



These Test Guidelines have been superseded by a later version. The latest adopted version of Test Guidelines can be found at http://www.upov.int/test_guidelines/en/list.jsp

Ces principes directeurs d'examen ont été remplacés par une version ultérieure. La version adoptée la plus récente des principes directeurs d'examen figure à l'adresse suivante : http://www.upov.int/test_guidelines/fr/list.jsp

Diese Prüfungsrichtlinien wurden durch eine neuere Fassung ersetzt. Die neueste angenommene Fassung von Prüfungsrichtlinien ist unter http://www.upov.int/test_guidelines/de/list.jsp zu finden.

Las presentes directrices de examen han sido reemplazadas por una versión posterior. La versión de las directrices de examen de más reciente aprobación está disponible en http://www.upov.int/test_guidelines/es/list.jsp.



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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TG/175/3

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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/Merkmalestabelle/Tabla de caracteres

| English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|---|---|--|--|--|---------------|
| 1. Plant: height (* (including inflorescences) | Plante: hauteur (y compris les inflorescences) | Pflanze: Höhe (einschließlich Blütenstände) | Planta: altura (incluida las inflorescencias) | | |
| short | basse | niedrig | baja | Firefly | 3 |
| medium | moyenne | mittel | media | Dwarf Delight | 5 |
| tall | haute | hoch | alta | Red Cross | 7 |
| 2. Plant: number of inflorescences | Plante: nombre d'inflorescences | Pflanze: Anzahl Blütenstände | Planta: número de inflorescencias | | |
| few | petit | gering | bajo | Regal Claw | 3 |
| medium | moyen | mittel | medio | Regal Red | 5 |
| many | grand | groß | alto | Red Cross | 7 |
| 3. Leaf: length | Feuille: longueur | Blatt: Länge | Hoja: longitud | | |
| short | courte | kurz | corta | Firefly | 3 |
| medium | moyenne | mittel | media | Velvet Harmony | 5 |
| long | longue | lang | larga | Red Cross | 7 |
| 4. Leaf: width (+) | Feuille: largeur | Blatt: Breite | Hoja: anchura | | |
| narrow | étroite | schmal | estrecha | Pink Joey | 3 |
| medium | moyenne | mittel | media | Ruby Jools | 5 |
| broad | large | breit | ancha | Red Cross | 7 |
| 5. Leaf: attitude (* (+) | Feuille: port | Blatt: Haltung | Hoja: porte | | |
| 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 |
|---|--|---|--|--|---------------|
| 6. Leaf: degree of curvature (+) | Feuille: degré de courbure | Blatt: Stärke der Krümmung | Hoja: grado de curvatura | | |
| 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 |
| 7. Leaf: color | Feuille: couleur | Blatt: Farbe | Hoja: color | | |
| 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 |
| 8. Leaf: glaucosity | Feuille: glaucescence | Blatt: Bereifung | Hoja: cerosidad | | |
| weak | faible | gering | débil | | 3 |
| medium | moyenne | mittel | media | | 5 |
| strong | forte | stark | fuerte | | 7 |
| 9. Leaf: degree of hairiness of margin | Feuille: densité de la pilosité du bord | Blatt: Stärke der Behaarung des Randes | Hoja: grado de vellosidad del borde | | |
| 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 |
| 10. Inflorescence: ramification (*) | Inflorescence: ramification | Blütenstand: Verzweigung | Inflorescencia: ramificación | | |
| 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 |
|--|--|---|---|--|---------------|
| 11. Inflorescence: degree of (+) ramification | Inflorescence: degré de ramification | Blütenstand: Grad der Verzweigung | Inflorescencia: grado de ramificación | | |
| primary | primaire | einfach | primaria | Bush Nugget | 1 |
| secondary | secondaire | zweifach | secundaria | Bush Glow | 2 |
| tertiary | tertiaire | dreifach | terciaria | Bush Ember | 3 |
| 12. Inflorescence: length of lowest lateral | Inflorescence: longueur de la pousse latérale le plus bas | Blütenstand: Länge des untersten Seitenzweiges | Inflorescencia: longitud de la ramificación lateral más baja | | |
| short | courte | kurz | corto | | 3 |
| medium | moyenne | mittel | medio | | 5 |
| long | longue | lang | largo | | 7 |
| 13. Inflorescence: number of flowers (+) | Inflorescence: nombre de fleurs | Blütenstand: Anzahl Blüten | Inflorescencia: número de flores | | |
| few | peu nombreux | gering | bajo | Bush Emerald | 3 |
| medium | moyen | mittel | medio | Dwarf Delight | 5 |
| many | nombreux | groß | alto | Red Cross | 7 |
| 14. Pedicel: color of hairs | Pédicelle: couleur des poils | Blütenstiel: Farbe der Haare | Pedicelo: color de la vellosidad | | |
| 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) | | |
| 15. Perianth tube: length | Tube du périanthe: longueur | Kronenröhre: Länge | Tubo del periantio: longitud | | |
| 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 |
|--|--|---|---|--|---------------|
| 16. Perianth tube: width (+) | Tube du périanthe: largeur | Kronenröhre: Breite | Tubo del periantio: anchura | | |
| narrow | étroite | schmal | estrecho | Velvet Harmony | 3 |
| medium | moyenne | mittel | medio | Dwarf Delight | 5 |
| broad | large | breit | ancho | Space Age | 7 |
| 17. Perianth tube: profile (+) | Tube du périanthe: profil | Kronenröhre: Profil | Tubo del periantio: perfil | | |
| 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 |
| 18. Perianth tube: predominant color (*) | Tube du périanthe: couleur dominante | Kronenröhre: überwiegende Farbe | Tubo del periantio: color predominante | | |
| 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 |
| 19. Perianth tube: number of colors of hair | Tube du périanthe: nombre de couleurs des poils | Kronenröhre: Anzahl Farben der Haare | Tubo del periantio: número de colores de la vellosidad | | |
| 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 |
|---|--|--|---|--|---------------|
| 20. Perianth tube: color of <u>tip</u> of hairs | Tube du périanthe ; couleur de l'<u>extrémité</u> des poils | Kronenröhre: Farbe der <u>Haarspitzen</u> | Tubo del periantio: color del <u>extremo</u> de la vellosidad | | |
| 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) | | |
| 21. Perianth tube: color of <u>middle</u> third of hairs | Tube du périanthe: couleur du tiers <u>moyen</u> des poils | Kronenröhre: Farbe des <u>Mittelteils</u> der Haare | Tubo del periantio: color del tercio <u>medio</u> de la vellosidad | | |
| 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) | | |
| 22. Perianth lobe: length of longest | Lobe du périanthe: longueur du plus long | Kronenlappen: Länge des längsten | Lóbulo del periantio: longitud del más largo | | |
| short | court | kurz | corto | | 3 |
| medium | moyen | mittel | medio | | 5 |
| long | long | lang | largo | | 7 |
| 23. Perianth lobes: (*) reflexing (+) | Lobes du périanthe: courbure | Kronenlappen: Umbiegung | Lóbulos del periantio: curvatura | | |
| 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 |
|--|---|--|---|--|---------------|
| 24. Flower: number of anthers at top of perianth (+) | Fleur: nombre d'anthères en haut du périanthe | Blüte: Anzahl Antheren an der Spitze der Krone | Flor: número de anteras en el extremo del periantio | | |
| two | deux | zwei | dos | Fire Fly | 1 |
| four | quatre | vier | cuatro | Pixie Paw | 2 |
| six | six | sechs | seis | Ruby Jools | 3 |
| 25. Ovary: color of hairs | Ovaire: couleur des poils | Fruchtknoten: Farbe der Haare | Ovario: color de la vellosidad | | |
| 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) | | |
| 26. Flower: position of stigma in relation to anthers (+) | Fleur: position des stigmates par rapport aux anthères | Blüte: Position der Narbe im Verhältnis zu den Antheren | Flor: posición del estigma en relación con las anteras | | |
| 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 |
| 27. Time of beginning of flowering | Époque de début de floraison | Zeitpunkt des Blühbeginns | Época de comienzo de la floración | | |
| 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.

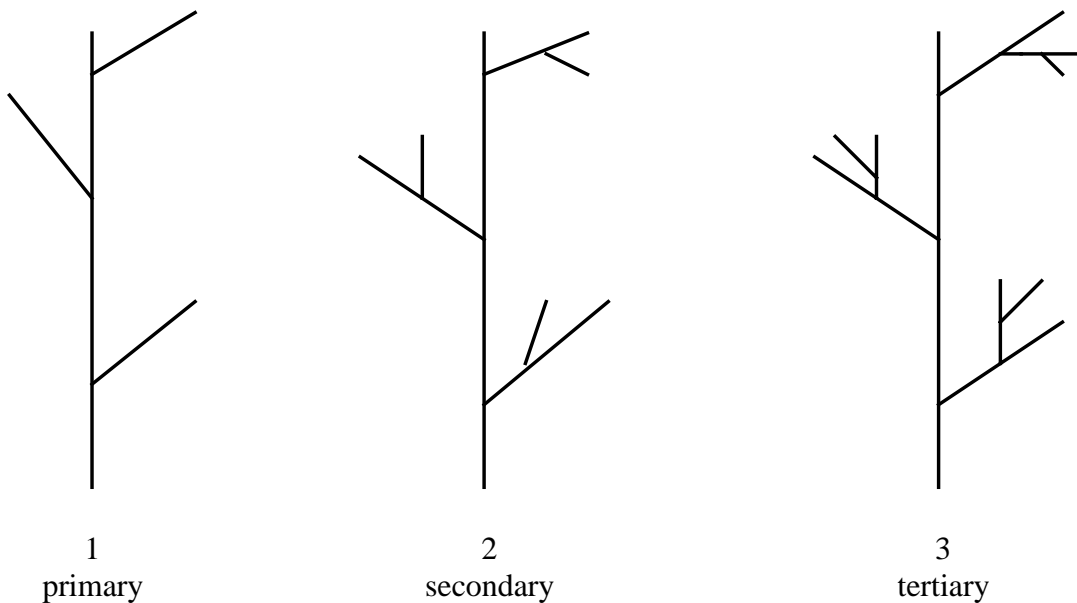
Ad. 5: Leaf: attitude

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

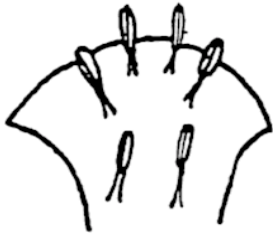


7
strong



9
very strong

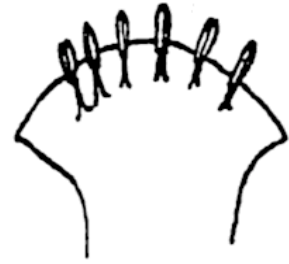
Ad. 24: Flower: number of anthers at top of perianth



1
two

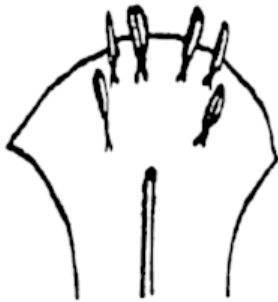


2
four

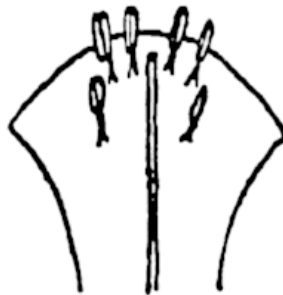


3
six

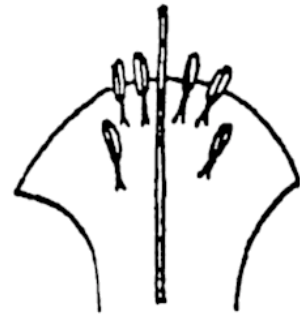
Ad. 26: Flower: position of stigma in relation to anthers



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>TECHNICAL QUESTIONNAIRE 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 |
|--|-------------------|------|
| 5.1 Plant: height (including inflorescences) (1) | | |
| short | Firefly | 3[] |
| medium | Dwarf Delight | 5[] |
| tall | Red Cross | 7[] |
| 5.2 Inflorescence: ramification (10) | | |
| absent | Bush Emerald | 1[] |
| present | Red Cross | 9[] |
| 5.3 Perianth lobes: reflexing (23) | | |
| absent or very weak | Bush Surprise | 1[] |
| weak | Bush Glow | 3[] |
| medium | | 5[] |
| strong | | 7[] |
| very strong | Red Cross | 9[] |
| 5.4 Flower color group | | |
| 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 ^{o)} | State of expression of similar variety | State of expression of candidate variety |
|---------------------------------|--|--|--|
|---------------------------------|--|--|--|

^{o)} 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.

