



TG/211/1

ORIGINAL: English

DATE: April 9, 2003

**INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS**  
GENEVA

**TEA TREE, MANUKA**

*(Leptospermum J.R. Forst. et G. Forst.)*

**GUIDELINES**

**FOR THE CONDUCT OF TESTS**

**FOR DISTINCTNESS, UNIFORMITY AND STABILITY**

Alternative Names: \*

<i>Latin</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Leptospermum</i> J.R. Forst. et G. Forst.	Tea Tree, Manuka	Leptosperme	Südseemyrte	Leptospermum

**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](http://www.upov.int)), for the latest information.]

<u>TABLE OF CONTENTS</u>	<u>PAGE</u>
1. SUBJECT OF THESE TEST GUIDELINES.....	3
2. MATERIAL REQUIRED .....	3
3. METHOD OF EXAMINATION.....	3
3.1 Duration of Tests.....	3
3.2 Testing Place .....	3
3.3 Conditions for Conducting the Examination.....	3
3.4 Test Design .....	4
3.5 Number of Plants / Parts of Plants to be Examined.....	4
3.6 Additional Tests .....	4
4. ASSESSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY .....	4
4.1 Distinctness .....	4
4.2 Uniformity.....	4
4.3 Stability .....	5
5. GROUPING OF VARIETIES AND ORGANIZATION OF THE GROWING TRIAL .....	5
6. INTRODUCTION TO THE TABLE OF CHARACTERISTICS .....	6
6.1 Categories of Characteristics.....	6
6.2 States of Expression and Corresponding Notes.....	6
6.3 Types of Expression.....	6
6.4 Example Varieties .....	6
6.5 Legend.....	6
7. TABLE OF CHARACTERISTICS .....	7
8. EXPLANATIONS ON THE TABLE OF CHARACTERISTICS .....	18
8.1 Explanations covering several characteristics .....	18
8.2 Explanations for individual characteristics .....	18
9. LITERATURE .....	22
10. TECHNICAL QUESTIONNAIRE.....	23

1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Leptospermum* J.R. Forst. et G. Forst. of the family Myrtaceae.

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:

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. If the material has been propagated by “in vitro” methods 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. Observations should be made on plants which are at least two years old.

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 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 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, 1 off-type is allowed.

#### 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 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 other 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 trial 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) Leaf blade: variegation (characteristic 15)
- (c) Leaf blade: main color of upper side (excluding hairs) (characteristic 16) with the following groups:

Gr. 1 (green): yellow green; light green; medium green; dark green

Gr. 2 (grey green): grey green

Gr. 3 (red): red; red brown; red purple; dark purple

- (d) Flower: number of whorls of petals (characteristic 22)
- (e) Petal: main color at first opening (characteristic 36) with the following groups:

Gr. 1: green yellow

Gr. 2: white

Gr. 3: red pink

Gr. 4: red

Gr. 5: red purple

Gr. 6: purple violet

Gr. 7: violet.

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

(a)-(d) See Explanations on the Table of Characteristics in Chapter 8, Section 8.1

(+) See Explanations on the Table of Characteristics in Chapter 8, Section 8.2

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

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>1.</b>	<b>Plant: growth habit</b>	<b>Plante: port</b>	<b>Pflanze: Wuchsform</b>	<b>Planta: porte</b>		
(+)						
<b>PQ</b>	upright	dressé	aufrecht	erecto	Ruby Glow	1
	bushy	buissonnant	buschig	arbustivo	Nanum	2
	spreading	demi étalé	breitwüchsig	rastrero	Pacific Beauty	3
	prostrate	étalé	liegend	postrado	Backwater Beauty	4
<b>2.</b>	<b>Plant: height</b>	<b>Plante: hauteur</b>	<b>Pflanze: Höhe</b>	<b>Planta: altura</b>		
<b>QN</b>	very short	très basse	sehr niedrig	muy baja	Julie Ann	1
	short	basse	niedrig	baja	Pink Cascade	3
	medium	moyenne	mittel	media	Fairy Rose	5
	tall	haute	hoch	alta	Copper Sheen	7
	very tall	très haute	sehr hoch	muy alta	<i>Leptospermum laevigatum</i>	9
<b>3.</b>	<b>Plant: attitude of branches</b>	<b>Plante: port des branches</b>	<b>Pflanze: Haltung der Zweige</b>	<b>Planta: porte de las ramas</b>		
(+)						
<b>QN</b>	erect	dressées	aufrecht	erecto		1
	semi-erect	demi dressées	halbaufrecht	semierecto		2
	horizontal	horizontales	waagrecht	horizontal		3
<b>4.</b>	<b>Plant: curvature of branches at distal end</b>	<b>Plante: courbure des branches à la partie distale</b>	<b>Pflanze: Biegung der Zweige am distalen Ende</b>	<b>Planta: curvatura de las ramas en el extremo distal</b>		
(+)						
<b>QN</b>	upwards	dressées	nach oben	hacia arriba		1
	straight	droites	gerade	rectas		2
	downwards	retombantes	nach unten	hacia abajo		3
<b>5.</b>	<b>Plant: width</b>	<b>Plante: largeur</b>	<b>Pflanze: Breite</b>	<b>Planta: anchura</b>		
<b>QN</b>	narrow	étroite	schmal	estrecha		3
	medium	moyenne	mittel	media	Julie Ann	5
	broad	large	breit	ancha	Album Flore-pleno	7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>6. (a)</b>	<b>Young shoot: main color</b>	<b>Jeune pousse: couleur principale</b>	<b>Junger Trieb: Hauptfarbe</b>	<b>Tallo joven: color principal</b>		
<b>PQ</b>	yellow green	vert-jaune	gelbgrün	verde amarillento		1
	light green	vert clair	hellgrün	verde claro		2
	medium green	vert moyen	mittelgrün	verde medio		3
	reddish green	vert rougeâtre	rötlichgrün	verde rojizo		4
	orange brown	brun orangé	orangebraun	marrón anaranjado		5
	red	rouge	rot	rojo		6
	purple	violet	purpur	púrpura		7
<b>7. (a)</b>	<b>Young shoot: hairiness</b>	<b>Jeune pousse: pilosité</b>	<b>Junger Trieb: Behaarung</b>	<b>Tallo joven: vellosidad</b>		
<b>QN</b>	absent or weak	absente ou faible	fehlend oder gering	ausente o débil		1
	medium	moyenne	mittel	media		2
	strong	forte	stark	fuerte		3
<b>8. (*) (a)</b>	<b>Young leaf: main color</b>	<b>Jeune feuille: couleur principale</b>	<b>Junges Blatt: Hauptfarbe</b>	<b>Hoja joven: color principal</b>		
<b>PQ</b>	yellow	jaune	gelb	amarillo	Pacific Beauty	1
	yellow green	vert-jaune	gelbgrün	verde amarillento	Aphrodite	2
	light green	vert clair	hellgrün	verde claro		3
	medium green	vert moyen	mittelgrün	verde medio		4
	dark green	vert foncé	dunkelgrün	verde oscuro		5
	grey green	vert-gris	graugrün	verde-gris		6
	orange brown	brun orangé	orangebraun	marrón anaranjado		7
	red	rouge	rot	rojo		8
	red brown	rouge-brun	rotbraun	marrón rojizo		9
	red purple	rouge-violet	rotpurpur	púrpura rojizo	Copper Glow	10
	dark purple	violet foncé	dunkelpurpur	púrpura oscuro	Rudolph	11



	English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
<b>9. (b) Leaf blade: attitude in relation to stem (+)</b>	<b>Leaf blade: attitude in relation to stem</b>	<b>Limbe: port par rapport à la tige</b>	<b>Blattspreite: Haltung im Verhältnis zum Stiel</b>	<b>Limbo: porte en relación con el tallo</b>		
<b>QN</b>	adpressed	appliqué	anliegend	alineado		1
	oblique	oblique	schräg abstehend	oblicuo		2
	perpendicular	perpendiculaire	senkrecht abstehend	perpendicular		3
<b>10. (b) Leaf blade: length (*)</b>	<b>Leaf blade: length</b>	<b>Limbe: longueur</b>	<b>Blattspreite: Länge</b>	<b>Limbo: longitud</b>		
<b>QN</b>	very short	très court	sehr kurz	muy corto		1
	short	court	kurz	corto	Rhiannon	3
	medium	moyen	mittel	medio	Aphrodite	5
	long	long	lang	largo		7
	very long	très long	sehr lang	muy largo		9
<b>11. (b) Leaf blade: width (*)</b>	<b>Leaf blade: width</b>	<b>Limbe: largeur</b>	<b>Blattspreite: Breite</b>	<b>Limbo: anchura</b>		
<b>QN</b>	narrow	étroit	schmal	estrecho	BY 11	3
	medium	moyen	mittel	medio	Rhiannon	5
	broad	large	breit	ancho		7
<b>12. (b) Leaf blade: shape</b>	<b>Leaf blade: shape</b>	<b>Limbe: forme</b>	<b>Blattspreite: Form</b>	<b>Limbo: forma</b>		
<b>PQ</b>	linear	linéaire	linear	lineal		1
	ovate	ovale	eiförmig	oval		2
	oblong	oblong	rechteckig	oblongp		3
	elliptic	elliptique	elliptisch	elíptico		4
	orbicular	orbiculaire	kreisförmig	orbicular		5
	obovate	obovale	verkehrt eiförmig	oboval		6

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>13. (b) (+)</b>	<b>Leaf blade: profile in cross section</b>	<b>Limbe: profil en section transversale</b>	<b>Blattspreite: Profil im Querschnitt</b>	<b>Limbo: perfil en sección transversal</b>		
<b>PQ</b>	v-shaped	en V	v-förmig	en forme de v		1
	incurved	incurvé	aufgebogen	curvado hacia arriba		2
	flat	aplati	flach	plano		3
	recurved	recourbé	zurückgebogen	curvado hacia abajo		4
<b>14. (b)</b>	<b>Leaf blade: shape of apex</b>	<b>Limbe: forme du sommet</b>	<b>Blattspreite: Form der Spitze</b>	<b>Limbo: forma del ápice</b>		
<b>PQ</b>	acute	pointu	spitz	agudo	Aphrodite, Rhiannon	1
	obtuse	spatulé	stumpf	obtuso	Rudolph	2
	rounded	arrondi	abgerundet	redondeado		3
<b>15. (b) (*)</b>	<b>Leaf blade: variegation</b>	<b>Limbe: panachure</b>	<b>Blattspreite: Panaschierung</b>	<b>Limbo: variegación</b>		
<b>QL</b>	absent	absente	fehlend	ausente		1
	present	présente	vorhanden	presente	Raelene	9
<b>16. (b)</b>	<b>Leaf blade: main color of upper side (excluding hairs)</b>	<b>Limbe: couleur principale de la partie supérieure (à l'exclusion des poils)</b>	<b>Blattspreite: Hauptfarbe der Oberseite (ohne Haare)</b>	<b>Limbo: color principal del haz (excluida la vellosidad)</b>		
<b>PQ</b>	yellow green	vert-jaune	gelbgrün	verde amarillento	Lemon Frost	1
	light green	vert clair	hellgrün	verde claro		2
	medium green	vert moyen	mittelgrün	verde medio		3
	dark green	vert foncé	dunkelgrün	verde oscuro	Pink Cascade	4
	grey green	vert-gris	graugrün	verde-gris		5
	red	rouge	rot	rojo		6
	red brown	rouge-brun	rotbraun	marrón rojizo		7
	red purple	rouge-violet	rotpurpur	púrpura rojizo		8
	dark purple	violet foncé	dunkelpurpur	púrpura oscuro		9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>17. (b)</b>	<b><u>Varieties with variegated leaves only: Leaf blade: secondary color of upper side</u></b>	<b><u>Variétés à feuilles panachées seulement: Limbe: couleur secondaire de la partie supérieure</u></b>	<b><u>Nur Sorten mit panaschierten Blättern: Blattspreite: Sekundärfarbe an der Oberseite</u></b>	<b><u>Sólo variedades con hojas variegadas: Limbo: color secundario del haz</u></b>		
<b>PQ</b>	yellowish white	blanc jaunâtre	gelblichweiß	blanco amarillento		1
	light yellowish green	vert jaunâtre clair	hell gelblichgrün	verde amarillento claro		2
	light green	vert clair	hellgrün	verde claro		3
	medium green	vert moyen	mittelgrün	verde medio		4
<b>18. (b)</b>	<b>Leaf blade: glossiness of upper side</b>	<b>Limbe: brillance de la partie supérieure</b>	<b>Blattspreite: Glanz der Oberseite</b>	<b>Limbo: brillo del haz</b>		
<b>QN</b>	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil		1
	weak	faible	gering	débil		3
	medium	moyenne	mittel	medio		5
	strong	forte	stark	fuerte		7
	very strong	très forte	sehr stark	muy fuerte		9
<b>19. (b)</b>	<b>Leaf blade: hairiness on lower side</b>	<b>Limbe: pilosité de la partie inférieure</b>	<b>Blattspreite: Behaarung an der Unterseite</b>	<b>Limbo: vellosidad del envés</b>		
<b>QN</b>	absent or weak	absente ou faible	fehlend oder gering	ausente o débil		1
	medium	moyenne	mittel	medio		2
	strong	forte	stark	fuerte		3
<b>20. (c)</b>	<b>Flower bud: hairiness</b>	<b>Bouton floral: pilosité</b>	<b>Blütenknospe: Behaarung</b>	<b>Yema floral: vellosidad</b>		
<b>QN</b>	absent or weak	absente ou faible	fehlend oder gering	ausente o débil		1
	medium	moyenne	mittel	medio		2
	strong	forte	stark	fuerte		3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>21. (c)</b>	<b>Flower bud: predominant color</b>	<b>Bouton floral: couleur prédominante</b>	<b>Blütenknospe: überwiegende Farbe</b>	<b>Yema floral: color predominante</b>		
<b>PQ</b>	white	blanc	weiß	blanco		1
	pink	rose	rosa	rosa		2
	red	rouge	rot	rojo		3
	purple	violet	purpur	púrpura		4
<b>22. (*) (d)</b>	<b>Flower: number of whorls of petals</b>	<b>Fleur: nombre de verticilles des pétales</b>	<b>Blüte: Anzahl Blütenblattquirle</b>	<b>Flor: número de verticilos de los pétalos</b>		
<b>QL</b>	one	un	einer	uno		1
	more than one	plus d'un	mehr als einer	más de uno		2
<b>23. (d)</b>	<b>Flower: arrangement of petals</b>	<b>Fleur: disposition des pétales</b>	<b>Blüte: Anordnung der Blütenblätter</b>	<b>Flor: disposición de los pétalos</b>		
<b>QN</b>	free	disjoints	freistehend	libre		1
	touching	tangents	sich berührend	tocándose		2
	overlapping	chevauchants	überlappend	solapándose		3
<b>24. (d)</b>	<b>Flower: number of fertile stamens</b>	<b>Fleur: nombre d'étamines fertiles</b>	<b>Blüte: Anzahl fertiler Staubgefäße</b>	<b>Flor: número de estambres fértiles</b>		
<b>QN</b>	none or very few	nul ou très petit	keine oder sehr wenige	ninguno o muy bajo		1
	few	petit	wenige	bajo		2
	many	grand	viele	alto		3
<b>25. (d)</b>	<b>Flower: diameter</b>	<b>Fleur: diamètre</b>	<b>Blüte: Durchmesser</b>	<b>Flor: diámetro</b>		
<b>QN</b>	very small	très petit	sehr klein	muy pequeño		1
	small	petit	klein	pequeño	<i>Leptospermum neglectum</i>	3
	medium	moyen	mittel	medio		5
	large	grand	groß	grande		7
	very large	très grand	sehr groß	muy grande	Lavender Queen	9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>26. (d)</b>	<b>Flower: diameter of disc in relation to diameter of flower</b>	<b>Fleur: diamètre du disque par rapport au diamètre de la fleur</b>	<b>Blüte: Durchmesser der Scheibe im Verhältnis zum Durchmesser der Blüte</b>	<b>Flor: diámetro del disco en relación con el diámetro de la flor</b>		
(+)						
<b>QN</b>	less than one third	moins d'un tiers	kleiner als ein Drittel	menos de un tercio		1
	one third to two thirds	un tiers à deux tiers	ein bis zwei Drittel	de un tercio a dos tercios		2
	more than two thirds	plus des deux tiers	größer als zwei Drittel	más de dos tercios		3
<b>27. (d)</b>	<b>Disc: color</b>	<b>Disque: couleur</b>	<b>Scheibe: Farbe</b>	<b>Disco: color</b>		
(+)						
<b>PQ</b>	yellow green	vert-jaune	gelbgrün	verde amarillento		1
	light green	vert clair	hellgrün	verde claro		2
	medium green	vert moyen	mittelgrün	verde medio		3
	dark green	vert foncé	dunkelgrün	verde oscuro	Copper Sheen	4
	dark purple	violet foncé	dunkelpurpur	púrpura oscuro		5
<b>28. (d)</b>	<b>Sepal: length in relation to length of petal</b>	<b>Sépale: longueur par rapport à la longueur du pétale</b>	<b>Kelchblatt: Länge im Verhältnis zur Länge des Blütenblattes</b>	<b>Sépalo: longitud en relación con la longitud del pétalo</b>		
<b>QN</b>	less than one third	moins d'un tiers	weniger als ein Drittel	menos de un tercio		1
	one third to two thirds	un tiers à deux tiers	ein bis zwei Drittel	de un tercio a dos tercios		2
	more than two thirds	plus des deux tiers	mehr als zwei Drittel	más de dos tercios		3
<b>29. (d)</b>	<b>Sepal: shape of apex</b>	<b>Sépale: forme du sommet</b>	<b>Kelchblatt: Form der Spitze</b>	<b>Sépalo: forma del ápice</b>		
<b>PQ</b>	acute	pointu	spitz	agudo		1
	obtuse	spatulé	stumpf	obtusos		2
	rounded	arrondi	abgerundet	redondeado		3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>30. (d) Sepal: predominant color</b>		<b>Sépale: couleur prédominante</b>	<b>Kelchblatt: überwiegende Farbe</b>	<b>Sépalo: color predominante</b>		
<b>PQ</b>	white	blanc	weiß	blanco		1
	yellow green	vert-jaune	gelbgrün	verde amarillento	Aphrodite	2
	green	vert	grün	verde	Backwater Beauty	3
	pink	rose	rosa	rosa	Lambethii	4
	red	rouge	rot	rojo	Copper Sheen	5
<b>31. (d) Sepal: hairiness</b>		<b>Sépale: pilosité</b>	<b>Kelchblatt: Behaarung</b>	<b>Sépalo: velloidad</b>		
<b>QN</b>	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil		1
	weak	faible	gering	débil		2
	strong	forte	stark	fuerte		3
<b>32. (d) Petal: ratio length/width (+)</b>		<b>Pétale: rapport longueur/largeur</b>	<b>Blütenblatt: Verhältnis Länge/Breite</b>	<b>Pétalo: relación entre la longitud y la anchura</b>		
<b>QN</b>	broader than long	plus large que long	breiter als lang	más ancho que largo		1
	as long as broad	aussi long que large	so lang wie breit	tan largo como ancho		2
	longer than broad	plus long que large	länger als breit	más largo que ancho		3
<b>33. (d) Petal: number of colors on upper side</b>		<b>Pétale: nombre de couleurs sur la partie supérieure</b>	<b>Blütenblatt: Anzahl Farben der Oberseite</b>	<b>Pétalo: número de colores en la cara superior</b>		
<b>QL</b>	one	une	eine	uno		1
	two or more	deux ou plus	zwei oder mehr	dos o más	Keatleyi, Sunraysia	2

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>34. (d)</b>	<b><u>Varieties with two or more colors on upper side of petal only:</u> Petal: distribution of secondary color</b>	<b><u>Variétés de deux couleurs ou plus sur la partie supérieure du pétale</u> seulement : pétale : répartition de la couleur secondaire</b>	<b><u>Nur Sorten mit zwei oder mehreren Farben an der Oberseite des Blütenblattes:</u> Blütenblatt: Verteilung der Sekundärfarbe</b>	<b><u>Sólo variedades con dos o más colores en la cara superior del pétalo:</u> Pétalo: distribución del color secundario</b>		
<b>QL</b>	marginal	marginale	marginal angeordnet	marginal		1
	striated	striée	gestreift	estriada		2
	flushed	floue	verschwommen	difusa		3
<b>35. (d)</b>	<b>Petal: color change after first opening</b>	<b>Pétale: changement de couleur après le premier épanouissement</b>	<b>Blütenblatt: Farbveränderung nach dem ersten Öffnen</b>	<b>Pétalo: cambio de color tras la primera apertura</b>		
<b>QL</b>	absent	absent	fehlend	ausente		1
	present	présent	vorhanden	presente	Nanum	9
<b>36. (d)</b>	<b>Petal: main color at first opening</b>	<b>Pétale: couleur principale au premier épanouissement</b>	<b>Blütenblatt: Hauptfarbe beim ersten Öffnen</b>	<b>Pétalo: color principal cuando se abre por primera vez</b>		
<b>PQ</b>	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		
<b>37. (d)</b>	<b><u>Varieties with two or more colors on upper side of petal only:</u> Petal: secondary color at first opening</b>	<b><u>Variétés de deux couleurs ou plus sur la partie supérieure du pétale</u> seulement : pétale : couleur secondaire au premier épanouissement</b>	<b><u>Nur Sorten mit zwei oder mehreren Farben an der Oberseite des Blütenblattes:</u> Blütenblatt: Sekundärfarbe beim ersten Öffnen</b>	<b><u>Sólo variedades con dos o más colores en la cara superior del pétalo:</u> Pétalo: color secundario cuando se abre por primera vez</b>		
<b>PQ</b>	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		
<b>38. (d)</b>	<b>Petal: undulation of margin</b>	<b>Pétale: ondulation du bord</b>	<b>Blütenblatt: Randwellung</b>	<b>Pétalo: ondulación del margen</b>		
<b>QN</b>	weak	faible	gering	débil		3
	medium	moyenne	mittel	media		5
	strong	forte	stark	fuerte		7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>39. (d)</b>	<b>Petal: main color two weeks after first opening</b>	<b>Pétale: couleur principale deux semaines après le premier épanouissement</b>	<b>Blütenblatt: Hauptfarbe zwei Wochen nach dem ersten Öffnen</b>	<b>Pétalo: color principal dos semanas después de haberse abierto por primera vez</b>		
<b>PQ</b>	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		
<b>40. (d)</b>	<b><u>Varieties with two or more colors on upper side of petal only: Petal: secondary color two weeks after first opening</u></b>	<b><u>Variétés de deux couleurs ou plus sur la partie supérieure du pétale seulement</u> : pétale : couleur secondaire deux semaines après le premier épanouissement</b>	<b><u>Nur Sorten mit zwei oder mehreren Farben an der Oberseite des Blütenblattes:</u> Blütenblatt: Sekundärfarbe zwei Wochen nach dem ersten Öffnen</b>	<b><u>Sólo variedades con dos o más colores en la cara superior del pétalo:</u> Pétalo: color secundario dos semanas después de abrirse por primera vez</b>		
<b>PQ</b>	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		
<b>41. (d)</b>	<b>Disc: main color two weeks after first opening</b>	<b>Disque: couleur principale deux semaines après le premier épanouissement</b>	<b>Scheibe: Hauptfarbe zwei Wochen nach dem ersten Öffnen</b>	<b>Disco: color principal dos semanas después de haberse abierto por primera vez</b>		
<b>PQ</b>	greenish brownish	verdâtre brunâtre	grünlich bräunlich	verdoso amarronado	Lambethii	1 2
<b>42. (d)</b>	<b>Stamen: length of fertile stamen in relation to length of petal</b>	<b>Étamine: longueur de l'étamine fertile par rapport à la longueur du pétale</b>	<b>Staubgefäß: Länge der fertilen Staubgefäße im Verhältnis zur Länge des Blütenblattes</b>	<b>Estambre: longitud del estambre fértil en relación con la longitud del pétalo</b>		
<b>QN</b>	up to half as long more than half as long but less than equal equal	jusqu'à la moitié plus de la moitié mais pas aussi longue aussi longue	bis halb so lang mehr als halb so lang, jedoch weniger als gleich lang gleich lang	hasta la mitad de largo más de la mitad de largo sin llegar a la misma longitud igual de largo		1 2 3



	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>43. (d)</b>	<b>Filaments: main color</b>	<b>Filaments: couleur principale</b>	<b>Staubfäden: Hauptfarbe</b>	<b>Filamentos: color principal</b>		
<b>PQ</b>	white	blanc	weiß	blanco	Rudolph, Aphrodite	1
	pink	rose	rosa	rosa		2
	red	rouge	rot	rojo		3
	brown	brun	braun	marrón		4
<b>44.</b>	<b>Time of beginning of flowering</b>	<b>Époque de début de floraison</b>	<b>Zeitpunkt des Blühbeginns</b>	<b>Época de comienzo de la floración</b>		
<b>QN</b>	early	précoce	früh	temprana		3
	medium	moyenne	mittel	media		5
	late	tardive	spät	tardía		7

8. Explanations on the Table of Characteristics

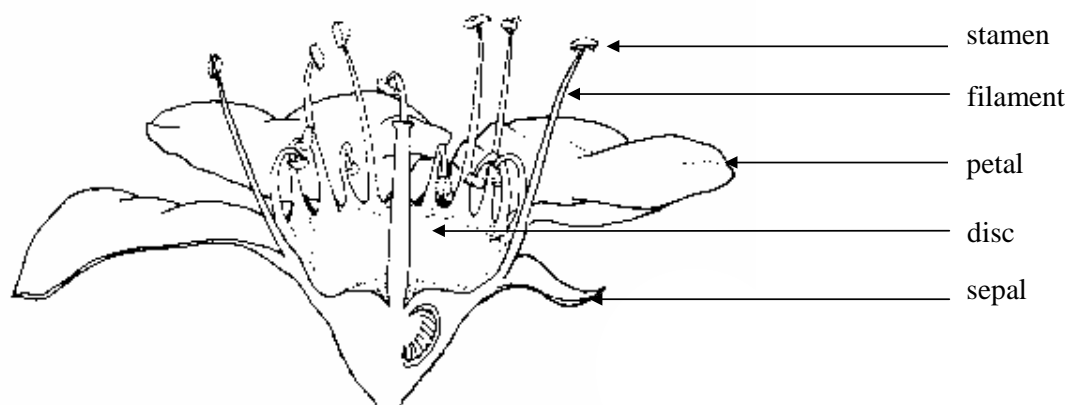
8.1 *Explanations covering several characteristics*

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

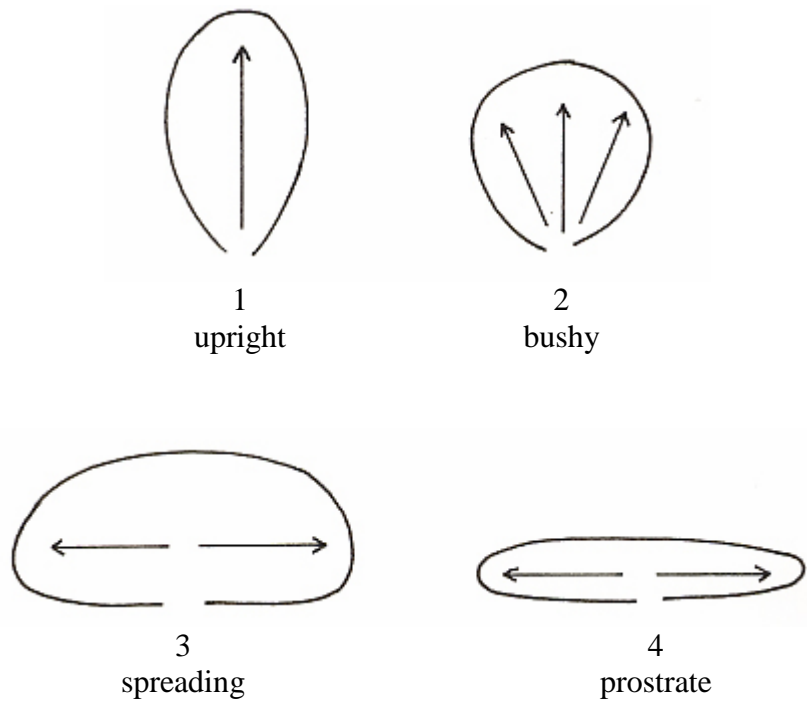
- (a) Observations on the young shoot and young leaf should be made on the distal part of the shoot on fully expanded leaves during active growth. The color of the young leaf should be observed on the upper side.
- (b) Observations on the mature leaf should be made on leaves of the middle part of the shoots during summer. The color should be observed on the upper side.
- (c) Flower bud characteristics to be examined immediately prior to reflexing of the sepals.
- (d) Observations on the flower should be made “at first opening,” unless otherwise stated. “At first opening” is defined as the same day that the petals reflex from the curled position in the bud.

8.2 *Explanations for individual characteristics*

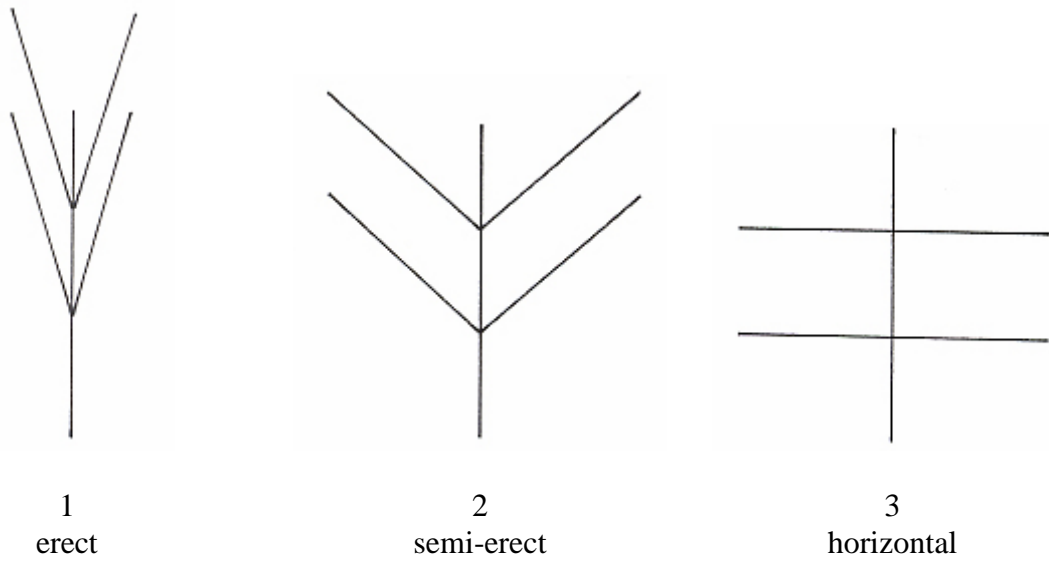
Flower diagram



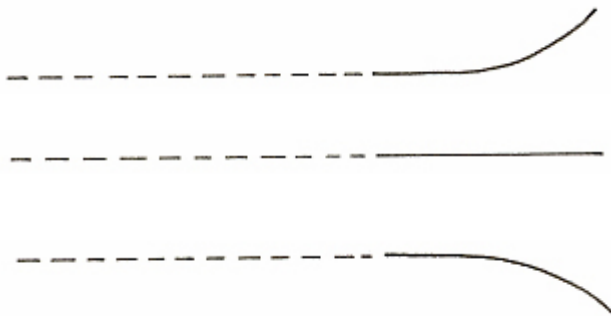
Ad. 1: Plant: growth habit



Ad. 3: Plant: attitude of branches



Ad. 4: Plant: curvature of branches at distal end



1  
upwards

2  
straight

3  
downwards

Ad. 9: Leaf blade: attitude in relation to stem



1  
adpressed

2  
oblique

3  
perpendicular

Ad. 13: Leaf blade: profile in cross section



1  
v-shaped



2  
incurved

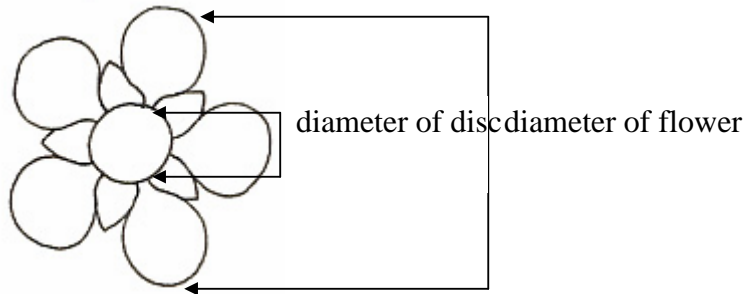


3  
flat

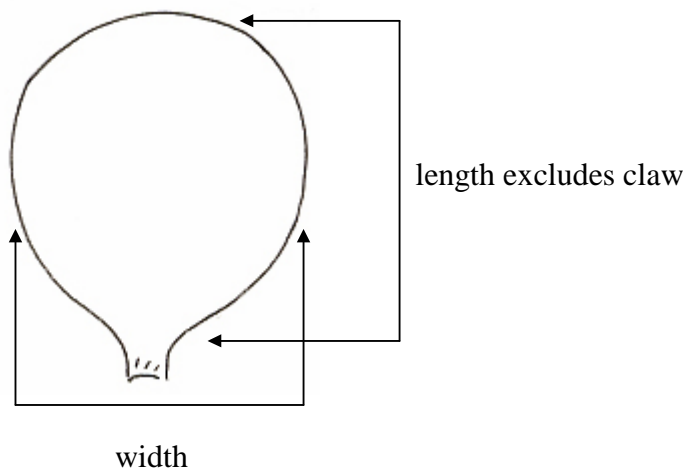


4  
recurved

Ad. 26 and 27: Flower: diameter of disc in relation to diameter of flower (26) and  
Disc: color (27)



Ad. 32: Petal: ratio length/width



9. Literature

Clarke, I., Lee, H., 1987: *Name that Flower*, Melbourne University Press, Carlton, 260 pp.

Elliot, R.W., Jones, D.L., 1993: *Encyclopaedia of Australian Plants suitable for cultivation*, Volume 6, pp. 111-141, Thomas C. Lothian Pty Ltd., Port Melbourne.

Harden, G. J., 1991: *Flora of New South Wales*, Volume 2, pp. 154-168, New South Wales University Press, Kensington.

Metcalf, L.J., 1972: *The cultivation of New Zealand Trees and Shrubs*. Reed Methuen, Auckland.

Rowell, R.J., 1991: *Ornamental Flowering Shrubs in Australia*. New South Wales University Press, Kensington, 321 pp.

Thompson, J., 1983: Redefinitions and nomenclatural changes within the *Leptospermum* suballiance Myrtaceae, *Telopea* 2(4) 379-383.

Thompson, J., 1989: A revision of the genus *Leptospermum* (Myrtaceae), *Telopea* 3(3) 301-446.

10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
		Application date: (not to be filled in by the applicant)
<b>TECHNICAL QUESTIONNAIRE</b> to be completed in connection with an application for plant breeders' rights		
1. Subject of the Technical Questionnaire		
1.1 Genus		
1.1.1 Latin Name	<input type="text" value="Leptospermum J.R. Forst. et G. Forst."/>	
1.1.2 Common Name	<input type="text" value="Tea Tree, Manuka"/>	
1.2 Species (please complete)		
1.2.1 Latin Name	<input type="text"/>	
1.2.2 Common Name	<input type="text"/>	
2. Applicant		
Name	<input type="text"/>	
Address	<input type="text"/>	
Telephone No.	<input type="text"/>	
Fax No.	<input type="text"/>	
E-mail address	<input type="text"/>	
Breeder (if different from applicant)	<input type="text"/>	

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
-------------------------	-----------------	-------------------

3. Proposed denomination and breeder's reference

Proposed denomination   
(if available)

Breeder's reference

4. Information on the breeding scheme and propagation of the variety

4.1 Breeding Scheme

Variety resulting from:

4.1.1 Crossing

(a) controlled cross   
(please state parent varieties)

(b) partially unknown cross   
(please state known parent variety(ies))

(c) totally unknown cross

4.1.2 Mutation   
(please state parent variety)

4.1.3 Discovery   
(please state where, when and how developed)

4.1.4 Other   
(please provide details)

4.2 Method of Propagating the Variety

(a) cuttings

(b) *in vitro* propagation

(c) other (state method)



TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
-------------------------	-----------------	-------------------

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
<b>5.1 Plant: growth habit</b> (1)		
upright	Ruby Glow	1[ ]
bushy	Nanum	2[ ]
spreading	Pacific Beauty	3[ ]
prostrate	Backwater Beauty	4[ ]
<b>5.2 Leaf blade: variegation</b> (15)		
absent		1[ ]
present	Raelene	9[ ]
<b>5.3 Leaf blade: main color of upper side (excluding hairs)</b> (16)		
yellow green	Lemon Frost	1[ ]
light green		2[ ]
medium green		3[ ]
dark green	Pink Cascade	4[ ]
grey green		5[ ]
red		6[ ]
red brown		7[ ]
red purple		8[ ]
dark purple		9[ ]
<b>5.4 Flower: number of whorls of petals</b> (22)		
one		1[ ]
more than one		2[ ]



TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
-------------------------	-----------------	-------------------

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