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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
 GENEVA

DRAFT

HEBE

UPOV Code: HEBEE

Hebe Comm. ex Juss.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by experts from New Zealand

to be considered by the

*Technical Working Party for Ornamental Plants and Forest Trees
 at its forty-fourth session, to be held in Fukuyama City, Hiroshima Prefecture, Japan,
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Alternative Names:*

| <i>Botanical name</i> | <i>English</i> | <i>French</i> | <i>German</i> | <i>Spanish</i> |
|----------------------------|----------------|---------------|-----------------|----------------|
| <i>Hebe</i> Comm. ex Juss. | Hebe | Veronique | Strauchveronika | Veronica |

The purpose of these guidelines (“Test Guidelines”) is to elaborate the principles contained in the General Introduction (document TG/1/3), and its associated TGP documents, into detailed practical guidance for the harmonized examination of distinctness, uniformity and stability (DUS) and, in particular, to identify appropriate characteristics for the examination of DUS and production of harmonized variety descriptions.

ASSOCIATED DOCUMENTS

These Test Guidelines should be read in conjunction with 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.]

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Hebe* Comm. ex Juss.

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 young plants capable of flowering and expressing relevant characteristics of the variety in the first growing cycle.

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

8 plants

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.

3. Method of Examination

3.1 *Number of Growing Cycles*

The minimum duration of tests should normally be a single growing cycle.

3.2 *Testing Place*

Tests are normally conducted at one place. In the case of tests conducted at more than one place, guidance is provided in TGP/9 "Examining Distinctness".

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.

3.3.2 Observation of color **by eye**

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. The color chart and version used should be specified in the variety description.

3.4 *Test Design*

3.4.1 Each test should be designed to result in a total of at least 8 plants

3.4.2 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.

3.5 *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 differences observed between varieties may be so clear that more than one growing cycle is not necessary. In addition, in some circumstances, the influence of the environment is not such that more than a single growing cycle is required to provide assurance that the differences observed between varieties are sufficiently consistent. One means of ensuring that a difference in a characteristic, observed in a growing trial, is sufficiently consistent is to examine the characteristic in at least two independent growing cycles

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.

4.1.4 Number of Plants / Parts of Plants to be Examined

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 7 plants or parts taken from each of 7 plants and any other observations made on all plants in the test, disregarding any off-type plants. "In the case of observations of parts taken from single plants, the number of parts to be taken from each of the plants should be 2.

4.1.5 Method of Observation

The recommended method of observing the characteristic for the purposes of distinctness is indicated by the following key in the second column of the Table of Characteristics (see document TGP/9 “Examining Distinctness”, Section 4 “Observation of characteristics”):

MG: single measurement of a group of plants or parts of plants

MS: measurement of a number of individual plants or parts of plants

VG: visual assessment by a single observation of a group of plants or parts of plants

VS: visual assessment by observation of individual plants or parts of plants

Type of observation: visual (V) or measurement (M)

“Visual” observation (V) is an observation made on the basis of the expert’s judgment. For the purposes of this document, “visual” observation refers to the sensory observations of the experts and, therefore, also includes smell, taste and touch. Visual observation includes observations where the expert uses reference points (e.g. diagrams, example varieties, side-by-side comparison) or non-linear charts (e.g. color charts). Measurement (M) is an objective observation against a calibrated, linear scale e.g. using a ruler, weighing scales, colorimeter, dates, counts, etc.

Type of record: for a group of plants (G) or for single, individual plants (S)

For the purposes of distinctness, observations may be recorded as a single record for a group of plants or parts of plants (G), or may be recorded as records for a number of single, individual plants or parts of plants (S). In most cases, “G” provides a single record per variety and it is not possible or necessary to apply statistical methods in a plant-by-plant analysis for the assessment of distinctness.”

In cases where more than one method of observing the characteristic is indicated in the Table of Characteristics (e.g. VG/MG), guidance on selecting an appropriate method is provided in document TGP/9, Section 4.2.

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 8 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 further examined by testing a new plant stock to ensure that it exhibits the same characteristics as those shown by the initial 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 are 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: habit (Characteristic 1)
- (b) Leaf blade: width (Characteristic 15)
- (c) Leaf blade: main color of inner side (Characteristic 23) with the following groups:
 - white
 - yellowish white
 - yellow
 - yellow green
 - green
 - yellow brown
 - reddish brown
 - reddish purple
 - purple
 - purplish black
- (d) Leaf blade: secondary color of inner side (Characteristic 24) with the following colour groups:
 - none
 - white
 - cream
 - yellow
 - yellow green
 - green
 - yellow brown
 - reddish brown
 - reddish purple
 - purple
 - purplish black
- (e) Inflorescence: shape in profile(Characteristic 32)

- (f) Corolla lobe: color of inner side (Characteristic 38) with the following groups:
- white
 - pink
 - pink red
 - purple
 - violet
 - blue

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*

6.2.1 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.

6.2.2 In the case of qualitative and pseudo-qualitative characteristics (see Chapter 6.3), all relevant states of expression are presented in the characteristic. However, in the case of quantitative characteristics with 5 or more states, an abbreviated scale may be used to minimize the size of the Table of Characteristics. For example, in the case of a quantitative characteristic with 9 states, the presentation of states of expression in the Test Guidelines may be abbreviated as follows:

| State | Note |
|--------|------|
| small | 3 |
| medium | 5 |
| large | 7 |

However, it should be noted that all of the following 9 states of expression exist to describe varieties and should be used as appropriate:

| State | Note |
|---------------------|------|
| very small | 1 |
| very small to small | 2 |
| small | 3 |
| small to medium | 4 |
| medium | 5 |
| medium to large | 6 |
| large | 7 |
| large to very large | 8 |
| very large | 9 |

6.2.3 Further explanation of the presentation of states of expression and notes is provided in document TGP/7 “Development of Test Guidelines”.

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 Chapter 6.1.2

QL: Qualitative characteristic – see Chapter 6.3

QN: Quantitative characteristic – see Chapter 6.3

PQ: Pseudo-qualitative characteristic – see Chapter 6.3

MG, MS, VG, VS see Chapter 4.1.5

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

(+) See Explanations on the Table of Characteristics in Chapter 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 |
|---------------|---|---------------------|---------|---------|---|---------------|
| 1. VG | Plant: habit | | | | | |
| (*) | | | | | | |
| (+) | | | | | | |
| PQ | (a) | upright | | | Sandra Joy, Turkish Delight | 1 |
| | | semi upright | | | Beverley Hills | 2 |
| | | spreading | | | Orphan Annie, Pretty N Pink | 3 |
| | | horizontal | | | First Light, Hartii | 4 |
| 2. VG/ | Plant: height | | | | | |
| (*) | MG | | | | | |
| (+) | | | | | | |
| QN | (a) | very short | | | Hartii | 1 |
| | | short | | | Orphan Annie, Rosie | 3 |
| | | medium | | | Beverley Hills, Nicola's Blush | 5 |
| | | tall | | | Eveline, Wiri Desire | 7 |
| | | very tall | | | Andersonii | 9 |
| 3. VG | Plant: density of foliage | | | | | |
| QN | (a) | sparse | | | Sandra Joy, Wiri Prince | 3 |
| | | medium | | | Champseiont, First Light | 5 |
| | | dense | | | Wiri Mist | 7 |
| 4. VG | Young shoot : anthocyanin coloration | | | | | |
| (*) | | | | | | |
| QN | (b) | absent or very weak | | | Champseiont | 1 |
| | | weak | | | Rosie | 3 |
| | | medium | | | Wiri Desire | 5 |
| | | strong | | | Turkish Delight | 7 |
| | | very strong | | | Orphan Annie | 9 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota | |
|-----------|-------------------|---|---------|---------|---|---------------|--|
| 5. | VG | Young shoot: pubescence | | | | | |
| (*) | | | | | | | |
| QL | (b) | absent | | | Champseiont | 1 | |
| | | present | | | Orphan Annie | 9 | |
| 6. | VG | Young shoot: density of pubescence | | | | | |
| QN | (b) | very sparse | | | First Light | 1 | |
| | | sparse | | | Rosie | 2 | |
| | | medium | | | Orphan Annie | 3 | |
| | | dense | | | | 4 | |
| 7. | VG | Young stem: color | | | | | |
| (*) | | | | | | | |
| PQ | (b) | yellow green | | | Lavender Lace, Oratia Beauty | 1 | |
| | | green | | | Wiri Mist | 2 | |
| | | yellow brown | | | Diosmifolia Minor | 3 | |
| | | greenish brown | | | Pagei | 4 | |
| | | brown | | | Gina Maree | 5 | |
| | | reddish brown | | | Mary Antoinette, Wiri Prince | 6 | |
| | | reddish purple | | | Pretty N Pink | 7 | |
| | | purple | | | Santa Monica | 8 | |
| | | purplish black | | | Pascal | 9 | |
| 8. | VG/ MG | Stem: length of internodes | | | | | |
| (*) | | | | | | | |
| QN | (c) | very short | | | Karo Golden Esk | 1 | |
| | | short | | | Beverley Hills | 3 | |
| | | medium | | | Wiri Desire | 5 | |
| | | long | | | Moonlight | 7 | |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|------------|-------------------|---|---------|---------|---|---------------|
| 9. | VG | Stem: anthocyanin coloration of internodes | | | | |
| QN | (c) | absent or very weak | | | Champseiont | 1 |
| | | weak | | | Beverley Hills | 3 |
| | | medium | | | Wiri Vogue | 5 |
| | | strong | | | Rosie | 7 |
| 10. | VG | Leaf bud: presence of sinus | | | | |
| (*) | | | | | | |
| (+) | | | | | | |
| QL | | absent | | | Orphan Annie | 1 |
| | | present | | | Beverley Hills | 9 |
| 11. | VG | Leaf: presence of petiole | | | | |
| (*) | | | | | | |
| QL | (d) | absent | | | Oratia Beauty, Red Edge | 1 |
| | | present | | | Ohakea, Wiri Desire | 9 |
| 12. | VG/ MG | Leaf: length of petiole | | | | |
| QN | (d) | short | | | Champseiont, Wiri Desire | 1 |
| | | medium | | | Lavender Lace, Sandra Joy | 2 |
| | | long | | | Otari Delight, Silver Queen | 3 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota | |
|------------|------------------------|---------------------------|---------|---------|---|---------------|--|
| 13. | VG | Leaf: attitude | | | | | |
| | (+) | | | | | | |
| QN | (d) | adpressed | | | Karo Golden Esk | 1 | |
| | | erect | | | Silver Queen | 2 | |
| | | semi erect | | | Wiri Mist | 3 | |
| | | horizontal | | | Pagei | 4 | |
| | | downwards | | | | 5 | |
| 14. | VG/ (*) MS | Leaf blade: length | | | | | |
| QN | (d) | very short | | | Greensleeves, Hartii | 1 | |
| | | short | | | Headfortii, Orphan Annie | 3 | |
| | | medium | | | La Seduisante, Wiri Vogue | 5 | |
| | | long | | | Sandra Joy, Wiri Prince | 7 | |
| | | very long | | | Eveline | 9 | |
| 15. | VG/ (*) MS | Leaf blade: width | | | | | |
| QN | (d) | very narrow | | | Karo Golden Esk | 1 | |
| | | narrow | | | Mary Antoinette, Silver Queen | 3 | |
| | | medium | | | Eveline, Wiri Desire | 5 | |
| | | broad | | | Andersonii, La Seduisante | 7 | |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota | |
|------------|------------|---|---------|---------|---|---------------|--|
| 16. | VG/ | Leaf blade: ratio | | | | | |
| (*) | MS | length/width | | | | | |
| (+) | | | | | | | |
| QN | (d) | rounded | | | Silver Queen | 1 | |
| | | slightly elongated | | | Turkish Delight | 3 | |
| | | medium elongated | | | Sunstreak | 5 | |
| | | strongly elongated | | | | 7 | |
| | | very strongly elongated | | | Lavender Lace | 9 | |
| 17. | VG | Leaf blade: shape | | | | | |
| (*) | | | | | | | |
| (+) | | | | | | | |
| PQ | (d) | lanceolate | | | Orphan Annie | 1 | |
| | | ovate | | | | 2 | |
| | | elliptic | | | First Light | 3 | |
| | | oblong | | | Beverley Hills | 4 | |
| | | oblanceolate | | | Moonlight | 5 | |
| | | obovate | | | | 6 | |
| 18. | VG | Leaf blade: position of broadest point | | | | | |
| QN | (d) | below the middle | | | Orphan Annie | 1 | |
| | | in the middle | | | Beverley Hills | 2 | |
| | | above the middle | | | Moonlight | 3 | |
| 19. | VG | Leaf blade: shape of apex | | | | | |
| PQ | (d) | acuminate | | | | 1 | |
| | | acute | | | Rosie | 2 | |
| | | rounded | | | Turkish Delight | 3 | |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota | |
|------------|-------------------|--|---------|---------|---|---------------|--|
| 20. | VG | Leaf blade: shape in cross section | | | | | |
| PQ | (d) | concave | | | | 1 | |
| | | flat | | | | 2 | |
| | | convex | | | | 3 | |
| 21. | VG | Leaf blade: incisions on margin | | | | | |
| (*) | | | | | | | |
| QL | (d) | absent | | | Silver Queen | 1 | |
| | | present | | | Diosmifolia Minor | 9 | |
| 22. | VG/ MG | Leaf blade: number of incisions on margin | | | | | |
| QN | (d) | very few | | | | 1 | |
| | | few | | | | 2 | |
| | | medium | | | | 3 | |
| | | many | | | | 4 | |
| 23. | VG | Leaf blade: main color of inner side | | | | | |
| (*) | | | | | | | |
| (+) | | | | | | | |
| PQ | (d) | RHS Color Chart (indicate reference number) | | | | | |
| 24. | VG | Leaf blade: secondary color of inner side | | | | | |
| (+) | | | | | | | |
| PQ | (d) | RHS Color Chart (indicate reference number) | | | | | |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|------------|------------|---|---------|---------|---|---------------|
| 25. | VG | Leaf blade : distribution of secondary color | | | | |
| (+) | | | | | | |
| PQ | (d) | on margin only | | | Frozen Flame, Red Edge | 1 |
| | | broad marginal | | | Heartbreaker | 2 |
| | | intermediate zone | | | Wild Romance | 3 |
| | | central zone | | | Neproch | 4 |
| | | on mid rib only | | | Pacific Paradise | 5 |
| | | on margin and on midrib | | | Flame, Tullylrr | 6 |
| | | blotched | | | Carnea Variegata | 7 |
| 26. | VG | Leaf blade : area of secondary color | | | | |
| QN | (d) | very small | | | Marilyn Monroe | 1 |
| | | small | | | Wild Romance | 3 |
| | | medium | | | Baby Boo | 5 |
| | | large | | | Vero 1 | 7 |
| | | very large | | | Sweet Kim | 9 |
| 27. | VG | Leaf blade: tertiary color of inner side | | | | |
| (+) | | | | | | |
| PQ | (d) | RHS Color Chart (indicate reference number) | | | | |
| 28. | VG | Leaf blade : distribution of tertiary color | | | | |
| (+) | | | | | | |
| PQ | (d) | on margin only | | | Frozen Flame | 1 |
| | | on mid rib only | | | Wild Romance | 2 |
| | | on margin and on midrib | | | Baby Boo | 3 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|------------|------------|---|---------|---------|---|---------------|
| 29. | VG | Leaf blade: glossiness on inner side | | | | |
| QN | (d) | absent or very weak | | | Wiri Desire | 1 |
| | | weak | | | | 2 |
| | | medium | | | Sunset Boulevard | 3 |
| | | strong | | | Champseiont | 4 |
| 30. | VG | Leaf blade: glaucosity on inner side | | | | |
| (*) | | | | | | |
| (+) | | | | | | |
| QN | (d) | absent or very weak | | | | 1 |
| | | weak | | | Turkish Delight | 2 |
| | | medium | | | | 3 |
| | | strong | | | First Light | 4 |
| 31. | VG | Inflorescence: arrangement | | | | |
| (*) | | | | | | |
| (+) | | | | | | |
| PQ | | terminal only | | | Champseiont, Greensleeves | 1 |
| | | terminal and lateral | | | | 2 |
| | | lateral only | | | Beverley Hills | 3 |
| 32. | VG | Inflorescence: shape in profile | | | | |
| (*) | | | | | | |
| (+) | | | | | | |
| PQ | (e) | triangular | | | Moonlight | 1 |
| | | oblong | | | Eveline, Wiri Vogue | 2 |
| | | elliptic | | | Icing Sugar, Wiri Joy | 3 |
| | | obovate | | | | 4 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|------------|-------------|----------------|---------|---------|---|---------------|
| 33. | VG/ | | | | | |
| (*) | MS | | | | | |
| (+) | | | | | | |
| | | | | | | |
| QN | (e) | very short | | | County Park | 1 |
| | | short | | | Beverley Hills | 3 |
| | | medium | | | Moonlight | 5 |
| | | long | | | Sandra Joy, Sunset Boulevard | 7 |
| 34. | VG/M | | | | | |
| (*) | S | | | | | |
| (+) | | | | | | |
| | | | | | | |
| QN | (e) | narrow | | | Tullylrr | 3 |
| | | medium | | | Zerina | 5 |
| | | broad | | | Grethe | 7 |
| 35. | VG | | | | | |
| | | | | | | |
| QN | (e) | sparse | | | | 3 |
| | | medium | | | Ohakea | 5 |
| | | dense | | | Beverley Hills | 7 |
| 36. | VG | | | | | |
| (+) | | | | | | |
| | | | | | | |
| QN | (e) | absent or weak | | | Purple Queen | 1 |
| | | medium | | | Nicola's Blush | 2 |
| | | strong | | | Great Orme | 3 |
| 37. | VG/ | | | | | |
| (*) | MS | | | | | |
| (+) | | | | | | |
| | | | | | | |
| QN | (e) | small | | | Wiri Vogue | 3 |
| | (f) | medium | | | Orphan Annie | 5 |
| | | large | | | Silver Queen | 7 |

| | English | français | deutsch | español | Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|------------|-----------|----------|---------|---------|---|---------------|
| 38. | MG | | | | | |
| (*) | | | | | | |
| | | | | | | |
| PQ | (e) | | | | | |
| | (f) | | | | | |
| | | | | | | |
| 39. | VG | | | | | |
| (+) | | | | | | |
| | | | | | | |
| QN | (e) | | | | Beverley Hills | 1 |
| | (f) | | | | Rosie | 2 |
| | | | | | Wiri Vogue | 3 |
| 40. | VG | | | | | |
| (*) | | | | | | |
| | | | | | | |
| PQ | (e) | | | | | |
| | (f) | | | | | |
| | | | | | | |
| 41. | VG | | | | | |
| (+) | | | | | | |
| | | | | | | |
| QN | | | | | | 3 |
| | | | | | | 5 |
| | | | | | | 7 |

8. Explanations on the Table of Characteristics

8.1 *Explanations covering several characteristics*

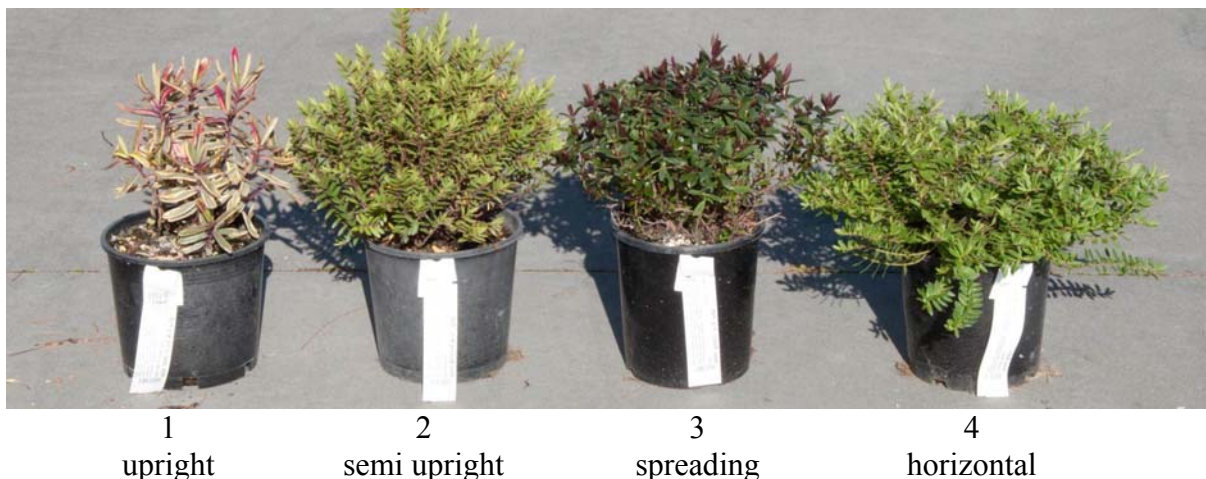
Unless otherwise indicated, all characteristics should be examined at the time of full flowering.

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

- (a) The assessment of plant characters should be carried out later in the growing season, towards the end of active growth.
- (b) All observations on young shoot and young stem characters should be made in the first flush of growth in the season. The young stem is on the upper third on a current seasons shoot.
- (c) All observations on stem internodes should be made on the middle third of a well developed shoot in active growth.
- (d) All observations on the leaf and petiole should be made on a leaf from the middle third of a flowering shoot
- (e) All observations on the inflorescence and flower should be made when the flowers which have opened first, at the base of an inflorescence, are beginning to dehisce.
- (f) All observations on the corolla should be made from flowers in the middle third of the inflorescence.

8.2 *Explanations for individual characteristics*

Ad. 1: Plant: habit



Ad. 2: Plant: height

All observations are made when plants are flowering.

Ad. 10: Leaf bud: presence of sinus

The sinus is located in the leaf bud, a gap between the bases of two leaves of a pair when in bud. It can be seen with an unaided eye for some varieties and is recommended to be observed with a magnifying glass. The presence or absence of a petiole or the shape of the leaf blade can indicate the presence and width of the sinus. Narrower leaves and those with petioles are more likely to have a sinus.

Ad. 13 Leaf: attitude



1 adpressed



2 erect



3 semi erect








4 horizontal



5 downwards

Ad. 16 Leaf blade: ratio length/width

Ad. 17 Leaf blade: shape

| | | | | ← Broadest part → | | |
|--------------------|----------------------|---|---|---|---|---|
| | | Below the middle | At middle | Above middle | | |
| Strongly elongated | | |  | |  | |
| | | | 4 oblong | | 5 oblanceolate | |
| Slightly elongated | length/width ratio ↑ |  | | | | |
| | | 1 lanceolate | |  | |  |
| | | 2 ovate | 3 elliptic | | 6 obovate | |

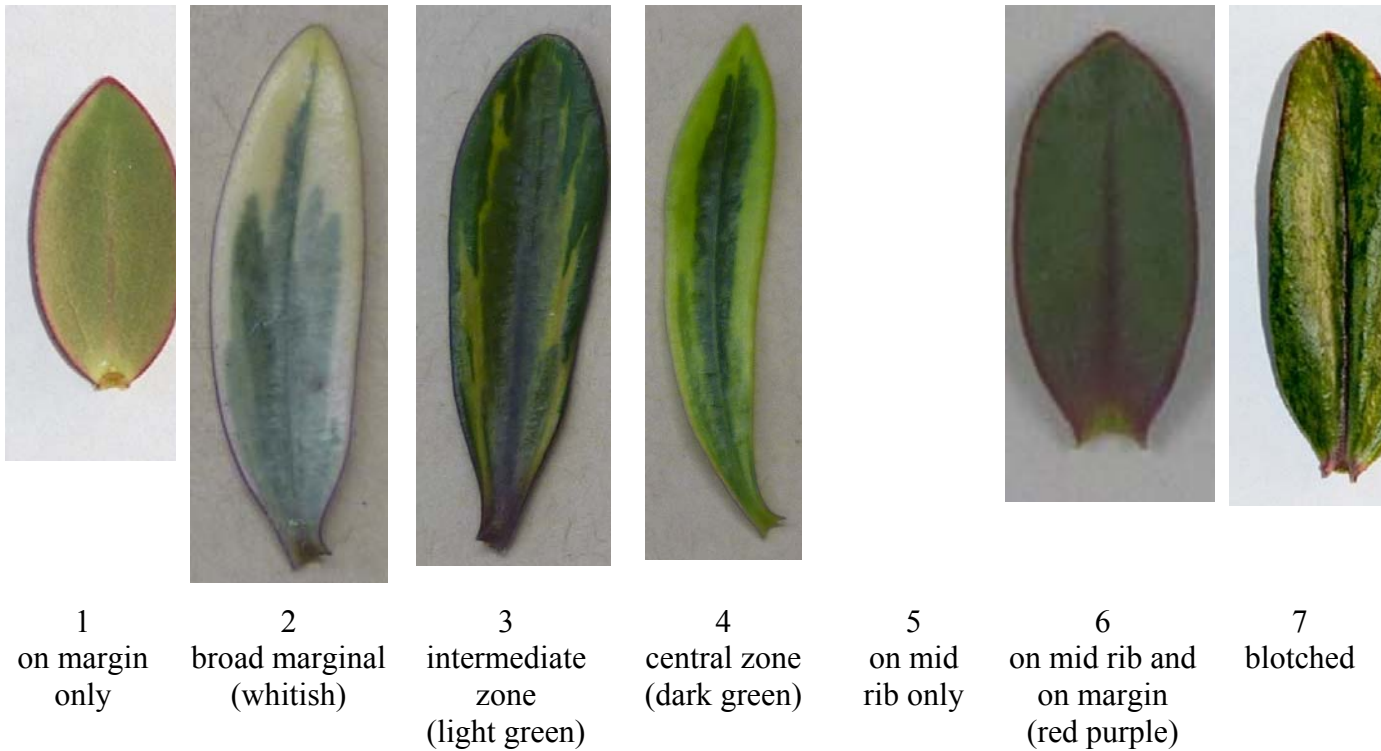
Ad. 23: Leaf blade: main colour of inner side

The main color is determined as the color with the largest surface area present on the upper side of a leaf. Observations should be made on plants not subjected to chilling. For varieties with glaucosity, the waxy layer is removed.

Ad. 24: Leaf blade: secondary color of inner side

The secondary colour is determined as the color with the second largest surface area, usually observed as a defined pattern on the upper side of a leaf. Observations should be made on plants not subjected to chilling. For varieties with glaucosity, the waxy layer is removed.

Ad. 25: Leaf blade: distribution of secondary color



Ad 27: Leaf blade: tertiary color of upper side

The tertiary colour is determined as the color with the third largest surface area, usually observed as a defined pattern on the upper side of a leaf. For varieties with glaucosity, the waxy layer is removed

Ad 28: Leaf blade: distribution of tertiary color



1
on margin only
(purple)



2
on mid rib only
(blackish)



3
on mid rib and on margin
(purple)

Ad. 30: Leaf blade: glaucosity on inner side

The glaucosity is the bloom or waxy layer covering the leaf surface and generally gives a leaf a bluish or milky colouration. The layer can be removed.

Ad. 31: Inflorescence: arrangement



1 terminal only



2 terminal and lateral



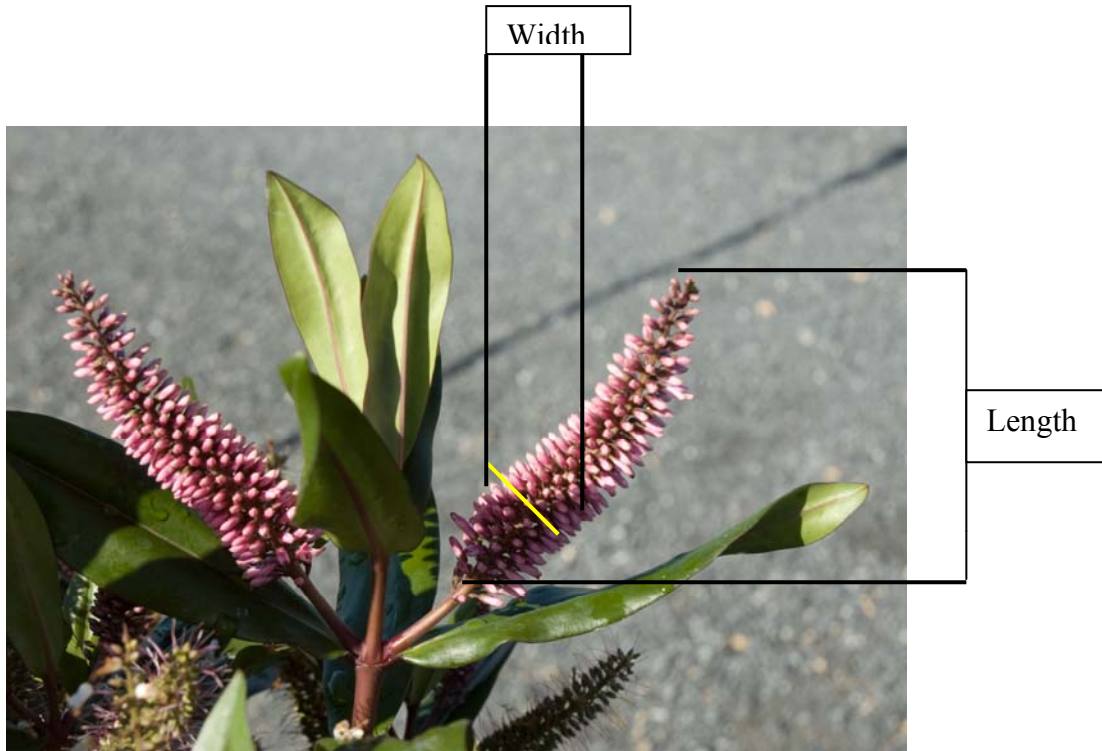
3 lateral only

Ad. 32: Inflorescence: shape in profile

To be provided

Ad. 33: Inflorescence: length of flowering part

Ad. 34: Inflorescence: width of flowering part



Ad. 36 : Inflorescence: corolla lobe color change with age

Observations are made when half to two thirds of all flowers on a single inflorescence are open.



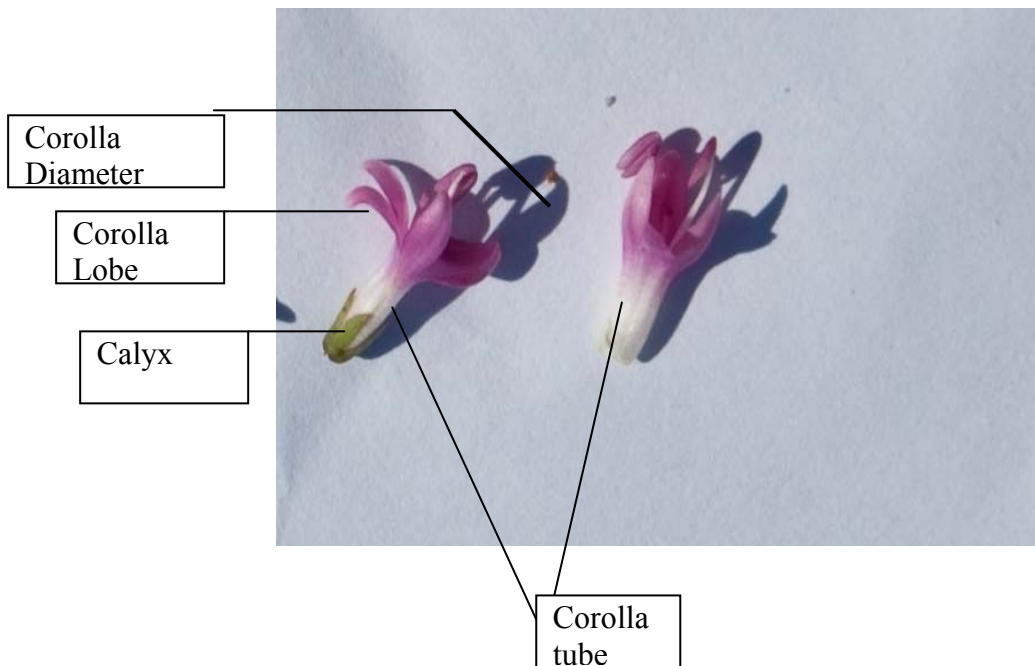
1 absent or weak

2 medium

3 strong

Ad. 37: Corolla: diameter

Ad. 39: Corolla tube: length in relation to calyx



Ad.41 Plant: number of inflorescences

The characteristic describe the overall floriferousness of the plant. The observation should be made when the plant has 40-50% of inflorescences present having open flowers.

9. Literature

Hutchins, G., 1997: Hebes Here and There. Hutchins and Davies, Reading. GB

Metcalf, L.J., 1975: The Cultivation of New Zealand trees and shrubs. AH & AW Reed Ltd..
Auckland, NZ

Metcalf, L.J., 2001: International Register of Hebe Cultivars. Royal New Zealand Institute of
Horticulture

Metcalf, L.J., 2006: Hebe: a guide to species, hybrids and allied genera. Timber Press. Oregon,
US

Poole, A.L., Adams, N.M., 1986: Trees and shrubs of New Zealand. Government Printing.
Wellington, NZ, pp. 218 to237

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 Botanical name | <input type="text" value="Hebe Comm. ex Juss."/> | |
| 1.2 Common name | <input type="text" value="Hebe"/> | |
| 1.3 Species (please complete) | <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"/> | |
| 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: |
|--|-----------------|-------------------|
| <p>#4. Information on the breeding scheme and propagation of the variety</p> <p>4.1 Breeding scheme</p> <p>Variety resulting from:</p> <p>4.1.1 Crossing</p> <p style="margin-left: 40px;">(a) controlled cross [] (please state parent varieties)</p> <p style="margin-left: 40px;">(.....) x (.....) female parent male parent</p> <p style="margin-left: 40px;">(b) partially known cross [] (please state known parent variety(ies))</p> <p style="margin-left: 40px;">(.....) x (.....) female parent male parent</p> <p style="margin-left: 40px;">(c) unknown cross []</p> <p>4.1.2 Mutation [] (please state parent variety)</p> <div style="border: 1px solid black; height: 30px; margin-left: 40px;"></div> <p>4.1.3 Discovery and development [] (please state where and when discovered and how developed)</p> <div style="border: 1px solid black; height: 50px; margin-left: 40px;"></div> <p>4.1.4 Other [] (please provide details)</p> <div style="border: 1px solid black; height: 50px; margin-left: 40px;"></div> | | |

Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

| TECHNICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: |
|---|-----------------|-------------------|
| <p>4.2 Method of propagating the variety</p> <p>4.2.1 Vegetative propagation</p> <p>(a) cuttings []</p> <p>(c) <i>in vitro</i> propagation []</p> <p>(d) other (state method) []</p> <p>4.2.2 Other [] (please provide details)</p> | | |

| TECHNICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: | |
|---|----------------------------------|-------------------|--|
| <p>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).</p> | | | |
| Characteristics | Example Varieties | Note | |
| <p>5.1 Plant: habit (1)</p> | | | |
| upright | Sandra Joy, Turkish Delight | 1[] | |
| semi upright | Beverley Hills | 2[] | |
| spreading | Orphan Annie, Pretty N Pink | 3[] | |
| horizontal | First Light, Hartii | 4[] | |
| <p>5.2 Leaf blade: width (15)</p> | | | |
| very narrow | Karo Golden Esk | 1[] | |
| very narrow to narrow | | 2[] | |
| narrow | Mary Antoinette, Silver Queen | 3[] | |
| narrow to medium | | 4[] | |
| medium | Eveline, Wiri Desire | 5[] | |
| medium to broad | | 6[] | |
| broad | Andersonii, Le Seduisante | 7[] | |
| broad to very broad | | 8[] | |
| very broad | | 9[] | |
| <p>5.3(i) Leaf blade: main color of inner side (23)</p> | | | |
| <p>RHS Colour Chart</p> | | | |
| <p>(indicate reference number)</p> | | | |

| TECHNICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: | |
|---|-------------------|-------------------|-------|
| Characteristics | Example Varieties | Note | |
| 5.3(ii) Leaf blade: main color of inner side (23) | | | |
| white | | | 1[] |
| yellowish white | | | 2[] |
| yellow | | | 3[] |
| yellow green | | | 4[] |
| green | | | 5[] |
| yellow brown | | | 6[] |
| reddish brown | | | 7[] |
| reddish purple | | | 8[] |
| purple | | | 9[] |
| purplish black | | | 10[] |
| 5.4(i) Leaf blade: secondary color of inner side (24) | | | |
| RHS Colour Chart | | | |
| (indicate reference number) | | | |
| 5.4(ii) Leaf blade: secondary color of inner side (24) | | | |
| none | | | 1[] |
| white | | | 2[] |
| yellowish white | Sunstreak | | 3[] |
| yellow | Orphan Annie | | 4[] |
| yellow green | Moonlight | | 5[] |
| green | | | 6[] |
| yellow brown | | | 7[] |
| reddish brown | | | 8[] |
| reddish purple | | | 8[] |
| purple | | | 9[] |
| purplish black | | | 10[] |

| TECHNICAL QUESTIONNAIRE | | Page {x} of {y} | Reference Number: |
|-------------------------|--|-----------------------|-------------------|
| Characteristics | | Example Varieties | Note |
| 5.5 | Inflorescence: shape in profile | | |
| (32) | | | |
| | triangular | Moonlight | 1[] |
| | oblong | Eveline, Wiri Vogue | 2[] |
| | elliptic | Icing Sugar, Wiri Joy | 3[] |
| | obovate | | 4[] |
| 5.6(i) | Corolla lobe: color of inner side | | |
| (38) | | | |
| | RHS Colour Chart | | |
| | (indicate reference number) | | |
| 5.6(ii) | Corolla lobe: color of inner side | | |
| (38) | | | |
| | white | | 1[] |
| | pink | | 2[] |
| | pink red | | 3[] |
| | purple | | 4[] |
| | violet | | 5[] |
| | blue | | 6[] |

| TECHNICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: | |
|---|---|--|--|
| <p>6. Similar varieties and differences from these varieties</p> <p><i>Please use the following table and box for comments 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></p> | | | |
| 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> | { GN 33 } (Chapter 10: TQ 6) – similar varieties } | | |
| | | | |
| | | | |
| | | | |
| <p>Comments:</p> | | | |

| TECHNICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: | | | | | | | | | | | | |
|---|-----------------|-------------------|--|---------|--------|---|---------|--------|--------------------|---------|--------|-------------------|---------|--------|
| <p>9. Information on plant material to be examined or submitted for examination.</p> <p>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.</p> <p>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:</p> <table data-bbox="284 792 1407 1061"><tr><td>(a) Microorganisms (e.g. virus, bacteria, phytoplasma)</td><td>Yes []</td><td>No []</td></tr><tr><td>(b) Chemical treatment (e.g. growth retardant, pesticide)</td><td>Yes []</td><td>No []</td></tr><tr><td>(c) Tissue culture</td><td>Yes []</td><td>No []</td></tr><tr><td>(d) Other factors</td><td>Yes []</td><td>No []</td></tr></table> <p>Please provide details for where you have indicated “yes”.</p> <p>.....</p> | | | (a) Microorganisms (e.g. virus, bacteria, phytoplasma) | Yes [] | No [] | (b) Chemical treatment (e.g. growth retardant, pesticide) | Yes [] | No [] | (c) Tissue culture | Yes [] | No [] | (d) Other factors | Yes [] | No [] |
| (a) Microorganisms (e.g. virus, bacteria, phytoplasma) | Yes [] | No [] | | | | | | | | | | | | |
| (b) Chemical treatment (e.g. growth retardant, pesticide) | Yes [] | No [] | | | | | | | | | | | | |
| (c) Tissue culture | Yes [] | No [] | | | | | | | | | | | | |
| (d) Other factors | Yes [] | No [] | | | | | | | | | | | | |
| <p>10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:</p> <p>Applicant's name <input data-bbox="539 1352 1426 1411" type="text"/></p> <p>Signature <input data-bbox="424 1429 983 1487" type="text"/> Date <input data-bbox="1136 1429 1426 1487" type="text"/></p> | | | | | | | | | | | | | | |

[End of document]