



TG/196/1(proj.1)
ORIGINAL: English
DATE : 2002-01-18

**INTERNATIONAL UNION
FOR THE PROTECTION
OF NEW VARIETIES OF
PLANTS**

**UNION INTERNATIONALE
POUR LA PROTECTION
DES OBTENTIONS
VÉGÉTALES**

**INTERNATIONALER
VERBAND ZUM SCHUTZ
VON PFLANZEN-
ZÜCHTUNGEN**

**UNIÓN INTERNACIONAL
PARA LA PROTECCIÓN
DE LAS OBTENCIONES
VEGETALES**

DRAFT

**GUIDELINES
FOR THE CONDUCT OF TESTS
FOR DISTINCTNESS, UNIFORMITY AND STABILITY**

**NEW GUINEA
IMPATIENS
*(Impatiens L.)***

These Guidelines should be read in conjunction with document TG/1/2, which contains explanatory notes on the general principles on which the Guidelines have been established.

<u>TABLE OF CONTENTS</u>	<u>PAGE</u>
I. Subject of these Guidelines	3
II. Material Required	3
III. Conduct of Tests	3
IV. Methods and Observations.....	4
V. Grouping of Varieties	4
VI. Characteristics and Symbols	4
VII. Table of Characteristics	6
VIII. Explanations on the Table of Characteristics	14
IX. Literature	16
X. Technical Questionnaire	17

I. Subject of these Guidelines

These Test Guidelines apply to all varieties of the New Guinea Impatiens Group of the family Balsaminaceae.

II. Material Required

1. The competent authorities decide when, where and in what quantity and quality the plant material required for testing the variety is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must ensure that all customs formalities are complied with. As a minimum, the following quantity of plant material is recommended:

For vegetatively propagated varieties: 20 rooted cuttings.

2. The plant material supplied should be visibly healthy, not lacking in vigor or affected by any important pests or diseases.

3. The plant material must not have undergone any treatment unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

III. Conduct of Tests

1. For vegetatively propagated varieties, the test should normally be conducted during a single growing cycle. If distinctness and/or uniformity cannot be sufficiently examined during this growing cycle, the test should be extended for a second growing cycle.

2. The tests 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.

3. The tests should be carried out under conditions ensuring normal growth.

Planting time: March/April (Northern Hemisphere)

Substrate: Porous substrate with good aeration, e.g. peat compost with pH 6,0-6,5.

Temperatures: 18-20°C for first 6 weeks, then 14-17°C.

The size of the plots should be such that plants or parts of plants may be removed for measurement and counting without prejudice to the observations which must be made up to the end of the growing period. As a minimum, for vegetatively propagated varieties, each test should include a total of 20 plants. Separate plots for observation and measuring can only be used if they have been subject to similar environmental conditions.

4. Additional tests for special purposes may be established.

IV. Methods and Observations

1. For vegetatively propagated varieties, all visual observations should be made on 20 plants or parts taken from each of 20 plants. All observations determined by measurement or counting should be made on 10 plants or parts taken from each of 10 plants.
2. For the assessment of uniformity for vegetatively propagated varieties, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 20 plants, the maximum number of off-types allowed would be 1.
3. All observations should be made at the time of full flowering.
4. Because daylight varies, colour determinations made against a color chart should be made either in a suitable cabinet providing artificial daylight or in the middle of the day in a room without direct sunlight. The spectral distribution of the illuminant for artificial daylight should conform with the CIE Standard of Preferred Daylight D 6500 and should fall within the tolerances set out in British Standard 950, Part I. These determinations should be made with the plant part placed against a white background.

V. Grouping of Varieties

1. The collection of varieties to be grown should 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. Their various states of expression should be fairly evenly distributed throughout the collection.
2. It is recommended that the competent authorities use the following characteristics for grouping varieties:
 - (a) Leaf blade: marking of upper side (characteristic 9)
 - (b) Flower: type (characteristic 17)
 - (c) Flower: number of colors (eye zone excluded) (characteristic 19)
 - (d) Flower: main color of upper side (characteristic 20)

VI. Characteristics and Symbols

1. To assess distinctness, uniformity and stability, the characteristics and their states as given in the Table of Characteristics should be used.
2. Notes (numbers), for the purposes of electronic data processing, are given opposite the states of expression for each characteristic.

3. Legend

- (*) Characteristics that should be used on all varieties in every growing period over which examinations are made and always be included in the variety descriptions, except when the state of expression of a preceding characteristic or regional environmental conditions render this impossible.

- (+) See Explanations on the Table of Characteristics in Chapter VIII.

VII. Table of Characteristics/Tableau des caractères/Merkmalestabelle/Tabla de caracteres

English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
1. Plant: height of foliage (*)	Plante: hauteur du feuillage	Pflanze: Höhe der Laubzone	Planta: altura del follaje		
short	bas	niedrig	bajo	Kijos	3
medium	moyen	mittel	medio	Colombo	5
tall	haut	hoch	alto	Firenze	7
2. Plant: width (*)	Plante: largeur	Pflanze: Breite	Planta: anchura		
narrow	étroite	schmal	estrecha	Kimpgua	3
medium	moyenne	mittel	media	Kitotoya	5
broad	large	breit	ancha	Kibarbu	7
3. Shoot: anthocyanin coloration (on upper third of a shoot)	Pousse: pigmentation anthocyanique (sur le tiers supérieur d'une pousse)	Trieb: Anthocyanfärbung (im oberen Drittel des Triebes)	Tallo: pigmentación antocianica (en el tercio superior de un tallo)		
absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Vienna	1
weak	faible	gering	débil	Duesweetres	3
medium	moyenne	mittel	media	Firenze	5
strong	forte	stark	fuerte	Kitotoya	7
very strong	très forte	sehr stark	muy fuerte	Kimali	9
4. Petiole: length	Pétiole: longueur	Blattstiel: Länge	Pecíolo: longitud		
short	court	kurz	corto		3
medium	moyen	mittel	medio		5
long	long	lang	largo		7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5. Petiole: anthocyanin coloration on upper side	Pétiole: pigmentation anthocyanique de la partie supérieure	Blattstiel: Anthocyanfärbung auf der Oberseite	Pecíolo: pigmentación antocianica de la parte superior		
absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Kijos	1
weak	faible	gering	débil	Ricky Gini	3
medium	moyenne	mittel	media	Firenze	5
strong	forte	stark	fuerte	Kinepor	7
very strong	très forte	sehr stark	muy fuerte		9
6. Leaf blade: length (*)	Limbe: longueur	Blattspreite: Länge	Limbo: longitud		
short	court	kurz	corto	Duesweetres	3
medium	moyen	mittel	medio	Kitotoya	5
long	long	lang	largo	Firenze	7
7. Leaf blade: width (*)	Limbe: largeur	Blattspreite: Breite	Limbo: anchura		
narrow	étroit	schmal	estrecho	Kiluis	3
medium	moyen	mittel	medio	Duesweetres	5
broad	large	breit	ancho	Firenze	7
8. Leaf blade: length/width ratio	Limbe: rapport longueur/largeur	Blattspreite: Verhältnis Länge/Breite	Limbo: relación entre la longitud y la anchura		
small	petit	klein	pequeña	Kimplav	3
medium	moyen	mittel	media	Kitotoya	5
large	grand	groß	grande	Kimaris	7
9. Leaf blade: marking of upper side (*) (+)	Limbe: ornementation de la face supérieure	Blattspreite: Zeichnung der Oberseite	Limbo: mancha del haz		
absent	absente	fehlend	ausente	Kitotoya	1
present	présente	vorhanden	presente	Tempest	9

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
10. (*) <u>Varieties with marking only:</u> Leaf blade: color of marking of upper side	<u>Seulement les variétés à ornementation:</u> Limbe: couleur de l'ornementation de la face supérieure	<u>Nur Sorten mit Zeichnung:</u> Blattspreite: Farbe der Zeichnung der Oberseite	<u>Sólo para variedades con mancha:</u> Limbo: color de la mancha del haz		
light yellow	jaune clair	hellgelb	amarillo claro	Solared	1
yellow	jaune	gelb	amarillo	Red Planet	2
yellow with red	jaune et rouge	gelb mit rot	amarillo y rojo	Tempest	3
light green	vert clair	hellgrün	verde claro	Celsal	4
11. (*) Leaf blade: anthocyanin coloration of upper side	Limbe: pigmentation anthocyanique de la face supérieure	Blattspreite: Anthocyanfärbung der Oberseite	Limbo: pigmentación antociánica del haz		
absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Ballet	1
weak	faible	gering	débil	Kicarl	3
medium	moyenne	mittel	media		5
strong	forte	stark	fuerte		7
very strong	très forte	sehr stark	muy fuerte	Vulcain	9
12. (*) Leaf blade: color of lower side between veins	Limbe: couleur de la face inférieure entre les nervures	Blattspreite: Farbe der Unterseite zwischen den Adern	Limbo: color del envés entre los nervios		
green	verte	grün	verde	Kitotoya	1
red	rouge	rot	rojo	Tempest	2

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
13. <u>Varieties with red lower side only:</u> Leaf blade: intensity of red coloration on lower side between veins	<u>Seulement les variétés dont la face inférieure est rouge :</u> Limbe: intensité de la pigmentation rouge sur la face inférieure entre les nervures	<u>Nur Sorten mit roter Blattunterseite:</u> Blattspreite: Intensität der Rotfärbung der Unterseite zwischen den Adern	<u>Sólo para variedades con envés rojo:</u> Limbo: intensidad del color rojo en el envés entre los nervios		
weak	faible	gering	débil		3
medium	moyenne	mittel	media		5
strong	forte	stark	fuerte		7
14. (*) Leaf blade: color of veins on lower side	Limbe: couleur des nervures sur la face inférieure	Blattspreite: Farbe der Adern auf der Unterseite	Limbo: color de los nervios en el envés		
green	verte	grün	verde	Kijos	1
red	rouge	rot	rojo	Kitotoya	2
15. Pedicel: length	Pédicelle: longueur	Blütenstiel: Länge	Pedicelo: longitud		
short	court	kurz	corto		3
medium	moyen	mittel	medio		5
long	long	lang	largo		7
16. Pedicel: anthocyanin coloration	Pédicelle: pigmentation anthocyanique	Blütenstiel: Anthocyanfärbung	Pedicelo: pigmentación antociánica		
absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Tempest	1
weak	faible	gering	débil	Ricky Gini	3
medium	moyenne	mittel	media	Firenze	5
strong	forte	stark	fuerte	Kimpslav	7
very strong	très forte	sehr stark	muy fuerte		9
17. (*) Flower: type	Fleur: type	Blüte: Typ	Flor: tipo		
single	simple	einfach	simple	Kitotoya	1
double	double	doppelt	doble		2

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
18. Flower: width (* (+)	Fleur: largeur	Blüte: Breite	Flor: anchura		
very narrow	très étroite	sehr schmal	muy estrecha	Kitol	1
narrow	étroite	schmal	estrecha	Duesweetpur	3
medium	moyenne	mittel	media	Kitotoya	5
broad	large	breit	ancha	Kibetio	7
very broad	très large	sehr breit	muy ancha	Kimpslav	9
19. Flower: number of colors (eye zone excluded) (*	Fleur: nombre de couleurs (zone de l'œil exclue)	Blüte: Anzahl Farben (Augenzone ausgenommen)	Flor: número de colores (excluida la zona del ojo)		
one	une	eine	uno	Kitotoya	1
two	deux	zwei	dos	Kibetio	2
three or more	trois ou plus	drei oder mehr	tres o más		3
20. Flower: main color of upper side (*	Fleur: couleur principale de la partie supérieure	Blüte: Hauptfarbe der Oberseite	Flor: color principal de la parte superior		
RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		
21. <u>Varieties with bi- or multicolored flowers only</u>: Flower: secondary color of upper side (*	<u>Seulement les variétés à fleurs bicolores ou multicolores</u>: fleur: couleur secondaire de la partie supérieure	<u>Nur Sorten mit zwei- oder mehrfarbigen Blüten</u>: Blüte: Sekundärfarbe der Oberseite	<u>Sólo para variedades con flores bicolores o multicolores</u>: Flor: color secundario de la parte superior		
RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
22. Varieties with bi- or multicolored flowers (* (+) only: Flower: distribution of secondary color	Seulement les variétés à fleurs bicolores ou multicolores : fleur: distribution de la couleur secondaire	Nur Sorten mit zwei- oder mehrfarbigen Blüten: Blüte: Verteilung der Sekundärfarbe	Sólo para variedades con flores bicolors o multicolores: Flor: distribución del color secundario		
mainly on upper petal	surtout sur le pétale supérieur	hauptsächlich auf dem oberen Blütenblatt	principalmente en el pétalo superior	Vulcain	1
on all petals around base	sur tous les pétales autour de la base	auf allen Blütenblättern um die Basis herum	en todos los pétalos alrededor de la base	Balcelisow	2
on all petals along mid-rib	sur tous les pétales le long de la nervure centrale	auf allen Blütenblättern entlang der Mittelrippe	en todos los pétalos a lo largo de la nervadura principal	Kiluis	3
23. Flower: eye zone (* (+)	Fleur: zone de l'œil	Blüte: Augenzone	Flor: zona del ojo		
absent	absente	fehlend	ausente	Kibetio	1
present	présente	vorhanden	presente	Kitotoya	9
24. Flower: size of eye zone (*	Fleur: taille de la zone de l'œil	Blüte: Grösse der Augenzone	Flor: tamaño de la zona del ojo		
small	petite	klein	pequeña	Firenze	3
medium	moyenne	mittel	media	Tempest	5
large	grande	groß	grande	Kianton	7
25. Flower: main color of eye zone	Fleur: couleur principale de la zone de l'œil	Blüte: Hauptfarbe der Augenzone	Flor: color principal de la zona del ojo		
RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indíquese el número de referencia)		

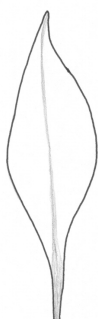
English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
26.	<u>Varieties with single flowers only:</u>	<u>Seulement les variétés à fleurs simples:</u>	<u>Nur Sorten mit einfachen Blüten:</u>	<u>Sólo para variedades con flores simples:</u>	
(+)	Upper petal: width	Pétale supérieur: largeur	Oberes Blütenblatt: Breite	Pétalo superior: anchura	
	narrow	étroit	schmal	estrecho	Kipaqui 3
	medium	moyen	mittel	medio	Kijos 5
	broad	large	breit	ancho	Kimali 7
27.	<u>Varieties with single flowers only:</u>	<u>Seulement les variétés à fleurs simples:</u>	<u>Nur Sorten mit einfachen Blüten:</u>	<u>Sólo para variedades con flores simples:</u>	
(+)	Lateral petal: width	Pétale latéral: largeur	Seitliches Blütenblatt: Breite	Pétalo lateral: anchura	
	narrow	étroit	schmal	estrecho	Kitotoya 3
	medium	moyen	mittel	medio	Firenze 5
	broad	large	breit	ancho	Duesweetres 7
28.	<u>Varieties with single flowers only:</u>	<u>Seulement les variétés à fleurs simples:</u>	<u>Nur Sorten mit einfachen Blüten:</u>	<u>Sólo para variedades con flores simples:</u>	
(+)	Lower petal: length	Pétale inférieur: longueur	Unteres Blütenblatt: Länge	Pétalo inferior: longitud	
	short	court	kurz	corto	3
	medium	moyen	mittel	medio	5
	long	long	lang	largo	7
29.	<u>Varieties with single flowers only:</u>	<u>Seulement les variétés à fleurs simples:</u>	<u>Nur Sorten mit einfachen Blüten:</u>	<u>Sólo para variedades con flores simples:</u>	
(+)	Lower petal: depth of incision	Pétale inférieur: profondeur de l'incision	Unteres Blütenblatt: Tiefe des Einschnitts	Pétalo inferior: profundidad de la incisión	
	absent or very shallow	absente ou très peu profonde	fehlend oder sehr gering	ausente o muy poco profunda	1
	shallow	peu profonde	gering	poco profunda	3
	medium	moyenne	mittel	media	5
	deep	profonde	tief	profunda	7
	very deep	très profonde	sehr tief	muy profunda	9

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
30. Spur: degree of curvature (+)	Éperon: degré de courbure	Sporn: Stärke der Krümmung	Espolón: grado de curvatura		
absent or very weak	nul ou très faible	fehlend oder sehr gering	ausente o muy débil		1
weak	faible	gering	débil		3
medium	moyen	mittel	media		5
strong	fort	stark	fuerte		7
very strong	très fort	sehr stark	muy fuerte		9

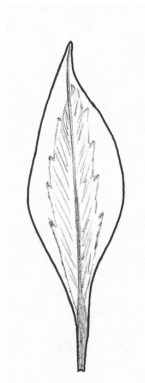
VII. Table of Characteristics/Tableau des caractères/Merkmalstabelle/Tabla de caracteres

VIII. Explanations on the table of Characteristics

Ad. 9: Leaf blade: marking of upper side



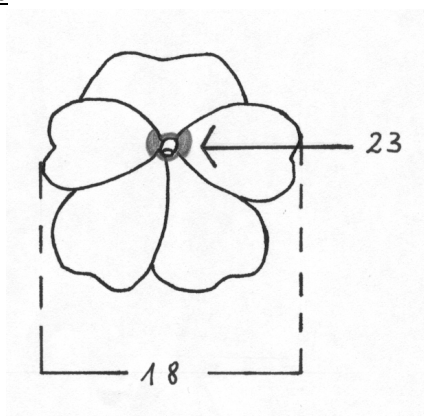
1
absent



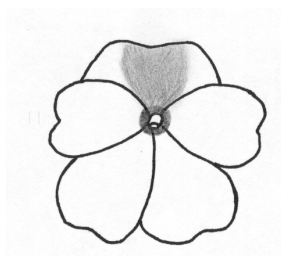
9
present

Ad. 18: Flower: width

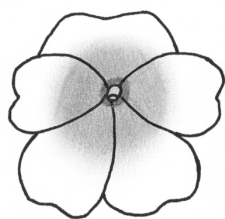
Ad. 23: Flower: eye zone



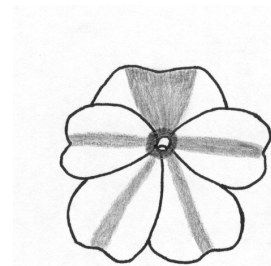
Ad. 22: Varieties with bi- or multicolored flowers only: Flower: distribution of secondary color



1
mainly on upper petal



2
on all petals around base

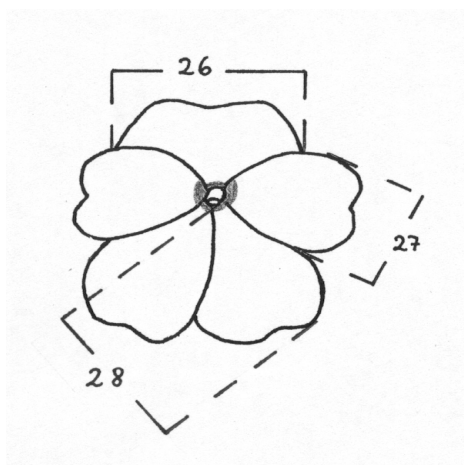


3
on all petals along mid-rib

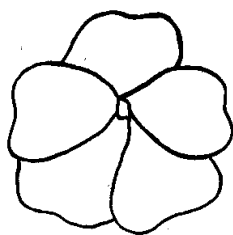
Ad. 26: Varieties with single flowers only: Upper petal: width

Ad. 27: Varieties with single flowers only: Lateral petal: width

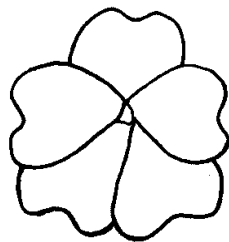
Ad. 28: Varieties with single flowers only: Lower petal: length



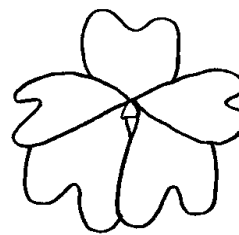
Ad. 29: Varieties with single flowers only: Lower petal: depth of incision



3
shallow



5
medium

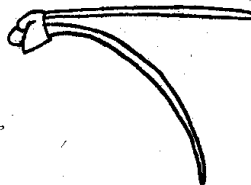


7
deep

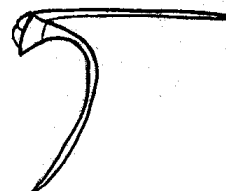
Ad. 30: Spur: degree of curvature



3
weak



5
medium



7
strong

IX. Literature

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

X. Technical Questionnaire

	Reference Number (not to be filled in by the applicant)
<p>TECHNICAL QUESTIONNAIRE to be completed in connection with an application for plant breeders' rights</p>	
1. Species	<p><i>New Guinea Impatiens</i> Group NEW GUINEA IMPATIENS</p>
2. Applicant (Name and address)	
3. Proposed denomination or breeder's reference	

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

4.1 Origin

(a) Seedling (indicate parent varieties)

..... []

(b) Mutation (indicate parent variety)

..... []

(c) Discovery (indicate where and when)

..... []

(d) Other (specify)

..... []

4.2 Method of reproduction

(a) Cuttings []

(b) *In vitro* propagation []

(c) Other (specify)

..... []

4.3 Other information

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

Characteristics	Example Varieties	Note
5.1 Plant: height of foliage (1)		
short	Kijos	3[]
medium	Colombo	5[]
tall	Firenze	7[]
5.2 Leaf blade: anthocyanin coloration of upper side (11)		
absent or very weak	Ballet	1[]
weak	Kicarl	3[]
medium		5[]
strong		7[]
very strong	Vulcain	9[]
5.3 Leaf blade: color of lower side between veins (12)		
green	Kitotoya	1[]
red	Tempest	2[]
5.4 Leaf blade: color of veins on lower side (14)		
green	Kijos	1[]
red	Kitotoya	2[]
5.5 Flower: width (18)		
very narrow	Kitol	1[]
narrow	Duesweetpur	3[]
medium	Kitotoya	5[]
broad	Kibetio	7[]
very broad	Kimplav	9[]

Characteristics	Example Varieties	Note
5.6 Flower: number of colors (eye zone excluded) (19)		
one	Kitotoya	1[]
two	Kibetio	2[]
three or more		3[]
5.7(i) Flower: main color of upper side (20)		
RHS Colour Chart (indicate reference number)	
5.7(ii) Flower: main color of upper side (20)		
white		1[]
orange pink		2[]
orange red		3[]
red		4[]
bluish pink		5[]
blue red		6[]
purple red		7[]
purple		8[]
violet		9[]
blue violet		10[]
other color (indicate)	
5.8(i) <u>Varieties with bi- or multicolored flowers only:</u> (21) Flower: secondary color of upper side		
RHS Colour Chart (indicate reference number)	

Characteristics	Example Varieties	Note
5.8(ii) Varieties with bi- or multicolored flowers only:		
(21) Flower: secondary color of upper side		
white		1[]
orange pink		2[]
orange red		3[]
red		4[]
bluish pink		5[]
blue red		6[]
purple red		7[]
purple		8[]
violet		9[]
blue violet		10[]
other color (indicate)	

6. Similar varieties and differences from these varieties

Denomination of similar variety	Characteristic in which the similar variety is different ^{o)}	State of expression of similar variety	State of expression of candidate variety

^{o)} 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

7.1 Resistance to pests and diseases

7.2 Special conditions for the examination of the variety

7.3 Other information

A representative color photo of the variety should be added to the Technical Questionnaire.

8. Authorization for release

(a) Does the variety require prior authorization for release under legislation concerning the protection of the environment, human and animal health?

Yes [] No []

(b) Has such authorization been obtained?

Yes [] No []

If the answer to that question is yes, please attach a copy of such an authorization.

[End of document]