



**European Union**  
Community Plant Variety Office

**PROTOCOL FOR DISTINCTNESS, UNIFORMITY AND STABILITY TESTS**

*Limonium* Mill.,  
*Goniolimon* Boiss.  
and *Psylliostachys* (Jaub. & Spach) Nevski

**STATICE**

**UPOV Species Codes: LIMON  
GONIO  
PSYLL**

**Adopted on 31<sup>st</sup> October 2002**

## **I - SUBJECT OF THE PROTOCOL**

The protocol describes the technical procedures to be followed in order to meet the Council Regulation 2100/94 on Community Plant Variety Rights. The technical procedures have been agreed by the Administrative Council and are based on general UPOV Document TG/1/3 and UPOV Guideline TG/168/3 dated 24<sup>th</sup> March 1999 for the conduct of tests for Distinctness, Uniformity and Stability. This protocol applies to all vegetatively propagated varieties of:

- *Goniolimon elatum* (Fisch. Ex Spreng.) Boiss. (syn.: *Limonium elatum* (Fisch. Ex Spreng.) O. Kuntze
- *Goniolimon tataricum* (L.) Boiss. (syn.: *Limonium tataricum* (L.) Mill.)
- *Limonium* Mill., *Phylliostachys suworowii* (Regel) Roshk. (syn.: *Limonium suworowii* (Regel) O. Kuntze

Belonging to the family of the Plumbaginaceae and their hybrids.

## **II - SUBMISSION OF PLANT MATERIAL**

1. The Community Plant Variety Office (CPVO) is responsible for informing the applicant of
  - the closing date for the receipt of plant material;
  - the minimum amount and quality of plant material required;
  - the examination office to which material is to be sent.

The applicant is responsible for ensuring compliance with any customs and plant health requirements.

2. Final dates for receipt of documentation and material by the Examination Office

The final dates for receipt of requests, technical questionnaires and the final date or submission period for plant material will be decided by the CPVO and each Examination Office chosen.

The Examination Office is responsible for immediately acknowledging the receipt of requests for testing, and technical questionnaires. If no or unsatisfactory plant material is submitted the CPVO should be informed as soon as possible.

### 3. Plant material requirements

Survey of final dates for request for technical examination and sending of Technical Questionnaire by the CPVO as well as submission date of plant material by the applicant, and quantity of plant material to be supplied by the applicant in one sample.

	Request of examination	Plant material	
The Netherlands a)	01/12	between 01/05 and 15/05	25 plants of commercial standard, appropriate to be grown in the open
The Netherlands b)	01/02	On request in the period 01/03-15/03	25 plants of commercial standard

- a) Outdoor cultivation: *L. sinuatum*; *L. altaicum*; *L. perezii*; *L. dumosum*  
b) Greenhouse cultivation: *L. sinensis*; *L. gmelinii*; *L. roseum* (probably: *L. latifolium*)

Quality: ..... The plant material supplied should be visibly healthy, not lacking in vigour or affected by any important pest or disease, especially virus.

The plant material must not have undergone any treatment unless the CPVO and the examination office allow or request such treatment. If it has been treated, full details of the treatment must be given.

- Labelling of sample: ..... - Species  
- File number of the application allocated by the CPVO  
- Breeder's reference  
- Examination reference (if known)  
- Name of applicant  
- The phrase "On request of the CPVO"

## **III - CONDUCT OF TESTS**

### 1. Variety collection

A variety collection will be maintained for the purpose of establishing distinctness of the candidate varieties in test. A variety collection may contain both living material and descriptive information. A variety will be included in a reference collection only if plant material is available to make a technical examination.

Pursuant to Article 7 of Council Regulation No. 2100/94, the basis for a collection should be the following:

- varieties listed or protected at the EU level;
- varieties protected in other UPOV Member States;
- any other variety in common knowledge.

It is the responsibility of Examination Office to keep the variety collection up to date.

## 2. Material to be examined

Candidate varieties will be directly compared with other candidates for Community plant variety rights tested at the same Examination Office, and with appropriate varieties in the variety collection. When necessary an Examination Office may also include other candidates and varieties.

## 3. Characteristics to be used

The characteristics to be used in DUS tests and preparation of descriptions shall be those referred to in Annex 1. All the characteristics shall be used, providing that observation of a characteristic is not rendered impossible by the expression of any other characteristic, or the expression of a characteristic is prevented by the environmental conditions under which the test is conducted. In the latter case, the CPVO should be informed. In addition the existence of some other regulation e.g. plant health, may make the observation of the characteristic impossible.

The Administrative Council empowers the President, in accordance with Article 23 of Commission Regulation N° 1239/95, to insert additional characteristics and their expressions in respect of a variety.

## 4. Grouping of varieties

The varieties and candidates to be compared will be divided into groups to facilitate the assessment of distinctness. Characteristics which are suitable for grouping purposes are those which are known from experience not to vary, or to vary only slightly, within a variety and which in their various states of expression are fairly evenly distributed throughout the collection. In the case of continuous grouping characteristics overlapping states of expression between adjacent groups is required to reduce the risks of incorrect allocation of candidates to groups. The characters used for grouping are the following:

- a) Plant: height (characteristic 1)
- b) Leaf: shape of blade (characteristic 5)
- c) Inflorescence: type (characteristic 24)
- d) Calyx: main colour (characteristic 31)
- e) Corolla: Colour (characteristic 33)

## 5. Trial designs and growing conditions

The minimum duration of tests will normally be one growing cycle if the results on distinctness and uniformity are conclusive. Tests will be carried out under conditions ensuring normal growth. The size of the plots will be such that plants or parts of plants may be removed for measuring and counting without prejudice to the observations which must be made up to the end of the growing period.

The test design is as follows:

As a minimum, each test should include a total of 20 plants. Separate plots for observation and for measuring can only be used if they have been subject to similar environmental conditions.

Unless otherwise stated, all observations determined by measurement or counting should be made on 10 plants or parts taken from each of 10 plants at the time of full flowering. All observations on the leaf should be made on the rosette leaves. Where no rosette is present, they should be made on the lowest fully developed leaf.

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

## 6. Special tests

In accordance with Article 83(3) of Council Regulation No. 2100/94 an applicant may claim either in the Technical Questionnaire or during the test that a candidate has a characteristic which would be helpful in establishing distinctness. If such a claim is made and is supported by reliable technical data, a special test may be undertaken providing that a technically acceptable test procedure can be devised.

Special tests will be undertaken, with the agreement of the President of CPVO, where distinctness is unlikely to be shown using the characters listed in the protocol.

## 7. Standards for decisions

### a) **Distinctness**

A candidate variety will be considered to be distinct if it meets the requirements of Article 7 of Council Regulation No. 2100/94.

### b) **Uniformity**

For the assessment of uniformity a population standard of 1% with an acceptance probability of at least 95% should be applied.

For vegetatively propagated varieties, the candidate will be considered to be sufficiently uniform if the number of off-types does not exceed 1 in 20 plants examined.

c) **Stability**

A candidate will be considered to be sufficiently stable when there is no evidence to indicate that it lacks uniformity.

**IV - REPORTING OF RESULTS**

After each growing cycle the results will be summarised and reported to the CPVO in the form of a UPOV model interim report in which any problems will be indicated under the headings distinctness, uniformity and stability. Candidates may meet the DUS standards after one growing cycle but in some cases two or more growing cycles may be required. When tests are completed the results will be sent by the Examination Office to the CPVO in the form of a UPOV model final report.

If it is considered that the candidate complies with the DUS standards, the final report will be accompanied by a variety description in the format recommended by UPOV. If not the reasons for failure and a summary of the test results will be included with the final report.

The CPVO must receive interim reports and final reports by the date agreed between the CPVO and the examination office.

Interim reports and final examination reports shall be signed by the responsible member of the staff of the Examination Office and shall expressly acknowledge the exclusive rights of disposal of CPVO.

**V - LIAISON WITH THE APPLICANT**

If problems arise during the course of the test the CPVO should be informed immediately so that the information can be passed on to the applicant. Subject to prior agreement, the applicant may be directly informed at the same time as the CPVO particularly if a visit to the trial is advisable.

The interim report and final report shall be sent by the Examination Office to the CPVO.

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## ANNEXES TO FOLLOW

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## ANNEX II

Technical questionnaire

## ANNEX I

### TABLE OF CHARACTERISTICS

CPVO N°	UPOV N°	Characteristics	Examples	Note	
1.	1.	<b>Plant: height</b>	very short		1
			short	<i>Goniolimon tartaricum</i>	3
			medium	Midnight Blue	5
			tall	<i>L. bellidifolium</i>	7
			very tall		9
2.	2.	<b>Plant: number of inflorescences</b>	few	Superlady	3
			medium	Midnight Blue	5
			many	Goldmine, White Charm	7
3.	3.	<b>Leaf: length (petiole included)</b>	very short	<i>L. minutum</i>	1
			short	<i>L. tetragonum</i>	3
			medium	Midnight Blue	5
			long	<i>L. perezii</i>	7
			very long	Daijenne, Superlady	9
4.	4.	<b>Leaf: width</b>	very narrow	Goldmine	1
			narrow	<i>Goniolimon tartaricum</i>	3
			medium	Midnight Blue	5
			broad	Misty Blue	7
			very broad	Daijenne	9
5. (+)	5. (+)	<b>Leaf: shape of blade</b>	elliptic	Goldmine	1
			broad ovate to deltoid	Daibumo	2
			narrow obovate	Midnight Blue	3
			obovate	Misty Blue	4



CPVO N°	UPOV N°	Characteristics	Examples	Note	
6.	6.	<b>Leaf: intensity of green colour</b>	light	<i>L. bonduellei</i>	3
			medium	<i>L. perezii</i>	5
			dark	<i>Goniolimon tartaricum</i>	7
7.	7.	<b>Leaf: glossiness</b>	weak	<i>L. bellidifolium</i>	3
			medium	<i>L. perezii</i>	5
			strong	<i>Goniolimon tartaricum</i>	7
8.	8.	<b>Leaf: hairiness</b>	absent	Daibumo, Emille	1
			present	Early Blue Birds, White Charm	9
9.	9.	<b>Leaf: density of hairiness on upper side</b>	sparse	<i>L. bonduellei</i>	3
			medium	Midnight Blue	5
			dense		7
10.	10.	<b>Leaf: density of hairs on margin</b>	very sparse	Emille, Superlady	1
			sparse	The Blues	3
			medium	Crystal Pink	5
			dense	White Charm	7
11.	11.	<b>Leaf: undulation of margin</b>	absent or very weak	Daidelft	1
			weak		3
			medium	Avignon	5
			strong	Goldmine	7
			very strong		9
12.	12.	<b>Leaf: lobing</b>	absent	Emille, Goldmine	1
			present	Crystal Dark Blue	9

CPVO N°	UPOV N°	Characteristics	Examples	Note	
13.	13.	<b>Leaf: intensity of lobing</b>	very weak	<i>L. altaica</i>	1
			weak	<i>L. bonduellei</i>	3
			medium	Midnight Blue	5
			strong	White Charm	7
			very strong		9
14.	14.	<b>Petiole: presence</b>	absent	Goldmine, Superlady	1
			present	Daibumo	9
15.	15.	<b>Petiole: length</b>	very short	Misty Blue	1
			short	Miochar	3
			medium	Emille	5
			long	Daijenne, Pionner	7
			very long		9
16.	16.	<b>Petiole: intensity of anthocyanin coloration</b>	absent or very weak		1
			weak	Avignon, Euro Blue	3
			medium	Misty Blue	5
			strong	Daicean, Pioneer	7
			very strong		9
17.	17.	<b>Inflorescence: stem leaves</b>	absent	Avignon, Emille	1
			present	Misty Blue	9
18.	18.	<b>Inflorescence: length of peduncle</b>	short	Emille	3
			medium	Goldmine	5
			long	Misty Blue	7
19.	19.	<b>Inflorescence: thickness of peduncle</b>	thin	Goldmine	3
			medium	Emille	5
			thick	Daijenne	7

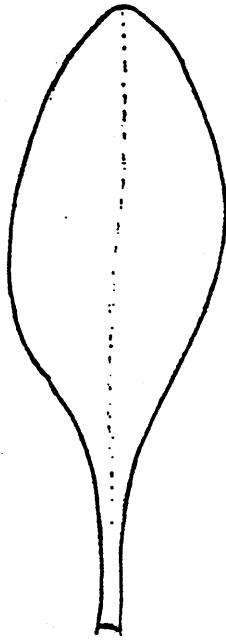
CPVO N°	UPOV N°	Characteristics	Examples	Note	
20.	20.	<b>Inflorescence: hairiness of peduncle</b>	absent or very sparse	Emille	1
			sparse	Daibblue, Rose Light	3
			medium	Midnight Blue	5
			dense		7
			very dense		9
21.	21.	<b>Inflorescence: width of wing of peduncle (at central third)</b>	absent or very narrow	Daijenne, Misty Blue, St. Pierre	1
			narrow	Daimarin	3
			medium	Midnight Blue	5
			broad	Early Blue Birds	7
			very broad		9
22.	22.	<b>Inflorescence: degree of undulation of margin of wing of peduncle</b>	absent or very weak		1
			weak	Pink Birds	3
			medium	Daipink	5
			strong	Early Blue Birds	7
			very strong	Violet Birds	9
23.	23.	<b>Inflorescence: length of stipules at first branch</b>	absent or very short	Avignon, Emille	1
			short	Daimarin	3
			medium	Daibblue	5
			long	Violet Birds	7
			very long		9

CPVO N°	UPOV N°	Characteristics	Examples	Note	
24. (+)	24. (+)	<b>Inflorescence: type</b>	Type I	Très Bien	1
			Type II	Midnight Blue	2
			Type III	<i>L. perezii</i>	3
			Type IV	Emille	4
			Type V	<i>L. bellidifolium</i>	5
			Type VI	<i>P. suworowii</i>	6
25.	25.	<b>Inflorescence: degree of ramification of peduncle</b>	very weak	Superlady	1
			weak	Daisplash	3
			medium	Emille	5
			strong	Misty Blue	7
			very strong		9
26.	26.	<b>Inflorescence: attitude of lateral branches</b>	erect	Midnight Blue	1
			semi-erect	Emille	3
			horizontal	<i>Goniolimon tartaricum</i>	5
27.	27.	<b>Inflorescence: number of flowers</b>	few	Gold Coast	3
			medium	Midnight Blue	5
			many	<i>L. latifolium</i>	7
28.	28.	<b>Calyx: length flowers</b>	short	Emille, Misty Blue	3
			medium		5
			long	Violet Birds, White Charm	7
29.	29.	<b>Calyx: diameter</b>	small	Emille	3
			medium	Superlady, Violet Birds	5
			large	Ballerina Rose	7

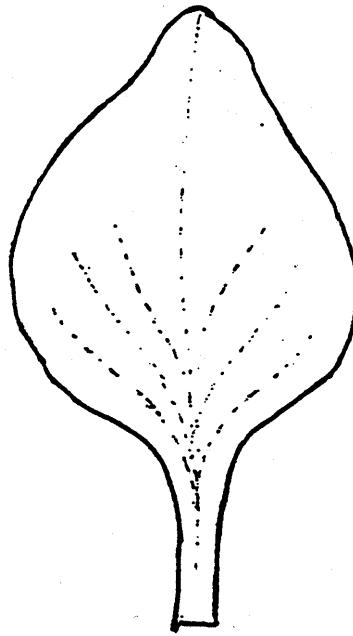
CPVO N°	UPOV N°	Characteristics	Examples	Note	
30. (+)	30. (+)	<b>Calyx: type</b>	campanulate	Emille	1
			funnel shaped	Midnight Blue	2
			open campanulate	Très Bien	3
31	31.	<b>Calyx: main colour</b>	RHS Colour Chart (Indicate reference number)		
32.	32.	<b>Corolla: size</b>	small	Misty Blue	3
			medium	Emille	5
			large	Early Blue Birds, Violet Birds	7
33.	33.	<b>Corolla: colour</b>	RHS Colour Chart (Indicate reference number)		
34.	34.	<b>Flower: position of stigma relative to anthers</b>	above		1
			same level	Daiceau	2
			below	Misty Blue	3
35. (+)	35. (+)	<b>Stigma: type</b>	cob type	Oceanic Blue	1
			papillate type	Misty Pink	2
			capitate type		3
36.	36.	<b>Flower: fragrance</b>	absent	Crystal Dark Blue	1
			present	Superlady	9
37.	37.	<b>Time of beginning of flowering</b>	early	Early Blue	3
			medium	Daiblu, Emille	5
			late	Miochar	7

## EXPLANATIONS ON THE TABLE OF CHARACTERISTICS

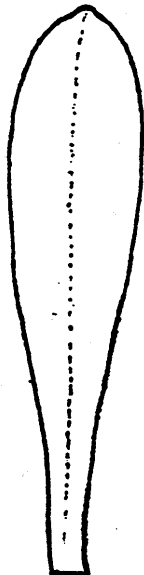
### Ad. 5: Leaf: shape of blade



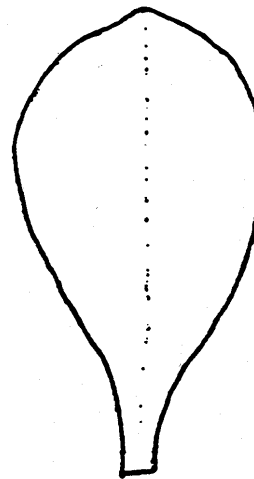
1  
elliptic



2  
broad ovate to deltoid

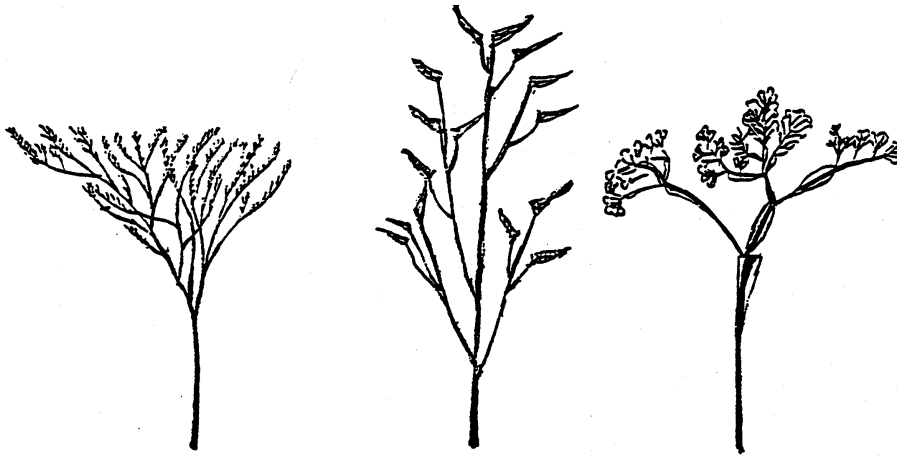


3  
narrow obovate



4  
obovate

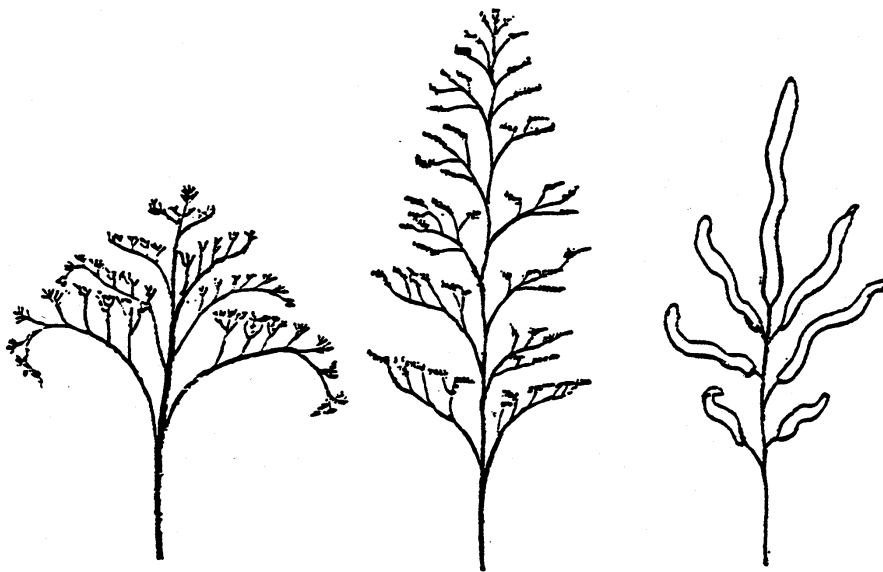
Ad. 24: Inflorescence: type



1  
type I

2  
type II

3  
type III

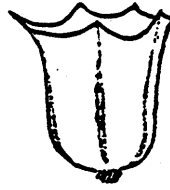
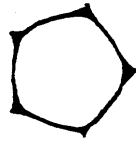


4  
type IV

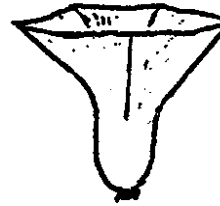
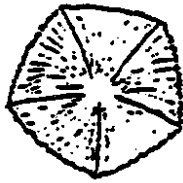
5  
type VI

6  
type VI

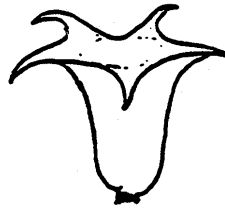
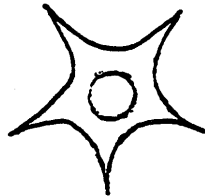
Ad. 30: Calyx: type



1  
campanulate



2  
funnel shaped



3  
open campanulate

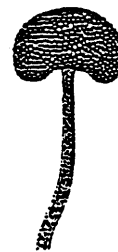
Ad. 35: Stigma: type



4  
cob type



5  
papillate type



3  
capitate type



## LITERATURE

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## **ANNEX II**

The Technical Questionnaire is available on the CPVO website under the following reference:  
CPVO-TQ/168/1