



PROTOCOL FOR DISTINCTNESS, UNIFORMITY AND STABILITY TESTS

***Gypsophila* L.**

GYPSOPHILA*

UPOV Species Code: GYPSO

Adopted on 11/03/2010

Entered into force on 28/02/2010

*1 Alternative names:

<i>Botanical name</i>	<i>English</i>
<i>Gypsophila</i> L.	Baby's Breath, Gyp, Gypsophila

¹ These names were correct at the time of the introduction of the UPOV 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.]

I SUBJECT OF THE PROTOCOL

The protocol describes the technical procedures to be followed in order to meet the requirement of 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/262/1 adopted on 24/03/2010 for the conduct of tests for Distinctness, Uniformity and Stability. This protocol applies to all varieties of *Gypsophila* L..

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:

Information with respect to closing dates and submission requirements of plant material for the technical examination of varieties can be found on the CPVO website (www.cpvo.europa.eu) and in the special issue S2 of the Official Gazette of the Office.

Quality:..... The plant material supplied should be visibly healthy, not lacking in vigour or affected by any important pest or disease, especially virus, as laid down in Council Directive 2000/29/EC and its amendments, or organisms impairing quality as indicated in Council Directive 98/56/EEC and Commission Directive 93/49/EEC and their amendments.

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 (EC) No. 2100/94, the basis for a collection should be the following:

- varieties listed or protected at the EU level or at least in one of the EEA Member States;
- 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 I. 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 later 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 (EC) No. 874/2009, 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 besides the botanical species the following ones:

- (a) Plant: basal branching (characteristic 1)
- (b) Plant: height (characteristic 2)
- (c) Flower: number of petals (characteristic 21)
- (d) Petal: main colour (characteristic 26)

5. Trial designs and growing conditions:

The minimum duration of tests will normally be one growing cycle, this growing cycle includes two flowering periods, 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.

All observations on single plants determined by measurement or counting should be made on 10 plants or parts taken from each of 10 plants and any other observations made on all plants in the test.

The test should normally be conducted at one place.

The test should be carried out under conditions ensuring normal growth.

6. Special tests:

In accordance with Article 83(3) of Council Regulation (EC) 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 (EC) No. 2100/94.

b) Uniformity

For the assessment of uniformity of vegetatively propagated varieties and seed-propagated varieties which are self-pollinated, a population standard of 1% with an acceptance probability of at least 95% should be applied.

For a sample size between 6 and 35 plants for vegetatively propagated varieties and seed propagated varieties which are self-pollinated, only 1 off-type is allowed.

For the assessment of uniformity of seed propagated open pollinated and hybrid varieties, relative uniformity standards should be applied.

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.

VI – ENTRY INTO FORCE

The present protocol enters into force on **28/02/2010**. Any ongoing DUS examination of candidate varieties started before the aforesaid date will not be affected by the approval of the new Technical Protocol. Technical examinations of candidate varieties are carried out according to the TP in force when the DUS test starts. The starting date of a DUS examination is considered to be the due date for submitting of plant material for the first test period.

In cases where the Office requests to take-over a DUS report for which the technical examination has either been finalized or which is in the process to be carried out at the moment of this request, such report can only be accepted if the technical examination has been carried out according to the CPVO TP which was in force at the moment when the technical examination started.

ANNEXES TO FOLLOW

ANNEX I	<u>PAGE</u>
List of characteristics to be observed	7
Explanations and methods.....	13

Legend:

QL Qualitative characteristic
QN Quantitative characteristic
PQ Pseudo-qualitative characteristic

(a) - (e) See Explanations on the Table of characteristics
(+) See Explanations on the Table of characteristics

Literature.....	16
-----------------	----

ANNEX II

Technical questionnaire

ANNEX I

TABLE OF CHARACTERISTICS TO BE USED IN DUS-TEST AND PREPARATION OF DESCRIPTIONS

CPVO N°	UPOV N°	Characteristics	Examples	Note		
1.	1.	Plant: basal branching				
		(+)	absent	1		
		G	QL	present	9	
2.	2.	Plant: height				
		QN	(b)	short	White Festival	3
				medium	Dangypmini	5
			G	tall	Dangypfun	7
3.	3.	Stem: number of internodes				
		(+)	few	Dangysha	3	
		QN	(b)	medium	Dangypchrys	5
				many	Esmamerica	7
4.	4.	Stem: length of internodes				
		QN	(a)	short	Dangysha	3
			(b)	medium	Dangypwhifa	5
				long	Esmamerica	7
5.	5.	Stem: thickness				
		QN	(a)			
			(b)	thin	Dangypmini	3
				medium	Esmamerica	5
	thick	Dangypwhifa	7			
6.	6.	Stem: anthocyanin coloration				
		QN	(a)	absent or very weak	Dangypchrys	1
			(b)	weak	Barfast	3
				medium		5
				strong	Festival	7

CPVO N°	UPOV N°	Characteristics	Examples	Note		
7.	7.	Stem: colour (excluding anthocyanin coloration)				
		PQ	(b)	yellow green	1	
				light green	2	
				medium green	3	
				dark green	4	
greyish green	5					
8.	8.	Leaf: shape				
		PQ	(c)	narrow elliptic	1	
				medium elliptic	2	
ovate	3					
9.	9.	Leaf: width				
		QN	(c)	narrow	Snowflake	3
				medium	Hila	5
broad	Mydah Pink			7		
10.	10.	Leaf: ratio length/width				
		QN	(c)	weakly elongated	1	
				moderately elongated	2	
strongly elongated	3					
11.	11.	Leaf: recurvature				
		QN	(c)	absent or slightly recurved	Dangypchrys	1
				moderately recurved	Esmamerica	2
strongly recurved	Dangypmini			3		
12.	12.	Leaf: cross section				
		QN	(c)	flat or slightly concave	Dangypink, Red Sea	1
				moderately concave	Mydah Bal	2
strongly concave				3		

CPVO N°	UPOV N°		Characteristics	Examples	Note	
13.	13.		Leaf: attitude of apex			
		(+)	(c)	incurved	Dangysha	1
		PQ		straight	Dangypwhifa	2
				recurved		3
				rolled downwards		4
14.	14.		Leaf: colour of upper side			
		PQ	(c)	light green	Danfester	1
				medium green	Esmustralia	2
				dark green		3
				grey green	Barfast	4
15.	15.		Inflorescence: pubescence			
		QL	(b)	absent	Esmasia	1
				present	Dangysha	9
16.	16.		Inflorescence: position of flowers			
		QN	(d)	in upper part only		1
				mostly in upper part		2
				equally along whole length		3
17.	17.		Inflorescence: shape of upper part			
		QN	(d)	flat or weakly domed	Blancanieves	1
				moderately domed		2
				strongly domed	New Face	3
18.	18.		Inflorescence: angle of side branch in relation to main stem			
		(+)		small	Dangypwhifa	3
		QN	(b)	medium	Bristol Fairy	5
				large	Red Sea	7

CPVO N°	UPOV N°	Characteristics	Examples	Note		
19.	19.	Inflorescence: upward curvature of side branch				
		(+)	absent or very weak	1		
		QN	(b)	weak	3	
				medium	5	
				strong	7	
20.	20.	Flower: diameter				
		QN	(d)	very small	1	
				small	Dangypmini	3
				medium	Magic Golan	5
				large	Dangyphappy	7
	very large		Anneke	9		
21.	21.	Flower: number of petals				
		QN	(d)	few	Dangyphappy	3
				medium	Magic Golan	5
G		many	Barfast	7		
22.	22.	Flower: profile of upper part				
		QN	(d)	flat or weakly convex	Dangypcrys	1
				moderately convex	Dangypwhifa	2
	strongly convex		Barfast	3		
23.	23.	Flower: anthers				
		QL	(d)	absent	1	
			present	9		
24.	24.	Flower: length of pedicel				
		(+)	short	Bregic	1	
		QN	(d)	medium	Mydah Sayo	2
	long		Dangypcrys	3		

CPVO N°	UPOV N°		Characteristics	Examples	Note
25.	25. QN	(e)	Petal: curvature in longitudinal axis		
			moderately incurved	Danfesroy	3
			straight	Dangypwhifa	5
			moderately recurved	Blancanieves	7
26.	26. (+) PQ	(e)	Petal: main colour		
			white	Dangypmini	1
			light pink	Mydah Pink	2
			medium pink	Dangypink	3
G			dark pink	Dangyp39	4
27.	27. PQ	(e)	Petal: secondary colour		
			none	Dangypmini	1
			white	Dangyp39	2
			light pink		3
			medium pink	Or	4
			dark pink		5
28.	28. QL	(b)	Calyx: number of lobes		
			five		1
			six to nine		2
			ten		3
29.	29. QN	(b)	Calyx: anthocyanin coloration		
			absent or weak		1
			medium		2
			strong		3
30.	30. (+) PQ	(d)	Calyx: shape in longitudinal section		
			acute	Barfast	1
			rounded	Mirabella	2
			truncate	Dangypwhifa	3

CPVO N°	UPOV N°	Characteristics	Examples	Note
31.	31.	Calyx: size of lobes		
	QN	(d) small	Dangypmini	3
		medium	Dangypcrys	5
		large	Mydah Bal	7
32.	32.	Time of beginning of flowering		
	(+)	early	Gypso Queen	3
	QN	medium	Esmeurope	5
		late	Mirabella	7

EXPLANATIONS AND METHODS

1 *Explanations covering several characteristics*

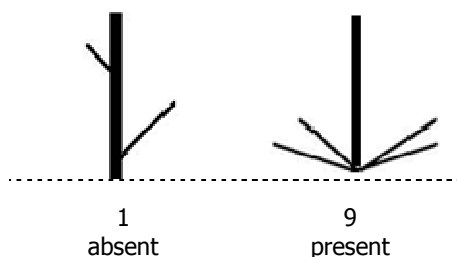
Characteristics containing the following key in the second column of the Table of Characteristics should be examined as indicated below:

- (a) To be observed on the longest internode of the main stem.
- (b) Observations should be made at the time of beginning of flowering (see Ad. 32).
- (c) The leaf to be observed is the larger of the two leaves at the node from which the lowest flowering side branch arises at the beginning of flowering.
- (d) Observations should be made at the time of full flowering (at least 10% of flowers fully open).
- (e) To be observed at the petal of the outer whorl at full flowering (at least 10% of flowers fully open).

2 *Explanations for individual characteristics*

Ad. 1: Plant: basal branching

Time of observation: at the beginning of the first flowering.



Ad. 3: Stem: number of internodes

The number of internodes should be observed on the main stem as the total number of internodes equal to, or longer than, 1 cm.

Ad. 8: Leaf: shape



1
narrow elliptic

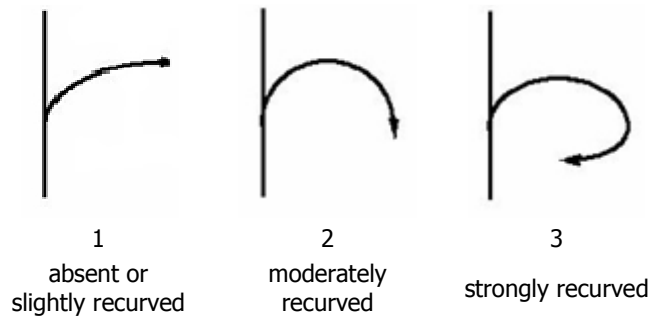


2
medium elliptic

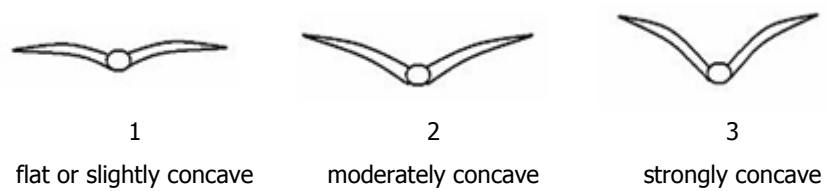


3
ovate

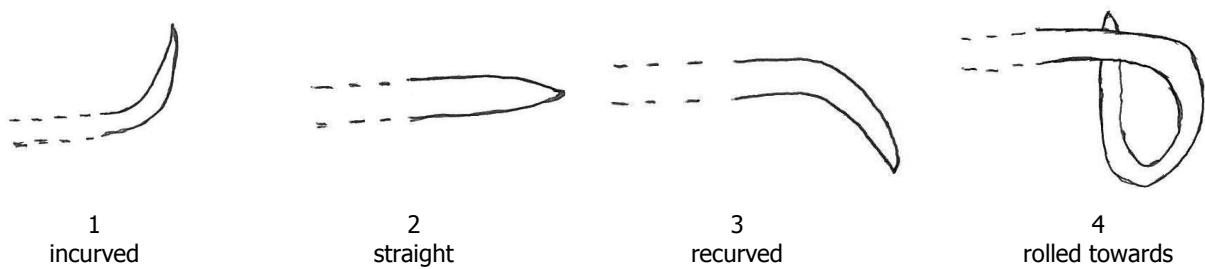
Ad. 11: Leaf: recurvature



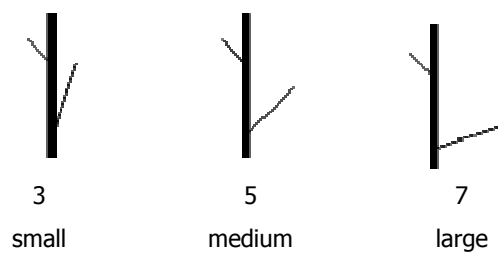
Ad. 12: Leaf: cross section



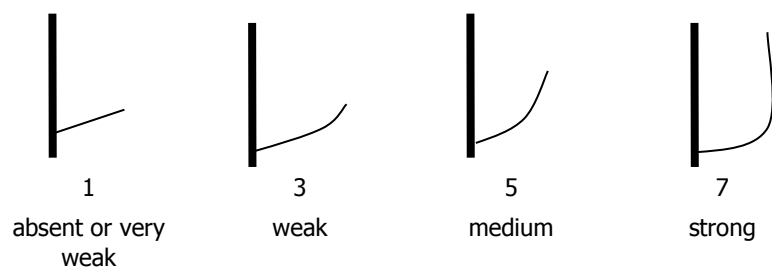
Ad. 13: Leaf: attitude of apex



Ad. 18: Inflorescence: angle of side branch in relation to main stem



Ad. 19: Inflorescence: upward curvature of side branch



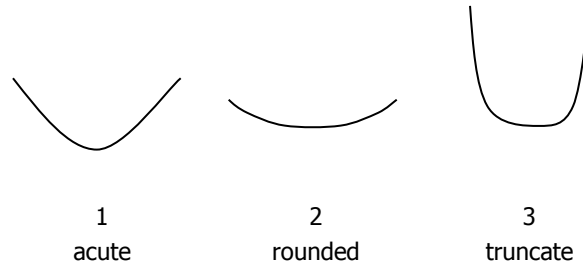
Ad. 24: Flower: length of pedicel

Characteristic to be observed on the terminal flower.

Ad. 26: Petal: main colour

The main colour is the colour with the largest surface area.

Ad. 30: Calyx: shape in longitudinal section



Ad. 32: Time of beginning of flowering

The time of beginning of flowering is when the first petals are visible on the plant.

LITERATURE

Huxley, A., 1999 (ed.): The New Royal Horticultural Society 'Dictionary of Gardening'. 4 volumes, MacMillan Reference Limited, London, GB.

Cheers, G., 1999: Botanica, the illustrated A-Z of over 10,000 garden plants. Welcome Rain Publishers, New York, New York, US.

ANNEX II

The Technical Questionnaire is available on the CPVO website under the following reference:
CPVO-TQ/262/2