CPVO · OCVV
Community Plant Variety Office
Office Communautaire des Variétés Végétales

# PROTOCOL FOR DISTINCTNESS, UNIFORMITY AND STABILITY TESTS

***Impatiens New Guinea Group***

## NEW GUINEA IMPATIENS

UPOV Code: IMPAT_NGH

**Adopted on 28/11/2012**

**Entered into force on 28/11/2012**

# I SUBJECT OF THE PROTOCOL

The protocol describes the technical procedures to be followed in order to meet the requirement of Council Regulation (EC) N°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, UPOV Guideline TG/196/2 Rev. dated 28/03/2012 for the conduct of tests for Distinctness, Uniformity and Stability. This protocol applies to all varieties of ***Impatiens New Guinea Group*** of the family *Balsaminaceae*.

# 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 the respect to closing dates and submission requirements of plant material for technical examination of varieties can be found on the CPVO website (www.cpvo.europa.eu) in the special Issue of the 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.<br><br>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<br>- File number of the application allocated by the CPVO<br>- Breeder's reference<br>- Examination reference (if known)<br>- Name of applicant<br>- 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 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 N° 874/09, 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 ones:

a) Leaf blade: marking of upper side (characteristic 9)
b) Flower: type (characteristic 17)
c) Flower: number of colours (eye zone excluded) (characteristic 19)
d) Flower: main colour of upper side (characteristic 20) with the following groups:

Gr. 1: white
Gr. 2: orange pink
Gr. 3: orange red
Gr. 4: red
Gr. 5: bluish pink
Gr. 6: blue red
Gr. 7: purple red
Gr. 8: purple
Gr. 9: violet
Gr. 10: blue 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. 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.

All observations on plants should be made at the time of full flowering.

The test should normally be conducted at one place.

The test should be carried out in the greenhouse, under conditions ensuring normal growth.

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 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, only 1 off-type is allowed.

For the assessment of uniformity of seed propagated varieties which are cross pollinated or hybrids, the recommendations in the UPOV General introduction for cross pollinated or hybrid varieties should be followed, as appropriate.

**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 **28/11/2012**. Any ongoing DUS examination of candidate varieties started before the aforesaid date will not be affected by the approval of the new TP. 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.

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# ANNEXES TO FOLLOW

**ANNEX I** PAGE



Legend:
(+) See Explanations on the Table of characteristics
G Grouping characteristics

Types of expression of characteristics:
QL Qualitative characteristic
QN Quantitative characteristic
PQ Pseudo-qualitative characteristic



**ANNEX II**

# ANNEX I

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

| CPVO N° | UPOV N° | Stage, Method | Characteristics | Examples | Note |
|---|---|---|---|---|---|
| **1.** | **1. (*)** | | **Plant: height of foliage** | | |
| **(+)** | **(+)** | | short | Kijos | 3 |
| **QN** | **QN** | | medium | Colombo | 5 |
| | | | tall | Firenze | 7 |
| **2.** | **2. (*)** | | **Plant: width** | | |
| **QN** | **QN** | | narrow | Kimpgua | 3 |
| | | | medium | Kitotoya | 5 |
| | | | broad | Kibarbu | 7 |
| **3.** | **3.** | | **Shoot: anthocyanin coloration (on upper part of shoot)** | | |
| **QN** | **QN** | | absent or very weak | Vienna | 1 |
| | | | weak | Duesweetres | 3 |
| | | | medium | Firenze | 5 |
| | | | strong | Kitotoya | 7 |
| | | | very strong | Kimali | 9 |
| **4.** | **4.** | | **Petiole: length** | | |
| **QN** | **QN** | | short | | 3 |
| | | | medium | | 5 |
| | | | long | | 7 |
| **5.** | **5.** | | **Petiole: anthocyanin coloration on upper side** | | |
| **QN** | **QN** | | absent or very weak | Kijos | 1 |
| | | | weak | Ricky Gini | 3 |
| | | | medium | Firenze | 5 |
| | | | strong | Kinepor | 7 |
| | | | very strong | | 9 |

| CPVO N° | UPOV N° | Stage, Method | Characteristics | Examples | Note |
|---|---|---|---|---|---|
| **6.** | **6. (*)** | | **Leaf blade: length** | | |
| **QN** | **QN** | | short | Duesweetres | 3 |
| | | | medium | Kitotoya | 5 |
| | | | long | Firenze | 7 |
| **7.** | **7. (*)** | | **Leaf blade: width** | | |
| **QN** | **QN** | | narrow | Kiluis | 3 |
| | | | medium | Duesweetres | 5 |
| | | | broad | Firenze | 7 |
| **8.** | **8.** | | **Leaf blade: length/width ratio** | | |
| **QN** | **QN** | | small | Kimpslav | 3 |
| | | | medium | Kitotoya | 5 |
| | | | large | Kimaris | 7 |
| **9. (+)** | **9. (*) (+)** | | **Leaf blade: marking of upper side** | | |
| **QL** | **QL** | | absent | Kitotoya | 1 |
| **G** | | | present | Tempest | 9 |
| **10.** | **10. (*)** | | **<u>Varieties with marking only</u>: Leaf blade: colour of marking of upper side** | | |
| **PQ** | **PQ** | | light yellow | Solared | 1 |
| | | | medium yellow | Red Planet | 2 |
| | | | yellow with red | Tempest | 3 |
| | | | light green | Celsal | 4 |
| **11.** | **11. (*)** | | **Leaf blade: anthocyanin coloration of upper side** | | |
| **QN** | **QN** | | absent or very weak | Ballet | 1 |
| | | | weak | Kicarl | 3 |
| | | | medium | | 5 |
| | | | strong | | 7 |
| | | | very strong | Vulcain | 9 |

| CPVO N° | UPOV N° | Stage, Method | Characteristics | Examples | Note |
|---|---|---|---|---|---|
| **12.** | **12. (*)** | | **Leaf blade: colour of lower side between veins** | | |
| **QL** | **QL** | | green | Kitotoya | 1 |
| | | | red | Tempest | 2 |
| **13.** | **13.** | | **<u>Varieties with red lower side only</u>: Leaf blade: intensity of red coloration on lower side between veins** | | |
| **QN** | **QN** | | weak | | 3 |
| | | | medium | | 5 |
| | | | strong | | 7 |
| **14.** | **14. (*)** | | **Leaf blade: colour of veins on lower side** | | |
| **QL** | **QL** | | green | Kijos | 1 |
| | | | red | Kitotoya | 2 |
| **15.** | **15.** | | **Pedicel: length** | | |
| **QN** | **QN** | | short | | 3 |
| | | | medium | | 5 |
| | | | long | | 7 |
| **16.** | **16.** | | **Pedicel: anthocyanin coloration** | | |
| **QN** | **QN** | | absent or very weak | Tempest | 1 |
| | | | weak | Ricky Gini | 3 |
| | | | medium | Firenze | 5 |
| | | | strong | Kimpslav | 7 |
| | | | very strong | | 9 |
| **17.** | **17. (*)** | | **Flower: type** | | |
| **QL** | **QL** | | single | Kitotoya | 1 |
| **G** | | | double | | 2 |

| CPVO N° | UPOV N° | Stage, Method | Characteristics | Examples | Note |
|---|---|---|---|---|---|
| **18.** | **18. (*)** | | **Flower: width** | | |
| **(+)** | **(+)** | | very narrow | Kitol | 1 |
| **QN** | **QN** | | narrow | Duesweetpur | 3 |
| | | | medium | Kitotoya | 5 |
| | | | broad | Kibetio | 7 |
| | | | very broad | Kimpslav | 9 |
| **19.** | **19. (*)** | | **Flower: number of colours (eye zone excluded)** | | |
| **QL** | **QL** | | one | Kitotoya | 1 |
| | | | two | Kiluis | 2 |
| **G** | | | three or more | | 3 |
| **20.** | **20. (*)** | | **Flower: main colour of upper side** | | |
| **PQ** | **PQ** | | RHS Colour Chart (indicate reference number) | | |
| **G** | | | | | |
| **21.** | **21. (*)** | | **<u>Varieties with bi- or multi-coloured flowers only</u>: Flower: secondary colour of upper side** | | |
| **PQ** | **PQ** | | RHS Colour Chart (indicate reference number) | | |
| **22.** | **22. (*)** | | **<u>Varieties with bi- or multi-coloured flowers only</u>: Flower: distribution of secondary colour** | | |
| **PQ** | **PQ** | | mainly on upper petal | Vulcain | 1 |
| | **(+)** | | on all petals around base | Balcelisow | 2 |
| | | | on all petals along mid-rib | Kiluis | 3 |
| | | | on all petals v-shaped at distal end | Danharpurcrown | 4 |
| | | | on all petals irregularly distributed | Fisnics Magpink | 5 |
| | | | mainly on lateral petals | | 6 |
| | | | on all petals as some longitudinal stripes and on upper petal as spot | | 7 |

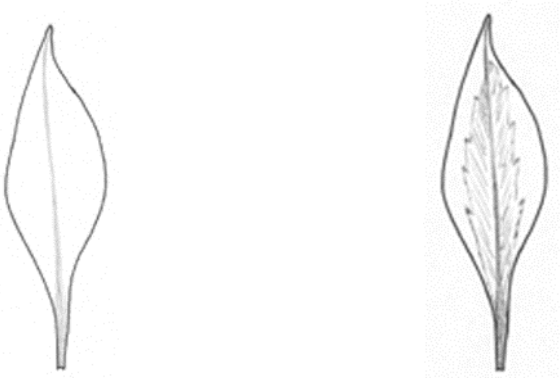
| CPVO N° | UPOV N° | Stage, Method | Characteristics | Examples | Note |
|---|---|---|---|---|---|
| **23.** | **23. (*)** | | **Flower: eye zone** | | |
| **(+)** | **(+)** | | absent | Kibetio | 1 |
| **QL** | **QL** | | present | Kitotoya | 9 |
| **24.** | **24. (*)** | | **Flower: size of eye zone** | | |
| **QN** | **QN** | | small | Firenze | 3 |
| | | | medium | Tempest | 5 |
| | | | large | Kianton | 7 |
| **25.** | **25.** | | **Flower: main colour of eye zone** | | |
| **PQ** | **PQ** | | RHS Colour Chart<br>(indicate reference number) | | |
| **26.** | **26.** | | **<u>Varieties with single flowers only</u>: Upper petal: width** | | |
| **(+)** | **(+)** | | narrow | Kipaqui | 3 |
| **QN** | **QN** | | medium | Kijos | 5 |
| | | | broad | Kimali | 7 |
| **27.** | **27.** | | **<u>Varieties with single flowers only</u>: Lateral petal: width** | | |
| **(+)** | **(+)** | | narrow | Kitotoya | 3 |
| **QN** | **QN** | | medium | Firenze | 5 |
| | | | broad | Duesweetres | 7 |
| **28.** | **28.** | | **<u>Varieties with single flowers only</u>: Lower petal: length** | | |
| **(+)** | **(+)** | | short | | 3 |
| **QN** | **QN** | | medium | | 5 |
| | | | long | | 7 |

## EXPLANATIONS AND METHODS

Ad. 1: Plant: height of foliage

The height of the foliage is the distance from the substrate surface to the highest point of the foliage.

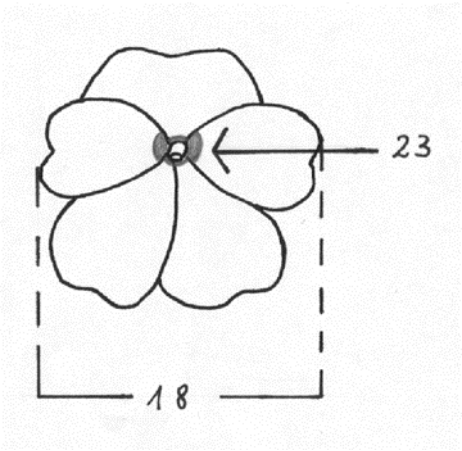
Ad. 9: Leaf blade: marking of upper side



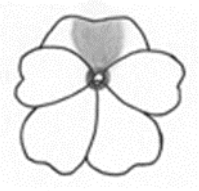
1
absent

9
present

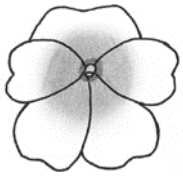
Ad. 18: Flower: width
Ad. 23: Flower: eye zone



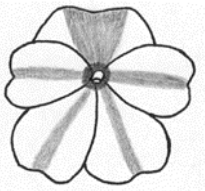
Ad. 22: Varieties with bi- or multi-coloured flowers only: Flower: distribution of secondary colour



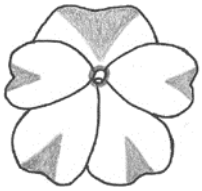
1
mainly on upper petal



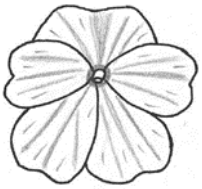
2
on all petals around base



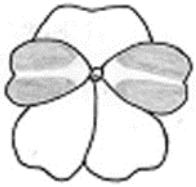
3
on all petals along mid-rib



4
on all petals v-shaped at distal end



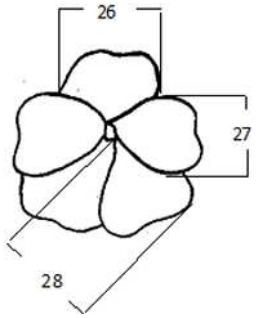
5
on all petals irregularly distributed



6
mainly on lateral petals

7
on all petals as some longitudinal stripes and on upper petal as spot

Ad. 26: Varieties with single flowers only: Upper petal: width
Ad. 27: Varieties with single flowers only: Lateral petal: width
Ad. 28: Varieties with single flowers only: Lower petal: length



## LITERATURE

Grey-Wilson, C., 1980: Impatiens of Africa, A. A. Balkema, Rotterdam.

# ANNEX II

The Technical Questionnaire is available on the CPVO website under the following reference: CPVO-TQ/196/3