



TG/DAHLIA(proj.2)

ORIGINAL: English

DATE: September 18, 2003

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT

DAHLIA

(Dahlia Cav.)

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

*to be considered by the
Technical Working Party for Ornamental Plants and Forest Trees
at its thirty-sixth session,
to be held in Niagara Falls, Canada, from September 22 to 26, 2003*

Alternative Names:*

| <i>Latin</i> | <i>English</i> | <i>French</i> | <i>German</i> | <i>Spanish</i> |
|--------------------|----------------|---------------|---------------|----------------|
| <i>Dahlia Cav.</i> | Dahlia | Dachlia | Dachlie | Dalia |

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), for the latest information.]

TABLE OF CONTENTSPAGE

| | | |
|-----|---|----|
| 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..... | 5 |
| 6.1 | Categories of Characteristics | 5 |
| 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/TABLEAU DES CARACTÈRES/MERKMALSTABELLE/TABLA DE CARACTERES..... | 7 |
| 8. | EXPLANATIONS ON THE TABLE OF CHARACTERISTICS | 21 |
| 8.1 | Explanations covering several characteristics | 21 |
| 8.2 | Explanations for individual characteristics..... | 21 |
| 9. | LITERATURE..... | 25 |
| 10. | TECHNICAL QUESTIONNAIRE..... | 26 |

1. Subject of these Test Guidelines

These Test Guidelines apply to all vegetatively propagated varieties of *Dahlia* Cav.

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 root cuttings of commercial standard.

2.3 The minimum quantity of plant material, to be supplied by the applicant, should be:

18 well-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. It should preferably not be obtained from *in vitro* propagation. If it has been produced by *in vitro* propagation 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 observed 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. In particular, unless otherwise stated, all characteristics should be observed at the time of full flowering.

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 For vegetatively propagated varieties each test should be designed to result in a total of at least 12 plants.

3.5 *Number of Plants / Parts of Plants to be Examined*

Unless otherwise indicated, all observations for vegetatively propagated varieties 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 of vegetatively-propagated varieties, a population standard of 1% and an acceptance probability of at least 95 % should be applied. In the case of a sample size of 12 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) Flower head: type (characteristic 21)
- (b) Varieties with double and daisy-eyed double flower heads only: Flower head: classification group (characteristic 22)
- (c) Flower head: color group (characteristic 23)

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

| Char. No. | Method of Examination | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|--------------|--------------------------|--|----------|---------|---------|--|---------------|
| 1. | | <u>Pot varieties only:</u> | | | | | |
| (+) | | Plant: growth habit | | | | | |
| PQ | | upright | | | | | 1 |
| | | semi-upright | | | | | 2 |
| | | rounded | | | | | 3 |
| | | spreading | | | | | 4 |
| 2. | | Plant: height | | | | | |
| QN | | short | | | | | 3 |
| | | medium | | | | | 5 |
| | | tall | | | | | 7 |
| 3. | | Stem: anthocyanin | | | | | |
| QL | (a) | absent | | | | | 1 |
| | | present | | | | | 9 |
| 4. | | <u>Varieties with anthocyanin only:</u> | | | | | |
| | | Stem: intensity | | | | | |
| QN | (a) | weak | | | | | 3 |
| | | medium | | | | | 5 |
| | | strong | | | | | 7 |
| 5. | | <u>Varieties with anthocyanin only:</u> | | | | | |
| | | Stem: distribution | | | | | |
| QN | (a) | confined to the nodes | | | | | 1 |
| | | spreading from the nodes | | | | | 2 |
| | | uniform | | | | | 3 |

| Char. No. | Method of Examination | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|--------------|--------------------------|---|----------|---------|---------|--|---------------|
| 6. | | Leaf: length (including petiole) | | | | | |
| (+) | | | | | | | |
| QN | (b) | short | | | | | 3 |
| | | medium | | | | | 5 |
| | | long | | | | | 7 |
| 7. | | Leaf: width | | | | | |
| (+) | | | | | | | |
| QN | (b) | narrow | | | | | 3 |
| | | medium | | | | | 5 |
| | | broad | | | | | 7 |
| 8. | | Leaf: length/ width ratio | | | | | |
| QN | (b) | low | | | | | 3 |
| | | medium | | | | | 5 |
| | | high | | | | | 7 |
| 9. | | Leaf: number of leaflets | | | | | |
| QN | (b) | few | | | | | 3 |
| | | medium | | | | | 5 |
| | | many | | | | | 7 |

| Char. No. | Method of Examination | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|--------------|--------------------------|--|----------|---------|---------|--|---------------|
| 10. | | Leaf: color | | | | | |
| PQ | (b) | light green | | | | | 1 |
| | | medium green | | | | | 2 |
| | | dark green | | | | | 3 |
| | | green tinged with purple | | | | | 4 |
| | | green tinged with bronze | | | | | 5 |
| | | bronze | | | | | 6 |
| | | purple | | | | | 7 |
| 11. | | Leaf: glossiness | | | | | |
| QN | (b) | weak | | | | | 3 |
| | | medium | | | | | 5 |
| | | strong | | | | | 7 |
| 12. | | Leaf blade: number of incisions of margin | | | | | |
| QN | (b) | few | | | | | 3 |
| | | medium | | | | | 5 |
| | | many | | | | | 7 |
| 13. | | Leaf blade: depth of incisions | | | | | |
| QN | (b) | shallow | | | | | 3 |
| | | medium | | | | | 5 |
| | | deep | | | | | 7 |

| Char. No. | Method of Examination | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|--------------|--------------------------|--|----------|---------|---------|--|---------------|
| 14. | | Leaf blade: texture of surface of upper side | | | | | |
| QN | (b) | smooth or very weakly rugose | | | | | 1 |
| | | weakly rugose | | | | | 2 |
| | | strongly rugose | | | | | 3 |
| 15. | | Leaf blade: veins on upper side | | | | | |
| QL | (b) | depressed | | | | | 1 |
| | | flat | | | | | 2 |
| | | raised | | | | | 3 |
| 16. | | Peduncle: length | | | | | |
| QN | | short | | | | | 3 |
| | | medium | | | | | 5 |
| | | long | | | | | 7 |
| 17. | | Peduncle: anthocyanin coloration | | | | | |
| QL | | absent | | | | | 1 |
| | | present | | | | | 9 |
| 18. | | <u>Varieties with anthocyanin only:</u> Peduncle: intensity | | | | | |
| QN | | weak | | | | | 3 |
| | | medium | | | | | 5 |
| | | strong | | | | | 7 |

| Char. No. | Method of Examination | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|--------------|--------------------------|--|----------|---------|---------|--|---------------|
| 19. | | Flower heads: position in relation to foliage | | | | | |
| QN | | high above foliage | | | | | 1 |
| | | moderately above foliage | | | | | 2 |
| | | at same level | | | | | 3 |
| | | below foliage | | | | | 4 |
| 20. | | Flower head: angle relative to peduncle | | | | | |
| (+) | | | | | | | |
| QN | | 90° | | | | | 1 |
| | | < 90° but > 45° | | | | | 2 |
| | | 45° | | | | | 3 |
| | | < 45° | | | | | 4 |
| 21. | | Flower head: type | | | | | |
| (+) | | | | | | | |
| PQ | | single | | | | | 1 |
| | | semi-double | | | | | 2 |
| | | anemone | | | | | 3 |
| | | collerette | | | | | 4 |
| | | daisy-eyed double | | | | | 5 |
| | | double | | | | | 6 |

| Char. No. | Method of Examination | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|-----------------------|---|---------------------------|----------|---------|---------|--|---------------|
| 22. (+) | <u>Varieties with double and daisy- eved double flower heads only: Flower head: classification group</u> | | | | | | |
| PQ | | waterlily | | | | | 1 |
| | | decorative | | | | | 2 |
| | | ball | | | | | 3 |
| | | pompon | | | | | 4 |
| | | cactus | | | | | 5 |
| | | semi-cactus | | | | | 6 |
| | | miscellaneous | | | | | 7 |
| 23. (+) | Flower head: color group | | | | | | |
| PQ | | white | | | | | 1 |
| | | yellow | | | | | 2 |
| | | orange | | | | | 3 |
| | | bronze | | | | | 4 |
| | | orange-red | | | | | 5 |
| | | medium red | | | | | 6 |
| | | dark red | | | | | 7 |
| | | light pink | | | | | 8 |
| | | dark pink | | | | | 9 |
| | | lilac, lavender, mauve | | | | | 10 |
| | | purple, wine violet | | | | | 11 |
| | | blends | | | | | 12 |
| | | bicolored | | | | | 13 |
| | | variegated | | | | | 14 |

| Char. No. | Method of Examination | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|--------------|--------------------------|---|----------|---------|---------|--|---------------|
| 24. | | Flower head: diameter | | | | | |
| QN | | small | | | | | 3 |
| | | medium | | | | | 5 |
| | | large | | | | | 7 |
| 25. | | <u>Double and daisy eyed double varieties only:</u> Flower head: height | | | | | |
| QN | | short | | | | | 3 |
| | | medium | | | | | 5 |
| | | tall | | | | | 7 |
| 26. | | <u>Excluding double flowered varieties:</u> Flower head: number of ray florets | | | | | |
| QN | (c) | few | | | | | 3 |
| | | medium | | | | | 5 |
| | | many | | | | | 7 |
| 27. | | <u>Double flowered varieties only:</u> Flower head: density of ray florets | | | | | |
| QN | (c) | sparse | | | | | 3 |
| | | medium | | | | | 5 |
| | | dense | | | | | 7 |

| Char. No. | Method of Examination | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|--------------|--------------------------|--|----------|---------|---------|--|---------------|
| 28. | | <u>Collerette varieties only: Collar segments: length relative to ray florets</u> | | | | | |
| QN | (c) | much shorter | | | | | 1 |
| | | moderately shorter | | | | | 2 |
| | | same length | | | | | 3 |
| 29. | | Ray floret: length | | | | | |
| QN | (c) | short | | | | | 3 |
| | | medium | | | | | 5 |
| | | long | | | | | 7 |
| 30. | | Ray floret: width | | | | | |
| QN | (c) | narrow | | | | | 3 |
| | | medium | | | | | 5 |
| | | broad | | | | | 7 |
| 31. | | Ray floret: length/ width ratio | | | | | |
| QN | (c) | low | | | | | 3 |
| | | medium | | | | | 5 |
| | | high | | | | | 7 |
| 32. | | Ray floret: longitudinal axis | | | | | |
| PQ | (c) | incurving | | | | | 1 |
| | | straight | | | | | 2 |
| | | reflexing | | | | | 3 |
| | | sinusoidal | | | | | 4 |
| | | twisted | | | | | 5 |

| Char. No. | Method of Examination | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|--------------|--------------------------|--|----------|---------|---------|--|---------------|
| 33. | | <u>Incurving and reflexing types only:</u> Ray floret: proportion of axis not straight | | | | | |
| QN | (c) | distal quarter | | | | | 3 |
| | | distal half | | | | | 5 |
| | | distal three quarters | | | | | 7 |
| 34. | | <u>Incurving reflexing and sinusoidal types only:</u> Ray floret: strength of curvature | | | | | |
| QN | (c) | weak | | | | | 3 |
| | | medium | | | | | 5 |
| | | strong | | | | | 7 |

| Char. No. | Method of Examination | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|--------------|--------------------------|---|----------|---------|---------|--|---------------|
| 35. | | Ray floret: cross section at mid-point | | | | | |
| PQ | (c) | sharply folded inward in V-shape | | | | | 1 |
| | | moderately folded inward in V shape | | | | | 2 |
| | | weakly folded inward in V shape | | | | | 3 |
| | | strongly concave in U shape | | | | | 4 |
| | | moderately concave in U shape | | | | | 5 |
| | | weakly concave in U shape | | | | | 6 |
| | | flat | | | | | 7 |
| | | weakly convex in U shape | | | | | 8 |
| | | moderately convex in U shape | | | | | 9 |
| | | strongly convex in U shape | | | | | 10 |
| 36. | | Ray floret: lateral margin at middle of floret | | | | | |
| PQ | (c) | revolute | | | | | 1 |
| | | flat | | | | | 2 |
| | | involute | | | | | 3 |

| Char. No. | Method of Examination | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|--------------|--------------------------|---|----------|---------|---------|--|---------------|
| 37. | | Ray floret: shape of tip | | | | | |
| PQ | (c) | rounded | | | | | 1 |
| | | pointed | | | | | 2 |
| | | dentate | | | | | 3 |
| | | fringed | | | | | 4 |
| | | horned | | | | | 5 |
| | | retuse | | | | | 6 |
| | | lacinate | | | | | 7 |
| 38. | | Ray floret: distribution of color | | | | | |
| QL | (c) | non-uniform | | | | | 1 |
| | | uniform | | | | | 2 |
| 39. | | <u>Ray floret with non-uniform color only:</u> type of variation | | | | | |
| (+) | | | | | | | |
| PQ | (c) | change in intensity | | | | | 1 |
| | | blend | | | | | 2 |
| | | bicolor | | | | | 3 |
| | | variegation | | | | | 4 |
| 40. | | <u>Bicolored varieties only:</u> Ray floret: distribution of color | | | | | |
| (+) | | | | | | | |
| QL | (c) | striped | | | | | 1 |
| | | zoned | | | | | 2 |
| | | irregular | | | | | 3 |

| Char. No. | Method of Examination | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|--------------|--------------------------|---|----------|---------|---------|--|---------------|
| 41. (+) | | <u>Variegated varieties only: Ray floret: distribution of color</u> | | | | | |
| QL | (c) | striped | | | | | 1 |
| | | zoned | | | | | 2 |
| | | irregular | | | | | 3 |
| 42. (+) | | Ray floret: main color of upper side | | | | | |
| PQ | (d) | RHS Colour Chart (indicate reference number) | | | | | |
| 43. | | <u>Blended, bicolored and variegated varieties only: Ray floret: secondary color of upper side</u> | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 44. | | <u>Blended, bicolored and variegated varieties only: Ray floret: tertiary color of upper side</u> | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |
| 45. | | Ray floret: main color of lower side | | | | | |
| PQ | (d) | RHS Colour Chart (indicate reference number) | | | | | |
| 46. | | Ray floret: secondary color of lower side | | | | | |
| PQ | (c) | RHS Colour Chart (indicate reference number) | | | | | |

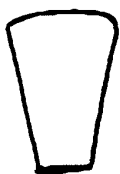
| Char. No. | Method of Examination | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|--------------|--------------------------|---|----------|---------|---------|--|---------------|
| 47. | | <u>Single, semi-double, anemone and collerette varieties only</u>; Disc: diameter | | | | | |
| QN | | small | | | | | 3 |
| | | medium | | | | | 5 |
| | | large | | | | | 7 |
| 48. | | <u>Single, semi-double, anemone and collerette varieties only</u>; Disc: diameter relative to flower head diameter | | | | | |
| QN | | small | | | | | 3 |
| | | medium | | | | | 5 |
| | | large | | | | | 7 |
| 49. | | <u>Single, semi-double and collerette varieties only</u>; Disc: color before anther dehiscence | | | | | |
| PQ | | whitish | | | | | 1 |
| | | green | | | | | 2 |
| | | yellow-green | | | | | 3 |
| | | yellow | | | | | 4 |
| | | orange | | | | | 5 |
| | | brown | | | | | 6 |
| | | brown-black | | | | | 7 |

| Char. No. | Method of Examination | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
|--------------|--------------------------|---|----------|---------|---------|--|---------------|
| 50. | | <u>Single, semi-double and collerette varieties only: Disc:</u> color at anther dehiscence | | | | | |
| PQ | | whitish | | | | | 1 |
| | | green | | | | | 2 |
| | | yellow-green | | | | | 3 |
| | | yellow | | | | | 4 |
| | | orange | | | | | 5 |
| | | brown | | | | | 6 |
| | | brown-black | | | | | 7 |
| 51. | | <u>Anemone flowered varieties only: Disc</u> florets: color | | | | | |
| PQ | | RHS Colour Chart (indicate reference number) | | | | | |
| 52. | | <u>Collerette varieties only: Collar</u> segments: color | | | | | |
| PQ | | RHS Colour Chart (indicate reference number) | | | | | |

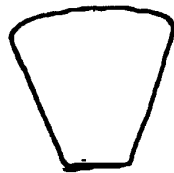
8. Explanations on the Table of Characteristics8.1 *Explanations covering several characteristics*

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

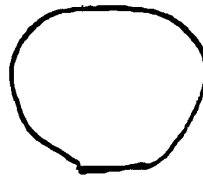
- (a) Stem characteristics should be observed on the middle third of the stem (the stem excludes the peduncle).
- (b) Leaf characters are recorded on typical leaves taken from the middle third of the stem, and are recorded on the whole leaf regardless of number of leaflets.
- (c) Ray floret characters should be observed on the outer ray florets unless otherwise stated.
- (d) The main colour of the ray floret is the one most visible in the flower head as a whole.

8.2 *Explanations for individual characteristics*Ad. 1: Pot varieties only: Plant: growth habit

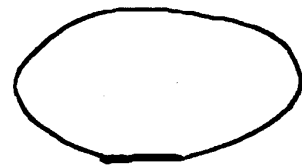
1
upright



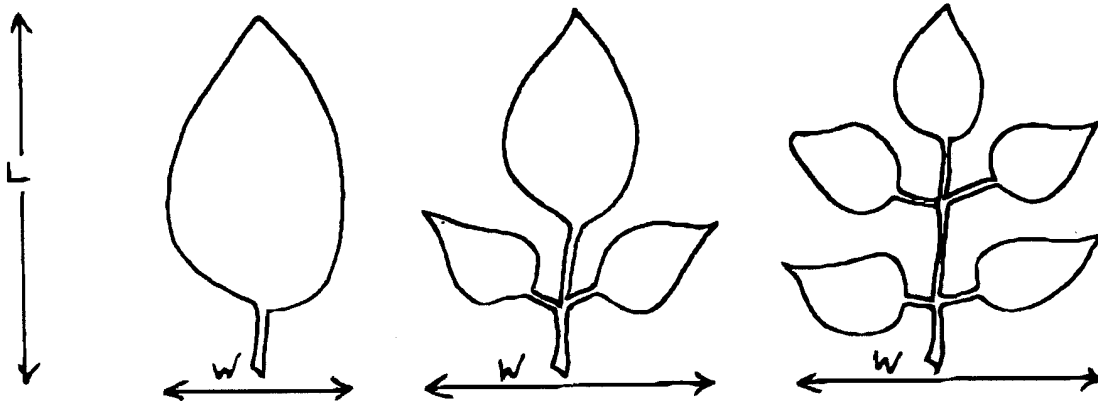
2
semi-upright

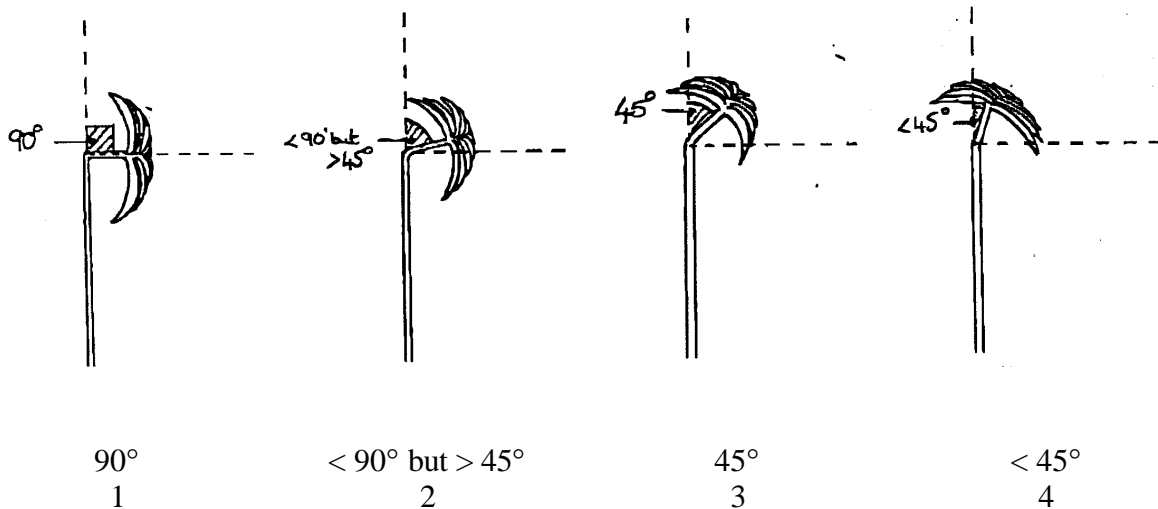


3
rounded



4
spreading

Ad. 6 and 7: Leaf: length including petiole (6) and Leaf : width (7)

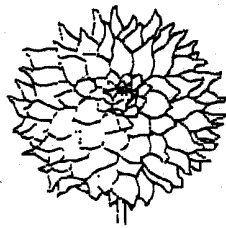
Ad. 20: Flower head: angle relative to peduncleAd. 21: Flower head: type

1. single: flower heads with one row of ray florets, and a clearly defined central disc which is always visible.
2. semi-double: flower heads with more than one row of ray florets, and a clearly defined central disc which is always visible.
3. anemone: flower heads with one or more rows of ray florets, with a central "cushion" of petaloid disc florets, which is always visible.
4. collerette: flower heads with one row of ray florets, with a ring of small florets (the Collar) surrounding the central disc, which is always visible.
5. daisy-eyed double: double flower heads where a disc is not visible in the early stages of flowering, but can be seen as the flower head opens fully. The disc is not always clearly defined.
6. double: double flower heads where a disc is not visible at any stage of flowering.

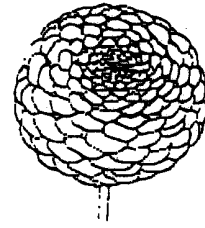
Ad. 22: Varieties with double and daisy-eyed double flower heads only: Flower head: classification group



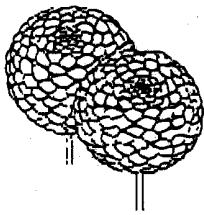
waterlily
1



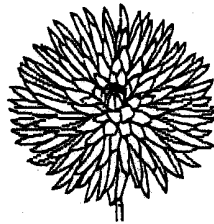
decorative
2



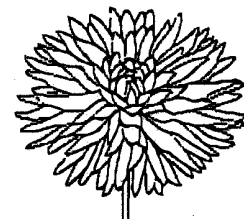
ball
3



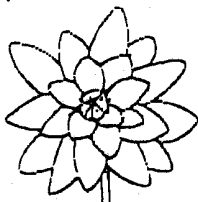
pompon
4



cactus
5



semi-cactus
6



miscellaneous
7

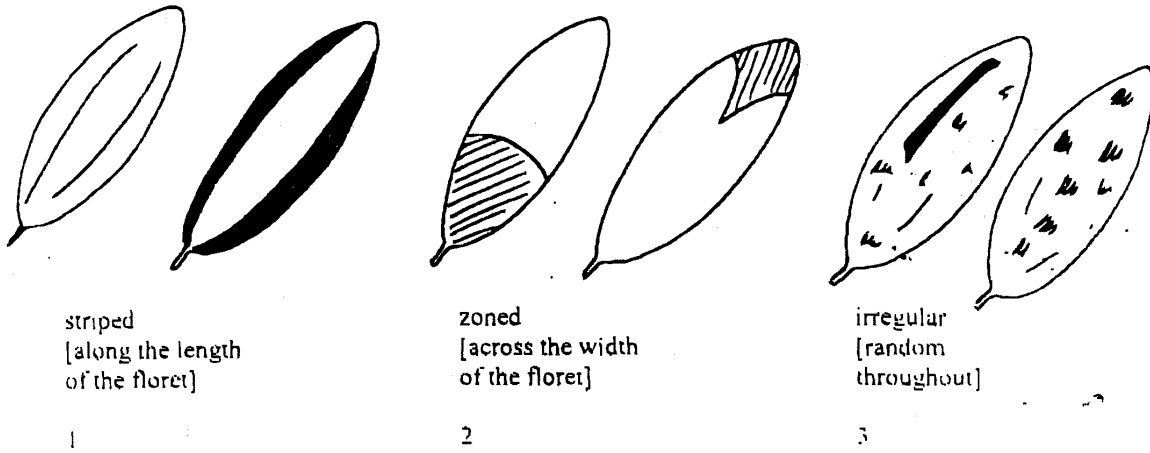
Ad. 23: Flower head: colour group

Ad. 39: Ray floret with non uniform colour: type of variation

1. white - as illustrated by Royal Horticultural Society Colour Chart cards 155, 157, 158, 159
2. yellow - as illustrated by RHS Colour Chart cards 2 - 19
3. orange - as illustrated by RHS Colour Chart cards 21, 23, 24, 25, 28
4. bronze - as illustrated by RHS Colour Chart cards 20, 22, 26, 161 - 174
5. orange-red - as illustrated by RHS Colour Chart cards 30 - 33
6. medium red - as illustrated by RHS Colour Chart cards 34, 40 - 47, 50, 52
7. dark red - as illustrated by RHS Colour Chart cards 53, 183 - 185
8. light pink - as illustrated by RHS Colour Chart cards 27, 29, 36 - 38, 49
9. dark pink - as illustrated by RHS Colour Chart cards 51, 54 - 56, 62
10. lilac, lavender, mauve - as illustrated by RHS Colour Chart cards 65, 68, 69, 73, 75, 76, 85, 91, 92
11. purple, wine violet - as illustrated by RHS Colour Chart cards 57 - 61, 63, 64, 66, 67, 70 - 72, 74, 77 - 84, 86 - 88
12. blends - where two or more colours are intermingled and gradually merge into each other
13. bicolored - two distinct sharply separated colours [eg tipped]
14. variegated - two or more distinct colours in an irregular pattern [eg dots, flecks, narrow lines]

Ad. 40: Bicolored varieties only: Ray floret: distribution of color
[to be added]

Ad 41: Variegated varieties only: Ray floret: distribution of color



9. Literature

- Collins, Ted, 2001: "The New Plant Library - Dahlias", Anness Publishing Ltd, London, UK
- Rowlands, Gareth, 1999: "The Gardeners Guide to Growing Dahlias", David and Charles Publishers, Devon, UK
- The Royal Horticultural Society 1992: "The New RHS Dictionary Index of Gardening", Macmillan Press, London, UK
- The Royal Horticultural Society, 1994: "The New RHS Dictionary Index of Garden Plants", Macmillan Press, London, UK
- The Royal Horticultural Society, 1998: "A-Z Encyclopedia of Garden Plants", Dorling Kindersley, London, UK

10. Technical Questionnaire

| | | |
|--|-----------------|---|
| TECHNICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: |
| | | Application date: (not to be filled in by the applicant) |
| TECHNICAL QUESTIONNAIRE to be completed in connection with an application for plant breeders' rights | | |
| 1. Subject of the Technical Questionnaire 1.1 <i>Latin Name</i> <input type="text" value="Dahlia Cav."/> 1.2 Common Name <input type="text" value="Dahlia"/> | | |
| 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"/> | | |
| 3. Proposed denomination and breeder's reference Proposed denomination (if available) <input type="text"/> Breeder's reference <input type="text"/> | | |

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

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 known 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

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 |
|---------------------------------|-------------------|-------|
| 5.1 Plant: height (2) | | |
| short | | 3 [] |
| medium | | 5 [] |
| tall | | 7 [] |

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

| | | |
|-------------|--------------------------|-------|
| 5.2 | Leaf: color | |
| (10) | | |
| | light green | 1 [] |
| | medium green | 2 [] |
| | dark green | 3 [] |
| | green tinged with purple | 4 [] |
| | green tinged with bronze | 5 [] |
| | bronze | 6 [] |
| | purple | 7 [] |
| 5.3 | Flower head: type | |
| (21) | | |
| | single | 1 [] |
| | semi-double | 2 [] |
| | anemone | 3 [] |
| | collerette | 4 [] |
| | daisy-eyed double | 5 [] |
| | double | 6 [] |

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

| | |
|---------------------------|---|
| 5.4 (22) | Varieties with double and daisy-eyed double flower heads only: Flower head: classification group |
| | waterlily 1 [] |
| | decorative 2 [] |
| | ball 3 [] |
| | pompon 4 [] |
| | cactus 5 [] |
| | semi-cactus 6 [] |
| | miscellaneous 7 [] |
| 5.5 (23) | Flower head: color group |
| | white 1 [] |
| | yellow 2 [] |
| | orange 3 [] |
| | bronze 4 [] |
| | orange-red 5 [] |
| | medium red 6 [] |
| | dark red 7 [] |
| | light pink 8 [] |
| | dark pink 9 [] |
| | lilac, lavender, mauve 10 [] |
| | purple, wine violet 11 [] |
| | blends 12 [] |
| | bicolored 13 [] |
| | variegated 14 [] |

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

| | | | |
|--|---|--|--|
| 5.6 Flower head: diameter (24) | | | |
| | small | | 3 [] |
| | medium | | 5 [] |
| | large | | 7 [] |
| 6. Similar varieties and differences from these varieties <i>Please use the table, and space provided for comments, below to provide information on how your candidate variety differs from the variety (or varieties) which, to the best of your knowledge, is (or are) most similar. This information may help the examination authority to conduct its examination of distinctness in a more efficient way.</i> | | | |
| Denomination(s) of variety(ies) similar to your candidate variety | Characteristic(s) in which your candidate variety differs from the similar variety(ies) | Describe the expression of the characteristic(s) for the similar variety(ies) | Describe the expression of the characteristic(s) for your candidate variety |
| <i>Example</i> | | <i>(example to be inserted)</i> | <i>(example to be inserted)</i> |
| | | | |
| | | | |
| | | | |
| Comments: | | | |

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

9. Information on plant material to be examined.

9.1 The expression of a characteristic or several characteristics of a variety may be affected by factors, such as pests and disease, chemical treatment (e.g. growth retardants or pesticides), effects of tissue culture, different rootstocks, scions taken from different growth phases of a tree, etc.

9.2 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 the plant material has undergone such treatment, full details of the treatment must be given. In this respect, please indicate below, to the best of your knowledge, if the plant material to be examined has been subjected to:

- | | | |
|---|---------|--------|
| (a) Microorganisms (e.g. virus, bacteria, phytoplasma) | Yes [] | No [] |
| (b) Chemical treatment (e.g. growth retardant or pesticide) | Yes [] | No [] |
| (c) Tissue culture | Yes [] | No [] |
| (d) Other factors | Yes [] | No [] |

Please provide details of where you have indicated “yes”.

.....

10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:

Applicant's name

Signature

Date

[End of document]