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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

LILAC

UPOV Code: **SYRIN**

Syringa L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by experts from Japan

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*
Syringa L.	Lilac	Lilas	Flieder	Lila

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 *Syringa* L..

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 2-year to 3-year old plants, capable of flowering and expressing all relevant characteristics of the variety during the first growing cycle.

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

9 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 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 9 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 5 plants or parts taken from each of 5 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, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 5 plants, no 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) Leaf: type (characteristic 7)
(b) Simple leaf: lobing absent: shape (characteristic 10)
(c) Floret: type (characteristic 25)
(d) Corolla lobe: main color of inner side (characteristic 34)
Gr.1: white
Gr.2: yellow
Gr.3: pink
Gr.4: purple
Gr.5: violet
(e) Floret: anther color (characteristic 38)
(f) Flower: time of beginning of flowering (characteristic 39)

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)-(c)	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: number of main stems**					
QL		one or two				Ivory Silk	1
		more than two				Wan Hua Zi	9
2.	**VG**	**Plant: growth habit**					
(+)							
QN		upright					1
		upright to spreading					2
		spreading					3
3.	**VG**	**Plant: height**					
QN		short				Palibin	3
		medium				Excellens, Xiang Xue	5
		tall				Luo Lan Zi	7
4.	**VG**	**Plant: density of branches**					
(+)							
QN		sparse					3
		medium					5
		dense					7
5.	**VG**	**Plant: number of inflorescences**					
QN		few				Chang Tong Bai, Zi Yun	3
		medium				Luo Lan Zi	5
		many				Si Ji Lan	7
6.	**VG**	**Shoot: color**					
(+)							
PQ		light brown				Maiden's Blush	1
		grey brown				Ami Schott	2
		medium brown				Fantasy	3
		red brown				Agnes Smith	4

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
7. **(*)** **(+)**	**VG**	**Leaf: type**					
QL	**(a)**	simple					1
		compound					9
8. **(+)**	**VG**	**Simple leaf: depth of sinus**					
QN	**(a)**	absent or very shallow					1
		shallow					2
		deep					3
9. **(+)**	**MS**	**Simple leaf: number of lobes**					
PQ	**(a)**	two					1
		more than two					2
10. **(*)** **(+)**	**VG**	**Simple leaf: lobing absent: shape**					
PQ	**(a)**	narrow ovate					1
		ovate					2
		narrow elliptic					3
		elliptic					4
		compressed ovate					5
		obovate					6
11. **(+)**	**VG**	**Simple leaf: lobing absent: shape of base**					
PQ	**(a)**	cuneate					1
		truncate					2
		cordate					3
12. **(*)**	**VG**	**Leaf blade: variegation**					
QL	**(a)**	absent				Karpow, Konstanty, Luo Lan Zi	1
		present				Aucubaefolia, Chantilly Lace	9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
13. **(*)** **(+)**	**VG**	**Leaf blade: main color of upper side**					
PQ	**(a)**	yellow				Aurea, Lutens	1
		yellowish green				Beauty of Heaven	2
		light green					3
		medium green				Marengo, Martha	4
		dark green					5
14. **(*)** **(+)**	**VG**	**Leaf blade : secondary color of upper side**					
PQ	**(a)**	absent				Chantilly Lace	1
		white					2
		yellow				Golden Eclipse	3
		light green					4
15.	**VS**	**Flower bud: size**					
QN	**(b)**	small				Si Ji Lan	1
		medium				Zi Yun	2
		large				Luo Lan Zi	3
16. **(+)**	**VG**	**Flower bud: shape**					
PQ	**(b)**	very elongated ovate				Zi Yun	1
		elongated ovate				Chang Tong Bai	2
		ovate				Xiang Xue	3
		elliptic				Luo Lan Zi	4
17.	**VG**	**Flower bud: color**					
PQ	**(b)**	yellow green				Chang Tong Bai	1
		light brown				Buffon	2
		brown				Zi Yun	3
		dark brown				Luo Lan Zi	4

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
18. **(+)**	**VG**	**Inflorescence: attitude**					
QN	**(c)**	upward				Prince Notger	3
		oblique				Marie Frances	5
		downward				Nodding	7
19. **(*)**	**VG/** **MG**	**Inflorescence: length**					
QN	**(c)**	short				Si Ji Lan	3
		medium				Ethiopia, Xiang Xue	5
		long				S. chinensis	7
20. **(*)** **(+)**	**VG**	**Inflorescence: shape**					
QN	**(c)**	conic				Chang Tong Bai, Erzherzog Johann	3
		conic to columniform					5
		columniform				Night	7
21.	**VG**	**Inflorescence: number of panicles**					
QN	**(c)**	few				AnneTighe	3
		medium				Andryusha Gromov	5
		many				Congo	7
22. **(*)** **(+)**	**VG**	**Inflorescence: density of florets**					
QN	**(c)**	sparse				Bretschneiden, Chang Tong Bai	3
		medium				Olive May Cummings	5
		dense				Buffon	7
		very dense				Dawn	9
23.	**VG**	**Inflorescence: strength of fragrance**					
QN	**(c)**	absent or weak				Luo Lan Zi	3
		moderate				Chang Tong Bai	5
		strong				Xiang Xue	7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
24.	**VG/ MG**	**Floret: diameter of corolla**					
QN	**(c)**	small				Si Ji Lan	3
		medium				Wan Hua Zi	5
		large				Agincourt Beauty	7
25. **(*)** **(+)**	**VG**	**Floret: type**					
QL	**(c)**	single				Chang Tong Bai, Edith Brown	1
		double				Blanche Sweet	9
26. **(*)** **(+)**	**VG/ MG**	**Only varieties with floret type: double: Corolla lobe: number**					
QN	**(c)**	few				Blanche Sweet	3
		medium				Fritz	5
		many				Leon Gambetta Luo Lan Zi	7
27. **(*)** **(+)**	**VG**	**Only varieties with floret type: double: Corolla lobe: distance between whorls**					
QN	**(c)**	short				Jewel, Luo Lan Zi	1
		medium					2
		long				Anne Tighe	3
28. **(*)** **(+)**	**VG**	**Corolla lobe: attitude**					
PQ	**(c)**	erect				Minuet	3
		horizontal				Excelro	5
		recurved				Fraser	7
29. **(+)**	**VG**	**Corolla lobe: shape**					
PQ	**(c)**	narrow elliptic					1
		elliptic					2
		obovate					3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
30. **(+)**	**VG**	**Corolla lobe: shape of apex**					
PQ	**(c)**	acuminate					1
		cuspidate					2
		acute					3
		rounded					4
		emarginate					5
31. **(+)**	**VG**	**Corolla lobe: beak**					
QL	**(c)**	absent				Wan Hua Zi	1
		present				Priscilla	9
32. **(*)** **(+)**	**VG**	**Corolla lobe: degree of undulation**					
QN	**(c)**	absent or weak				Heather	3
		medium				EdithBrown, Wan Hua Zi	5
		strong				Alba Grandiflora	7
33. **(*)** **(+)**	**VG**	**Corolla lobe: incurving of margin**					
QN	**(c)**	absent				HeleneAgatheKeesen	1
		at apex				Carley	2
		at apex middle				Edith Braun, Frank Patterson	3
		along whole margin				Bailebelle	4
34. **(*)** **(+)**	**VG**	**Corolla lobe: main color of inner side**					
PQ	**(c)**	RHS Colour Chart (indicate reference number)					
35. **(+)**	**VG**	**Corolla lobe: secondary color of inner side**					
PQ	**(c)**	RHS Colour Chart (indicate reference number)					

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
36.	**VG**	**Corolla lobe: distribution of second color**					
PQ	**(c)**	along the margin				Sensation	1
		other part dispersion					9
37.	**VG**	**Corolla tube: color of outer side**					
PQ	**(c)**	RHS Colour Chart (indicate reference number)					
38. (*)	**VG**	**Floret: anther color**					
QL	**(c)**	yellow				Audrey, Wan Hua Zi	1
		purple				Si Ji Lan	9
39. (*)	**VG**	**Flower: time of beginning of flowering**					
QN		early				Chang Tong Bai	3
		medium				Leonore	5
		late				Ivory Silk	7
40.	**VG**	**Flower: number of blooming seasons**					
QL		one					1
		two					9

8. Explanations on the Table of Characteristics

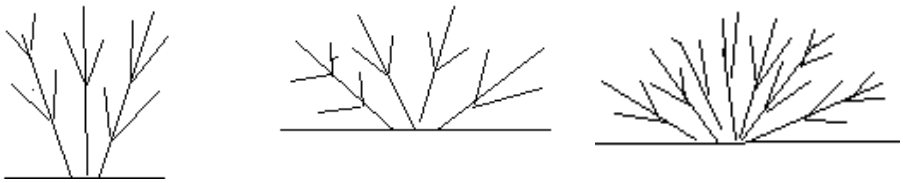
8.1 Explanations covering several characteristics

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

(a) All observations on the leaf blade should be made on leaves from the middle part of the shoot on the current year's growth.
(b) All observations on the flower bud should be conducted on one-year shoot before swelling.
(c) All observations on the inflorescence should be conducted on inflorescences from the middle to upper part of the canopy during blooming season and all observations on the floret should be conducted on middle part of panicle. All observations on the corolla of double flowers should be made on the lobes of second whorl from the center of a floret.

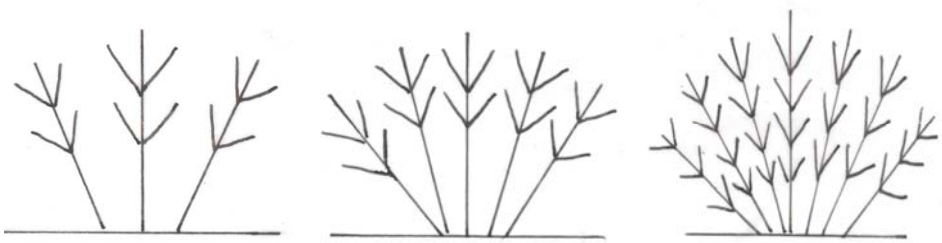
8.2 Explanations for individual characteristics

Ad. 2: Plant: growth habit



1 upright | 2 upright to spreading | 3 spreading

Ad. 4: Plant: density of branches

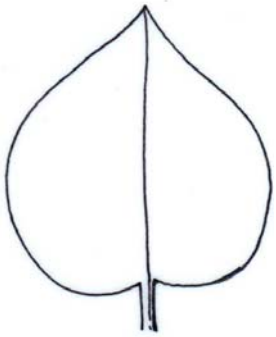


3 sparse | 5 medium | 7 dense

Ad. 6: Shoot: color

Shoot observation is conducted on one-year shoot.

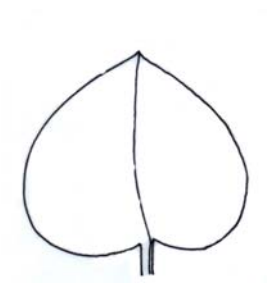
Ad. 7: Leaf: type

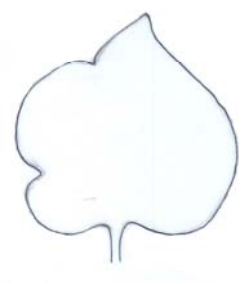


1
simple

9
compound

Ad. 8: Simple leaf: depth of sinus





1
absent or very shallow

2
shallow

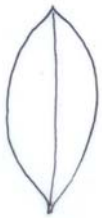
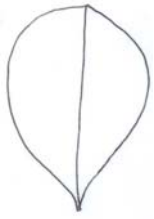
3
deep

Ad. 9: Simple leaf: number of lobes

1
two

2
more than two

Ad.10: Simple leaf: lobing absent: shape

	Broadest part		
	Below middle	At middle	Above middle
Narrow	 1 narrow ovate	 3 narrow elliptic	
Normal	 2 ovate	 4 elliptic	 6 obovate
Compressed		 5 compressed ovate	

Ad. 11: Simple leaf: lobing absent: shape of base

1 cuneate

2 truncate

3 cordate

Ad. 13: Leaf blade: main color of upper side

The main color is determined as the color with the largest surface area present on the upper side of a leaf. If the area of the colors is nearly equal, the darker color is the main color.

Ad. 14: Leaf blade: secondary color of upper side

The secondary color (if present) is the color with the second largest surface area on the upper side of a leaf. If the area of the colors is nearly equal, the lighter color is the secondary color.

Ad. 16: Flower bud: shape

		Narrow	Normal	Compressed
Broadest part	Below middle	 1 very elongated ovate	 2 elongated ovate	 3 ovate
	At middle		 4 elliptic	

Ad. 18: Inflorescence: attitude


3
upward


5
oblique


7
downward

Ad. 20: Inflorescence: shape

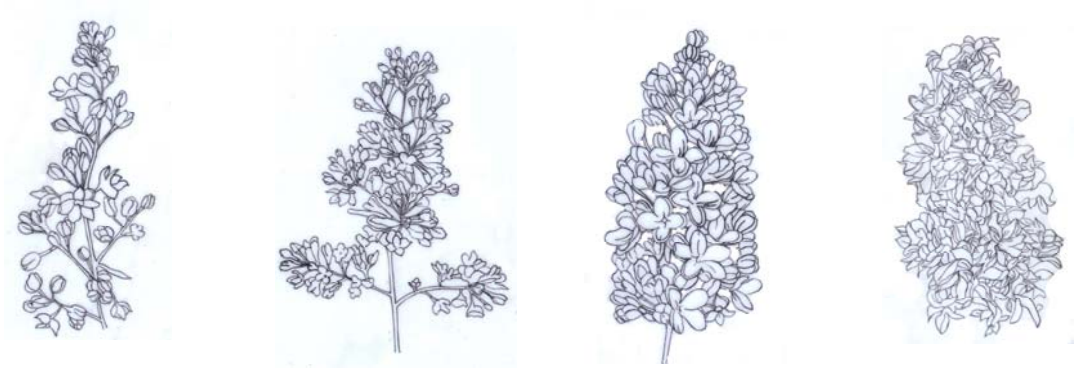
3
conic

5
conic to columniform

7
columniform

Ad. 22: Inflorescence: density of florets

sparse: large gap between florets
medium: unobvious gap between florets
dense: florets touching, very dense: florets overlapping.



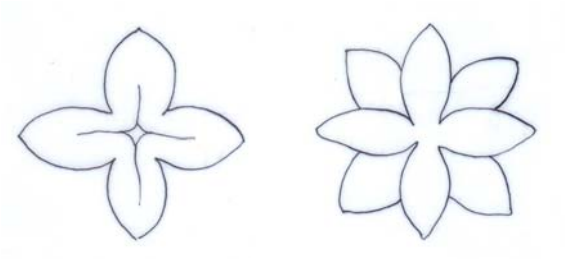
3
sparse

5
medium

7
dense

9
very dense

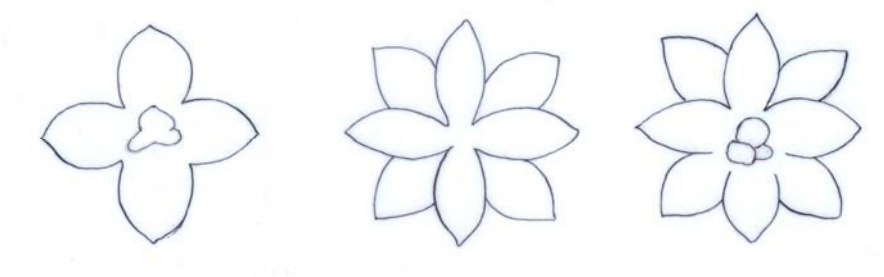
Ad. 25: Floret: type



1
single

9
double

Ad. 26: Only varieties with floret type: double: corolla lobe: number



3
few

5
medium

7
many

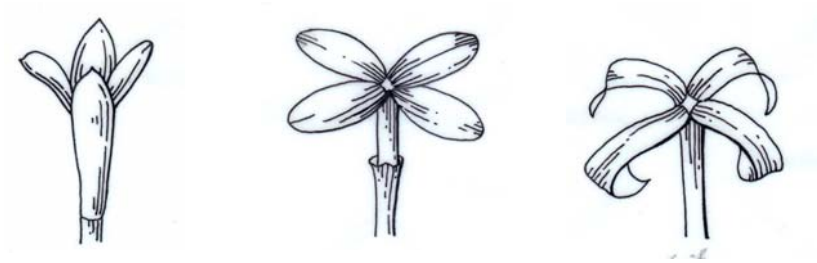
Ad. 27: Only varieties with floret type: double: Corolla lobe: distance between whorls

1
short

2
medium

3
long

Ad. 28: Corolla lobe: attitude

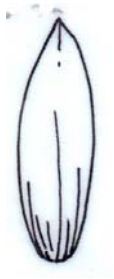
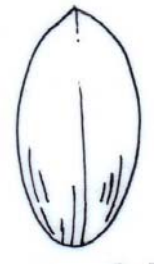


3
erect

5
horizontal

7
recurved

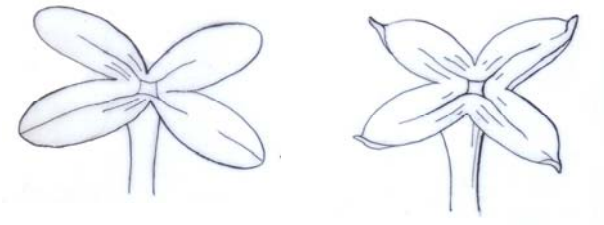
Ad. 29: Corolla lobe: shape

	Broadest part	
	At middle	Above middle
Narrow	 3 narrow elliptic	
Normal	 5 elliptic	 7 obovate

Ad. 30: Corolla lobe: shape of apex

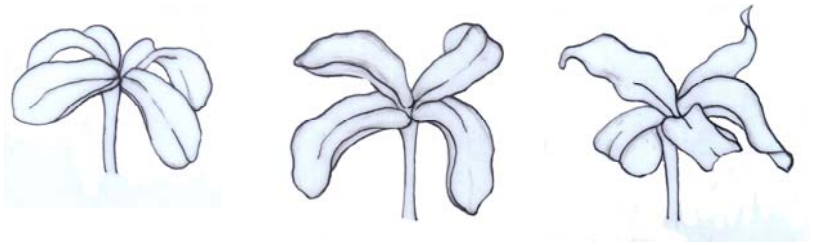
1 acuminate | 2 cuspidate | 3 acute | 4 rounded | 5 emarginate

Ad. 31: Corolla lobe: beak



1 absent | 9 present

Ad. 32: Corolla lobe: degree of undulation

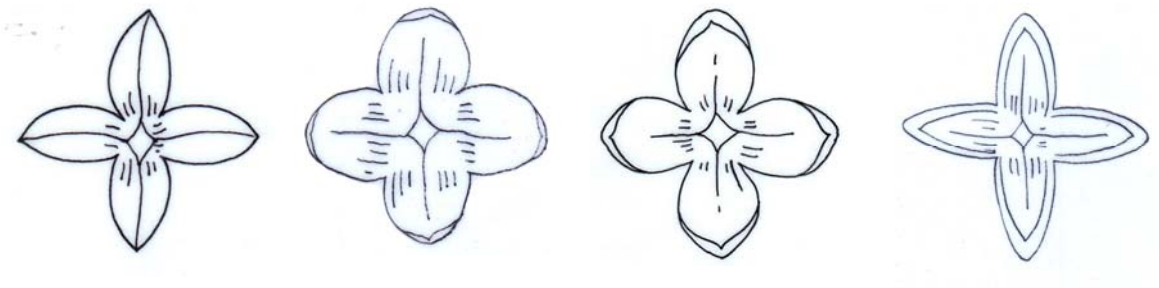


3
absent or weak

5
medium

7
strong

Ad.33 Corolla lobe: incurving of margin



1
absent

2
at apex

3
at apex-middle

4
along whole margin

Ad. 34: Corolla lobe: main color of inner side

The main color is determined as the color with the largest surface area present on the inner side of a lobe. If the area of the colors is nearly equal, the darker color is the main color.

Ad. 35: Corolla lobe: secondary color of inner side

The secondary color (if present) is the color with the second largest surface area. If the area of the colors is nearly equal, the lighter color is the secondary color.

9. Literature

Jone, FR., Fiala, L., 1988: Lilacs- The Genus *Syringa*. Timber Press, Inc. Oregon, US

Harris, J. F., Woolf Harris, M., 1994: Plant identification terminology: An Illustrated Glossary. Spring Lake Publishing. Payson, Arizona, US

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	*Syringa* L
1.2 Common name	Lilac
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 (5)	**Plant: number of inflorescences**		
	very few		1[ ]
	very few to few		2[ ]
	few	Chang Tong Bai, Zi Yun	3[ ]
	few to medium		4[ ]
	medium	Luo Lan Zi	5[ ]
	medium to many		6[ ]
	many	Si Ji Lan	7[ ]
	many to very many		8[ ]
	very many		9[ ]
5.2 (19)	**Inflorescence: length**		
	very short		1[ ]
	very short to short		2[ ]
	short	Si Ji Lan	3[ ]
	short to medium		4[ ]
	medium	Ethiopia, Xiang Xue	5[ ]
	medium to long		6[ ]
	long	S. chinensis	7[ ]
	long to very long		8[ ]
	very long		9[ ]
5.3 (20)	**Inflorescence: shape**		
	conic		3[ ]
	conic to columniform		5[ ]
	columniform		7[ ]

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

	Characteristics	Example Varieties	Note
5.4 (22)	**Inflorescence: density of florets**		
	very sparse		1[ ]
	very sparse to sparse		2[ ]
	sparse	Bretschneiden, Chang Tong Bai	3[ ]
	sparse to medium		4[ ]
	medium	Olive May Cummings	5[ ]
	medium to dense		6[ ]
	dense	Buffon	7[ ]
	dense to very dense		8[ ]
	very dense	Dawn	9[ ]
5.5 (25)	**Floret: type**		
	single	Chang Tong Bai, Edith Brown	1[ ]
	double	Blanche Sweet	9[ ]
5.6 (33)	**Corolla lobe: incurving of margin**		
	absent	HeleneAgatheKeesen	1[ ]
	at apex	Carley	2[ ]
	at apex middle	Edith Braun, Frank Patterson	3[ ]
	along whole margin	Bailebelle	4[ ]
5.7 (34)	**Corolla lobe: main color of inner side**		
	white		1[ ]
	yellow		3[ ]
	pink		5[ ]
	purple		7[ ]
	violet		9[ ]

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

	Characteristics	Example Varieties	Note
5.8 (35)	**Corolla lobe: secondary color of inner side**		
	white		1[ ]
	yellow		3[ ]
	pink		5[ ]
	purple		7[ ]
	violet		9[ ]
5.9 (39)	**Flower: time of beginning of flowering**		
	very early		1[ ]
	very early to early		2[ ]
	early	Chang Tong Bai	3[ ]
	early to medium		4[ ]
	medium	Leonore	5[ ]
	medium to late		6[ ]
	late	Ivory Silk	7[ ]
	late to very late		8[ ]
	very late		9[ ]

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	*Corolla lobe: main color of inner side*	*purple*	*pink*

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

7.3.1 Main use

(a) garden plant [ ]
(b) pot plant [ ]
(c) cut-flower [ ]
(d) other [ ]
(please provide details)

7.3.2 A representative color photograph 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

[Annex follows]

ANNEX

COMMENTS ON DOCUMENT TG/LILAC(PROJ.3)

Number/Characteristic		Comments/suggestions	Answer to comments/suggestions
5.3	Grouping characteristics	GB: We were wondering why corolla: main colour of inner side (char. 34) was not included as a grouping characteristic (with descriptive states, eg. white, violet, purple, etc.)	Accepted. Besides Char.34, another two characteristics including 'Floret: type' (Char.24) and 'Flower: time of beginning of flowering' (Char.37) are added as grouping characteristic.
		PL: To add (c) Corolla lobe: main color of inner side (characteristic 34). To provide states and notes.	Accepted. Besides Char.34, another two characteristics including 'Floret: type' (Char.24) and 'Flower: time of beginning of flowering' (Char.37) are added as grouping characteristic.
1	Plant: number of main stems	PL: to add illustration	Not accepted. This is an intuitionistic characteristic and is used to distinguish tree or shrub for a given variety. For tree lilacs, varieties from S. reticulata var. amurensis for example, they generally have one or two main stems. For shrub lilacs, even for grafted shrub lilacs, several main stems are often found for a 2-3-year old plant.
2	Plant: growth habit	PL: to add illustrations for plants with one stem	Not accepted. Varieties with one stem always have similar growth habit and it is not necessary to give some states.
4	Plant: density of branches	GB: Should this characteristic exclude those plants in characteristic 1 that have one or two main stems? The illustration in Ad. 4 does not seem to include these types.	Yes. Char.4 is used to evaluate the genetic growth habit for those varieties with more than two main stems (shrub lilacs). This is a useful characteristic to determine the branching peculiarity for a variety. For tree lilacs, they all belong to Subspecies *Ligustrina* Rupr. and have similar density of branches.
		PL: to add illustrations for plants with one stem	Char.4 is used to evaluate the genetic growth habit for those varieties with more than two main stems (shrub lilacs). This is a useful characteristic to determine the branching peculiarity for a shrub variety. For tree lilacs, they all belong to Subspecies *Ligustrina* Rupr. and have similar density of branches.
6	Shoot: color	GB: The states of expression seem to be for the previous seasons growth. All of the lilacs we observed this spring had current year shoots that were greenish in colour. Also, many had reddish colour on the parts exposed to the sun. Need to describe where on the shoot to observe the colour (lower side, upper side or maybe on sunny side) and if the observations are to made on the current seasons growth then a state for greenish needs to be added.	Partly accepted. The individual measurement special for shoot is already added in Char.6. The states of expression are for the previous season growth. This characteristic is useful to distinguish some varieties from Series *Vulgares* and Series *Villosae.* For distinctiveness of variety, however, color of current shoot is not necessary to be used, because the characteristics involving inflorescences and florets are much useful than current shoots.
8	Simple leaf: incision of margin	GB: Reword to: Simple leaf: lobing with the states 1-absent, 9-present	Partly accepted. Char.8 in our current edition includes the recommended case with 'absent or very shallow' and other three states. But the recommended description for this characteristic 'depth of sinus' (8b) is adopted.

8a	Move characteristic 11 here	GB: Reword to: Simple leaf: lobing present: number of lobes	Accepted.
8b	Add	Simple leaf: lobing present: depth of sinus with the states 1-very shallow, 2-shallow, 3-deep	Partly accepted. The description 'depth of sinus' is adopted in Char.8 and state of 'absent or very shallow' is still written as the original.
9	Simple leaf: incision margin absent: shape	GB: Reword to: Simple leaf: lobing absent: shape	Accepted.
10	Simple leaf: incision margin absent: shape of base	GB: Reword to: Simple leaf: lobing absent: shape of base	Accepted.
9/10		PL: 'incision' to be 'incisions'	Yes. This word is already changed into 'lobes' for 7.8-10
11	Simple leaf: number of incisions	PL: To check illustration for state 1 and to move after char. 8; there is one incision on the illustration (1)	Accepted. 'Lobes' is used instead of 'incision' in our revision, in this case, state (I) could match to the expression of 'Lobes'
15	Flower bud: size	GB: The timing as indicated under (c) seems incorrect because the blooming season would be too late to observe flower bud characteristics. These characteristics should be observed earlier in the season. I would suggest adding under 8.1 (d) Observations on flower buds should be made at ??? – would this be when the flower buds are swelling or some other description. I'm not sure what the correct terminology is.	Accepted.
16	Flower bud: shape	GB: Same comment as for 15	Accepted.
17	Flower bud: color	GB: Same comment as for 15	Accepted.
18	Inflorescence: attitude	GB: Would you ever see any that are between the states upwards and downwards? This seems to be a reflection of the strength of the stem and weight of the panicle and perhaps there could be a middle state?	Accepted.
21	Inflorescence: number of panicles	GB: Suggest that you move this characteristic to come after 18	Not accepted. Generally, people pay attention to the length (Char.19) and shape (Char.20) firstly, then the number of panicles will be noticed from the view of compaction of a inflorescence.
19	Inflorescence: length	GB: Is this the length of a single panicle or the whole inflorescence? If it is the length of a single panicle I would change this to read: Panicle: length	Not accepted. Writing of 'Inflorescence: length' means the length of inflorescence instead of panicle length. In breeding, long inflorescence is expected by breeder. The fact is that the length of an individual panicle is not necessary to be long in a long inflorescence, but reason lies in much more numbers of panicles in a inflorescence.
20	Inflorescence: shape	GB: Same comment as for 19. The whole inflorescence is often irregular in shape because they are often made up of many panicles. This characteristic would be clearer if it was changed to: Panicle: shape	Not accepted. Yes, an inflorescence is made up of many panicles, in most cases for lilacs, a inflorescence has a regular shape, and seldom for people to enjoy a panicle in a inflorescence.
22	Inflorescence: density of florets	GB: Suggest changing to: Panicle: density of florets	Not accepted. Inflorescence is more intuitionistic than panicle for lilacs, dense inflorescence depends on a high density of florets directly.

26	Only varieties with double flowers: Corolla lobe: distance between whorls	GB: Reword to: Only varieties with floret type: double: corolla lobe: distance between whorls	Accepted.
		PL: 'flowers' should be florets	Accepted.
32	Corolla lobe: incurve of margin	GB: Reword to: Corolla lobe: incurving of margin Suggest changing states to: absent -1, at apex – 2, at apex and at middle – 3, along whole margin – 4	Accepted.
		PL: 'incurvs' should be 'incurving'; to add 'absent' (1) before original three descriptions	Accepted.
33	Corolla tube: color of outer side	GB: Move this to come after char. 35 and change to: Corolla tube: main color of outer side	Partly accepted. Char.33 is moved after char.35. Corolla tube generally has only one color in outer side, so the state 'color of outer side' is enough for all varieties.
34	Corolla lobe: main color of inner side	GB: Suggest adding an (*) to this characteristic and include it in grouping characteristics	Accepted.
	PL: To concider adding new characteristics.	Inflorescence: fragrance absent present	Partly accepted. Fragrance is very an important characteristic for lilacs and it was included in our draft in Proj. 1, but it was deleted in proj.2 owing to its disagreement in TWO discussion. Herein, I think it should be added according to your suggestion. Moreover, as a breeding target for lilac, strength of fragrance is a basis for new variety selection.
		Plant: flowering in growing season once twice	Partly accepted. This characteristic is included in Proj.1and it was deleted latter. It should be added because the blooming season is very limited for many varieties, the distinctiveness of a recommended variety with more than one blooming season should be admitted, even if it is not very distinct in other ornamental characteristics.
		Leaf: pubescence of lower side absent present	Not accepted. This characteristic is included in Proj.1and it was deleted latter because it is not a crucial to determine a new variety.
		Floret: distribution of second color	Accepted
8.1	(a)	GB: Reword to: All observations on the shoot should be made on the current years shoot	Mostly accepted. The individual illustration on shoot is added in Ad.6 as 'Shoot observation is conducted on one-year shoot'. We did not treat it as explanation on several characteristics, because there is only one characteristic involving shoot.
	(b)	GB: Reword to: All observations on the leaf blade should be made on leaves from the middle part of the shoot on the current years growth	Accepted.

	(c)	GB: Reword to: All observations on the inflorescence and floret should be made on inflorescences from the middle to upper part of the canopy during the blooming season. All observations on the corolla of double flowers should be made on the lobes from the second whorl. May also need to indicate where the second whorl is, eg. inner whorl?	Accepted. Observations on double corolla are indicated to made on the second whorl from the center of a floret.
		PL: Underlined expressions should be added in (c) Flower observations on inflorescence and floret in middle-upper part of panicle in blooming season. All observations on corolla lobe of double flowers should be on the lobes of the inner or outer whorl. To add information concerning bud observations (see chars. 15, 16 and 17).	Accepted
Ad 4	Plant: density of branches	GB: As mentioned above, these illustrations seem to exclude those varieties with one or two main stems	Yes. For tree lilacs, they all belong to Subspecies *Ligustrina* Rupr. and have similar density of branches.
Ad 10	State 2	GB: Should read “truncate”	Accepted.
Ad 13	Leaf blade: main color of upper side	GB: Reword second sentence to: If the area of the colors is nearly equal, the darker color is the main color.	Accepted.
Ad 14	Leaf blade: secondary color of upper side	GB: Reword second sentence to: If the area of the colors is nearly equal, the lighter color is the secondary color	Accepted.
Ad 22	Inflorescence: density of florets	GB: Reword: dense: florets touching very dense: florets overlapping	Accepted.
Ad. 29	Corolla lobe: shape of apex	GB: The illustration for state 4 looks like a rounded apex, not obtuse	Accepted.
Ad 34	Corolla lobe: main color of inner side	GB: Reword second sentence to: If the area of the colors is nearly equal, the darker color is the main color.	Accepted.
Ad 35	Corolla lobe: secondary color of inner side	GB: Reword second sentence to: If the area of the colors is nearly equal, the lighter color is the secondary color	Accepted.
TQ 5.2		PL: to keep the order as in table of characteristics	Accepted.
TQ 5.7		PL: to check comments for char 32	Accepted.
TQ 5.8 ii		To provide states and notes	Accepted.

[End of Annex and of document]