



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 31st 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 24th 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.

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.	Plant: height	very short		1
			short	<i>Goniolimon tartaricum</i>	3
			medium	Midnight Blue	5
			tall	<i>L. bellidifolium</i>	7
			very tall		9
2.	2.	Plant: number of inflorescences	few	Superlady	3
			medium	Midnight Blue	5
			many	Goldmine, White Charm	7
3.	3.	Leaf: length (petiole included)	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.	Leaf: width	very narrow	Goldmine	1
			narrow	<i>Goniolimon tartaricum</i>	3
			medium	Midnight Blue	5
			broad	Misty Blue	7
			very broad	Daijenne	9

CPVO N°	UPOV N°	Characteristics	Examples	Note	
5. (+)	5. (+)	Leaf: shape of blade	elliptic	Goldmine	1
			broad ovate to deltoid	Daibumo	2
			narrow obovate	Midnight Blue	3
			obovate	Misty Blue	4
6.	6.	Leaf: intensity of green colour	light	<i>L. bonduellei</i>	3
			medium	<i>L. perezii</i>	5
			dark	<i>Goniolimon tartaricum</i>	7
7.	7.	Leaf: glossiness	weak	<i>L. bellidifolium</i>	3
			medium	<i>L. perezii</i>	5
			strong	<i>Goniolimon tartaricum</i>	7
8.	8.	Leaf: hairiness	absent	Daibumo, Emille	1
			present	Early Blue Birds, White Charm	9
9.	9.	Leaf: density of hairiness on upper side	sparse	<i>L. bonduellei</i>	3
			medium	Midnight Blue	5
			dense		7
10.	10.	Leaf: density of hairs on margin	very sparse	Emille, Superlady	1
			sparse	The Blues	3
			medium	Crystal Pink	5
			dense	White Charm	7

CPVO N°	UPOV N°	Characteristics	Examples	Note	
11.	11.	Leaf: undulation of margin	absent or very weak	Daidelft	1
			weak		3
			medium	Avignon	5
			strong	Goldmine	7
			very strong		9
12.	12.	Leaf: lobing	absent	Emille, Goldmine	1
			present	Crystal Dark Blue	9
13.	13.	Leaf: intensity of lobing	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.	Petiole: presence	absent	Goldmine, Superlady	1
			present	Daibumo	9
15.	15.	Petiole: length	very short	Misty Blue	1
			short	Miochar	3
			medium	Emille	5
			long	Daijenne, Pionner	7
			very long		9
16.	16.	Petiole: intensity of anthocyanin coloration	absent or very weak		1
			weak	Avignon, Euro Blue	3
			medium	Misty Blue	5
			strong	Daicean, Pioneer	7
			very strong		9

CPVO N°	UPOV N°	Characteristics	Examples	Note	
17.	17.	Inflorescence: stem leaves	absent	Avignon, Emille	1
			present	Misty Blue	9
18.	18.	Inflorescence: length of peduncle	short	Emille	3
			medium	Goldmine	5
			long	Misty Blue	7
19.	19.	Inflorescence: thickness of peduncle	thin	Goldmine	3
			medium	Emille	5
			thick	Daijenne	7
20.	20.	Inflorescence: hairiness of peduncle	absent or very sparse	Emille	1
			sparse	Daiblu, Rose Light	3
			medium	Midnight Blue	5
			dense		7
			very dense		9
21.	21.	Inflorescence: width of wing of peduncle (at central third)	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.	Inflorescence: degree of undulation of margin of wing of peduncle	absent or very weak		1
			weak	Pink Birds	3
			medium	Daipink	5
			strong	Early Blue Birds	7
			very strong	Violet Birds	9

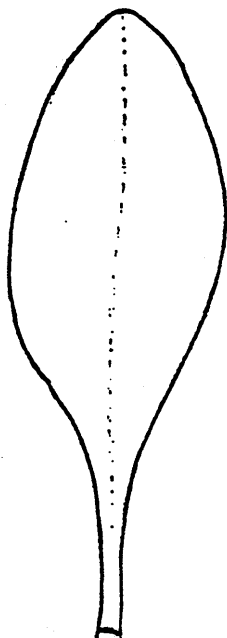
CPVO N°	UPOV N°	Characteristics	Examples	Note	
23.	23.	Inflorescence: length of stipules at first branch	absent or very short	Avignon, Emille	1
			short	Daimarin	3
			medium	Daiblue	5
			long	Violet Birds	7
			very long		9
24. (+)	24. (+)	Inflorescence: type	Type I	Très Bien	1
			Type II	Midnight Blue	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.	Inflorescence: degree of ramification of peduncle	very weak	Superlady	1
			weak	Daisplash	3
			medium	Emille	5
			strong	Misty Blue	7
			very strong		9
26.	26.	Inflorescence: attitude of lateral branches	erect	Midnight Blue	1
			semi-erect	Emille	3
			horizontal	<i>Goniolimon tartaricum</i>	5
27.	27.	Inflorescence: number of flowers	few	Gold Coast	3
			medium	Midnight Blue	5
			many	<i>L. latifolium</i>	7

CPVO N°	UPOV N°	Characteristics	Examples	Note	
28.	28.	Calyx: length flowers	short	Emille, Misty Blue	3
			medium		5
			long	Violet Birds, White Charm	7
29.	29.	Calyx: diameter	small	Emille	3
			medium	Superlady, Violet Birds	5
			large	Ballerina Rose	7
30. (+)	30. (+)	Calyx: type	campanulate	Emille	1
			funnel shaped	Midnight Blue	2
			open campanulate	Très Bien	3
31	31.	Calyx: main colour	RHS Colour Chart (Indicate reference number)		
32.	32.	Corolla: size	small	Misty Blue	3
			medium	Emille	5
			large	Early Blue Birds, Violet Birds	7
33.	33.	Corolla: colour	RHS Colour Chart (Indicate reference number)		
34.	34.	Flower: position of stigma relative to anthers	above		1
			same level	Daiceau	2
			below	Misty Blue	3

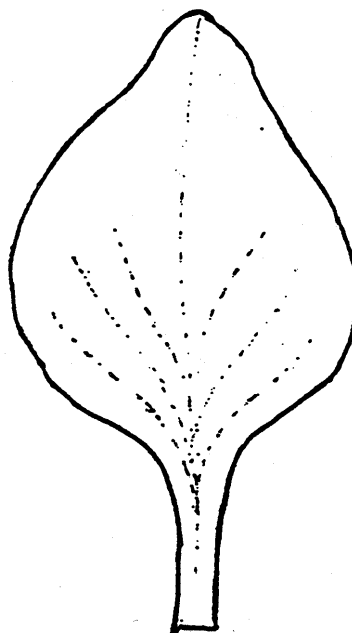
CPVO N°	UPOV N°	Characteristics	Examples	Note	
35. (+)	35. (+)	Stigma: type	cob type	Oceanic Blue	1
			papillate type	Misty Pink	2
			capitate type		3
36.	36.	Flower: fragrance	absent	Crystal Dark Blue	1
			present	Superlady	9
37.	37.	Time of beginning of flowering	early	Early Blue	3
			medium	Daiblu, Emille	5
			late	Miochar	7

EXPLANATIONS ON THE TABLE OF CHARACTERISTICS

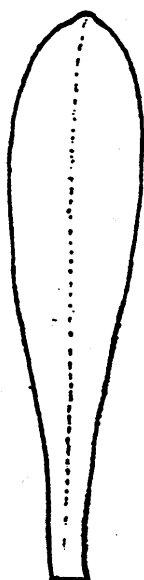
Ad. 5: Leaf: shape of blade



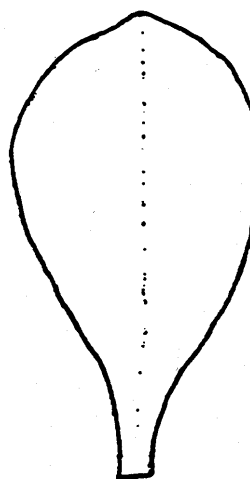
1
elliptic



2
broad ovate to deltoid

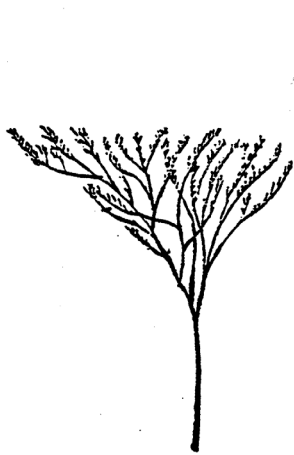


3
narrow obovate



4
obovate

Ad. 24: Inflorescence: type



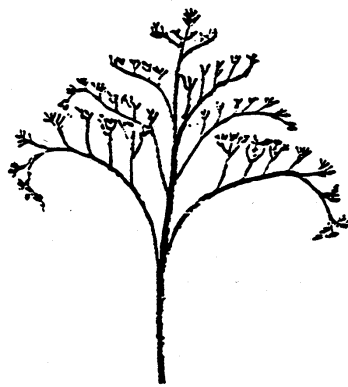
1
type I



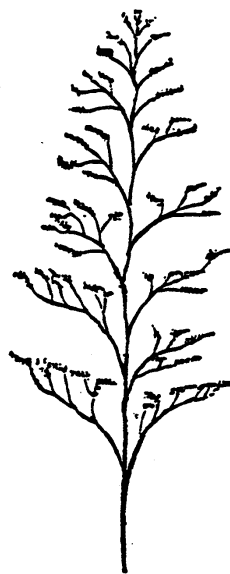
2
type II



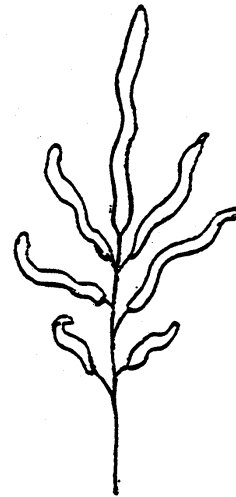
3
type III



4
type IV

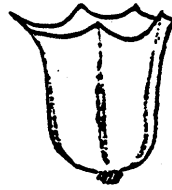
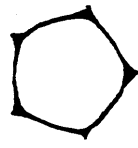


5
type VI

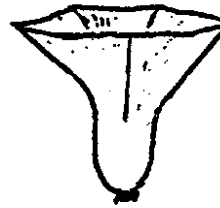
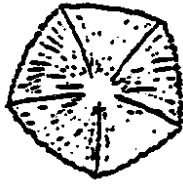


6
type VI

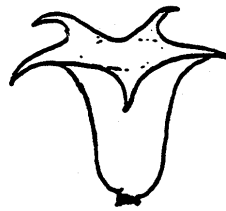
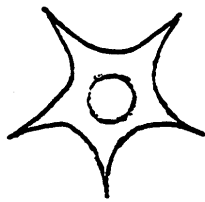
Ad. 30: Calyx: type



1
campanulate



2
funnel shaped

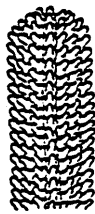


3
open campanulate

Ad. 35: Stigma: type



1
cob type



2
papillate type



3
capitate type

LITERATURE

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



European Union
Community Plant Variety Office

TECHNICAL QUESTIONNAIRE

to be completed in connection with an application for Community Plant Variety Rights
Please answer all questions. A question without any answer will lead to a non-attribution
of an application date. In cases where a field / question is not applicable, please state so.

1. **Botanical taxon: Name of the genus, species or sub-species to which the variety belongs and common name**

Limonium Mill., []
Goniolimon Boiss., []
Psylliostachys (Jaub. & Spach) Nevski []

STATICE

Species (indicate)

2. **Applicant(s): Name(s) and address(es), phone and fax number(s), e-mail address, and where appropriate name and address of the procedural representative**

.....

.....

3. **Variety denomination**

a) Where appropriate proposal for a variety denomination:

.....

b) Provisional designation (breeder's reference):

.....

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

4.1 Origin

(a) Seedling (indicate parent varieties)..... []

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.....
.....
.....

(b) Mutation (indicate parent variety) []

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.....
.....
.....

(c) Discovery (indicate where, when
and how the variety has been developed): []

.....
.....
.....
.....

(d) Other (please specify)..... []

.....
.....
.....
.....

4.2 Method of propagation

(a) Cuttings..... []

(b) *In vitro* propagation []

(c) Seed []

(d) Other (please specify): []

.....
.....
.....
.....
.....
.....

4.3 Other information:

In the case of seed propagated varieties method of production:

(a) Self-pollinated []

(b) Cross-pollinated (please give details)..... []

.....
.....
.....
.....

(c) Hybrid (please give details)..... []

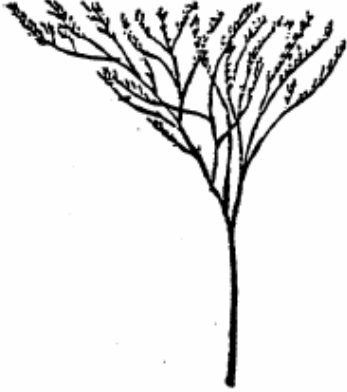


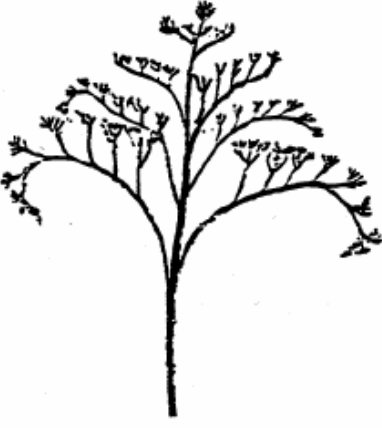


.....
.....
.....
.....

4.4 Geographical origin of the variety: the region and the country in which the variety was bred or discovered and developed

.....

5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in the CPVO Technical Protocol; please mark the state of expression which best corresponds).

Characteristics		Example varieties	Note
5.1 (1)	Plant: height		
		very short	1 []
		short	<i>Goniolimon tartaricum</i> 3 []
		medium	Midnight Blue 5 []
		tall	<i>Limonium bellidifolium</i> 7 []
	very tall	9 []	
5.2 (5)	Leaf: shape of blade		
		elliptic	Goldmine 1 []
		broad ovate to deltoid	Daibumo 2 []
		narrow obovate	Midnight Blue 3 []
	obovate	Misty Blue 4 []	

	Characteristics	Example varieties	Note
5.3 (24)	Inflorescence: type		
	type I	Très Bien	1 []
	type II	Midnight Blue	2 []
	type III	<i>Limonium perezii</i>	3 []
	type IV	Emille	4 []
	type V	<i>Limonium bellidifolium</i>	5 []
	type VI	<i>Psylliostachys suworowii</i>	6 []
			
	type I	type II	type III
			
	type IV	type V	type VI

Characteristics	Example varieties	Note																																							
Please fill in point (i) if possible, otherwise point (ii).																																									
5.4 (i). Calyx: main colour (31)	RHS Colour Chart (indicate reference number)																																								
5.4 (ii) Calyx: main colour (31)	<table border="0"> <tr><td>white</td><td>Ice Birds, White Charm</td><td>1 []</td></tr> <tr><td>light greenish yellow</td><td>Creme Birds, Lemon Birds</td><td>2 []</td></tr> <tr><td>yellow</td><td>Yellow Birds</td><td>3 []</td></tr> <tr><td>light pink</td><td>Dailips, Superlady</td><td>4 []</td></tr> <tr><td>medium pink</td><td>Daipink, Pink Yellow Birds</td><td>5 []</td></tr> <tr><td>purplish pink</td><td>Miosupi</td><td>6 []</td></tr> <tr><td>pinkish red</td><td>Cherry Birds, Daiflash</td><td>7 []</td></tr> <tr><td>purplish red</td><td>Hilsincher</td><td>8 []</td></tr> <tr><td>light blue</td><td>Dailuci, Sturdy Violet Birds</td><td>9 []</td></tr> <tr><td>medium blue</td><td>Marine Birds, Hilsinhap</td><td>10 []</td></tr> <tr><td>purplish blue</td><td>Dark Lilac Birds, The Blues</td><td>11 []</td></tr> <tr><td>violet</td><td>Daibumo</td><td>12 []</td></tr> <tr><td>other colour (indicate).....</td><td></td><td>13 []</td></tr> </table>	white	Ice Birds, White Charm	1 []	light greenish yellow	Creme Birds, Lemon Birds	2 []	yellow	Yellow Birds	3 []	light pink	Dailips, Superlady	4 []	medium pink	Daipink, Pink Yellow Birds	5 []	purplish pink	Miosupi	6 []	pinkish red	Cherry Birds, Daiflash	7 []	purplish red	Hilsincher	8 []	light blue	Dailuci, Sturdy Violet Birds	9 []	medium blue	Marine Birds, Hilsinhap	10 []	purplish blue	Dark Lilac Birds, The Blues	11 []	violet	Daibumo	12 []	other colour (indicate).....		13 []	
white	Ice Birds, White Charm	1 []																																							
light greenish yellow	Creme Birds, Lemon Birds	2 []																																							
yellow	Yellow Birds	3 []																																							
light pink	Dailips, Superlady	4 []																																							
medium pink	Daipink, Pink Yellow Birds	5 []																																							
purplish pink	Miosupi	6 []																																							
pinkish red	Cherry Birds, Daiflash	7 []																																							
purplish red	Hilsincher	8 []																																							
light blue	Dailuci, Sturdy Violet Birds	9 []																																							
medium blue	Marine Birds, Hilsinhap	10 []																																							
purplish blue	Dark Lilac Birds, The Blues	11 []																																							
violet	Daibumo	12 []																																							
other colour (indicate).....		13 []																																							

Characteristics	Example varieties	Note	
Please fill in point (i) if possible, otherwise point (ii).			
5.5 (i) Corolla: colour (33)	RHS Colour Chart (indicate reference number)		
5.5 (ii) Corolla: colour (33)	white light greenish yellow yellow light pink medium pink pinkish red light blue medium blue purplish blue violet other colour (indicate).....	Daisow, White Charm 1 [] Early Blue Birds 2 [] Goldmine, Yellow Birds 3 [] Rose Emille 4 [] Ballerina Rose 5 [] Misty Pink 6 [] Daijene 7 [] Daicean, Euroblue 8 [] Beltlaard 9 [] 10 [] 11 []	
6. Similar varieties and differences from these varieties:			
Denomination of similar variety	Characteristic in which the similar variety is different ¹⁾	State of expression of similar variety	State of expression of candidate variety
¹⁾ In the case of identical states of expressions of both varieties, please indicate the size of the difference			

7. Additional information which may help to distinguish the variety

A representative printed-out colour photo of the variety **must** be added to the Technical Questionnaire.

7.1 Resistance to pests and diseases

.....

7.2 Special conditions for the examination of the variety

YES, please specify

NO

7.3 Other information

YES, please specify

NO

8. GMO-information required

The variety represents a Genetically Modified Organism within the meaning of Article 2(2) of Council Directive EC/2001/18 of 12/03/2001.

YES NO

If yes, please add a copy of the written attestation of the responsible authorities stating that a technical examination of the variety under Articles 55 and 56 of the Basic Regulation does not pose risks to the environment according to the norms of the above-mentioned Directive.

