



TG/175/3

INTERNATIONAL UNION  
FOR THE PROTECTION  
OF NEW VARIETIES OF  
PLANTS

UNION INTERNATIONALE  
POUR LA PROTECTION  
DES OBTENTIONS  
VÉGÉTALES

INTERNATIONALER  
VERBAND ZUM SCHUTZ  
VON PFLANZEN-  
ZÜCHTUNGEN

UNIÓN INTERNACIONAL  
PARA LA PROTECCIÓN  
DE LAS OBTENCIONES  
VEGETALES

**GUIDELINES**  
**FOR THE CONDUCT OF TESTS**  
**FOR DISTINCTNESS, UNIFORMITY AND STABILITY**

**KANGAROO PAW**

*(Anigozanthos Labill.)*

**GENEVA**  
**2000**

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These Guidelines should be read in conjunction with document TG/1/2, which contains explanatory notes on the general principles on which the Guidelines have been established.

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## I. Subject of these Guidelines

These Test Guidelines apply to all vegetatively propagated varieties of *Anigozanthos* Labill. of the family Haemodoraceae, 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 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 or counting should be made on 10 plants or parts taken from each of 10 plants when the first five flowers have opened on the dominant inflorescence.

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. Ramification should be determined on the dominant flower stem.
4. Leaf measurements and observations should be taken on the longest mature leaf from the shoot with dominant flower stem.
5. 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. For color determination of hairs, hairs should be removed, placed on white background and illuminated by natural light. Ten times magnification should be used. Color of basal third of hairs should be ignored.

## 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) Plant: height (including inflorescences) (characteristic 1)
  - (b) Inflorescence: ramification (characteristic 10)
  - (c) Perianth lobes: reflexing (characteristic 23)
  - (d) Flower Color group: according to color of hairs of middle third of perianth tube

- Gr. 1: green
- Gr. 2: yellow
- Gr. 3: orange
- Gr. 4: red
- Gr. 5: pink
- Gr. 6: grayish purple
- Gr. 7: dark purple

## VI. Characteristics and Symbols

1. To assess distinctness, uniformity and stability, the characteristics and their states as given in the Table of Characteristics should be used.
2. Notes (numbers), for the purposes of electronic data processing, are given opposite the states of expression for each characteristic.

3. 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 Beispielssorten Variedades ejemplo	Note/ Nota
<b>1. Plant: height (* (including inflorescences)</b>	<b>Plante: hauteur (y compris les inflorescences)</b>	<b>Pflanze: Höhe (einschließlich Blütenstände)</b>	<b>Planta: altura (incluida las inflorescencias)</b>		
short	basse	niedrig	baja	Firefly	3
medium	moyenne	mittel	media	Dwarf Delight	5
tall	haute	hoch	alta	Red Cross	7
<b>2. Plant: number of inflorescences</b>	<b>Plante: nombre d'inflorescences</b>	<b>Pflanze: Anzahl Blütenstände</b>	<b>Planta: número de inflorescencias</b>		
few	petit	gering	bajo	Regal Claw	3
medium	moyen	mittel	medio	Regal Red	5
many	grand	groß	alto	Red Cross	7
<b>3. Leaf: length</b>	<b>Feuille: longueur</b>	<b>Blatt: Länge</b>	<b>Hoja: longitud</b>		
short	courte	kurz	corta	Firefly	3
medium	moyenne	mittel	media	Velvet Harmony	5
long	longue	lang	larga	Red Cross	7
<b>4. Leaf: width (+)</b>	<b>Feuille: largeur</b>	<b>Blatt: Breite</b>	<b>Hoja: anchura</b>		
narrow	étroite	schmal	estrecha	Pink Joey	3
medium	moyenne	mittel	media	Ruby Jools	5
broad	large	breit	ancha	Red Cross	7
<b>5. Leaf: attitude (* (+)</b>	<b>Feuille: port</b>	<b>Blatt: Haltung</b>	<b>Hoja: porte</b>		
erect	dressé	aufrecht	erecta	Joey Rouge	1
semi-erect	demi-dressé	halbaufrecht	semierecta	Twilight	2
spreading	étalé	waagrecht	rastrera	Pixie Paw	3



English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>6. Leaf: degree of curvature (+)</b>	<b>Feuille: degré de courbure</b>	<b>Blatt: Stärke der Krümmung</b>	<b>Hoja: grado de curvatura</b>		
straight	nulle	gerade	nula	Bush Glow	1
slightly curved	légèrement arquée	leicht gebogen	ligeramente curvada	Bush Ruby	2
strongly curved	fortement arquée	stark gebogen	fuertemente curvada		3
<b>7. Leaf: color</b>	<b>Feuille: couleur</b>	<b>Blatt: Farbe</b>	<b>Hoja: color</b>		
grey green	gris-vert	graugrün	verde-gris	Bush Emerald	1
green	vert	grün	verde	Bush Glow	2
purplish green	vert-pourpâtre	purpurgrün	verde púrpura		3
<b>8. Leaf: glaucosity</b>	<b>Feuille: glaucescence</b>	<b>Blatt: Bereifung</b>	<b>Hoja: cerosidad</b>		
weak	faible	gering	débil		3
medium	moyenne	mittel	media		5
strong	forte	stark	fuerte		7
<b>9. Leaf: degree of hairiness of margin</b>	<b>Feuille: densité de la pilosité du bord</b>	<b>Blatt: Stärke der Behaarung des Randes</b>	<b>Hoja: grado de vellosidad del borde</b>		
absent or very weakly expressed	absente ou très faiblement exprimée	fehlend oder sehr gering ausgeprägt	ausente o expresado muy débilmente	Bush Emerald	1
weakly expressed	faiblement exprimée	gering ausgeprägt	expresado débilmente		2
strongly expressed	fortement exprimée	stark ausgeprägt	expresado fuertemente		3
<b>10. Inflorescence: ramification (*)</b>	<b>Inflorescence: ramification</b>	<b>Blütenstand: Verzweigung</b>	<b>Inflorescencia: ramificación</b>		
absent	absente	fehlend	ausente	Bush Emerald	1
present	présente	vorhanden	presente	Red Cross	9

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>11. Inflorescence: degree of (+) ramification</b>	<b>Inflorescence: degré de ramification</b>	<b>Blütenstand: Grad der Verzweigung</b>	<b>Inflorescencia: grado de ramificación</b>		
primary	primaire	einfach	primaria	Bush Nugget	1
secondary	secondaire	zweifach	secundaria	Bush Glow	2
tertiary	tertiaire	dreifach	terciaria	Bush Ember	3
<b>12. Inflorescence: length of lowest lateral</b>	<b>Inflorescence: longueur de la pousse latérale le plus bas</b>	<b>Blütenstand: Länge des untersten Seitenzweiges</b>	<b>Inflorescencia: longitud de la ramificación lateral más baja</b>		
short	courte	kurz	corto		3
medium	moyenne	mittel	medio		5
long	longue	lang	largo		7
<b>13. Inflorescence: number of flowers (+)</b>	<b>Inflorescence: nombre de fleurs</b>	<b>Blütenstand: Anzahl Blüten</b>	<b>Inflorescencia: número de flores</b>		
few	peu nombreux	gering	bajo	Bush Emerald	3
medium	moyen	mittel	medio	Dwarf Delight	5
many	nombreux	groß	alto	Red Cross	7
<b>14. Pedicel: color of hairs</b>	<b>Pédicelle: couleur des poils</b>	<b>Blütenstiel: Farbe der Haare</b>	<b>Pedicelo: color de la vellosidad</b>		
RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
<b>15. Perianth tube: length</b>	<b>Tube du périanthe: longueur</b>	<b>Kronenröhre: Länge</b>	<b>Tubo del periantio: longitud</b>		
short	courte	kurz	corto	Pixie Paw	3
medium	moyenne	mittel	medio	Joey Rouge	5
long	longue	lang	largo	Bush Emerald	7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>16. Perianth tube: width (+)</b>	<b>Tube du périanthe: largeur</b>	<b>Kronenröhre: Breite</b>	<b>Tubo del periantio: anchura</b>		
narrow	étroite	schmal	estrecho	Velvet Harmony	3
medium	moyenne	mittel	medio	Dwarf Delight	5
broad	large	breit	ancho	Space Age	7
<b>17. Perianth tube: profile (+)</b>	<b>Tube du périanthe: profil</b>	<b>Kronenröhre: Profil</b>	<b>Tubo del periantio: perfil</b>		
flared distally	évasé à l'extrémité distale	am distalen Ende verbreitert	ensanchado en la extremidad distal	Early Spring	1
broadening evenly	élargissement régulier	gleichmäßig verbreitert	ensanchamiento uniforme	Bush Ranger	2
constricted medially	étranglé au milieu	in der Mitte verengt	estrechado en el medio	Mini Red	3
parallel	parallèle	parallel	paralelo		4
expanded medially	élargi au milieu	in der Mitte ver- breitert	ensanchado en el medio		5
<b>18. Perianth tube: predominant color (* )</b>	<b>Tube du périanthe: couleur dominante</b>	<b>Kronenröhre: überwiegende Farbe</b>	<b>Tubo del periantio: color predominante</b>		
green	vert	grün	verde		1
yellow	jaune	gelb	amarillo		2
orange	orange	orange	naranja		3
red	rouge	rot	rojo		4
pink	rose	rosa	rosa		5
purple	pourpre	purpur	púrpura		6
<b>19. Perianth tube: number of colors of hair</b>	<b>Tube du périanthe: nombre de couleurs des poils</b>	<b>Kronenröhre: Anzahl Farben der Haare</b>	<b>Tubo del periantio: número de colores de la vellosidad</b>		
one	une	eine	uno	Bush Ochre	1
two	deux	zwei	dos	Bush Nugget	2
three	trois	drei	tres		3

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>20. Perianth tube: color of <u>tip</u> of hairs</b>	<b>Tube du périanthe ; couleur de l'<u>extrémité</u> des poils</b>	<b>Kronenröhre: Farbe der <u>Haarspitzen</u></b>	<b>Tubo del periantio: color del <u>extremo</u> de la vellosidad</b>		
RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
<b>21. Perianth tube: color of <u>middle</u> third of hairs</b>	<b>Tube du périanthe: couleur du tiers <u>moyen</u> des poils</b>	<b>Kronenröhre: Farbe des <u>Mittelteils</u> der Haare</b>	<b>Tubo del periantio: color del tercio <u>medio</u> de la vellosidad</b>		
RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
<b>22. Perianth lobe: length of longest</b>	<b>Lobe du périanthe: longueur du plus long</b>	<b>Kronenlappen: Länge des längsten</b>	<b>Lóbulo del periantio: longitud del más largo</b>		
short	court	kurz	corto		3
medium	moyen	mittel	medio		5
long	long	lang	largo		7
<b>23. Perianth lobes: (*) reflexing (+)</b>	<b>Lobes du périanthe: courbure</b>	<b>Kronenlappen: Umbiegung</b>	<b>Lóbulos del periantio: curvatura</b>		
absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	Bush Surprise	1
weak	faible	gering	débil	Bush Glow	3
medium	moyenne	mittel	media		5
strong	forte	stark	fuerte		7
very strong	très forte	sehr stark	muy fuerte	Red Cross	9

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>24. Flower: number of anthers at top of perianth (+)</b>	<b>Fleur: nombre d'anthères en haut du périanthe</b>	<b>Blüte: Anzahl Antheren an der Spitze der Krone</b>	<b>Flor: número de anteras en el extremo del periantio</b>		
two	deux	zwei	dos	Fire Fly	1
four	quatre	vier	cuatro	Pixie Paw	2
six	six	sechs	seis	Ruby Jools	3
<b>25. Ovary: color of hairs</b>	<b>Ovaire: couleur des poils</b>	<b>Fruchtknoten: Farbe der Haare</b>	<b>Ovario: color de la vellosidad</b>		
RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar número de referencia)		
<b>26. Flower: position of stigma in relation to anthers (+)</b>	<b>Fleur: position des stigmates par rapport aux anthères</b>	<b>Blüte: Position der Narbe im Verhältnis zu den Antheren</b>	<b>Flor: posición del estigma en relación con las anteras</b>		
below	au-dessous	unterhalb	debajo	Fire Fly	1
same level	au même niveau	auf gleicher Höhe	al mismo nivel	Pixie Paw	2
above	au-dessus	oberhalb	encima		3
<b>27. 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>		
early	précoce	früh	temprana		3
medium	moyenne	mittel	media		5
late	tardive	spät	tardía		7

VIII. Explanations on the Table of Characteristics

Ad. 4: Leaf: width

Leaf width should be taken at the widest point.

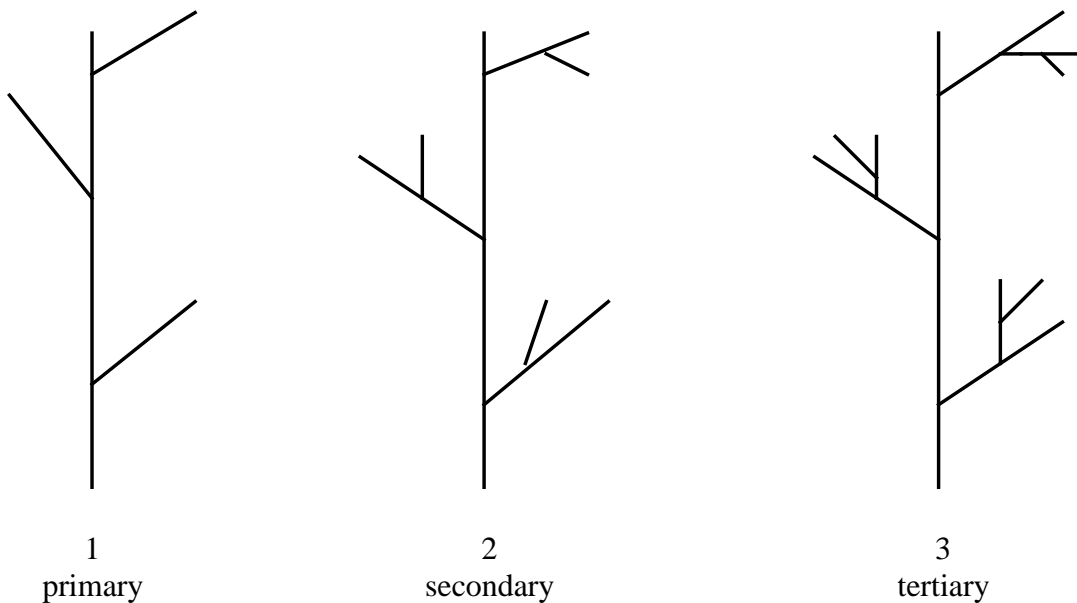
Ad. 5: Leaf: attitude

Leaf attitude should be observed at the base of the leaf.

Ad. 6: Leaf: degree of curvature

Leaf curvature should be observed on the middle third of the leaf.

Ad. 11: Inflorescence: degree of ramification



Ad. 13: Inflorescence: number of flowers

The number of flowers on the inflorescence should be determined only on flowers longer than 3 mm.

Ad. 16: Perianth tube: width

Cross sectional width of the perianth tube should be observed at the base of the perianth lobes.

Ad. 17: Perianth tube: profile



1  
flared  
distally



2  
broadening  
evenly



3  
constricted  
medially



4  
parallel



5  
expanded  
medially

Ad. 23: Perianth lobes: reflexing



1  
absent or  
very weak



3  
weak



5  
medium

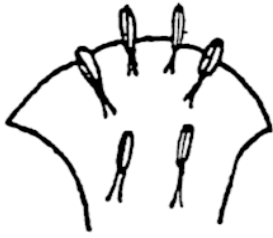


7  
strong

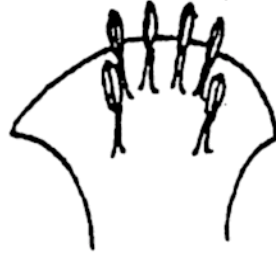


9  
very strong

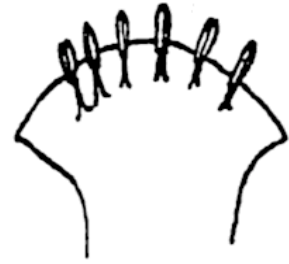
Ad. 24: Flower: number of anthers at top of perianth



1  
two

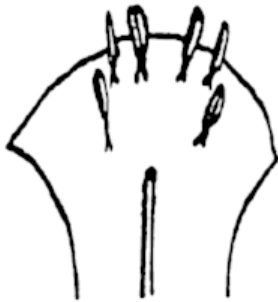


2  
four

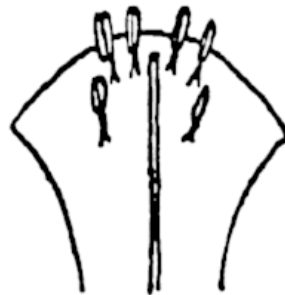


3  
six

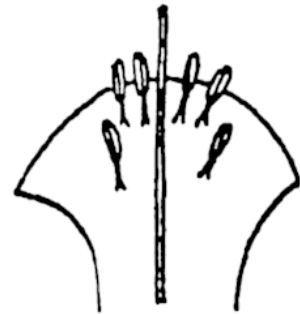
Ad. 26: Flower: position of stigma in relation to anthers



1  
below



2  
same level



3  
above



IX. Literature

Records of the Australian Cultivar Registration Authority, Australian National Botanical Gardens, Canberra, AU.

Elliot and Jones, 1982: "Encyclopedia of Australian Plants Suitable for Cultivation," Vol 2, Lothian, Melbourne, AU.

Marchant et al, 1987: "Flora of the Perth Region," West Australian Herbarium, Department of Agriculture, AU.

X. Technical Questionnaire

	Reference Number (not to be filled in by the applicant)
<p><b>TECHNICAL QUESTIONNAIRE</b> to be completed in connection with an application for plant breeders' rights</p>	
1. Species	<p><i>Anigozanthos</i> Labill.  KANGAROO PAW</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

*In vitro*

..... [ ]

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 Plant: height (including inflorescences)</b> (1)		
short	Firefly	3[ ]
medium	Dwarf Delight	5[ ]
tall	Red Cross	7[ ]
<b>5.2 Inflorescence: ramification</b> (10)		
absent	Bush Emerald	1[ ]
present	Red Cross	9[ ]
<b>5.3 Perianth lobes: reflexing</b> (23)		
absent or very weak	Bush Surprise	1[ ]
weak	Bush Glow	3[ ]
medium		5[ ]
strong		7[ ]
very strong	Red Cross	9[ ]
<b>5.4 Flower color group</b>		
Gr.1 green		1[ ]
Gr.2 yellow	Sunglow	2[ ]
Gr.3 orange		3[ ]
Gr.4 red	Bush Splendour	4[ ]
Gr.5 pink	Pink Joey	5[ ]
Gr.6 grayish purple		6[ ]
Gr.7 dark purple		7[ ]

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
---------------------------------	--	--	--

<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 pest and diseases

7.2 Special conditions for the examination of the variety (temperature, humidity conditions in the open or under glass)

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.

[End of document]