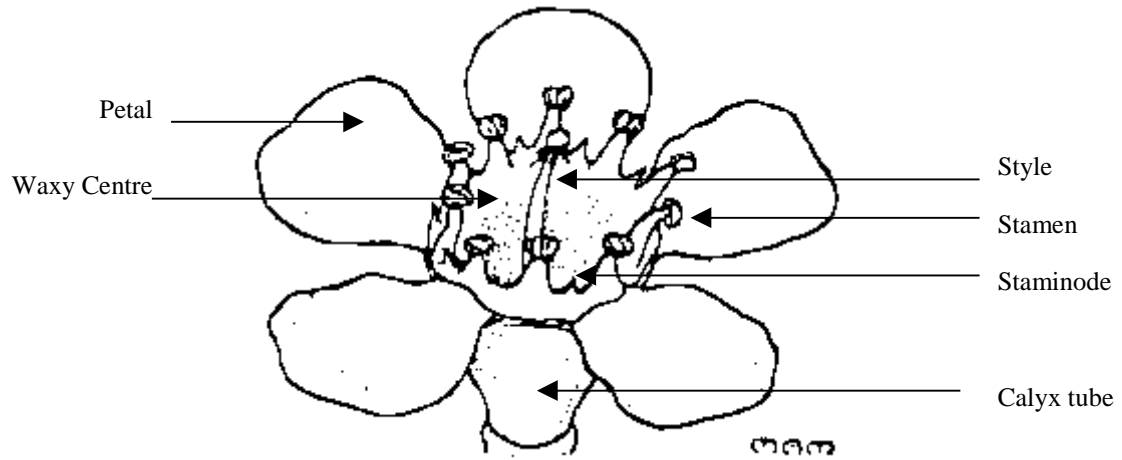


Diagram modified from illustration by Margaret Menadue (Marchant *et al*, 1987)

IX. Literature

Blackall, W.E. and Grieve, G.J. How to Know Western Australian Wildflowers Part IIIA.

Elliot, W.R. and Jones, D.L. (1989) Encyclopedia of Australian Plants Suitable for Cultivation Volume 3, Lothian Books.

Marchant, N.G., Wheeler, J.R., Rye, B.L., Bennett, E.M., Lander, N.S. and Macfarlane, T.D. (1987) Flora of the Perth Region Part One, Western Australian Herbarium, Department of Agriculture Western Australia.

Wrigley, J.W. and Fagg, M. (1988) Australian Native Plants Third Edition, Collins Publishers.

X. Technical Questionnaire

	<p>Reference Number (not to be filled in by the applicant)</p>
<p style="text-align: center;"><b>TECHNICAL QUESTIONNAIRE</b> to be completed in connection with an application for plant breeders' rights</p>	
1.1 Genus	<p style="text-align: center;"><i>Chamelaucium</i> Desf.  WAXFLOWER</p>
1.2 Species	<p style="text-align: center;">..... (indicate species)</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
<b>5.1 Flower: diameter (16)</b>		
small	Lady Jennifer	3[ ]
medium	Mullering Brook, White Spring	5[ ]
large	Niribi, Purple Pride	7[ ]
<b>5.2i Flower (10-14 days after opening): main color of petal (18)</b>		
RHS Colour Chart (indicate reference number)	.....	
<b>5.2ii Flower (10-14 days after opening): main color of petal (18)</b>		
white		1[ ]
yellow		2[ ]
pink		3[ ]
red		4[ ]
purple		5[ ]
<b>5.3 Time of beginning of flowering (30)</b>		
very early		1[ ]
early	Mullering Brook	3[ ]
medium	Purple Pride	5[ ]
late	Pearl Buttons	7[ ]
very late	Oneg	9[ ]

6. Similar varieties and differences from these varieties

Denomination of similar variety	Characteristic in which the similar variety is different <sup>o)</sup>	State of expression of similar variety	State of expression of candidate variety
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<sup>o)</sup> 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

Main use: (precise)

pot plant

garden plant

cut flower

others (specify)

.....

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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