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

GENEVA

**DRAFT**

**ELATIOR BEGONIA**

UPOV Code: BEGON\_HIE

*Begonia ×hiemalis* Fotsch

**GUIDELINES**

**FOR THE CONDUCT OF TESTS**

**FOR DISTINCTNESS, UNIFORMITY AND STABILITY**

*prepared by an expert from Germany*

*to be considered by the Technical Committee at its forty-third session,  
to be held in Geneva, Switzerland, from March 26 to 28, 2007*

Alternative Names: \*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Begonia ×hiemalis</i> Fotsch, <i>Begonia ×elatior</i> hort.	Elatior Begonia, Winter-flowering begonia	Bégonia elatior	Elatior-Begonie	Begonia elatior

The purpose of these guidelines ("Test Guidelines") is to elaborate the principles contained in the General Introduction (document TG/1/3), and its associated TGP documents, into detailed practical guidance for the harmonized examination of distinctness, uniformity and stability (DUS) and, in particular, to identify appropriate characteristics for the examination of DUS and production of harmonized variety descriptions.

**ASSOCIATED DOCUMENTS**

These Test Guidelines should be read in conjunction with the General Introduction and its associated TGP documents.

\* These names were correct at the time of the introduction of these 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](http://www.upov.int)), for the latest information.]

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Begonia ×hiemalis* Fotsch, of the family *Begoniaceae*.

2. Material Required

2.1 The competent authorities decide on the quantity and quality of the plant material required for testing the variety and when and where it 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 and phytosanitary requirements are complied with.

2.2 The material is to be supplied in the form of young plants from non-induced terminal cuttings.

2.3 The minimum quantity of plant material, to be supplied by the applicant, should be:

20 young plants from non-induced terminal cuttings

2.4 The plant material supplied should be visibly healthy, not lacking in vigor, nor affected by any important pest or disease.

2.5 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 it has been treated, full details of the treatment must be given.

3. Method of Examination

3.1 *Number of Growing Cycles*

The minimum duration of tests should normally be a single growing cycle.

3.2 *Testing Place*

Tests are normally conducted at one place. In the case of tests conducted at more than one place, guidance is provided in TGP/9 “Examining Distinctness”.

3.3 *Conditions for Conducting the Examination*

3.3.1 The tests should be carried out under conditions ensuring satisfactory growth for the expression of the relevant characteristics of the variety and for the conduct of the examination. Three weeks after potting, the plants should receive a short day treatment for two weeks. The day length during the short day treatment should be 9 hours.

3.3.2 The optimum stage of development for the assessment of the characteristics is at the time of full flowering.

3.3.3 Because daylight varies, color 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 the British Standard 950, Part I. These determinations should be made with the plant part placed against a white background.

### 3.4 *Test Design*

3.4.1 Each test should be designed to result in a total of at least 20 plants.

3.4.2 The design of the tests should be such that plants or parts of plants may be removed for measurement or counting without prejudice to the observations which must be made up to the end of the growing cycle.

### 3.5 *Number of Plants / Parts of Plants to be Examined*

Unless otherwise indicated, all observations on single plants 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.

### 3.6 *Additional Tests*

Additional tests, for examining relevant characteristics, may be established.

## 4. Assessment of Distinctness, Uniformity and Stability

### 4.1 *Distinctness*

#### 4.1.1 General Recommendations

It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding distinctness. However, the following points are provided for elaboration or emphasis in these Test Guidelines.

#### 4.1.2 Consistent Differences

The differences observed between varieties may be so clear that more than one growing cycle is not necessary. In addition, in some circumstances, the influence of the environment is not such that more than a single growing cycle is required to provide assurance that the differences observed between varieties are sufficiently consistent. One means of ensuring that a difference in a characteristic, observed in a growing trial, is sufficiently consistent is to examine the characteristic in at least two independent growing cycles.

#### 4.1.3 Clear Differences

Determining whether a difference between two varieties is clear depends on many factors, and should consider, in particular, the type of expression of the characteristic being examined, i.e. whether it is expressed in a qualitative, quantitative, or pseudo-qualitative manner. Therefore, it is important that users of these Test Guidelines are familiar with the recommendations contained in the General Introduction prior to making decisions regarding distinctness.

## 4.2 *Uniformity*

4.2.1 It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding uniformity. However, the following points are provided for elaboration or emphasis in these Test Guidelines:

4.2.2 For the assessment of uniformity a population standard of 2% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 20 plants, 2 off-types are allowed.

## 4.3 *Stability*

4.3.1 In practice, it is not usual to perform tests of stability that produce results as certain as those of the testing of distinctness and uniformity. However, experience has demonstrated that, for many types of variety, when a variety has been shown to be uniform, it can also be considered to be stable.

4.3.2 Where appropriate, or in cases of doubt, stability may be tested, either by growing a further generation, or by testing a new plant stock to ensure that it exhibits the same characteristics as those shown by the previous material supplied.

## 5. Grouping of Varieties and Organization of the Growing Trial

5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness are aided by the use of grouping characteristics.

5.2 Grouping characteristics are those in which the documented states of expression, even where produced at different locations, can be used, either individually or in combination with other such characteristics: (a) to select varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness; and (b) to organize the growing trial so that similar varieties are grouped together.

5.3 The following have been agreed as useful grouping characteristics:

- (a) Flower: type (characteristic 14)
- (b) Flower: number of colors (characteristic 18)
- (c) Outer petal: color of middle of upper side (characteristic 20) with the following groups:
  - Gr. 1: white
  - Gr. 2: yellow
  - Gr. 3: orange
  - Gr. 4: red
  - Gr. 5: red pink
  - Gr. 6: blue pink
- (d) Outer petal: incisions of margin (characteristic 21)
- (e) Inner petal: color of middle of upper side (characteristic 23) with the following groups:
  - Gr. 1: white
  - Gr. 2: yellow

- Gr. 3: orange
- Gr. 4: red
- Gr. 5: red pink
- Gr. 6: blue pink

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction.

## 6. Introduction to the Table of Characteristics

### 6.1 *Categories of Characteristics*

#### 6.1.1 Standard Test Guidelines Characteristics

Standard Test Guidelines characteristics are those which are approved by UPOV for examination of DUS and from which members of the Union can select those suitable for their particular circumstances.

#### 6.1.2 Asterisked Characteristics

Asterisked characteristics (denoted by \*) are those included in the Test Guidelines which are important for the international harmonization of variety descriptions and should always be examined for DUS and included in the variety description by all members of the Union, except when the state of expression of a preceding characteristic or regional environmental conditions render this inappropriate.

### 6.2 *States of Expression and Corresponding Notes*

States of expression are given for each characteristic to define the characteristic and to harmonize descriptions. Each state of expression is allocated a corresponding numerical note for ease of recording of data and for the production and exchange of the description.

### 6.3 *Types of Expression*

An explanation of the types of expression of characteristics (qualitative, quantitative and pseudo-qualitative) is provided in the General Introduction.

### 6.4 *Example Varieties*

Where appropriate, example varieties are provided to clarify the states of expression of each characteristic.

### 6.5 *Legend*

(\*) Asterisked characteristic – see Chapter 6.1.2

QL Qualitative characteristic – see Chapter 6.3

QN Quantitative characteristic – see Chapter 6.3

PQ Pseudo-Qualitative characteristic – see Chapter 6.3

(a), (b), (c) See Explanations on the Table of Characteristics in Chapter 8.1.

(+) See Explanations on the Table of Characteristics in Chapter 8.2.

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

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note / Nota
<b>1. (* )</b>	<b>Plant: height (including flowers)</b>	<b>Plante: hauteur (y compris les fleurs)</b>	<b>Pflanze: Höhe (einschließlich Blüten)</b>	<b>Planta: altura (incluidas flores)</b>		
<b>QN</b>	short	faible	niedrig	baja		3
	medium	moyenne	mittel	media	Berseko	5
	tall	grande	hoch	alta	Dark Britt	7
<b>2. (* )</b>	<b>Plant: width (including flowers)</b>	<b>Plante: largeur (y compris les fleurs)</b>	<b>Pflanze: Breite (einschließlich Blüten)</b>	<b>Planta: anchura (incluidas flores)</b>		
<b>QN</b>	narrow	étroite	schmal	estrecha		3
	medium	moyenne	mittel	media	Julie	5
	broad	large	breit	ancha	Nadine	7
<b>3.</b>	<b>Petiole: anthocyanin coloration on upper side</b>	<b>Pétiole: pigmentation anthocyanique de la face supérieure</b>	<b>Blattstiel: Anthocyanfärbung auf der Oberseite</b>	<b>Pecíolo: pigmentación antociánica de la parte superior</b>		
<b>QN</b>	<b>(a)</b> absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Beman Soft Pink	1
	weak	faible	gering	débil	BBTosca	3
	medium	moyenne	mittel	media		5
	strong	forte	stark	fuerte	Binos Pink	7
	very strong	très forte	sehr stark	muy fuerte		9
<b>4. (* ) (+)</b>	<b>Leaf blade: length of midrib</b>	<b>Limbe: longueur de la nervure principale</b>	<b>Blattspreite: Länge der Mittelrippe</b>	<b>Limbo: longitud del nervio central</b>		
<b>QN</b>	<b>(a)</b> short	courte	kurz	corta		3
	medium	moyenne	mittel	media	Beman Rose	5
	long	longue	lang	larga	Barkos	7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note / Nota
<b>5.</b> (*) (+)	<b>Leaf blade: width</b>	<b>Limbe: largeur</b>	<b>Blattspreite: Breite</b>	<b>Limbo: anchura</b>		
<b>QN</b> (a)	narrow	étroit	schmal	estrecha		3
	medium	moyen	mittel	media	Julie	5
	broad	large	breit	ancha	Barkos	7
<b>6.</b> (*)	<b>Leaf blade: color of <u>upper</u> side</b>	<b>Limbe: couleur de la face <u>supérieure</u></b>	<b>Blattspreite: Farbe der <u>Oberseite</u></b>	<b>Limbo: color del <u>haz</u></b>		
<b>PQ</b> (a)	light green	vert clair	hellgrün	verde claro		1
	medium green	vert moyen	mittelgrün	verde medio	Azotus	2
	dark green	vert foncé	dunkelgrün	verde oscuro	Barkos	3
	reddish green	vert rougeâtre	rötlich grün	verde rojiza	Debbie	4
<b>7.</b>	<b>Leaf blade: color of <u>lower</u> side</b>	<b>Limbe: couleur de la face <u>inférieure</u></b>	<b>Blattspreite: Farbe der <u>Unterseite</u></b>	<b>Limbo: color del <u>envés</u></b>		
<b>PQ</b> (a)	light green	vert clair	hellgrün	verde claro	Azotus	1
	medium green	vert moyen	mittelgrün	verde medio		2
	dark green	vert foncé	dunkelgrün	verde oscuro		3
	red and green	vert rougeâtre	rot und grün	verde e rojiza	Fuga	4
	reddish brown	brun rougeâtre	rötlich braun	marrón rojizo		5
<b>8.</b> (+)	<b>Leaf blade: base</b>	<b>Limbe: base</b>	<b>Blattspreite: Basis</b>	<b>Limbo: base</b>		
<b>QN</b> (a)	wide open	très ouverte	weit offen	muy abierta		1
	moderately open	ouverte	mäßig offen	moderadamente abierta		3
	closed	fermée	geschlossen	cerrada		5
	slightly overlapping	à lobes peu chevauchants	gering überlappend	debilmente solapada		7
	strongly overlapping	à lobes très chevauchants	stark überlappend	fuertemente solapada		9



	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note / Nota
<b>9.</b>	<b>Leaf blade: width of apex</b>	<b>Limbe: largeur du sommet</b>	<b>Blattspreite: Breite der Spitze</b>	<b>Limbo: anchura del ápice</b>		
(+)						
<b>QN</b>	<b>(a)</b> narrow	étroit	schmal	estrecho		3
	medium	moyen	mittel	medio		5
	broad	large	breit	ancho		7
<b>10.</b>	<b>Leaf blade: incisions of margin</b>	<b>Limbe: incisions du bord</b>	<b>Blattspreite: Randeinschnitte</b>	<b>Limbo: incisiones del borde</b>		
(+)						
<b>QN</b>	<b>(a)</b> absent or very shallow	absentes ou très faibles	fehlend oder sehr flach	ausente o poco profunda	Azotus	1
	shallow	faibles	flach	poco profunda	Kristy Franje	3
	medium	moyennes	mittel	media	Cindy Franje Dark	5
	deep	fortes	tief	profunda		7
<b>11.</b>	<b>Leaf blade: undulation of margin</b>	<b>Limbe: ondulation du bord</b>	<b>Blattspreite: Randwellung</b>	<b>Limbo: ondulación del borde</b>		
<b>QN</b>	<b>(a)</b> absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil		1
	weak	faible	gering	débil	Nadine	3
	medium	moyenne	mittel	media	Azotus	5
	strong	forte	stark	fuerte		7
	very strong	très forte	sehr stark	muy fuerte		9
<b>12.</b>	<b>Bract: size</b>	<b>Bractée: taille</b>	<b>Hochblatt: Größe</b>	<b>Bráctea: tamaño</b>		
<b>QN</b>	<b>(b)</b> small	petite	klein	pequeña	Nadine	3
	medium	moyenne	mittel	media		5
	large	grande	groß	grande	Azotus	7
<b>13.</b>	<b>Bract: color</b>	<b>Bractée: couleur</b>	<b>Hochblatt: Farbe</b>	<b>Bráctea: color</b>		
<b>QL</b>	<b>(b)</b> green	verte	grün	verde		1
	red and green	rouge et verte	grün und rot	verde y rojo		2
	red	rouge	rot	rojo		3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note / Nota
<b>14.</b> (*) (+)	<b>Flower: type</b>	<b>Fleur: type</b>	<b>Blüte: Typ</b>	<b>Flor: tipo</b>		
<b>QL</b>	single	simple	einfach	simple		1
	double	double	gefüllt	doble		2
<b>15.</b> (*)	<b><u>Only varieties with double flowers:</u> Flower: number of petals</b>	<b><u>Seulement variétés à fleur double:</u> Fleur: nombre de pétales</b>	<b><u>Nur Sorten mit gefüllten Blüten:</u> Blüte: Anzahl Blütenblätter</b>	<b><u>Sólo variedades con flores dobles:</u> Flor: número de pétalos</b>		
<b>QN</b>	few	petit	gering	pocos	Peggy	3
	medium	moyen	mittel	medio		5
	many	grand	hoch	numerosos	BBTosca	7
<b>16.</b> (*) (+)	<b>Flower: length</b>	<b>Fleur: longueur</b>	<b>Blüte: Länge</b>	<b>Flor: longitud</b>		
<b>QN</b>	short	courte	kurz	corta		3
	medium	moyenne	mittel	media		5
	long	longue	lang	larga		7
<b>17.</b> (*) (+)	<b>Flower: width</b>	<b>Fleur: largeur</b>	<b>Blüte: Breite</b>	<b>Flor: anchura</b>		
<b>QN</b>	narrow	étroite	schmal	estrecha		3
	medium	moyenne	mittel	media		5
	broad	large	breit	ancha		7
<b>18.</b> (*) (+)	<b>Flower: number of colors</b>	<b>Fleur: nombre de couleurs</b>	<b>Blüte: Anzahl Farben</b>	<b>Flor: número de colores</b>		
<b>QL</b>	one	une	eine	uno		1
	two	deux	zwei	dos		2
	more than two	plus de deux	mehr als zwei	más de dos		3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note / Nota
<b>19.</b> <b>(*)</b>	<b>Outer petal: color of <u>margin</u> of upper side</b>	<b>Pétale externe: couleur du <u>bord</u> de la face supérieure</b>	<b>Äußeres Blütenblatt: Farbe des <u>Randes</u> der Oberseite</b>	<b>Pétalo externo: color del <u>borde</u> de la parte superior</b>		
<b>PQ</b>	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)		
<b>20.</b> <b>(*)</b>	<b>Outer petal: color of <u>middle</u> of upper side</b>	<b>Pétale externe: couleur du <u>centre</u> de la face supérieure</b>	<b>Äußeres Blütenblatt: Farbe der <u>Mitte</u> der Oberseite</b>	<b>Pétalo externo: color del <u>centro</u> de la parte superior</b>		
<b>PQ</b>	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)		
<b>21.</b> <b>(*)</b> <b>(+)</b>	<b>Outer petal: <u>incisions of margin</u></b>	<b>Pétale externe: <u>incisions du pétale</u></b>	<b>Äußeres Blütenblatt: <u>Randeinschnitte</u></b>	<b>Pétalo externo: <u>incisiones del borde</u></b>		
<b>QN</b>	absent or very shallow	absentes ou très peu profondes	fehlend oder sehr flach	ausentes o muy poco profundas	BBTosca	1
	shallow	peu profondes	flach	poco profundas	Bela	3
	medium	moyennes	mittel	medias	Cindy Franje Dark	5
	deep	profondes	tief	profundas	Daisy Franje	7
<b>22.</b> <b>(*)</b>	<b>Inner petal: color of <u>margin</u> of <u>upper</u> side</b>	<b>Pétale interne: couleur du <u>bord</u> de la face <u>supérieure</u></b>	<b>Inneres Blütenblatt: Farbe des <u>Randes</u> der <u>Oberseite</u></b>	<b>Pétalo interno: color del <u>borde</u> de la parte <u>superior</u></b>		
<b>PQ</b>	<b>(c)</b> 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)		
<b>23.</b> <b>(*)</b>	<b>Inner petal: color of <u>middle</u> of <u>upper</u> side</b>	<b>Pétale interne: couleur du <u>centre</u> de la face <u>supérieure</u></b>	<b>Inneres Blütenblatt: Farbe der <u>Mitte</u> der <u>Oberseite</u></b>	<b>Pétalo interno: color del <u>centro</u> de la parte <u>superior</u></b>		
<b>PQ</b>	<b>(c)</b> 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)		
<b>24.</b>	<b>Inner petal: color of <u>margin</u> of <u>lower</u> side</b>	<b>Pétale interne: couleur du <u>bord</u> de la face <u>inférieure</u></b>	<b>Inneres Blütenblatt: Farbe des <u>Randes</u> der <u>Unterseite</u></b>	<b>Pétalo interno: color del <u>borde</u> de la parte <u>inferior</u></b>		
<b>PQ</b>	<b>(c)</b> 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
<b>25.</b>	<b>Inner petal: color of <u>middle</u> of <u>lower</u> side</b>	<b>Pétale interne: couleur du <u>centre</u> de la face <u>inférieure</u></b>	<b>Inneres Blütenblatt: Farbe der <u>Mitte</u> der <u>Unterseite</u></b>	<b>Pétalo interno: color del <u>centro</u> de la parte <u>inferior</u></b>		
<b>PQ</b>	<b>(c)</b> 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)		
<b>26. (+)</b>	<b>Inner petal: incisions of margin</b>	<b>Pétale interne: incisions du pétale</b>	<b>Inneres Blütenblatt: Randeinschnitte</b>	<b>Pétalo interno: incisiones del borde</b>		
<b>QN</b>	<b>(c)</b> absent or very shallow	absentes ou très peu profondes	fehlend oder sehr flach	ausentes o muy poco profundas		1
	shallow	peu profondes	flach	poco profundas		3
	medium	moyennes	mittel	medias		5
	deep	profondes	tief	profundas		7
<b>27.</b>	<b>Inner petal: undulation of margin</b>	<b>Fleur: ondulation du pétale</b>	<b>Inneres Blütenblatt: Wellung des Randes</b>	<b>Pétalo interno: ondulación del borde</b>		
<b>QN</b>	<b>(c)</b> absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Rita	1
	weak	faible	gering	débil	Dark Britt	3
	medium	moyenne	mittel	media	Boraskio	5
	strong	forte	stark	fuerte		7
	very strong	très forte	sehr stark	muy fuerte		9

8. Explanations on the Table of Characteristics

8.1 *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) Leaf and petiole: observations on the leaf and the petiole should be made on a fully developed leaf from the middle part of the plant.
- (b) Bract: observations on the bract should be made on a fully developed bract from a fully developed flower.
- (c) Inner petal: observations on the inner petal should be made on a fully developed petal from the second outer row of the inner petals.

8.2 *Explanations for individual characteristics*

Ad. 4: Leaf blade: length of midrib

Ad. 5: Leaf blade: width



Leaf blade: length of midrib

Leaf blade: width

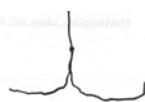
Ad. 8: Leaf blade: base



1  
wide open



3  
moderately open



5  
closed



7  
slightly overlapping



9  
strongly overlapping

Ad. 9: Leaf blade: width of apex



3  
narrow

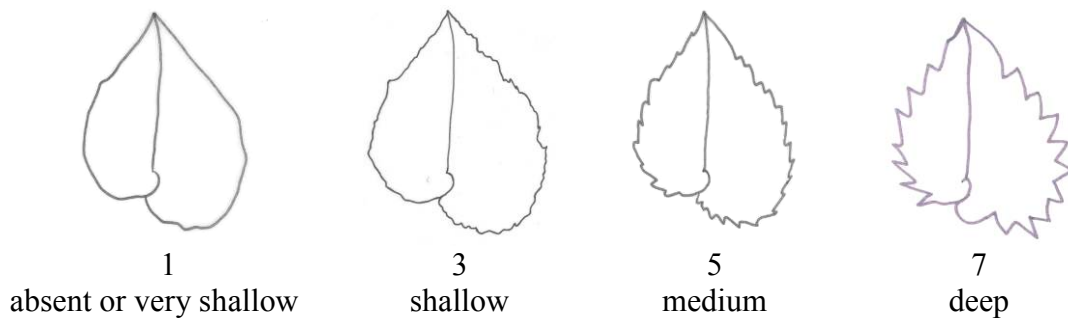


5  
medium



7  
broad

Ad. 10: Leaf blade: incisions of margin

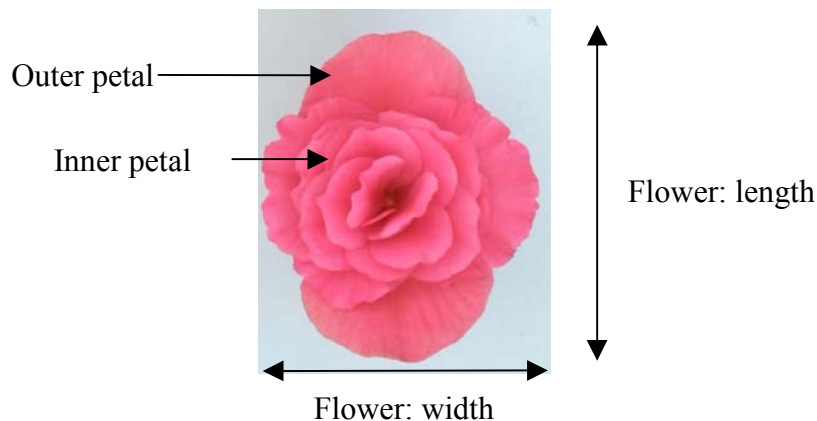


Ad. 14: Flower: type

A single flower has two outer and two inner petals only. A double flower has two outer petals and more than two inner petals.

Ad. 16: Flower: length

Ad. 17: Flower: width



Ad. 18: Flower: number of colors

- One Flowers with only one color on the upper side of the petals. Although there is only one color, there might be parts of the flower which are somewhat lighter or darker than the rest.
- Two Flowers with two different colors on the upper side of the petals, e.g. red and white
- More than two Flowers with more than two different colors on the upper side of the petals, e.g. red, white and yellow.

Ad. 21: Outer petal: incisions of margin



1  
absent or very shallow



3  
shallow



5  
medium

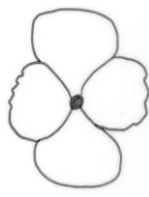


7  
deep

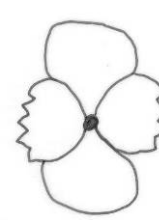
Ad. 26: Inner petal: incisions of margin



1  
absent or very shallow



3  
shallow



5  
medium



7  
deep

9. Literature

Thompson, Mildred L., Thompson Edward J., 1981: Begonias. The complete reference guide. Times Books, New York, US.



10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
		Application date: (not to be filled in by the applicant)
TECHNICAL QUESTIONNAIRE to be completed in connection with an application for plant breeders' rights		
1. Subject of the Technical Questionnaire		
1.1 Botanical name	<input type="text" value="Begonia ×hiemalis Fotsch&lt;br/&gt;(syn. Begonia ×elatior hort.)"/>	
1.2 Common name	<input type="text" value="Elatior Begonia"/>	
2. Applicant		
Name	<input type="text"/>	
Address	<input type="text"/>	
Telephone No.	<input type="text"/>	
Fax No.	<input type="text"/>	
E-mail address	<input type="text"/>	
Breeder (if different from applicant)	<input type="text"/>	
3. Proposed denomination and breeder's reference		
Proposed denomination (if available)	<input type="text"/>	
Breeder's reference	<input type="text"/>	

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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#4. Information on the breeding scheme and propagation of the variety

4.1 Breeding scheme

Variety resulting from:

4.1.1 Crossing

- (a) controlled cross  [ ]  
(please state parent varieties)
- (b) partially known cross  [ ]  
(please state known parent variety(ies))
- (c) unknown cross  [ ]

4.1.2 Mutation  [ ]  
(please state parent variety)

4.1.3 Discovery and development  [ ]  
(please state where and when discovered and how developed)

4.1.4 Other  [ ]  
(please provide details)

4.2 Method of propagating the variety

4.2.1 Vegetative propagation

- (a) cuttings  [ ]
- (b) *in vitro* propagation  [ ]
- (c) other (state method)  [ ]

4.2.2 Seed  [ ]

4.2.3 Other  [ ]  
(please provide details)

# Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the note which best corresponds).

Characteristics	Example Varieties	Note
<b>5.1 Flower: type</b> <b>(14)</b>		
single		1[ ]
double		2[ ]
<b>5.2 <u>Only varieties with double flowers:</u></b> <b>(15) Flower: number of petals</b>		
few	Peggy	3[ ]
medium		5[ ]
many	BBTosca	7[ ]
<b>5.3 Flower: number of colors</b> <b>(18)</b>		
one		1[ ]
two		2[ ]
more than two		3[ ]
<b>5.4i Outer petal: color of <u>middle</u> of upper side</b> <b>(20)</b>		
RHS Colour Chart (indicate reference number)	.....	
<b>5.4ii Outer petal: color of <u>middle</u> of upper side</b> <b>(20)</b>		
white		1[ ]
yellow		2[ ]
orange		3[ ]
red		4[ ]
red pink		5[ ]
blue pink		6[ ]
other (indicate color)	.....	

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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<b>5.5 Outer petal: incisions of margin (21)</b>			
absent or very shallow	BBTosca		1[ ]
shallow	Bela		3[ ]
medium	Cindy Franje Dark		5[ ]
deep	Daisy Franje		7[ ]
<b>5.6i Inner petal: color of <u>middle</u> of <u>upper</u> side (23)</b>			
RHS Colour Chart (indicate reference number)	.....		
<b>5.6ii Inner petal: color of <u>middle</u> of <u>upper</u> side (23)</b>			
white			1[ ]
yellow			2[ ]
orange			3[ ]
red			4[ ]
red pink			5[ ]
blue pink			6[ ]
other (indicate color)	.....		

**6. Similar varieties and differences from these varieties**

*Please use the following table and box for comments to provide information on how your candidate variety differs from the variety (or varieties) which, to the best of your knowledge, is (or are) most similar. This information may help the examination authority to conduct its examination of distinctness in a more efficient way.*

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the similar variety(ies)	Describe the expression of the characteristic(s) for your candidate variety
<i>(Example)</i>	<i>Flower: number of colors</i>	<i>one</i>	<i>two</i>

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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#7. Additional information which may help in the examination of the variety

7.1 In addition to the information provided in sections 5 and 6, are there any additional characteristics which may help to distinguish the variety?

Yes [ ] No [ ]

(If yes, please provide details)

7.2 Are there any special conditions for growing the variety or conducting the examination?

Yes [ ] No [ ]

(If yes, please provide details):

7.3 Other information

A representative color photograph of the variety should accompany 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 (b) is yes, please attach a copy of the authorization.

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# Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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9. Information on plant material to be examined or submitted for examination.

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

Please provide details for where you have indicated "yes".

.....

10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:

Applicant's name

Signature

Date

[End of document]