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Limonium Mill.;
Goniolimon Boiss.;
Psylliostachys (Jaub. & Spach) Nevski

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from the Netherlands

to be considered by

the Technical Committee for adoption by correspondence

Disclaimer: this document does not represent UPOV policies or guidance

Alternative names:*

Botanical name	English	French	German	Spanish
<i>Limonium</i> Mill.	Statice	Limonium, Statice	Statice	Statice
<i>Goniolimon</i> Boiss.				
<i>Psylliostachys</i> (Jaub. & Spach) Nevski				

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.]

TABLE OF CONTENTS	PAGE
1. SUBJECT OF THESE TEST GUIDELINES.....	3
2. MATERIAL REQUIRED.....	3
3. METHOD OF EXAMINATION.....	3
3.1 Number of Growing Cycles.....	3
3.2 Testing Place.....	3
3.3 Conditions for Conducting the Examination.....	3
3.4 Test Design.....	3
3.5 Additional Tests.....	3
4. ASSESSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY.....	4
4.1 Distinctness.....	4
4.2 Uniformity.....	5
4.3 Stability.....	5
5. GROUPING OF VARIETIES AND ORGANIZATION OF THE GROWING TRIAL.....	5
6. INTRODUCTION TO THE TABLE OF CHARACTERISTICS.....	6
6.1 Categories of Characteristics.....	6
6.2 States of Expression and Corresponding Notes.....	6
6.3 Types of Expression.....	6
6.4 Example Varieties.....	6
6.5 Legend.....	7
7. TABLE OF CHARACTERISTICS/TABLEAU DES CARACTÈRES/MERKMALSTABELLE/TABLA DE CARACTERES.....	8
8. EXPLANATIONS ON THE TABLE OF CHARACTERISTICS.....	19
8.1 Explanations covering several characteristics.....	19
8.2 Explanations for individual characteristics.....	19
9. LITERATURE.....	27
10. TECHNICAL QUESTIONNAIRE.....	28

1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Limonium* Mill., *Goniolimon* Boiss. and *Psylliostachys* (Jaub. & Spach) Nevski.

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.

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

20 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*

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

3.1.2 The testing of a variety may be concluded when the competent authority can determine with certainty the outcome of the test.

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*

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.

3.4 *Test Design*

Each test should be designed to result in a total of at least 20 plants.

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 or Parts of Plants to be Examined

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 10 plants or parts of plants taken from each of 10 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 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 These Test Guidelines have been developed for the examination of vegetatively propagated varieties. For varieties with other types of propagation, the recommendations in the General Introduction and document TGP/13 "Guidance for new types and species" Section 4.5 "Testing Uniformity" should be followed.

4.2.3 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 20 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) Leaf: shape of blade (characteristic 4)
- (b) Inflorescence: type (characteristic 19)
- (c) Calyx: length (characteristic 23)
- (d) Calyx: main color (characteristic 26) with the following groups:
 - Gr. 1: white
 - Gr. 2: yellow
 - Gr. 3: pink
 - Gr. 4: red
 - Gr. 5: purple red
 - Gr. 6: violet
 - Gr. 7: blue
- (e) Corolla: color (characteristic 33) with the following groups:
 - Gr. 1: white
 - Gr. 2: yellow
 - Gr. 3: pink
 - Gr. 4: violet
 - Gr. 5: 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 All relevant states of expression are presented in the characteristic.

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

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1	2	3	4	5	6	7	
		Name of characteristics in English	Nom du caractère en français	Name des Merkmals auf Deutsch	Nombre del carácter en español		
		states of expression	types d'expression	Ausprägungsstufen	tipos de expresión		

- 1 Characteristic number
- 2 (*) Asterisked characteristic – see Chapter 6.1.2
- 3 Type of expression
 QL Qualitative characteristic – see Chapter 6.3
 QN Quantitative characteristic – see Chapter 6.3
 PQ Pseudo-qualitative characteristic – see Chapter 6.3
- 4 Method of observation (and type of plot, if applicable)
 MG, MS, VG, VS – see Chapter 4.1.5
- 5 (+) See Explanations on the Table of Characteristics in Chapter 8.2
- 6 (a)-(b) See Explanations on the Table of Characteristics in Chapter 8.1
- 7 Not applicable

7. Table of Characteristics/Tableau des caractères/Merkmalstabelle/Tabla de caracteres

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. (*)	QN	MG/MS/VG	(+)			
	Plant: height	Plante : hauteur	Pflanze: Höhe	Planta: altura		
	very short	très courte	sehr niedrig	muy baja		1
	very short to short	très courte à courte	sehr niedrig bis niedrig	muy baja a baja		2
	short	courte	niedrig	baja	Zastapolar	3
	short to medium	courte à moyenne	niedrig bis mittel	baja a media		4
	medium	moyenne	mittel	media	Flamingo	5
	medium to tall	moyenne à haute	mittel bis hoch	media a alta		6
	tall	haute	hoch	alta	Nuno Joy	7
	tall to very tall	haute à très haute	hoch bis sehr hoch	alta a muy alta		8
	very tall	très haute	sehr hoch	muy alta		9
2. (*)	QN	MG/MS/VG	(+)	(a)		
	Leaf: length	Feuille : longueur	Blatt: Länge	Hoja: longitud		
	very short	très courte	sehr kurz	muy corta	Zalimsal	1
	very short to short	très courte à courte	sehr kurz bis kurz	muy corta a corta		2
	short	courte	kurz	corta	Zastafro	3
	short to medium	courte à moyenne	kurz bis mittel	corta a media		4
	medium	moyenne	mittel	media	Flamingo	5
	medium to long	moyenne à longue	mittel bis lang	media a larga		6
	long	longue	lang	larga	Nuno Joy	7
	long to very long	longue à très longue	lang bis sehr lang	larga a muy larga		8
	very long	très longue	sehr lang	muy larga		9
3. (*)	QN	MG/MS/VG	(+)	(a)		
	Leaf: width	Feuille : largeur	Blatt: Breite	Hoja: anchura		
	very narrow	très étroite	sehr schmal	muy estrecha		1
	very narrow to narrow	très étroite à étroite	sehr schmal bis schmal	muy estrecha a estrecha		2
	narrow	étroite	schmal	estrecha	Hildiaange	3
	narrow to medium	étroite à moyenne	schmal bis mittel	estrecha a media		4
	medium	moyenne	mittel	media	Hilalarizo	5
	medium to broad	moyenne à large	mittel bis breit	media a ancha		6
	broad	large	breit	ancha	Sinzii Blueish	7
	broad to very broad	large à très large	breit bis sehr breit	ancha a muy ancha		8
	very broad	très large	sehr breit	muy ancha		9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
4. (*)	PQ	VG	(+)	(a)		
	Leaf: shape of blade	Feuille : forme du limbe	Blatt: Form der Spreite	Hoja: forma del limbo		
	elliptic	elliptique	elliptisch	elíptica	BALL452013	1
	broad ovate to deltoid	ovale large à deltoïde	breit eiförmig bis dreieckig	oval ancha a deltoïde	Zalimsal	2
	narrow obovate	obovale étroite	schmal verkehrt eiförmig	oboval estrecha	Hildiaange	3
	medium obovate	obovale moyenne	mittel verkehrt eiförmig	oboval media	Sinzii Blueish	4
5. (*)	QN	VG	(a)			
	Leaf: intensity of green color	Feuille : intensité de la couleur verte	Blatt: Intensität der Grünfärbung	Hoja: intensidad del color verde		
	very light	très claire	sehr hell	muy clara		1
	very light tot light	très claire à claire	sehr hell bis hell	muy clara a clara		2
	light	claire	hell	clara	Sinzii Lavenderish	3
	light to medium	claire à moyenne	hell bis mittel	clara a media		4
	medium	moyenne	mittel	media	Hilalkansa	5
	medium to dark	moyenne à foncée	mittel bis dunkel	media a oscura		6
	dark	foncée	dunkel	oscura	Hildiaange	7
	dark to very dark	foncée à très foncée	dunkel bis sehr dunkel	oscura a muy oscura		8
	very dark	très foncée	sehr dunkel	muy oscura		9
6.	QN	VG	(a)			
	Leaf: glossiness	Feuille : brillance	Blatt: Glanz	Hoja: brillo		
	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil		1
	very weak	très faible à faible	sehr gering	muy débil		2
	weak	faible	gering	débil	Sinzii Lavenderish	3
	weak to medium	faible à moyenne	gering bis mittel	débil a medio		4
	medium	moyenne	mittel	medio	DLISAOSHPI	5
	medium to strong	moyenne à forte	mittel bis stark	medio a fuerte		6
	strong	forte	stark	fuerte	DLIMPUDBLU	7
	strong to very strong	forte à très forte	stark bis sehr stark	fuerte a muy fuerte		8
	very strong	très forte	sehr stark	muy fuerte		9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
7.	QN	VG	(a)			
	Leaf: density of hairs on upper side	Feuille : densité de la pilosité sur la face supérieure	Blatt: Dichte der Behaarung der Oberseite	Hoja: densidad de la pilosidad en el haz		
	absent or very sparse	absente ou très lâche	fehlend oder sehr locker	ausente o muy laxa	Flamingo	1
	sparse	lâche	locker	laxa	Zastasky	2
	medium	moyenne	mittel	media	Sinzii Silverish	3
	dense	dense	dicht	densa		4
	very dense	très dense	sehr dicht	muy densa		5
8.	QN	VG	(a)			
	Leaf: density of hairs on margin	Feuille : densité de la pilosité du bord	Blatt: Dichte der Behaarung des Randes	Hoja: densidad de la pilosidad del borde		
	absent or very sparse	absente ou très lâche	fehlend oder sehr locker	ausente o muy laxa	Flamingo	1
	sparse	lâche	locker	laxa	Zastafro	2
	medium	moyenne	mittel	media	Sinzii Blueish	3
	dense	dense	dicht	densa	Zastasky	4
	very dense	très dense	sehr dicht	muy densa		5
9.	QN	VG	(a)			
	Leaf: undulation of margin	Feuille : ondulation du bord	Blatt: Randwellung	Hoja: ondulación del borde		
	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Sinzii Silverish	1
	very weak to weak	très faible à faible	sehr gering bis gering	muy débil a débil		2
	weak	faible	gering	débil	Sinzii Lavenderish	3
	weak to medium	faible à moyenne	gering bis mittel	débil a media		4
	medium	moyenne	mittel	media	Zastasky	5
	medium to strong	moyenne à forte	mittel bis stark	media a fuerte		6
	strong	forte	stark	fuerte	Sinzii Blueish	7
	strong to very strong	forte à très forte	stark bis sehr stark	fuerte a muy fuerte		8
	very strong	très forte	sehr stark	muy fuerte		9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
10. (*)	QN	VG	(a)			
	Leaf: lobing	Feuille : découpure	Blatt: Lappung	Hoja: lobulado		
	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Flamingo	1
	very weak to weak	très faible à faible	sehr gering bis gering	muy débil a débil		2
	weak	faible	gering	débil	Sinzii Lavenderish	3
	weak to medium	faible à moyenne	gering bis mittel	débil a medio		4
	medium	moyenne	mittel	medio		5
	medium to strong	moyenne à forte	mittel bis stark	medio a fuerte		6
	strong	forte	stark	fuerte	Zastasky	7
	strong to very strong	forte à très forte	stark bis sehr stark	fuerte a muy fuerte		8
	very strong	très forte	sehr stark	muy fuerte		9
11.	QN	VG	(a)			
	Petiole: intensity of anthocyanin coloration	Pétiole : intensité de la pigmentation anthocyanique	Blattstiel: Intensität der Anthocyanfärbung	Pecíolo: intensidad de la pigmentación antocianica		
	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Zastasky	1
	very weak to weak	très faible à faible	sehr gering bis gering	muy débil a débil		2
	weak	faible	gering	débil	Sinzii Blueish	3
	weak to medium	faible à moyenne	gering bis mittel	débil a media		4
	medium	moyenne	mittel	media	Hildiaanouch	5
	medium to strong	moyenne à forte	mittel bis stark	media a fuerte		6
	strong	forte	stark	fuerte	Elisajoy	7
	strong to very strong	forte à très forte	stark bis sehr stark	fuerte a muy fuerte		8
	very strong	très forte	sehr stark	muy fuerte		9
12.	QN	MG/MS/VG	(b)			
	Plant: number of inflorescences	Plante : nombre d'inflorescences	Pflanze: Anzahl Blütenstände	Planta: número de inflorescencias		
	very few	très petit	sehr gering	muy bajo		1
	very few to few	très petit à petit	sehr gering bis gering	muy bajo a bajo		2
	few	petit	gering	bajo	Zastashin	3
	few to medium	petit à moyen	gering bis mittel	bajo a medio		4
	medium	moyen	mittel	medio	Sinzii Silverish	5
	medium to many	moyen à élevé	mittel bis groß	medio a alto		6
	many	élevé	groß	alto	Flamingo	7
	many to very many	élevé à très élevé	groß bis sehr groß	alto a muy alto		8
	very many	très élevé	sehr groß	muy alto		9

	English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
13. (*)	QN	MG/MS/VG	(+)	(b)				
	Peduncle: length	Pédoncule : longueur	Blütenstandsstiel: Länge	Pedúnculo: longitud				
	very short	très courte	sehr kurz	muy corta				1
	very short to short	très courte à courte	sehr kurz bis kurz	muy corta a corta				2
	short	courte	kurz	corta	Zalimsal			3
	short to medium	courte à moyenne	kurz bis mittel	corta a media				4
	medium	moyenne	mittel	media	Flamingo			5
	medium to strong	moyenne à forte	mittel bis stark	media a larga				6
	long	longue	lang	larga				7
	long to very long	longue à très longue	lang bis sehr lang	larga a muy larga				8
	very long	très longue	sehr lang	muy larga				9
14.	QN	MG/MS/VG	(+)	(b)				
	Peduncle: thickness	Pédoncule : épaisseur	Blütenstandsstiel: Dicke	Pedúnculo: grosor				
	very thin	très mince	sehr dünn	muy delgado				1
	thin	mince	dünn	delgado				2
	medium	moyenne	mittel	medio	Sinzii Lavenderish			3
	thick	épaisse	dick	grueso				4
	very thick	très épaisse	sehr dick	muy grueso				5
15.	QN	VG		(b)				
	Peduncle: density of hairs	Pédoncule : densité de la pilosité	Blütenstandsstiel: Dichte der Behaarung	Pedúnculo: densidad de la pilosidad				
	absent or very sparse	absente ou très lâche	fehlend oder sehr locker	ausente o muy laxa	Sinzii Lavenderish			1
	sparse	lâche	locker	laxa	Zastashin			2
	medium	moyenne	mittel	media				3
	dense	dense	dicht	densa				4
	very dense	très dense	sehr dicht	muy densa				5
16. (*)	QN	MG/MS/VG	(+)	(b)				
	Peduncle: width of wing	Pédoncule : largeur de l'aile	Blütenstandsstiel: Breite des Flügels	Pedúnculo: anchura del ala				
	absent or very narrow	absente ou très étroite	fehlend oder sehr schmal	ausente o muy estrecha	Flamingo			1
	narrow	étroite	schmal	estrecha	Zastasky			2
	medium	moyenne	mittel	media	Zastafro			3
	broad	large	breit	ancha	Sinzii Blueish			4
	very broad	très large	sehr breit	muy ancha				5

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
17.	QN	VG	(b)			
	Peduncle: undulation of margin of wing	Pédoncule : ondulation du bord de l'aile	Blütenstandsstiel: Randwellung des Flügels	Pedúnculo: ondulación del borde del ala		
	absent or very weak	absent ou très faible	fehlend oder sehr gering	ausente o muy débil	Fulimmalte	1
	very weak to weak	très faible à faible	sehr gering bis gering	muy débil a débil		2
	weak	faible	gering	débil		3
	weak to medium	faible à moyenne	gering bis mittel	débil a media		4
	medium	moyenne	mittel	media		5
	medium to strong	moyenne à forte	mittel bis stark	media a fuerte		6
	strong	forte	stark	fuerte	Zastasky	7
	strong to very strong	forte à très forte	stark bis sehr stark	fuerte a muy fuerte		8
	very strong	très forte	sehr stark	muy fuerte		9
18.	QN	MG/MS/VG	(+)	(b)		
	Inflorescence: length of stipules at first branch	Inflorescence : longueur des stipules au premier rameau	Blütenstand: Länge der Nebenblätter am ersten Zweig	Inflorescencia: longitud de las estípulas en la primera rama		
	absent or very short	absente ou très courte	fehlend oder sehr kurz	ausente o muy corta	Hildiaange	1
	very short to short	très courte à courte	sehr kurz bis kurz	muy corta a corta		2
	short	courte	kurz	corta	Flamingo	3
	short to medium	courte à moyenne	kurz bis mittel	corta a media		4
	medium	moyenne	mittel	media		5
	medium to long	moyenne à longue	mittel bis lang	media a larga		6
	long	longue	lang	larga	Sinzii Lavenderish	7
	long to very long	longue à très longue	lang bis sehr lang	larga a muy larga		8
	very long	très longue	sehr lang	muy larga	Sinzii Blueish	9
19. (*)	PQ	VG	(+)			
	Inflorescence: type	Inflorescence : type	Blütenstand: Typ	Inflorescencia: tipo		
	type I	type I	Typ I	tipo I	Hilalkansa	1
	type II	type II	Typ II	tipo II	Zastasky	2
	type III	type III	Typ III	tipo III		3
	type IV	type IV	Typ IV	tipo IV	Zalimred	4
	type V	type V	Typ V	tipo V		5
	type VI	type VI	Typ VI	tipo VI		6

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
20.	QN	MS/VG	(+)	(b)		
	Inflorescence: degree of ramification	Inflorescence : degré de ramification	Blütenstand: Stärke der Verzweigung	Inflorescencia: grado de ramificación		
	very weak	très faible	sehr gering	muy débil		1
	very weak to weak	très faible à faible	sehr gering bis gering	muy débil a débil		2
	weak	faible	gering	débil	Zastosella	3
	weak to medium	faible à moyen	gering bis mittel	débil a medio		4
	medium	moyen	mittel	medio	Sinzii Blueish	5
	medium to strong	moyen à fort	mittel bis stark	medio a fuerte		6
	strong	fort	stark	fuerte	Hildiaange	7
	strong to very strong	fort à très fort	stark bis sehr stark	fuerte a muy fuerte		8
	very strong	très fort	sehr stark	muy fuerte		9
21. (*)	QN	VG	(b)			
	Inflorescence: attitude of lateral branches	Inflorescence : port des branches latérales	Blütenstand: Haltung der Seitentriebe	Inflorescencia: porte de las ramas laterales		
	erect	dressé	aufrecht	erecto		1
	erect to semi-erect	dressé à demi-dressé	aufrecht bis halbaufrecht	erecto a semierecto		2
	semi-erect	demi-dressé	halbaufrecht	semierecto		3
	semi-erect to horizontal	demi-dressé à horizontal	halbaufrecht bis waagerecht	semierecto a horizontal		4
	horizontal	horizontal	waagerecht	horizontal		5
22. (*)	QN	MG/VG	(b)			
	Inflorescence: number of flowers	Inflorescence : nombre de fleurs	Blütenstand: Anzahl Blüten	Inflorescencia: número de flores		
	very few	très petit	sehr gering	muy bajo		1
	very few to few	très petit à petit	sehr gering bis gering	muy bajo a bajo		2
	few	petit	gering	bajo		3
	few to medium	petit à moyen	gering bis mittel	bajo a medio		4
	medium	moyen	mittel	medio	Hilalkansa	5
	medium to many	moyen à élevé	mittel bis groß	medio a alto		6
	many	élevé	groß	alto	BALL452013	7
	many to very many	élevé à très élevé	groß bis sehr groß	alto a muy alto		8
	very many	très élevé	sehr groß	muy alto		9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
23.	QN	MG/MS/VG	(+)			
	Calyx: length	Calice : longueur	Kelch: Länge	Cáliz: longitud		
	very short	très courte	sehr kurz	muy corta		1
	very short to short	très courte à courte	sehr kurz bis kurz	muy corta a corta		2
	short	courte	kurz	corta		3
	short to medium	courte à moyenne	kurz bis mittel	corta a media		4
	medium	moyenne	mittel	media	Hilsinpipp	5
	medium to long	moyenne à longue	mittel bis lang	media a larga		6
	long	longue	lang	larga	Zastafro	7
	long to very long	longue à très longue	lang bis sehr lang	larga a muy larga		8
	very long	très longue	sehr lang	muy larga		9
24. (*)	QN	MG/MS/VG	(+)			
	Calyx: diameter	Calice : diamètre	Kelch: Durchmesser	Cáliz: diámetro		
	very small	très petit	sehr klein	muy pequeño		1
	small	petit	klein	pequeño	BALL452013	2
	medium	moyen	mittel	medio	Sinzii Blueish	3
	large	grand	groß	grande		4
	very large	très grand	sehr groß	muy grande		5
25. (*)	PQ	VG	(+)			
	Calyx: shape	Calice : forme	Kelch: Form	Cáliz: forma		
	campanulate	campanulée	glockenförmig	acampanada	DLISAOSHPI	1
	funnel shaped	en entonnoir	trichterförmig	en forma de embudo	Zastasky	2
	open campanulate	campanulée ouverte	offen glockenförmig	acampanada abierta		3
26. (*)	PQ	VG	(+)			
	Calyx: main color	Calice : couleur principale	Kelch: Hauptfarbe	Cáliz: color principal		
	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
27.	PQ	VG	(+)			
	Calyx: color of ribs	Calice : couleur des nervures	Kelch: Farbe der Rippen	Cáliz: color de las costillas		
	white	blanc	weiß	blanco		1
	yellow	jaune	gelb	amarillo		2
	blue	bleu	blau	azul		3
	violet	violet	violett	violeta		4
	pink	rose	rosa	rosa		5
	purple red	rouge-pourpre	purpurrot	rojo púrpura		6
	red	rouge	rot	rojo		7
28.	QL	VG	(+)			
	Corolla: type	Corolle : type	Krone: Typ	Corola: tipo		
	single	simple	einfach	simple		1
	double	double	gefüllt	doble		2
29.	QN	MG/VG				
	Corolla: length in relation to calyx	Corolle : longueur par rapport au calice	Krone: Länge im Verhältnis zum Kelch	Corola: longitud en relación con el cáliz		
	not clearly visible	pas clairement visible	nicht deutlich sichtbar	no se ve claramente		1
	similar or shorter	même longueur ou plus courte	gleich lang oder kürzer	similar o más corta		2
	slightly longer	légèrement plus longue	etwas länger	ligeramente más larga		3
	one and half times longer	une fois et demie plus longue	eineinhalbmal so lang	una vez y media más larga		4
	twice as long	deux fois plus longue	doppelt so lang	dos veces más larga		5
	three times or more longer	trois fois plus longue ou plus	dreimal so lang oder noch länger	tres veces o más largo		6
30.	QN	MG/MS/VG	(+)			
	Corolla: diameter	Corolle : diamètre	Krone: Durchmesser	Corola: diámetro		
	very small	très petit	sehr klein	muy pequeño		1
	very small to small	très petit à petit	sehr klein bis klein	muy pequeño a pequeño		2
	small	petit	klein	pequeño		3
	small to medium	petit à moyen	klein bis mittel	pequeño a medio		4
	medium	moyen	mittel	medio		5
	medium to large	moyen à grand	mittel bis groß	medio a grande		6
	large	grand	groß	grande		7
	large to very large	grand à très grand	groß bis sehr groß	grande a muy grande		8
	very large	très grand	sehr groß	muy grande		9

	English		français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
31.	PQ	VG	(+)				
	Corolla: arrangement of lobes	Corolle : disposition des lobes	Krone: Anordnung der Lappen	Corola: disposición de los lóbulos			
	free	libre	freistehend	libre			1
	touching	tangente	sich berührend	en contacto			2
	overlapping	chevauchante	überlappend	solapada			3
32.	QL	VG					
	Corolla: incision of the apex of lobes	Corolle : incision de l'apex des lobes	Krone: Einschnitt am Apex der Lappen	Corola: incisión del ápice de los lóbulos			
	absent	absente	fehlend	ausente			1
	present	présente	vorhanden	presente			9
33. (*)	PQ	VG					
	Corolla: color	Corolle : couleur	Krone: Farbe	Corola: color			
	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)			
34.	PQ	VG					
	Flower: position of stigma relative to anthers	Fleur : position du stigmate par rapport aux anthères	Blüte: Position der Narbe im Verhältnis zu den Antheren	Flor: posición del estigma en relación a las anteras			
	above	au-dessus	oberhalb	por encima	Flamingo		1
	same level	au même niveau	auf gleicher Höhe	al mismo nivel	DLISAOSHPI		2
	below	au-dessous	unterhalb	por debajo	Zastasky		3
	no stigma or anthers present	absence de stigmate ou d'anthères	keine Narbe oder Antheren vorhanden	sin estigma ni anteras presentes			4
35.	QL	VG	(+)				
	Stigma: type	Stigmate : type	Narbe: Typ	Estigma: tipo			
	cob type	en forme d'épi de maïs	kolbenförmig	en forme de espiga de maíz	Sinzii Lavenderish		1
	papillate type	papillifère	papillisartig	en forma de mariposa	Zastasky		2
	capitate type	capité	kopfförmig	en forma de cabeza			3
36.	QN	VG					
	Flower: fragrance	Fleur : parfum	Blüte: Duft	Flor: fragancia			
	absent or weak	absent ou faible	fehlend oder gering	ausente o débil	Zastasky		1
	medium	moyen	mittel	media	Hildiaange		2
	strong	fort	stark	fuerte			3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
37. (*)	QN	MG/MS/VG	(+)			
	Time of beginning of flowering	Epoque du début de floraison	Zeitpunkt des Blühbeginns	Época de inicio de la floración		
	very early	très précoce	sehr früh	muy temprana		1
	very early to early	très précoce à précoce	sehr früh bis früh	muy temprana a temprana		2
	early	précoce	früh	temprana	Zastasky	3
	early to medium	précoce à moyenne	früh bis mittel	temprana a media		4
	medium	moyenne	mittel	media		5
	medium to late	moyenne à tardive	mittel bis spät	media a tardía		6
	late	tardive	spät	tardía	DLISAOSHPI	7
	late to very late	tardive à très tardive	spät bis sehr spät	tardía a muy tardía		8
	very late	très tardive	sehr spät	muy tardía		9

8. Explanations on the Table of Characteristics

8.1 *Explanations covering several characteristics*

Unless otherwise indicated, observations should be made at the time of full flowering.

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

- (a) Observations should be made on fully developed leaves from the middle third of the rosette.
- (b) Observations should be made on the plant at its maximum height (the first inflorescences often are shorter than the later ones)

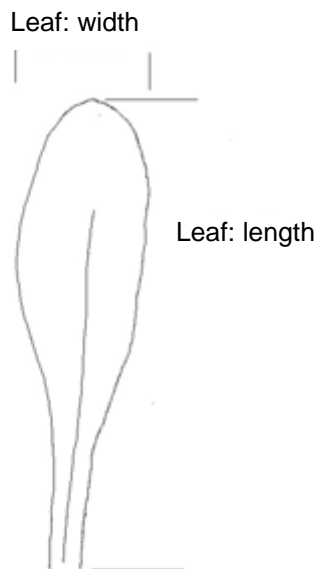
8.2 *Explanations for individual characteristics*

Ad. 1: Plant: height

Observations should be made from the base of the plant to the top of the inflorescence. The tallest stems should be ignored and the average stem height observed. Note: the first inflorescence can be shorter than the inflorescences formed later.

Ad. 2: Leaf: length

Observations should be made from the base to the top of the leaf, including the petiole.

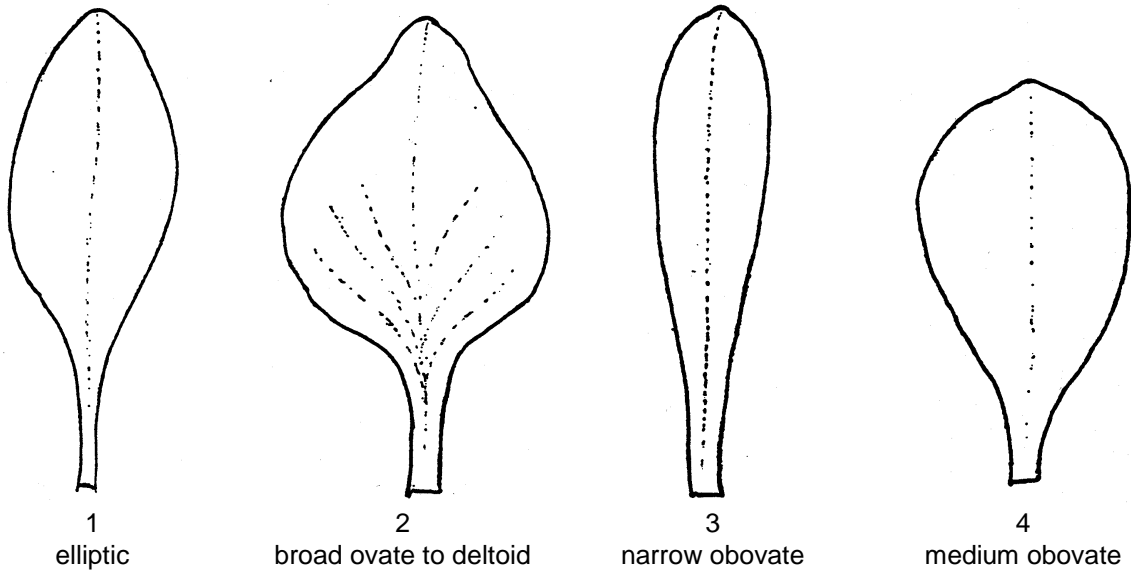


Ad. 3: Leaf: width

Observations should be made at the broadest part of the leaf, at a right angle to the mid-vein.

See Ad. 2

Ad. 4: Leaf: shape of blade



Ad. 13: Peduncle: length

Observations should be made from the base of the plant to the first branch of the inflorescence.

Ad. 14: Peduncle: thickness

Observations should be made in the middle third of the peduncle, excluding wings.

Ad. 16: Peduncle: width of wing

Observations should be made in the middle third of the peduncle.

Ad. 18: Inflorescence: length of stipules at first branch

Observations should be made on the first branch from the base of the largest stipule to its tip.

Ad. 19: Inflorescence: type

Type I:

Stem not winged. Inflorescence clearly asymmetric and flattened at the top, racemose or cymose corymb, with semi-erect to horizontal branches. Flowers pointing upwards, sessile or with very short peduncle.

Type II:

Stem winged. Inflorescence more or less flattened at the top, cymose corymb or panicle, with semi-erect to erect branches. Flowers clustered at the end of branchlets, pointing upwards, sessile or with very short peduncle.

Type III:

Stem winged. Inflorescence open and irregular, racemose corymb, with semi-erect to horizontal branches.

Type IV:

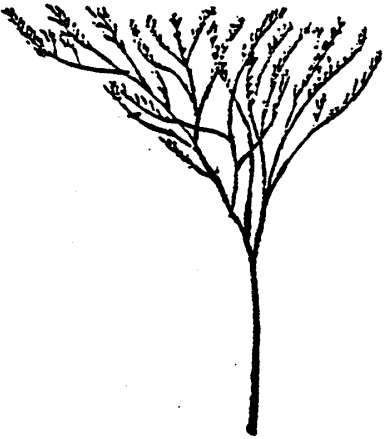
Stem not winged. Inflorescence open, racemose or cymose corymb, with semi-erect to horizontal branches, sometimes more or less pending. Flowers pointing upwards, with short to long peduncle.

Type V:

Stem not winged. Inflorescence clearly longer than wide, open raceme, with semi-erect to horizontal branches. Flowers pointing upwards.

Type VI:

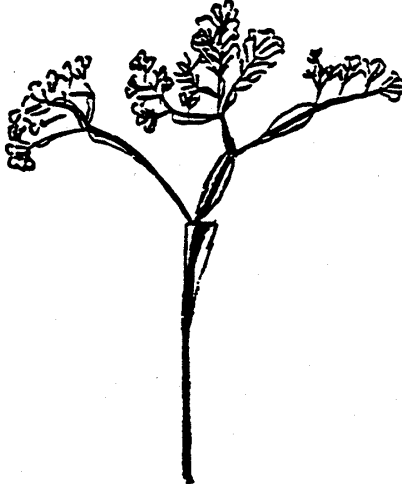
Stem not winged. Inflorescence branched and consisting of slender cylindrical spikes. Flowers sessile, arranged along the axis of the inflorescence.



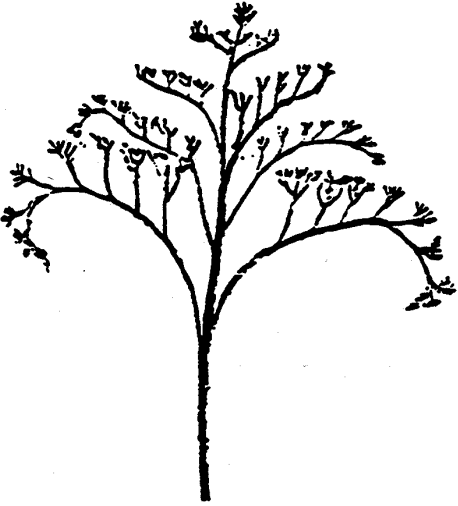
1
type I



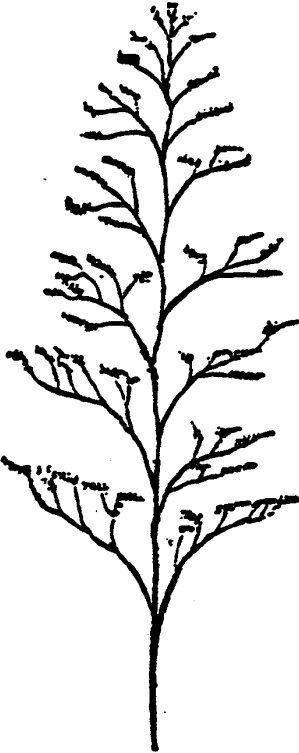
2
type II



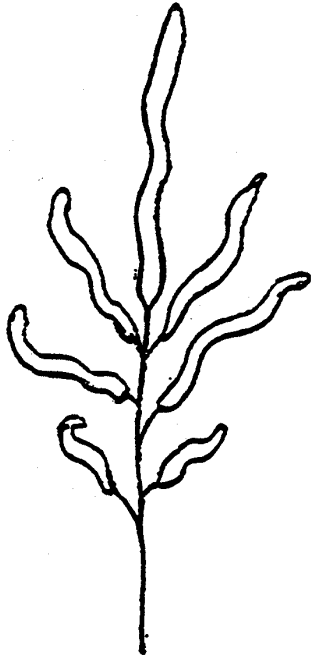
3
type III



4
type IV



5
type V



6
type VI

Ad. 20: Inflorescence: degree of ramification



3
weak

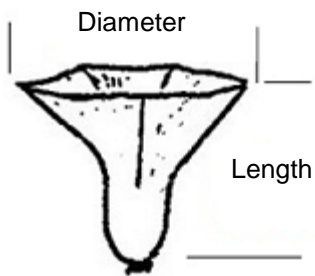


5
medium



7
strong

Ad. 23: Calyx: length



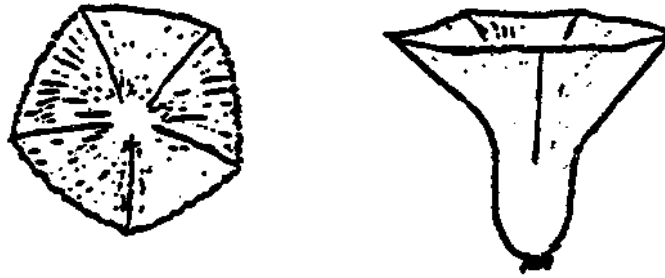
Ad. 24: Calyx: diameter

See Ad. 23

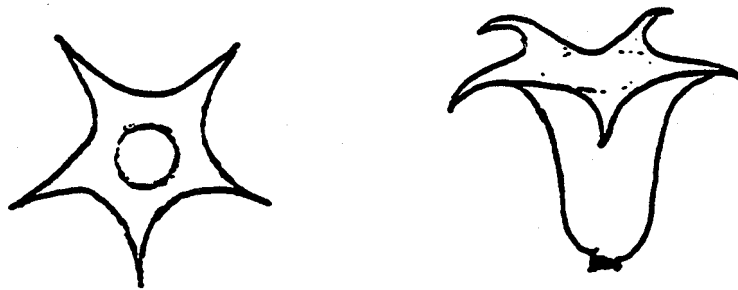
Ad. 25: Calyx: shape



1
campanulate

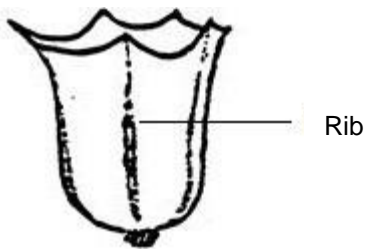


2
funnel shaped



3
open campanulate

Ad. 27: Calyx: color of ribs



Ad. 28: Corolla: type



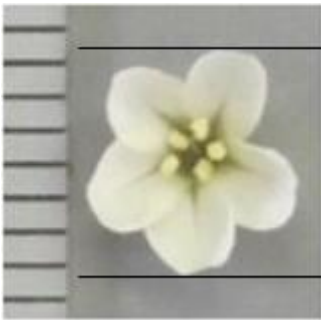
1
single



2
double

Ad. 30: Corolla: diameter

The largest diameter should be observed.



Ad. 31: Corolla: arrangement of lobes



1
free

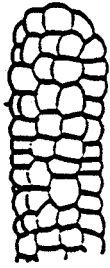


2
touching



3
overlapping

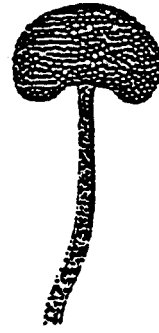
Ad. 35: Stigma: type



1
cob type



2
papillate type



3
capitate type

To be observed on top of stigma (assessed under a microscope).

Ad. 37: Time of beginning of flowering

The time of beginning of flowering is reached when 30% of inflorescences have open flowers.

9. Literature

Anonymous, 1960: *Limonium* Mill. In: Pareys Blumengärtnerei, 2. Band, Ed. F. Encke; Parey, Berlin and Hamburg, DE, pp. 339-342

Anonymous, 1972: *Limonium* Miller. In: Flora Europaea Vol. 3, Ed. Tutin, Heywood, a.o.; Cambridge Univ. Press, GB, pp. 38-50

Anonymous, 1977: *Limonium*. In: Dictionary of Gardening Vol. 2 (2nd ed.), Ed. Chittenden; Clarendon Press, Oxford, GB, pp. 1179-1181

Armitage, A.M. & Laushman, 2008: *Limonium*. In: Specialty Cut Flowers; Varsity Press/Timber Press, Portland, Oregon, US, pp. 106-114 and 209-214

Boom, B. K., 1970: *Statice* & *Limonium*. In: Flora der gekweekte kruidachtige gewassen; Veeman, Wageningen, NL, pp. 202-203

Griffiths, M., (Ed.), 1994: Index of Garden Plants. Royal Hort. Soc., GB, pp. 674-676

Morgan, E., Funnell, K., 2018: *Limonium*. Ornamental Crops, 513–527. doi:10.1007/978-3-319-90698-0_21

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	<input type="text" value="Limonium Mill."/> []
1.1.2	Common name	<input type="text" value="Statice"/>
1.1.3	Species (please indicate):	<input type="text"/>
1.2.1	Botanical name	<input type="text" value="Goniolimon Boiss."/> []
1.2.2	Common name	<input type="text"/>
1.2.3	Species (please indicate):	<input type="text"/>
1.3.1	Botanical name	<input type="text" value="Psylliostachys (Jaub. & Spach) Nevski"/> []
1.3.2	Common name	<input type="text"/>
1.3.3	Species (please indicate):	<input type="text"/>

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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2.	Applicant	
	Name	<input type="text"/>
	Address	<input type="text"/>
	Telephone No.	<input type="text"/>
	Fax No.	<input type="text"/>
	E-mail address	<input type="text"/>
	Breeder (if different from applicant)	<input type="text"/>

3.	Proposed denomination and breeder's reference	
	Proposed denomination (if available)	<input type="text"/>
	Breeder's reference	<input type="text"/>

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

(.....) 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:
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4.2	Method of propagating the variety	
4.2.1	Seed-propagated varieties	[]
	<input type="text"/>	
4.2.2	Vegetative propagation	
(a)	Cuttings	[]
(b)	<i>In vitro</i> propagation	[]
(c)	Other (state method)	[]
	<input type="text"/>	
4.2.3	Other (Please provide details)	[]
	<input type="text"/>	

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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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 Plant: height (1)		
very short		1 []
very short to short		2 []
short	Zastapolar	3 []
short to medium		4 []
medium	Flamingo	5 []
medium to tall		6 []
tall	Nuno Joy	7 []
tall to very tall		8 []
very tall		9 []
5.2 Leaf: shape of blade (4)		
elliptic	BALL452013	1 []
broad ovate to deltoid	Zalimsal	2 []
narrow obovate	Hildiaange	3 []
medium obovate	Sinzii Blueish	4 []
5.3 Inflorescence: type (19)		
type I	Hilalkansa	1 []
type II	Zastasky	2 []
type III		3 []
type IV	Zalimred	4 []
type V		5 []
type VI		6 []

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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Characteristics	Example Varieties	Note
5.4(i) Calyx: main color (26)		
RHS Colour Chart (indicate reference number)		
5.4(ii) Calyx: main color (26)		
white		1 []
yellow		2 []
pink		3 []
red		4 []
purple red		5 []
violet		6 []
blue		7 []
other (please indicate)		[]
5.5(i) Corolla: color (33)		
RHS Colour Chart (indicate reference number)		
5.5(ii) Corolla: color (33)		
white		1 []
yellow		2 []
pink		3 []
violet		4 []
blue		5 []
other (please indicate)		[]

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 similar variety(ies)	Describe the expression of the characteristic(s) for your candidate variety
<i>Example</i>	<i>Inflorescence: number of flowers</i>	<i>few</i>	<i>many</i>
Comments:			

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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#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 photograph of the variety displaying its main distinguishing feature(s), should accompany the Technical Questionnaire. The photograph will provide a visual illustration of the candidate variety which supplements the information provided in the Technical Questionnaire.

The key points to consider when taking a photograph of the candidate variety are:

- Indication of the date and geographic location
- Correct labeling (breeder's reference)
- Good quality printed photograph (minimum 10 cm x 15 cm) and/or sufficient resolution electronic format version (minimum 960 x 1280 pixels)"

Further guidance on providing photographs with the Technical Questionnaire is available in document TGP/7 "Development of Test Guidelines", Guidance Note 35 (<http://www.upov.int/tgp/en/>).

[The link provided may be deleted by members of the Union when developing authorities' own test guidelines.]

- Resistance to pests and diseases

- Growth type

- annual []
- perennial []

- Cold treatment

- not required []
- required []

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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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.

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]