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**INTERNATIONAL UNION
FOR THE PROTECTION
OF NEW VARIETIES OF
PLANTS**

**UNION INTERNATIONALE
POUR LA PROTECTION
DES OBTENTIONS
VÉGÉTALES**

**INTERNATIONALER
VERBAND ZUM SCHUTZ
VON PFLANZEN-
ZÜCHTUNGEN**

**UNIÓN INTERNACIONAL
PARA LA PROTECCIÓN
DE LAS OBTENCIONES
VEGETALES**

DRAFT

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

LING, SCOTS HEATHER
(*Calluna vulgaris* (L.) Hull)

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

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I. Subject of these Guidelines

These Test Guidelines apply to all vegetatively propagated varieties of *Calluna vulgaris* (L.) Hull of the family Ericaceae.

II. Material Required

1. The competent authorities decide when, where and in what quantity and quality the plant material required for testing the variety is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must make sure that all customs formalities are complied with. As a minimum, the following quantity of plant material is recommended:

30 one-year-old potted plants.

2. The plant material supplied should be visibly healthy, not lacking in vigor or affected by any important pests or diseases.

3. The plant material must not have undergone any treatment unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

III. Conduct of Tests

1. A test should normally be conducted for one growing period. If distinctness and/or uniformity cannot be sufficiently established in one growing period, the test should be extended for a second growing period.

2. The tests should normally be conducted at one place. If any important characteristics of the variety cannot be seen at that place, the variety may be tested at an additional place.

3. The tests should be carried out under conditions ensuring normal growth (conditions for the Northern Hemisphere).

Time of submission of plant material: Second half of September.

Planting of plants for the test: Beginning of October, in the open, 50 x 30 cm.

Soil: Sandy, peaty soil, pH 4 to 5.

Fertilization: According to soil analysis.

Pruning: Strong pruning in early spring, before beginning of growth.

The size of the plots should be such that plants or parts of plants may be removed for measurement and counting without prejudice to the observations which must be made up to the end of the growing period. As a minimum, each test should include a total of 30 plants.

Separate plots for observation and for measuring can only be used if they have been subject to similar environmental conditions.

4. Additional tests for special purposes may be established.

IV. Methods and Observations

1. All observations should be made on 30 plants. All observations determined by measurement or counting should be made on 10 plants or parts taken from each of 10 plants.
2. For the assessment of uniformity a population standard of 2% and an acceptance probability of at least 95% should be applied. In the case of a sample of 30 plants, the maximum number of off-types allowed would be 2.
3. All observations on the plant, on the flowering shoot and on the leaf should be made before the beginning of flowering.
4. Unless otherwise indicated, all observations on the flower should be made at the beginning of flowering when one-third of the flowers are flowering on 50% of the plants. The observation on the flower at the end of flowering should be made when at least 10 flowers on 10% of the plants present brown coloration.
5. Because daylight varies, color determinations made against a color chart should be made either in a suitable cabinet providing artificial daylight or in the middle of the day in a room without direct sunlight. The spectral distribution of the illuminant for artificial daylight should conform with the CIE Standard of Preferred Daylight D 6500 and should fall within the tolerance set out in the British Standard 950, Part I. These determinations should be made with the plant part placed against a white background.

V. Grouping of Varieties

1. The collection of varieties to be grown should be divided into groups to facilitate the assessment of distinctness. Characteristics which are suitable for grouping purposes are those which are known from experience not to vary, or to vary only slightly, within a variety. Their various states of expression should be fairly evenly distributed throughout the collection.
2. It is recommended that the competent authorities use the following characteristics for grouping varieties:
 - (a) Flower: opening of bud (characteristic 13)
 - (b) Flower: type (characteristic 14)
 - (c) Varieties with opening buds only: Flower: color of outer side of petal at beginning of flowering (characteristic 18) with the following groups:
 - Gr. 1: white
 - Gr. 2: light pink
 - Gr. 3: dark pink
 - Gr. 4: blue violet
 - Gr. 5: purple red
 - Gr. 6: red

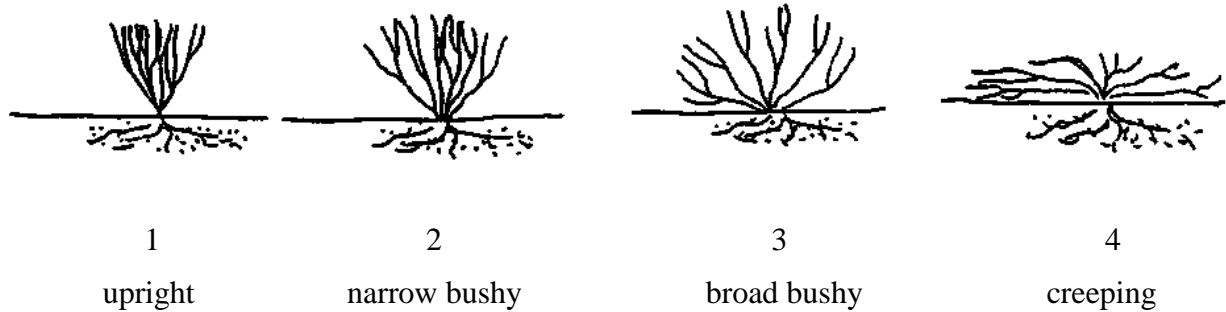
- (d) Varieties with non-opening buds only: Flower: main color at beginning of flowering (characteristic 20) with the following groups:
- Gr. 1: white
 - Gr. 2: light pink
 - Gr. 3: dark pink
 - Gr. 4: blue violet
 - Gr. 5: purple red
 - Gr. 6: red

VI. Characteristics and Symbols

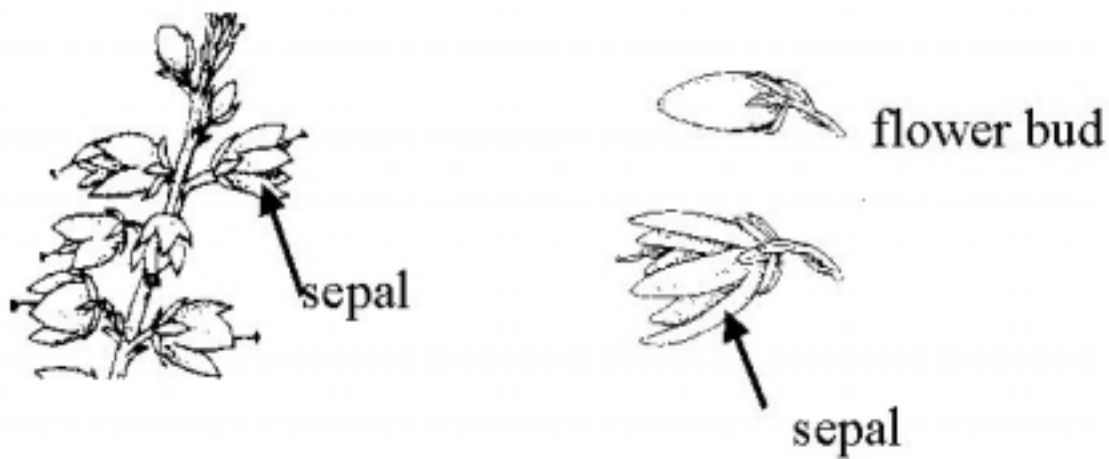
1. To assess distinctness, uniformity and stability, the characteristics and their states as given in the Table of Characteristics should be used.
2. Notes (numbers), for the purposes of electronic data processing, are given opposite the states of expression for each characteristic.
3. Legend:
 - (*) Characteristics that should be used on all varieties in every growing period over which examinations are made and always be included in the variety descriptions, except when the state of expression of a preceding characteristic or regional environmental conditions render this impossible.
 - (+) See Explanations on the Table of Characteristics in Chapter VIII.

VIII. Explanations on the Table of Characteristics

Ad. 1: Plant: growth habit



Ad. 17: Varieties with opening buds only: Flower: color of outer side of sepal



IX. Literature

Heather Society Yearbook (1963-).

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Denkewitz, Lothar. *Heidegärten*, Verlag Eugen Ulmer, Stuttgart 1977, DE.

Hieke, K. 'Beschreibungen der wichtigsten *Calluna*- und *Erica*sorten', *Mitt. DDG* 79 (1990): 9-90.

Knight, F.P. *Heaths and Heathers* (Wisley Handbook; Cassell/RHS, 1986).

Maxwell, D.F. and Patrick, P.S. *The English Heather Garden* (Macdonald, 1966).

Munson, R.H. 'Heaths and Heathers cultivated in North America (Ericaceae)', *Baileya* 22 (1984) 101-133.

Proudley, B. and V. *Heathers in Colour* (Blandford Press, 1974).

Underhill, Terry L.: *Heaths & Heathers*, The Growers Encyclopedia, David & Charles, Newton Abbot, London 1990, GB.

Van de Laar, H. *Het Heidetuinboek*, trans. as *The Heather Garden* (Collins, 1978).

X. Technical Questionnaire

	Reference Number (not to be filled in by the applicant)
<p style="text-align: center;">TECHNICAL QUESTIONNAIRE to be completed in connection with an application for plant breeders' rights</p>	
<p>1. Species <i>Calluna vulgaris</i> (L.) Hull</p> <p style="text-align: center;">LING, SCOTS HEATHER</p>	
<p>2. Applicant (Name and address)</p>	
<p>3. Proposed denomination or breeder's reference</p>	

4. Information on origin, release, maintenance and reproduction of the variety

4.1 Origin

(a) Seedling (indicate parent varieties)

..... []

(b) Mutation (indicate parent variety)

..... []

(c) Discovery (indicate where and when)

..... []

(d) Other (specify)

..... []

4.2 Method of reproduction

– cuttings []

– *in vitro* propagation []

– other (specify method) []

4.3 Other information

5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the state of expression which best corresponds).			
Characteristics		Example Varieties	Note
5.1 (1)	Plant: growth habit		
	upright	Amethyst	1[]
	narrow bushy	Long White	2[]
	broad bushy	Marleen	3[]
	creeping	Heidezwerg	4[]
5.2 (13)	Flower: opening of bud		
	absent	Marleen	1[]
	present	Long White	9[]
5.3 (14)	Flower: type		
	single	Long White	1[]
	double	Annemarie	2[]
5.4i (18)	<u>Varieties with opening buds only: Flower: color of outer side of petal at beginning of flowering</u>		
	RHS Colour Chart (indicate reference number)		
5.4ii (18)	<u>Varieties with opening buds only: Flower: color of outer side of petal at beginning of flowering</u>		
	white	Long White	1[]
	light pink	Peter Sparkes	2[]
	dark pink	Annemarie	3[]
	blue violet	Tipp	4[]
	purple red	Dark Beauty	5[]
	red	Kir Royal	6[]

	Characteristics	Example Varieties	Note
5.5i (20)	<u>Varieties with non-opening buds only: Flower: main color at beginning of flowering</u> RHS Colour Chart (indicate reference number)		
5.5ii (20)	<u>Varieties with non-opening buds only: Flower: main color at beginning of flowering</u>		
	white	Melanie	1[]
	light pink	Anette	2[]
	dark pink	Plantarium	3[]
	blue violet	Marleen	4[]
	purple red	Aphrodite	5[]
	red	Marlies, Larissa	6[]
6. Similar varieties and differences from these varieties			
	Denomination of similar variety	Characteristic in which the similar variety is different ^{o)}	State of expression of similar variety State of expression of candidate variety
^{o)} In the case of identical states of expressions of both varieties, please indicate the size of the difference.			

7. Additional information which may help to distinguish the variety

7.1 Resistance to pests and diseases

7.2 Special conditions for the examination of the variety

7.3 Other information

A representative color photo of the variety should be included in the Technical Questionnaire.

8. Authorization for release

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

Yes ☐ No ☐

(b) Has such authorization been obtained?

Yes ☐ No ☐

If the answer to that question is yes, please attach a copy of such an authorization.

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