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UPOV

TG/Hebe(proj.3)
ORIGINAL: English
DATE: 2012-06-15-

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-fifth session, to be held in Jeju, Republic of Korea, from August 6 to 10, 2012

Alternative Names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Hebe 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:

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 (characteristic 22) 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 (characteristic 23) with the following color groups:
none
white
yellowish white
yellow

yellow green
green
yellow brown
reddish brown
reddish purple
purple
purplish black

(e) Inflorescence: shape in profile (characteristic 31)

(f) Corolla lobe: color of inner side (characteristic 37) 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 and document TGP/9 “Examining Distinctness”.

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)-(f) 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/** **MG**	**Plant: height**					
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**					
		absent or very weak				Champseiont	1
QN	**(b)**	weak				Rosie	3
		medium				Wiri Desire	5
		strong				Turkish Delight	7
		very strong				Orphan Annie	9
5. **(*)**	**VG**	**Young shoot: pubescence**					
QL	**(b)**	absent				Champseiont	1
		present				Orphan Annie	9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
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
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

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

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
21. (*)	**VG**	**Leaf blade: incisions on margin**					
QL	**(d)**	absent				Silver Queen	1
		present				Diosmifolia Minor	9
22. (*) (+)	**VG**	**Leaf blade: main color**					
PQ	**(d)**	RHS Colour Chart (indicate reference number)					
23. (+)	**VG**	**Leaf blade: secondary color**					
PQ	**(d)**	RHS Colour Chart (indicate reference number)					
24. (+)	**VG**	**Leaf blade : distribution of secondary color**					
PQ	**(d)**	on margin only				Frozen Flame, Red Edge	1
		broad margin				Heartbreaker	2
		intermediate zone				Wild Romance	3
		central zone				Neprock	4
		on mid rib only				Pacific Paradise	5
		on margin and on midrib				Flame, Tullylrr	6
		irregular				Carnea Variegata	7
25.	**VG**	**Leaf blade : area covered by 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

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
26. **(+)**	**VG**	**Leaf blade: tertiary color**					
PQ	**(d)**	RHS Colour Chart (indicate reference number					
27. **(+)**	**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
28.	**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
29. **(+)**	**VG**	**Leaf blade: glaucosity on inner side**					
QN	**(d)**	absent or very weak					1
		weak				Turkish Delight	2
		medium					3
		strong				First Light	4
30. **(*)** **(+)**	**VG**	**Inflorescence: arrangement**					
PQ		terminal only				Champseiont, Greensleeves	1
		terminal and lateral					2
		lateral only				Beverley Hills	3
31. **(*)** **(+)**	**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
32. (*) (+)	**VG/ MS**	**Inflorescence: length of flowering part**					
QN	**(e)**	very short				County Park	1
		short				Beverley Hills	3
		medium				Moonlight	5
		long				Sandra Joy, Sunset Boulevard	7
33. (*) (+)	**VG/ MS**	**Inflorescence: width of flowering part**					
QN	**(e)**	narrow				Tullylrr	3
		medium				Zerina	5
		broad				Grethe	7
34.	**VG**	**Inflorescence: density of flowers**					
QN	**(e)**	sparse					3
		medium				Ohakea	5
		dense				Beverley Hills	7
35. (*) (+)	**VG**	**Inflorescence: corolla color change with age**					
QN		absent or weak				Purple Queen	1
		medium				Nicola's Blush	2
		strong				Great Orme	3
36. (*) (+)	**VG/ MS**	**Corolla: width**					
QN	**(e)**	narrow				Wiri Vogue	3
	(f)	medium				Orphan Annie	5
		broad				Silver Queen	7
37. (*)	**MG**	**Corolla lobe: color of inner side**					
PQ	**(e) (f)**	RHS Colour Chart (indicate reference number)					

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
38. **(*)** **(+)**	**VG**	**Corolla tube: length in relation to calyx**					
QN	**(e)**	shorter				Beverley Hills	1
	(f)	equal				Rosie	2
		longer				Wiri Vogue	3
39. **(*)**	**VG**	**Corolla tube: color of outer side**					
PQ	**(e)** **(f)**	RHS Colour Chart (indicate reference number)					
40. **(+)**	**VG**	**Plant: number of inflorescences**					
QN		few					3
		medium					5
		many					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 characteristics should be carried out later in the growing season, towards the end of active growth.

(b) All observations on young shoot and young stem characteristics 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. All color observations are made on the inner side of the leaf. The inner side is the same as the upper side.

(e) Unless otherwise stated, 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.

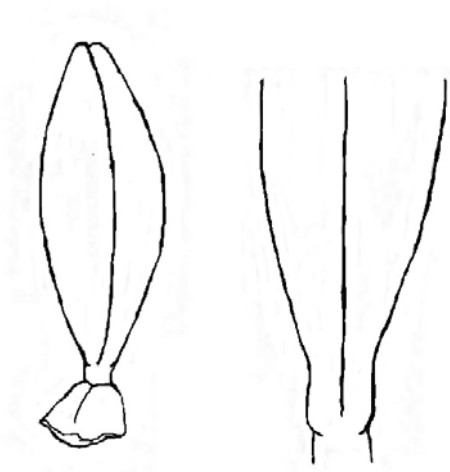
8.2 Explanations for individual characteristics

Ad. 1: Plant: habit

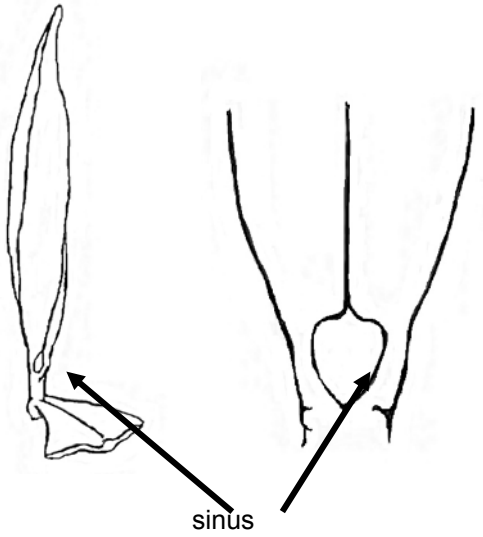
1	2	3	4
upright	semi upright	spreading	horizontal

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 of the sinus. Narrower leaves and those with petioles are more likely to have a sinus.



1
absent



9
present

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 →		
Towards the base	At middle	Towards the apex

Strongly elongated ↓				
	1 lanceolate		3 oblong	5 oblanceolate
Slightly elongated →				
		2 ovate	4 elliptic	6 obovate

Ad. 19: Leaf blade: shape of apex

1
acuminate

2
acute

3
rounded

Ad. 22: Leaf blade: main color

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

Ad. 23: Leaf blade: secondary color

The secondary color is determined as the color with the second largest surface area, usually observed as a defined pattern on the inner 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: distribution of secondary color

1	2	3	4	5	6	7
on margin only	broad margin (whitish)	intermediate zone (light green)	central zone (dark green)	on mid rib only	on mid rib and on margin (red purple)	irregular (light yellow)

Ad. 26: Leaf blade: tertiary color of inner side

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

Ad. 27: Leaf blade: distribution of tertiary color

1
on margin only
(purple)

2
on mid rib only
(blackish)

3
on margin and on mid rib
(purple)

Ad. 29: 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 coloration. The layer can be removed.

Ad. 30: Inflorescence: arrangement

1
terminal only

2
terminal and lateral

3
lateral only

Ad. 31: Inflorescence: shape in profile

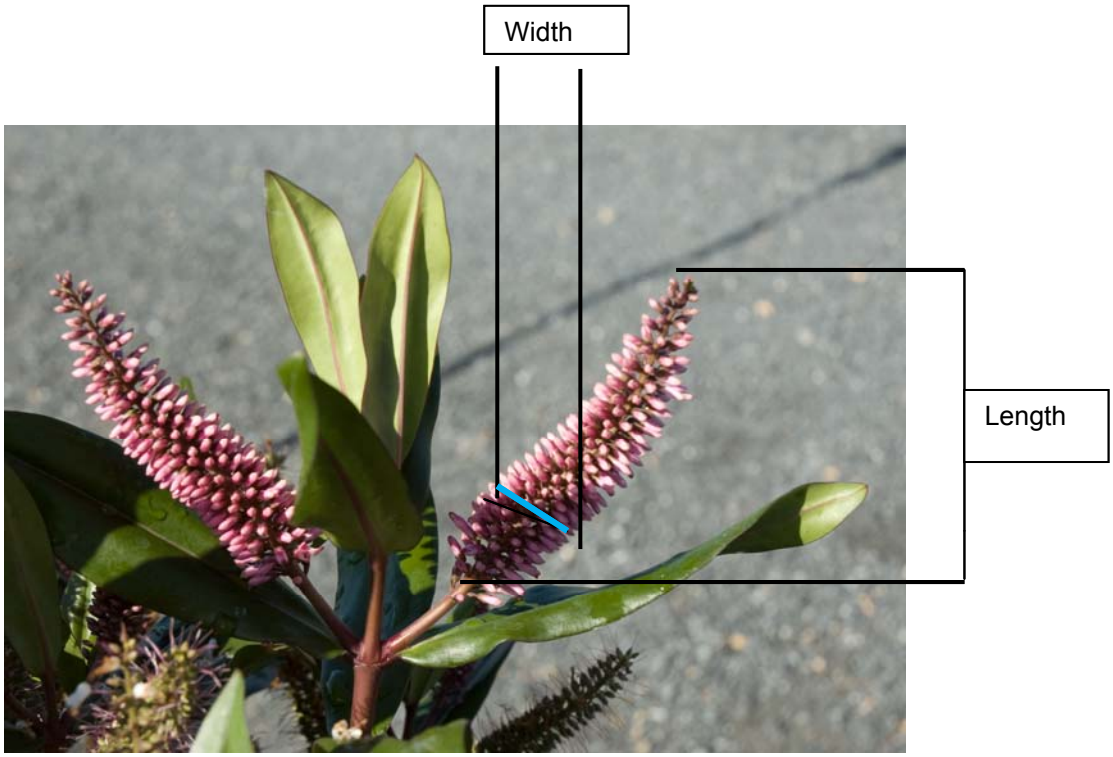
1
triangular

2
oblong

3
elliptic

4
obovate

Ad. 32: Inflorescence: length of flowering part
Ad 33: Inflorescence: width of flowering part



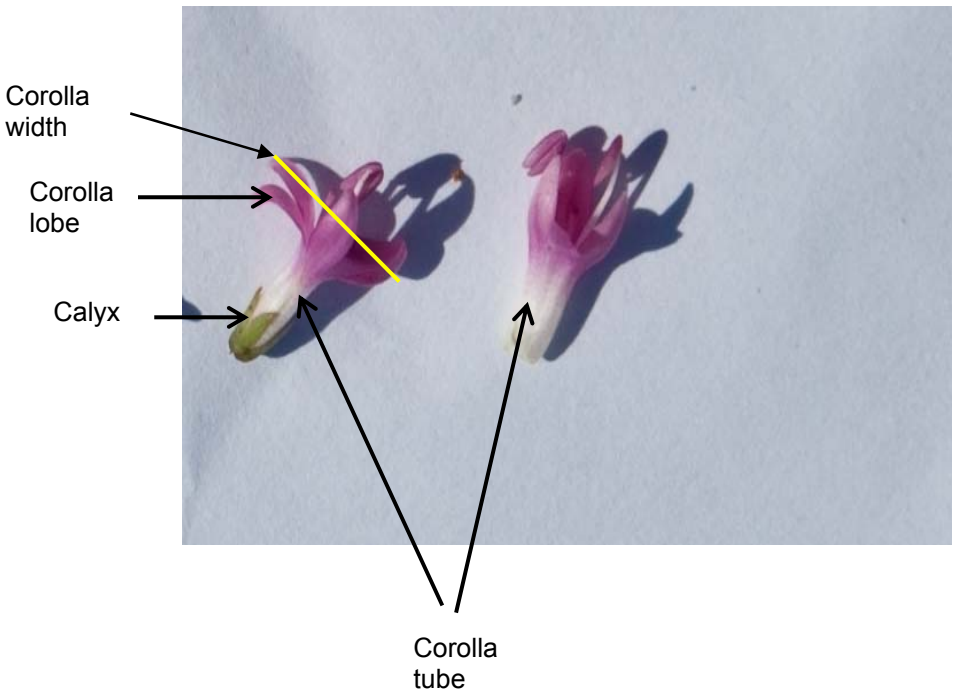
The width of the inflorescence is taken at the broadest point.

Ad. 35: Inflorescence: corolla color change with age

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

1	2	3
absent or weak	medium	strong

Ad. 36: Corolla: width
Ad. 38: Corolla tube: length in relation to calyx



Ad. 40: Plant: number of inflorescences

The observation should be made when approximately 50% of inflorescences present have 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 to 237

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	Hebe Comm. ex Juss.
1.2 Common name	Hebe
1.3 Species	

2. Applicant

Name	
Address	
Telephone No.	
Fax No.	
E-mail address	
Breeder (if different from applicant)	

3. Proposed denomination and breeder's reference

Proposed denomination (if available)	
Breeder's reference	

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)

(……..……..…) x (……..……..…)
female parent male parent

(b) partially known cross [ ]
(please state known parent variety(ies))

(……..……..…) x (……..……..…)
female parent male parent

(c) unknown cross [ ]

4.1.2 Mutation [ ]
(please state parent variety)

4.1.3 Discovery and development [ ]
(please state where and when discovered and how developed)

4.1.4 Other [ ]
(please provide details)

[#] 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:

4.2 Method of propagating the variety

4.2.1 Vegetative propagation

(a) cuttings [ ]

(b) *in vitro* propagation [ ]

(c) other (state method) [ ]

4.2.2 Other [ ]
(please provide details)

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

5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the note which best corresponds).

	Characteristics	Example Varieties	Note
5.1 (1)	**Plant: habit**		
	upright	Sandra Joy, Turkish Delight	1[ ]
	semi upright	Beverley Hills	2[ ]
	spreading	Orphan Annie, Pretty N Pink	3[ ]
	horizontal	Hartii, First Light	4[ ]
5.2 (15)	**Leaf blade: width**		
	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[ ]
5.3 (22)	**Leaf blade: main color**		
	RHS Colour Chart (indicate reference number)		

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

	Characteristics	Example Varieties	Note
5.3A	**Leaf blade: main color with the following groups**		
	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 (23)	**Leaf blade: secondary color**		
	RHS Colour Chart (indicate reference number)		
5.4A	**Leaf blade: secondary color**		
	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		9[ ]
	purple		10[ ]
	purplish black		11[ ]

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

	Characteristics	Example Varieties	Note
5.5 (31)	**Inflorescence: shape in profile**		
	triangular	Moonlight	1[ ]
	oblong	Eveline, Wiri Vogue	2[ ]
	elliptic	Icing Sugar, Wiri Joy	3[ ]
	obovate		4[ ]
5.6 (37)	**Corolla lobe: color of inner side**		
	RHS Colour Chart (indicate reference number)		
5.6A	**Corolla lobe: color of inner side with the following groups:**		
	white		1[ ]
	pink		2[ ]
	pink red		3[ ]
	purple		4 [ ]
	violet		5[ ]
	blue		6[ ]

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

6. Similar varieties and differences from these varieties

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.

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
Example	*Plant: habit*	*semi-upright*	*spreading*

Comments:

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

[#]7. Additional information which may help in the examination of the variety

7.1 In addition to the information provided in sections 5 and 6, are there any additional characteristics which may help to distinguish the variety?

Yes [ ] No [ ]

(If yes, please provide details)

7.2 Are there any special conditions for growing the variety or conducting the examination?

Yes [ ] No [ ]

(If yes, please provide details)

7.3 Main use of the variety

(a) pot plant [ ]
(b) garden plant [ ]
(c) other [ ]
(please provide details)

.....

A representative color image of the variety should accompany the Technical Questionnaire.

8. Authorization for release

(a) Does the variety require prior authorization for release under legislation concerning the protection of the environment, human and animal health?

Yes [ ] No [ ]

(b) Has such authorization been obtained?

Yes [ ] No [ ]

If the answer to (b) is yes, please attach a copy of the authorization.

[#] 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:

9. Information on plant material to be examined or submitted for examination.

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, pesticide)	Yes [ ]	No [ ]
(c)	Tissue culture	Yes [ ]	No [ ]
(d)	Other factors	Yes [ ]	No [ ]

Please provide details for 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]