



**European Union
Community Plant Variety Office**

PROTOCOL FOR DISTINCTNESS, UNIFORMITY AND STABILITY TESTS

Impatiens walleriana Hook. f.

BUSY LIZZIE

UPOV Species Code: IMPAT_WAL

Adopted on 14th November 2007

I - SUBJECT OF THE PROTOCOL

The protocol describes the technical procedures to be followed in order to meet the requirement of Council Regulation (EC) No. 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/102/4 dated 31/03/2004 for the conduct of tests for Distinctness, Uniformity and Stability and conclusions of the ornamental experts' meeting of 19th and 20th September 2007. This protocol applies to all varieties of *Impatiens walleriana* Hook. f. of the family *Balsaminaceae* and its 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

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 published yearly in the month of September.

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 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 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. 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) Leaf: variegation (characteristic 7)
- (b) Flower: type (characteristic 15)
- (c) Flower: number of colours (eye zone excluded) (characteristic 17)
- (d) Flower: main colour (characteristic 18) with the following groups:
 - Gr. 1: white
 - Gr. 2: yellow
 - Gr. 3: pink
 - Gr. 4: blue pink
 - Gr. 5: orange
 - Gr. 6: red
 - Gr. 7: purple
 - Gr. 8: violet

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 18 plants for vegetatively propagated varieties and 40 plants for seed propagated varieties. 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 for vegetatively propagated varieties determined by measurement or counting should be made on 10 plants or parts taken from each of 10 plants during flowering time.

All observations on single plants for seed propagated varieties determined by measurement or counting should be made on 20 plants or 20 parts taken from each of 20 plants during flowering time.

The test should normally be conducted at one place.

The test should be carried out in the glasshouse, 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 examination that a candidate variety 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 vegetatively propagated varieties for a sample size between 6 and 35 plants, only 1 off-type is allowed.

For seed propagated varieties which are self-pollinated, for a sample size between 36 and 82 plants, only 2 off-types are 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 from the Examination Office 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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Legend:

QL Qualitative characteristic
QN Quantitative characteristic
PQ Pseudo-qualitative characteristic

(+) See explanations on the Table of characteristics

(*): Important characteristic to be included in the UPOV variety description

Literature	18
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ANNEX II

Technical Questionnaire

ANNEX I TABLE OF CHARACTERISTICS

CPVO N°	UPOV N°	Characteristics	Examples	Note	
1. QN	1. (*) QN	Plant: height of foliage	short	Camela	3
			medium	Didi Orare	5
			tall	Tilav	7
2. QN	2. (*) QN	Plant: width	narrow		3
			medium	Camela	5
			broad	Didi Orare	7
3. QN	3. QN	Shoot: anthocyanin coloration (at upper third of shoot)	absent or very weak	Camela	1
			weak	Balfiesala	3
			medium	Didi Carmine	5
			strong		7
4. QN	4. (*) QN	Leaf: length (including petiole)	short	Balfiesala	3
			medium	Balfiesaci	5
			long	Didi Orare	7

CPVO N°	UPOV N°	Characteristics	Examples	Note	
5. QN	5. (* QN	Leaf: width	narrow	Tiwhite	3
			medium	Camela	5
			broad	Didi Orare	7
6. QN	6. QN	Leaf: ratio length/width	small		3
			medium		5
			large		7
7. QL	7. (* QL	Leaf: variegation	absent	Camela	1
			present	Snow and Ice	9
8. PQ	8. PQ	<u>Varieties with variegation only:</u> Leaf: main colour of upper side	light green		1
			medium green		2
			dark green		3
			blue green		4
9. PQ	9. PQ	<u>Varieties with variegation only:</u> Leaf: secondary colour of upper side	white		1
			yellowish white		2
			yellow		3
			light green		4

CPVO N°	UPOV N°	Characteristics	Examples	Note	
10. PQ	10. PQ	<u>Varieties without variegation only:</u> Leaf: colour of upper side	light green	1	
			medium green	Camela	2
			dark green	Didi Carmine	3
			red		4
11. PQ	11. PQ	<u>Varieties without variegation only:</u> Leaf: colour of lower side between veins	only green	1	
			green and red		2
			only red		3
12. QL	12. QL	<u>Varieties without variegation only:</u> Leaf: colour of veins on lower side	green	1	
			red		2
13. QN	13. QN	Petiole: anthocyanin coloration of upper side	absent or very weak	Camela	1
			weak	Didi Carmine	3
			medium	Didi Orare	5
			strong		7

CPVO N°	UPOV N°	Characteristics	Examples	Note	
14. QN	14. QN	Peduncle: anthocyanin coloration of upper side	absent or very weak	Camela	1
			weak	Tilav	3
			medium		5
			strong		7
15. QL	15. (*) QL	Flower: type	single	Gumbo	1
			double	Camela	2
16. QN (+)	16. (*) QN (+)	Flower: width	narrow	Balfiesala	3
			medium	Tilav	5
			broad		7
17. QL (+)	17. (*) QL (+)	Flower: number of colours (eye zone excluded)	one		1
			two		2
			more than two		3
18. PQ	18. (*) PQ	Flower: main colour	RHS Colour Chart (indicate reference number)		

CPVO N°	UPOV N°	Characteristics	Examples	Note
19. PQ	19. (* PQ	<u>Varieties with bi- or multicoloured flowers only</u> : Flower: secondary colour	RHS Colour Chart (indicate reference number) 	
20. QL (+)	20. (* QL (+)	<u>Varieties with bi- or multicoloured flowers only</u> : Flower: distribution of secondary colour	<ul style="list-style-type: none"> on whole surface of upper petal only at base of all petals along midrib of all petals along edge of all petals irregularly distributed on all petals at lateral margin of some petals at tip of some petals at base of lower petals 	<ul style="list-style-type: none"> 1 2 3 4 5 6 7 8
21. QL (+)	21. (* QL (+)	<u>Varieties with single flowers only</u> : Flower: presence of eye zone	<ul style="list-style-type: none"> absent present 	<ul style="list-style-type: none"> 1 9

CPVO N°	UPOV N°	Characteristics	Examples	Note
22. QN	22. QN	Flower: size of eye zone	small	3
			medium	5
			large	7
23. PQ	23. PQ	Flower: colour of eye zone	white	1
			yellow	2
			pink	3
			red	4
			purple	5
			violet	6
			white and pink	7
			white and red	8
24. QN (+)	24. QN (+)	<u>Varieties with single flowers only:</u> Upper petal: width	narrow	3
			medium	5
			broad	7
25. QN (+)	25. QN (+)	<u>Varieties with single flowers only:</u> Lateral petal: width	narrow	3
			medium	5
			broad	7
QN	QN		narrow	3
			medium	5
			broad	7

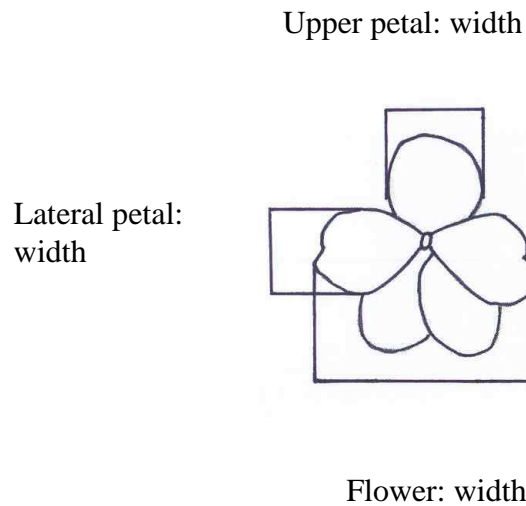
CPVO N°	UPOV N°	Characteristics	Examples	Note
26. QN	26. QN	<u>Seed-propagated varieties only:</u> Time of beginning of flowering	early medium late	3 5 7

EXPLANATIONS ON THE TABLE OF CHARACTERISTICS

Ad. 16: Flower: width

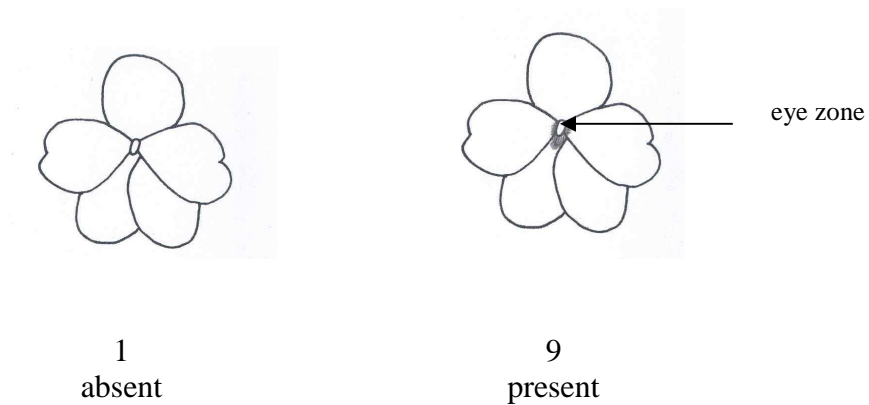
Ad. 24: Varieties with single flowers only: Upper petal: width

Ad. 25: Varieties with single flowers only: Lateral petal: width

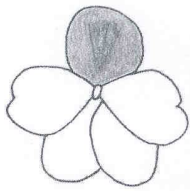


Ad. 17: Flower: number of colours (eye zone excluded)

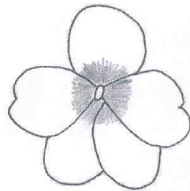
Ad. 21: Varieties with single flowers only: Flower: presence of eye zone



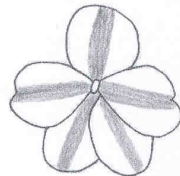
Ad 20: Plant: varieties with bi- or multicoloured flowers only: Flower: distribution of secondary colour



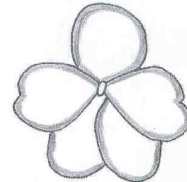
1
on whole surface
of upper petal
only



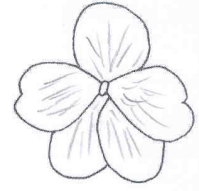
2
at base of all
petals



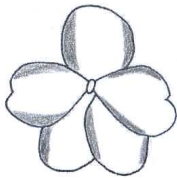
3
along midrib of
all petals



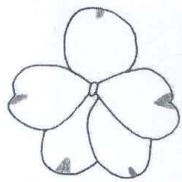
4
along edge of all petals



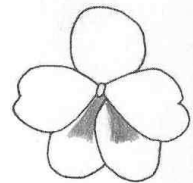
5
irregularly
distributed on
all petals



6
at lateral margin
of some petals



7
at tip of some petals



8
at base of lower petals

LITERATURE

No specific literature.

ANNEX II

The Technical Questionnaire is available on the CPVO website under the following reference:
CPVO-TQ/102/1 Add. Rev.