

UPOV

TG/LOBEL(proj.1)

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

GENEVA

DRAFT

## LOBELIA

UPOV Code: LOBEL\_ERI;  
LOBEL\_VAL; LOBEL\_EVA

*Lobelia erinus* L.; *Lobelia valida* L. Bolus;  
*Lobelia erinus* x *Lobelia valida*

## GUIDELINES

## FOR THE CONDUCT OF TESTS

## FOR DISTINCTNESS, UNIFORMITY AND STABILITY

*prepared by an expert from Canada*

*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,  
from November 7 to 11, 2011*

Alternative Names:\*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Lobelia erinus</i> L.	Lobelia, True Lobelia of Gardens	Lobélie, Lobélie des jardins	Lobelia	Lobelia
<i>Lobelia valida</i> L. Bolus				
<i>Lobelia erinus</i> x <i>valida</i>				

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](http://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 *Lobelia erinus* L., *Lobelia valida* L. Bolus and hybrids between these species and other Lobelia species.

## 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, or seed.

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

vegetatively propagated varieties: 15 rooted cuttings  
seed propagated varieties: a sufficient quantity of seed to produce 30 plants

In the case of seed, the seed should meet the minimum requirements for germination, species and analytical purity, health and moisture content, specified by the competent authority.

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 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 Vegetatively propagated varieties: each test should be designed to result in a total of at least 10 plants.

3.4.2 Seed-propagated varieties: each test should be designed to result in a total of at least 20 plants.

3.4.3 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

4.1.4.1 Unless otherwise indicated, for vegetatively propagated varieties, for the purposes of distinctness, all observations on single plants should be made on 10 plants or parts taken from each

of 10 plants and any other observations made on all plants in the test, disregarding any off-type plants

4.1.4.2 Unless otherwise indicated, for seed-propagated varieties, for the purposes of distinctness, all observations on single plants should be made on 20 plants or parts taken from each of 20 plants and any other observations made on all plants in the test, disregarding any off-type plants

#### 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 15 plants, 1 off-type is allowed.

4.2.3 For the assessment of uniformity of seed-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 30 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 seed or plant stock to ensure that it exhibits the same characteristics as those shown by the initial material supplied.

4.3.3 Where appropriate, or in cases of doubt, the stability of a hybrid variety may, in addition to an examination of the hybrid variety itself, also be assessed by examination of the uniformity and stability of its parent lines.

## 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: attitude of shoots (characteristic 1)
- (b) Flower: type (characteristic 18)
- (c) Lower lip: main color of upper side (characteristic 26) with the following groups:
  - Gr. 1: white
  - Gr. 2: light blue
  - Gr. 3: medium blue to violet blue
  - Gr. 4: light violet
  - Gr. 5: medium violet to dark violet
- (d) Lower lip: white zone on upper side (characteristic 28)
- (e) Lower lip: markings (characteristic 30)

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)-(b) 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
<b>1. VG (*)</b>	<b>Plant: attitude of shoots</b>					
<b>QN</b>	upright				Lobetis	1
	semi-upright				USLOB13	3
	horizontal				Tec Hewhitt	5
	semi drooping					7
	drooping				Wesstar	9
<b>2. MS/ VG</b>	<b><u>Upright and semi-upright varieties only:</u> Plant: height</b>					
<b>QN</b>	short					3
	medium					5
	tall					7
<b>3. MS/ VG</b>	<b><u>Upright and semi-upright varieties only:</u> Plant: width</b>					
<b>QN</b>	narrow					3
	medium					5
	broad					7
<b>4. MS/ VG</b>	<b><u>Horizontal, semi-trailing and trailing varieties only:</u> Shoot: length</b>					
<b>QN</b>	short					3
	medium					5
	long					7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>5.</b>	<b>MS/ VG</b>	<b>Shoot: length of internodes</b>				
<b>QN</b>		short				3
		medium				5
		long				7
<b>6. (*)</b>	<b>VG</b>	<b>Shoot: thickness</b>				
<b>QN</b>	<b>(a)</b>	thin			Lobmounlila	3
		medium			KLELE08621	5
		thick			Tec Hewhitt	7
<b>7.</b>	<b>VG</b>	<b>Shoot: intensity of green color</b>				
<b>QN</b>	<b>(a)</b>	light			Wesloti	1
		medium			Tec Travio	3
		dark			Loboudtis	5
<b>8.</b>	<b>VG</b>	<b>Shoot: anthocyanin coloration</b>				
<b>QN</b>	<b>(b)</b>	absent or very weak				1
		weak				3
		medium				5
		strong				7
<b>9.</b>	<b>VG</b>	<b>Shoot: pubescence</b>				
<b>QN</b>	<b>(a)</b>	absent or very sparse				1
		sparse				2
		medium				3
		dense				4
		very dense				5

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>10. MS/ (*) VG</b>	<b>Leaf: length</b>					
<b>QN</b>	(c)	short				3
		medium				5
		long				7
<b>11. MS/ (*) VG</b>	<b>Leaf: width</b>					
<b>QN</b>	(c)	narrow				3
		medium				5
		broad				7
<b>12. VG</b>	<b>Leaf: incisions of margin</b>					
<b>QN</b>	(c)	absent or very shallow				1
		shallow				3
		medium				5
		deep				7
		very deep				9
<b>13. VG (*) (+)</b>	<b>Leaf: shape</b>					
<b>PQ</b>	(c)	elliptic			USLOB13	1
		circular			USLOB0901	2
		oblanceolate			Balwalila	3
		obovate			Kielowa	4
		spatulate			Lobtrablu	5

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>14. VG</b>	<b>Leaf: shape of apex</b>					
(+)						
<b>PQ</b>	(c)	mucronate				1
		acuminate				2
		acute				3
		obtuse				4
	**Proposing to remove characteristic					
<b>15. VG</b>	<b>Leaf: shape of base</b>					
(+)						
<b>PQ</b>	(c)	acute				1
		obtuse				2
	** Proposing to remove characteristic					
<b>16. VG</b>	<b>Leaf: intensity of green color on upper side</b>					
(*)						
<b>QN</b>	(c)	light				1
		medium				2
		dark			White Star	3
<b>17. VG</b>	<b>Leaf: pubescence on upper side</b>					
<b>QN</b>	(c)	absent or very sparse			Riviera Lilac	1
		sparse			Lobmounlila	2
		medium			Lobmounwi	3
		dense			USLOB13	4
		very dense				5
<b>18. VG</b>	<b>Flower: type</b>					
(*)						
(+)						
<b>QL</b>		single			KLELE08621	1
		double			Kathleen Mallard	2

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>19. VG</b>	<b>Sepal: anthocyanin coloration</b>					
<b>QN</b>	absent or very weak					1
	weak					3
	medium					5
	strong					7
	** Proposing to remove characteristic					
<b>20. MS/ (*) (+) VG</b>	<b>Corolla: length</b>					
<b>QN</b>	short					3
	medium					5
	long					7
<b>21. MS/ (*) (+) VG</b>	<b>Corolla: width of lower lip</b>					
<b>QN</b>	narrow					3
	medium					5
	broad					7
<b>22. VG (+)</b>	<b>Upper lip: shape of lobes</b>					
<b>PQ (d)</b>	elliptic				Lobantis	1
	oblanceolate				Lobmounwi	2
	obovate				Balwalila	3
	obtriangular				Regatta Sapphire	4
<b>23. VG</b>	<b>Upper lip: main color of upper side (if different from lower lip)</b>					
<b>PQ (d)</b>	RHS Colour Chart (indicate reference number)					

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>24.</b>	<b>MS/</b>	<b>Lower lip: length of</b>				
<b>(*)</b>	<b>VG</b>	<b>middle lobe</b>				
<b>(+)</b>						
<b>QN</b>	<b>(d)</b>	short				3
		medium				5
		long				7
<b>25.</b>	<b>MS/</b>	<b>Lower lip: width of</b>				
<b>(*)</b>	<b>VG</b>	<b>middle lobe</b>				
<b>(+)</b>						
<b>QN</b>	<b>(d)</b>	narrow				3
		medium				5
		broad				7
<b>26.</b>	<b>VG</b>	<b>Lower lip: main</b>				
<b>(*)</b>		<b>color of upper side</b>				
		<b>(excluding white</b>				
		<b>zone)</b>				
<b>PQ</b>	<b>(d)</b>	RHS Colour Chart				
		(indicate reference				
		number)				
<b>27.</b>	<b>VG</b>	<b>Lower lip: colour</b>				
		<b>change with age</b>				
<b>QN</b>	<b>(d)</b>	absent or very weak				1
		weak				2
		strong				3
<b>28.</b>	<b>VG</b>	<b>Lower lip: white</b>				
<b>(*)</b>		<b>zone on upper side</b>				
<b>QN</b>	<b>(d)</b>	absent or very small			Riviera Lilac	1
		small				3
		medium				5
		large				7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>29.</b>	<b>VG</b>	<b>Lower lip: shape of white zone on upper side</b>				
(+)						
<b>PQ</b>	(d)	elongated				1
		elongate and rounded				2
		rounded				3
		irregular				4
<b>30.</b>	<b>VG</b>	<b>Lower lip: markings</b>				
(*)						
<b>QL</b>	(d)	absent			Tech Hepdab	1
	(e)					
		present			Balwalila	9
<b>31.</b>	<b>VG</b>	<b>Lower lip: size of markings</b>				
<b>QN</b>	(d)	small				1
	(e)					
		medium				2
		large				3
<b>32.</b>	<b>VG</b>	<b>Lower lip: color of markings</b>				
(+)						
<b>PQ</b>	(d)	RHS Colour Chart				
	(e)	(indicate reference number)				
		** Propose to delete characteristic				
<b>33.</b>	<b>VG</b>	<b>Lower lip: main color of lower side</b>				
<b>PQ</b>	(d)	RHS Colour Chart				
		(indicate reference number)				

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
<b>34. VG</b>	<b>Lower lip: arrangement of lobes</b>					
(+)						
<b>QN</b>	<b>(d)</b>	free			KLELE08621	1
		touching			Regatta Sapphire	2
		slightly overlapping			Lobtrawi	3
<b>35. VG</b>	<b>Palate: conspicuousness of yellow markings</b>					
(+)						
<b>QN</b>	<b>(d)</b>	absent or very weak				1
		weak				3
		medium				5
		strong				7
		very strong				9
		**Proposing to remove characteristic				
<b>36. VG</b>	<b>Corolla tube: color of outer side</b>					
<b>PQ</b>	(indicate RHS reference number)					
<b>37. VG</b>	<b>Corolla tube: conspicuousness of markings on inner side</b>					
<b>QN</b>	<b>(d)</b>	weak				3
		medium				5
		strong				7



## 8. Explanations on the Table of Characteristics

### 8.1 *Explanations covering several characteristics*

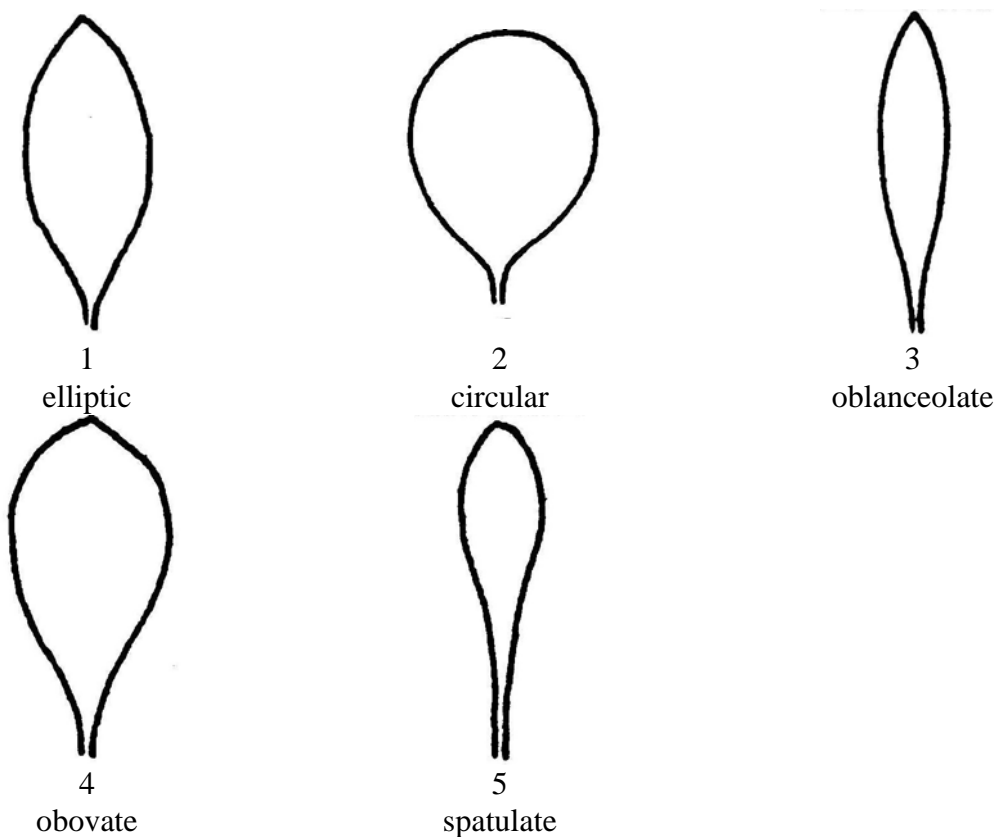
Unless otherwise indicated, all characteristics should be examined at the time of full flowering.

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

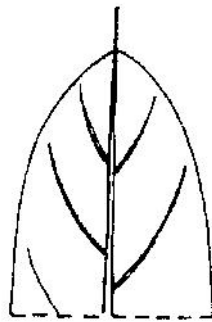
- (a) Unless otherwise indicated, all shoot characteristics should be observed on the middle third of the shoot.
- (b) Anthocyanin colouration on the shoot should be observed on the upper third.
- (c) All leaf characteristics should be observed on the middle third of the shoot just before flowering.
- (d) Observe for single varieties only
- (e) Markings on the lower lip do not include the white zone or any yellow markings extending from the throat.

### 8.2 *Explanations for individual characteristics*

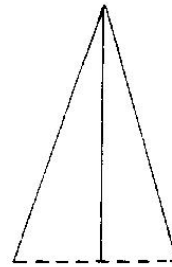
#### Ad. 13: Leaf: shape



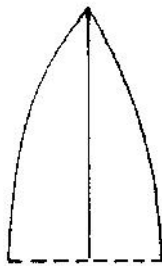
Ad. 14: Leaf: shape of apex



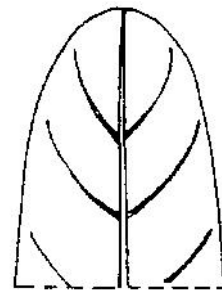
1  
mucronate



2  
acuminate

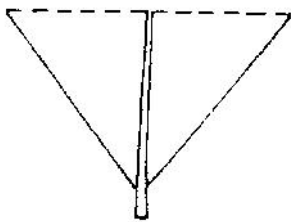


3  
acute

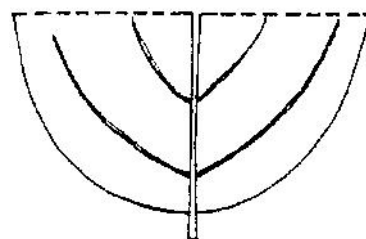


4  
obtuse

Ad. 15: Leaf: shape of base



1  
acute



2  
obtuse

Ad. 18: Flower: type

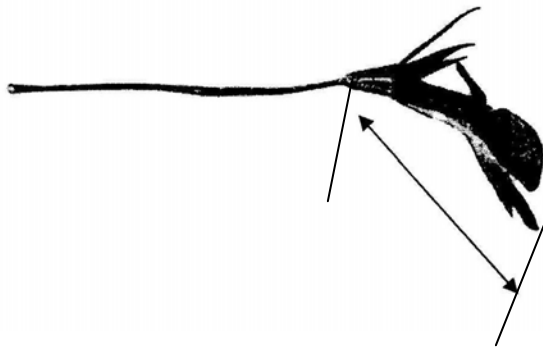


1  
single



2  
double

Ad. 20: Corolla: length

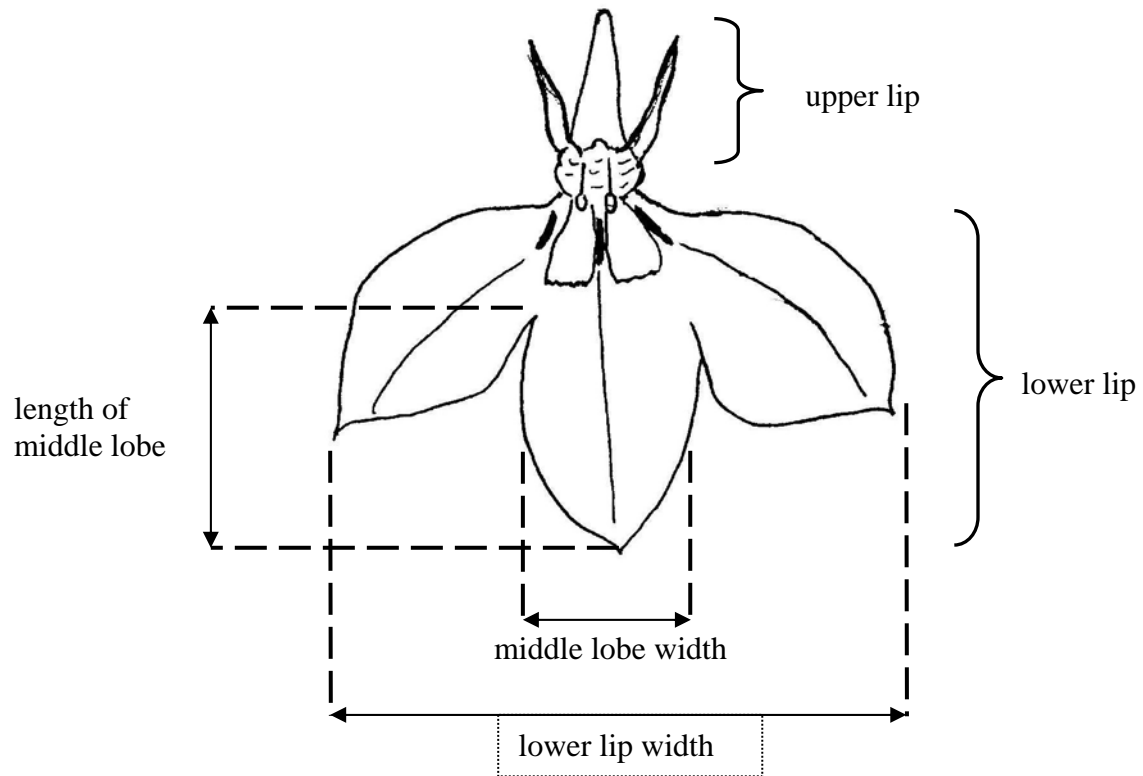


\* Will try and get a real photo or illustration to better represent this characteristic.

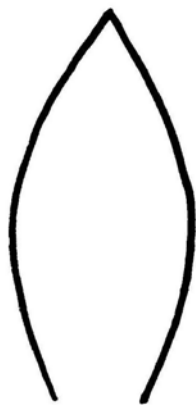
Ad. 21: Corolla: width of lower lip

Ad. 24: Lower lip: length of middle lobe

Ad. 25: Lower lip: width of middle lobe



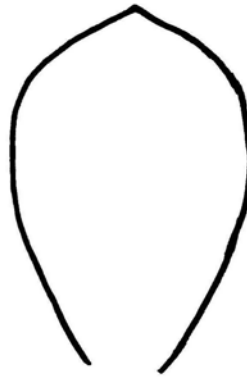
Ad. 22: Upper lip: shape of lobes



1  
elliptic



2  
oblanceolate



3  
obovate



4  
obtriangular

Ad. 29 Lower lip: shape of white zone on upper side



1  
elongated



3  
rounded



4  
irregular

Ad. 32: Lower lip: color of markings

Only determine on varieties where markings are of sufficient size to determine RHS colour.

Ad. 34 Lower lip: arrangement of lobes



1  
free



2  
touching



3  
slightly overlapping

Ad. 35: Palate: conspicuousness of yellow markings



yellow marking

9. Literature

Huxley, A. (ed.), Griffiths, M. (ed.), Levy, M. (ed.), 1999: The Royal Horticultural Society Dictionary of Gardening. Grove's Dictionaries Inc. New York, New York, US.

10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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	Application date: (not to be filled in by the applicant)
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**TECHNICAL QUESTIONNAIRE**  
 to be completed in connection with an application for plant breeders' rights

1. Subject of the Technical Questionnaire

1.1.1 Botanical name	<i>Lobelia erinus</i> L.	[ ]
1.1.2 Common name	Lobelia, True Lobelia of Gardens	

---

1.2.1 Botanical name	<i>Lobelia valida</i> L. Bolus	[ ]
1.2.2 Common name		

---

1.3.1 Botanical name	<i>Lobelia erinus</i> x <i>Lobelia valida</i>	[ ]
1.3.2 Common name		

2. Applicant

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



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

(.....)  
female parent

x

(.....)  
male parent

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

(.....)  
female parent

x

(.....)  
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:
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4.2 Method of propagating the variety

4.2.1 Seed-propagated varieties

(a) Self-pollination	[ ]
(b) Cross-pollination	
(i) population	[ ]
(ii) synthetic variety	[ ]
(c) Hybrid	[ ]
(please provide details)	
(d) Other	[ ]
(please provide details)	

4.2.2 Vegetatively propagated varieties

(a) cuttings	[ ]
(b) <i>in vitro</i> propagation	[ ]
(c) other (state method)	[ ]

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><b>5.1 Plant: attitude of shoots</b> <b>(1)</b></p>			
upright	Lobetis	1[ ]	
upright to semi-upright		2[ ]	
semi-upright	USLOB13	3[ ]	
semi-upright to horizontal		4[ ]	
horizontal	Tec Hewitt	5[ ]	
horizontal to semi-drooping		6[ ]	
semi-drooping		7[ ]	
semi-drooping to drooping		8[ ]	
drooping	Wesstar	9[ ]	
<p><b>5.2 Flower: type</b> <b>(18)</b></p>			
single	KLELE08621	1[ ]	
double	Kathleen Mallard	2[ ]	
<p><b>5.3 Lower lip: main color of upper side (excluding white zone)</b> <b>(26)</b></p>			
white		1[ ]	
light blue		2[ ]	
medium blue to violet blue		3[ ]	
light violet		4[ ]	
medium violet to dark violet		5[ ]	

TECHNICAL QUESTIONNAIRE		Page {x} of {y}	Reference Number:
Characteristics		Example Varieties	Note
5.4 (28)	Lower lip: white zone on upper side		
	absent or very small	Riviera Lilac	1[ ]
	very small		2[ ]
	small		3[ ]
	small to medium		4[ ]
	medium		5[ ]
	medium to large		6[ ]
	large		7[ ]
	large to very large		8[ ]
very large		9[ ]	
5.5 (30)	Lower lip: markings		
	absent	Tec Hepdab	1[ ]
	present	Balwalila	9[ ]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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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 <b>similar</b> variety(ies)	Describe the expression of the characteristic(s) for <b>your</b> candidate variety
<i>Example</i>	<i>color of upper side of lower lip</i>	<i>light blue</i>	<i>light violet</i>
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 Other information

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.

#

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

[End of document]