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 vigor 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.

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ANNEXES TO FOLLOW

ANNEX I PAGE

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

ANNEX II

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.	**3.**	**Shoot: anthocyanin coloration (at upper third of shoot)**			
QN	**QN**		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**		
			on whole surface of upper petal only	1
			at base of all petals	2
			along midrib of all petals	3
			along edge of all petals	4
			irregularly distributed on all petals	5
			at lateral margin of some petals	6
			at tip of some petals	7
			at base of lower petals	8
21. QL (+)	**21. (*) QL (+)**	**<u>Varieties with single flowers only:</u> Flower: presence of eye zone**		
			absent	1
			present	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
			white and violet		9
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**			
QN	**QN**		narrow		3
			medium		5
			broad		7

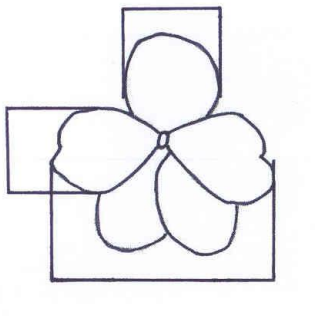
CPVO N°	UPOV N°	Characteristics		Examples	Note
26. QN	**26. QN**	**<u>Seed-propagated varieties only:</u> Time of beginning of flowering**			
			early		3
			medium		5
			late		7

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

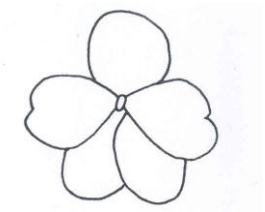
Upper petal: width

Lateral petal: width

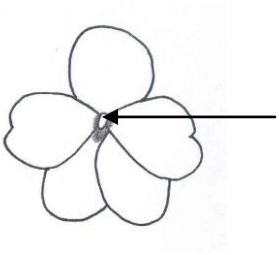


Flower: width

Ad. 17: Flower: number of colours (eye zone excluded)
Ad. 21: Varieties with single flowers only: Flower: presence of eye zone

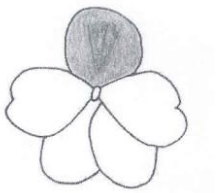


1
absent

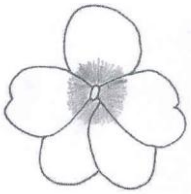


9
present

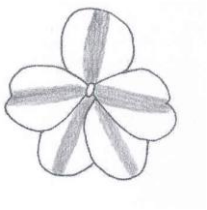
Ad 20: Plant: varieties with bi- or multicoloured flowers only: Flower: distribution of secondary colour



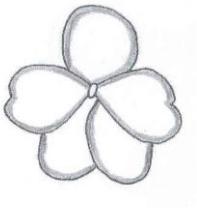
1
on whole surface of upper petal only



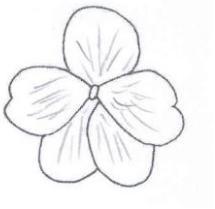
2
at base of all petals



3
along midrib of all petals

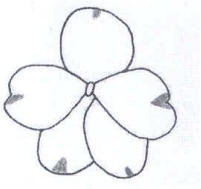


4
along edge of all petals

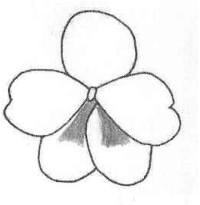


5
irregularly distributed on all petals

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

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: Latin name of the genus, species or sub-species to which the variety belongs and common name:

Species	***Impatiens walleriana* Hook f.** **BUSY LIZZIE**	**[ ]**
	Hybrid of ***Impatiens walleriana* Hook f.**	**[ ]**

Botanical name of the species used in the crossing .....

2. Applicant(s): Name(s) and address(es), phone and fax number(s), Email 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): ..... [ ]

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

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4.2 Method of propagation

(a) Cuttings..... [ ]

(b) *In vitro* propagation..... [ ]

(c) Seed..... [ ]

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

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4.3 Other information:

In the case of seed propagated varieties: method of production:

(a) Self-pollinated ..... [ ]

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

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

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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 Protocol; please mark the state of expression which best corresponds).

	Characteristics	Example varieties	Note
5.1 (7)	**Leaf: variegation**		
	absent	Camela	1 [ ]
	present	Snow and Ice	9 [ ]
5.2 (15)	**Flower: type**		
	single	Gumbo	1 [ ]
	double	Camela	2 [ ]

	Characteristics	Example varieties	Note
5.3 (16)	**Flower: width**		
	narrow	Balfiesala	3 [ ]
	medium	Tilav	5 [ ]
	broad		7 [ ]
5.4 (17)	**Flower: number of colours (eye zone excluded)**		
	one		1 [ ]
	two		2 [ ]
	more than two		3 [ ]
5.5 i (18)	**Flower: main colour**		
	RHS Colour Chart (indicate reference number)	……	
5.5 ii (18)	**Flower: main colour**		
	white		1 [ ]
	yellow		2 [ ]
	pink		3 [ ]
	blue pink		4 [ ]
	orange		5 [ ]
	red		6 [ ]
	purple		7 [ ]
	violet		8 [ ]
	other colour (please indicate)	……..	9 [ ]
5.6i (19)	**<u>Varieties with bi- or multicolored flowers only:</u> Flower: secondary colour**		
	RHS Colour Chart (indicate reference number)	……..	

Characteristics		Example varieties	Note
5.6 ii (19)	**Varieties with bi- or multicoloured flowers only: Flower: secondary colour**		
	white		1 [ ]
	pink		2 [ ]
	red		3 [ ]
	violet		4 [ ]
	other colour (please indicate)	……	
5.7 (20)	**Varieties with bi- or multicoloured flowers only: Flower: distribution of secondary colour**		
	on whole surface of upper petal only		1 [ ]
	at base of all petals		2 [ ]
	along midrib of all petals		3 [ ]
	along edge of all petals		4 [ ]
	irregularly distributed on all petals		5 [ ]
	at lateral margin of some petals		6 [ ]
	at tip of some petals		7 [ ]
	at base of lower petals		8 [ ]
	other distribution (please indicate)	……..	9 [ ]

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 pest and diseases

……

7.2 Special conditions for the examination

[ ] 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 2001/18/EC 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 2100/94 does not pose risks to the environment according to the norms of the above-mentioned Directive.

9. Information on plant material to be examined

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 or pesticide)	Yes [ ]	No [ ]
(c) Tissue culture	Yes [ ]	No [ ]
(d) Other factors	Yes [ ]	No [ ]

Please provide details of where you have indicated "Yes":

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I/we hereby declare that to the best of my/our knowledge the information given in this form is complete and correct.

Date Signature Name

[End of document]