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UPOV

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT

*

TORENIA

UPOV Code: TOREN

Torenia L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from Japan

to be considered by the

Technical Committee at its forty-seventh session,
to be held in Geneva from April 4 to 6, 2011

Alternative Names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Torenia L.	Torenia, Bluewings, Wishbone-flower	Torenia	Torenie	Torenia, Legazpia blanco

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), for the latest information.]

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Torenia* L.

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 seed or rooted cuttings.

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

Vegetatively propagated varieties: 10 rooted cuttings
Seed-propagated varieties: sufficient seed to produce 20 plants

In the case of seed, the seed should meet the minimum requirements for germination, species and analytical purity, health and moisture content, specified by the competent authority. In cases where the seed is to be stored, the germination capacity should be as high as possible and should be stated by the applicant.

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.

3.3.2 Observation of color by eye

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. The color chart and version used should be specified in the variety description.

3.4 Test Design

3.4.1 Each test should be designed to result in a total of at least 10 plants for vegetatively propagated varieties or 20 plants for seed propagated varieties.

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 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.

4.1.4 Number of Plants / Parts of Plants to be Examined

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 9 plants or parts taken from each of 9 plants for vegetatively propagated varieties, or 19 plants or parts of plants taken from 19 plants for seed-propagated varieties, and any other observations made on all plants in the test, disregarding any off-type plants.

4.1.5 Method of Observation

The recommended method of observing the characteristic for the purposes of distinctness is indicated by the following key in the second column of the Table of Characteristics (see document TGP/9 “Examining Distinctness”, Section 4 “Observation of characteristics”):

MG: single measurement of a group of plants or parts of plants
MS: measurement of a number of individual plants or parts of plants
VG: visual assessment by a single observation of a group of plants or parts of plants
VS: visual assessment by observation of individual plants or parts of plants

Type of observation: visual (V) or measurement (M)

“Visual” observation (V) is an observation made on the basis of the expert’s judgment. For the purposes of this document, “visual” observation refers to the sensory observations of the experts and, therefore, also includes smell, taste and touch. Visual observation includes observations where the expert uses reference points (e.g. diagrams, example varieties, side-by-side comparison) or non-linear charts (e.g. color charts). Measurement (M) is an objective observation against a calibrated, linear scale e.g. using a ruler, weighing scales, colorimeter, dates, counts, etc.

Type of record: for a group of plants (G) or for single, individual plants (S)

For the purposes of distinctness, observations may be recorded as a single record for a group of plants or parts of plants (G), or may be recorded as records for a number of single, individual plants or parts of plants (S). In most cases, “G” provides a single record per variety and it is not possible or necessary to apply statistical methods in a plant-by-plant analysis for the assessment of distinctness.”

In cases where more than one method of observing the characteristic is indicated in the Table of Characteristics (e.g. VG/MG), guidance on selecting an appropriate method is provided in document TGP/9, Section 4.2.

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 of 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 10 plants, one off-type is allowed.

4.2.3 For the assessment of uniformity of seed-propagated varieties which are self-pollinated, 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, one off-type is allowed.

4.2.4 The assessment of uniformity for hybrid varieties depends on the type of hybrid and should be according to the recommendations for hybrid varieties in the General Introduction.

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 further examined by testing a new seed or plant stock to ensure that it exhibits the same characteristics as those shown by the initial 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) Plant: growth habit (characteristic 1)
(b) Upper corolla lobe: color of basal part (characteristic 19) with the following groups:
    Gr.1: white
    Gr.2: yellow
    Gr.3: orange
    Gr.4: red
    Gr.5: pink
    Gr.6: purple
    Gr.7: violet
(c) Upper corolla lobe: color of distal part (characteristic 20) with the following groups:
    Gr.1: white
    Gr.2: yellow
    Gr.3: orange
    Gr.4: red
    Gr.5: pink
    Gr.6: purple
    Gr.7: violet
(d) Lateral corolla lobe: color of central part (characteristic 21) with the following groups:
    Gr.1: white
    Gr.3: yellow
    Gr.4: orange
    Gr.5: red
    Gr.2: pink
    Gr.6: purple
    Gr.7: violet
(e) Lower corolla lobe: conspicuousness of blotch (characteristic 24)

Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction and document TGP/9 “Examining Distinctness”.

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

6.2.1 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.

6.2.2 In the case of qualitative and pseudo-qualitative characteristics (see Chapter 6.3), all relevant states of expression are presented in the characteristic. However, in the case of quantitative characteristics with 5 or more states, an abbreviated scale may be used to minimize the size of the Table of Characteristics. For example, in the case of a quantitative characteristic with 9 states, the presentation of states of expression in the Test Guidelines may be abbreviated as follows:

State	Note
small	3
medium	5
large	7

However, it should be noted that all of the following 9 states of expression exist to describe varieties and should be used as appropriate:

State	Note
very small	1
very small to small	2
small	3
small to medium	4
medium	5
medium to large	6
large	7
large to very large	8
very large	9

6.2.3 Further explanation of the presentation of states of expression and notes is provided in document TGP/7 “Development of Test Guidelines”.

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

MG, MS, VG, VS – see Chapter 4.1.5

(a) 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
1. **(*)** **(+)**	**VG**	**Plant: growth habit**	**Plante : port**	**Pflanze: Wuchsform**	**Planta: porte**		
PQ		upright	dressé	aufrecht	erguido	Clown Blue	1
		upright to semi upright	dressé à demi-dressé	aufrecht bis halbaufrecht	erguido a semierecto		2
		semi upright	demi-dressé	halbaufrecht	semierecto	Dantopuremon	3
		semi upright to horizontal	demi-dressé à horizontal	halbaufrecht bis waagerecht	semierecto a horizontal		4
		horizontal	horizontal	waagerecht	horizontal	Danmoon20	5
		drooping	retombant	überhängend	colgante	Hato-04-05	6
2. **(+)**	**VG/ MS**	**Plant: height**	**Plante : hauteur**	**Pflanze: Höhe**	**Planta: altura**		
QN		short	basse	niedrig	baja	Danmoon20	3
		medium	moyenne	mittel	media	Clown Blue	5
		tall	haute	hoch	alta		7
3. **(*)** **(+)**	**VG/ MS**	**Plant: width**	**Plante : largeur**	**Pflanze: Breite**	**Planta: anchura**		
QN		narrow	étroite	schmal	estrecha	Clown Blue	3
		medium	moyenne	mittel	media		5
		broad	large	breit	ancha	Danmoon15	7
4. **(+)**	**VG/ MS**	**Petiole: length**	**Pétiole : longueur**	**Blattstiel: Länge**	**Peciolo: longitud**		
QN	**(a)**	short	court	kurz	bajo		1
		medium	moyen	mittel	medio	Danmoon20	2
		long	long	lang	grande	Clown Blue	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5. **(*)** **(+)**	**VG/** **MS**	**Leaf blade: length**	**Limbe : longueur**	**Blattspreite: Länge**	**Limbo: longitud**		
QN	**(a)**	short	court	kurz	bajo		3
		medium	moyen	mittel	medio	Hato-04-05	5
		long	long	lang	grande	Clown Blue	7
6. **(*)** **(+)**	**VG/** **MS**	**Leaf blade: width**	**Limbe : largeur**	**Blattspreite: Breite**	**Limbo: anchura**		
QN	**(a)**	narrow	étroit	schmal	estrecho		3
		medium	moyen	mittel	medio	Hato-04-05	5
		broad	large	breit	ancha	Clown Blue	7
7. **(+)**	**VG**	**Leaf blade: incisions of margin**	**Limbe : type d'incisions du bord**	**Blattspreite: Randeinschnitte**	**Limbo: incisiones del borde**		
PQ	**(a)**	dentate	dentelé	gezähnt	dentado	Danmoon20	1
		dentate to crenate	dentelé à crénelé	gezähnt bis gekerbt	dentado a crenado		2
		crenate	crénelé	gekerbt	crenado	Hato-04-05	3
8.	**VG**	**Leaf blade: depth of incisions of margin**	**Limbe : profondeur des incisions du bord**	**Blattspreite: Tiefe der Randeinschnitte**	**Limbo: profundidad de las incisiones del borde**		
	(a)	very shallow	très peu profondes	sehr flach	muy poco profunda		1
		shallow	peu profondes	flach	poco profunda	Hato-04-05	2
		medium	moyennes	mittel	media		3
		deep	profondes	tief	profunda	Danmoon20	4
		very deep	très profondes	sehr tief	muy profunda		5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
9. (*) (+)	**VG**	**Inflorescence: axillary flower**	**Inflorescence : bourgeon axillaire**	**Blütenstand: achselständige Blüte**	**Inflorescencia: flor axilar**		
QL		absent	absent	fehlend	ausente	Clown Blue	1
		present	présent	vorhanden	presente	Danmoon20	9
10. (*) (+)	**MG**	**Calyx: number of lobes**	**Calice : nombre de lobes**	**Kelch: Anzahl der Lappen**	**Cáliz: número de lóbulos**		
QL		two	deux	zwei	dos	Clown Blue	1
		five	cinq	fünf	cinco	Danmoon20	2
11. (*) (+)	**VG/ MS**	**Flower: length in front view**	**Fleur : longueur vue de face**	**Blüte: Länge in Frontansicht**	**Flor: longitud en la vista frontal**		
QN		short	courte	kurz	baja		3
		medium	moyenne	mittel	media	Clown Blue	5
		long	longue	lang	grande	Dantopur	7
12. (*) (+)	**VG/ MS**	**Flower: width in front view**	**Fleur : largeur vue de face**	**Blüte: Breite in Frontansicht**	**Flor: anchura en la vista frontal**		
QN		narrow	étroite	schmal	estrecha		3
		medium	moyenne	mittel	media	Clown Blue	5
		broad	large	breit	ancha	Dantopur	7
13. (*) (+)	**VG/ MS**	**Corolla tube: length**	**Tube de la corolle : longueur**	**Kronröhre: Länge**	**Tubo de la corola: longitud**		
QN		short	court	kurz	baja		3
		medium	moyen	mittel	media	Danmoon20	5
		long	long	lang	grande	Danmoon18	7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
14. **(*)** **(+)**	**VG**	**Corolla tube: color of outer side**	**Tube de la corolle : couleur de la face externe**	**Kronröhre: Farbe der Außenseite**	**Tubo de la corola: color de la cara externa**		
PQ		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)		
15. **(+)**	**VG**	**Corolla tube: vertical lines on inner side**	**Tube de la corolle : lignes verticales sur la face interne**	**Kronröhre: vertikale Linien an der Innenseite**	**Tubo de la corola: rayas verticales en la parte interna**		
QN		absent or weak	absentes ou faibles	fehlend oder gering	ausente o débil	Clown Blue	1
		medium	moyennes	mittel	media		2
		strong	prononcées	stark	fuerte	Dantomoon10	3
16. **(+)**	**VG**	**Corolla tube: color of inner side at basal part**	**Tube de la corolle : couleur de la face interne au niveau de la partie basale**	**Kronröhre: Farbe des basalen Teils der Innenseite**	**Tubo de la corola: color de la parte interna en la parte basal**		
PQ		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)		
17. **(*)** **(+)**	**VG**	**Corolla lobe: incisions of margin**	**Lobe de la corolle : incisions du bord**	**Kronlappen: Randeinschnitte**	**Lóbulo de la corola: incisiones del borde**		
QN		absent or weak	absentes ou faibles	fehlend oder gering	ausente o débil	Danmoon20	1
		medium	moyennes	mittel	media		2
		strong	prononcées	stark	fuerte	Danmoon15	3
18. **(+)**	**VG**	**Upper corolla lobe: undulation**	**Lobe supérieur de la corolle : ondulation**	**Oberer Kronlappen: Wellung**	**Lóbulo superior de la corola: ondulación**		
QN		absent or weak	absente ou faible	fehlend oder gering	ausente o débil	Danmoon20	1
		medium	moyenne	mittel	media		2
		strong	prononcée	stark	fuerte	Clown Blue	3

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
19. (*) (+)	**VG**	**Upper corolla lobe: color of basal part**	**Lobe supérieur de la corolle : couleur de la partie basale**	**Oberer Kronlappen: Farbe des basalen Teils**	**Lóbulo superior de la corola: color de la parte basal**		
PQ		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)		
20. (*) (+)	**VG**	**Upper corolla lobe: color of distal part**	**Lobe supérieur de la corolle : couleur de la partie distale**	**Oberer Kronlappen: Farbe des distalen Teils**	**Lóbulo superior de la corola: color de la parte distal**		
PQ		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. (*) (+)	**VG**	**Lateral corolla lobe: color of central part**	**Lobe latéral de la corolle : couleur de la partie centrale**	**Seitlicher Kronlappen: Farbe des mittleren Teils**	**Lóbulo lateral de la corola: color de la parte central**		
PQ		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)		
22. (*) (+)	**VG**	**Lateral corolla lobe: color of marginal part**	**Lobe latéral de la corolle : couleur de la partie marginale**	**Seitlicher Kronlappen: Farbe des Randes**	**Lóbulo lateral de la corola: color de la parte marginal**		
PQ		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)		
23. (*) (+)	**VG**	**Lower corolla lobe: color of distal part**	**Lobe inférieur de la corolle : couleur de la partie distale**	**Unterer Kronlappen: Farbe des distalen Teils**	**Lóbulo inferior de la corola: color de la parte distal**		
PQ		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)		
24. (*) (+)	**VG**	**Lower corolla lobe: conspicuousness of blotch**	**Lobe inférieur de la corolle : netteté de la tache**	**Unterer Kronlappen: Ausprägung des Flecks**	**Lóbulo inferior de la corola: visibilidad de la mancha**		
QN		absent or weak	absente ou faible	fehlend oder gering	ausente o débil	Hato-04-05	1
		medium	moyenne	mittel	media		2
		strong	prononcée	stark	fuerte	Clown Blue	3

8. Explanations on the Table of Characteristics

8.1 Explanations covering several characteristics

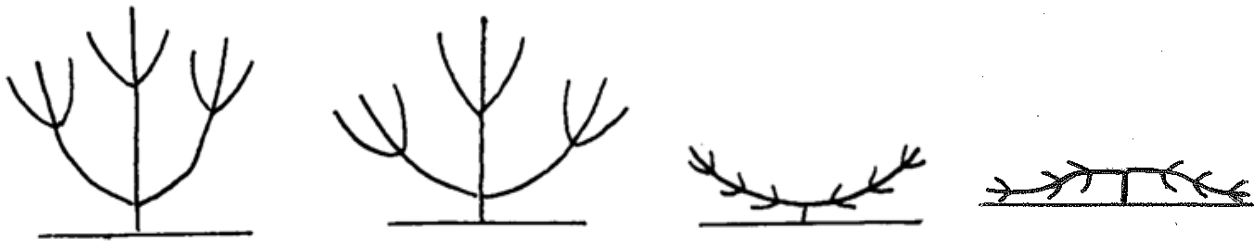
Unless otherwise indicated, all characteristics should be observed at the time of full flowering.

Characteristics containing the following key in the second column of the Table of Characteristics should be examined as indicated below:

(a) Observations on the leaf should be made on fully expanded leaves from the middle third of the shoot.

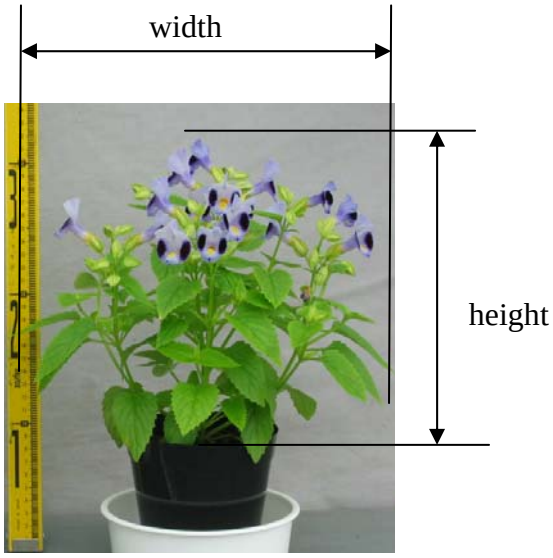
8.2 Explanations for individual characteristics

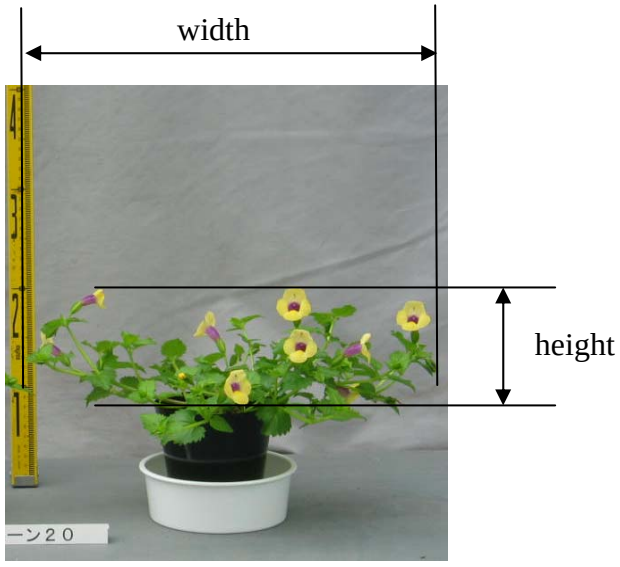
Ad. 1: Plant: growth habit



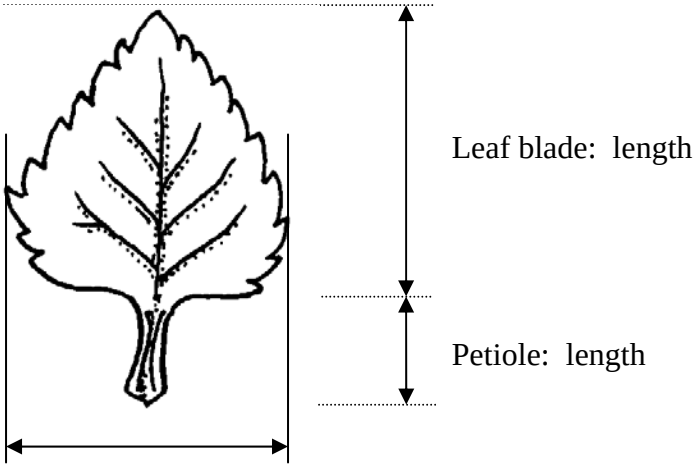
1	3	5	6
upright	semi upright	horizontal	drooping

Ad. 2: Plant: height
Ad. 3: Plant: width

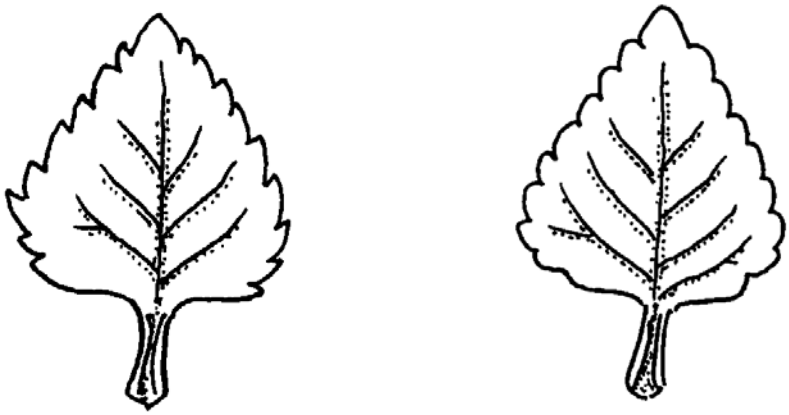




Ad. 4: Petiole: length
Ad. 5: Leaf blade: length
Ad. 6: Leaf blade: width



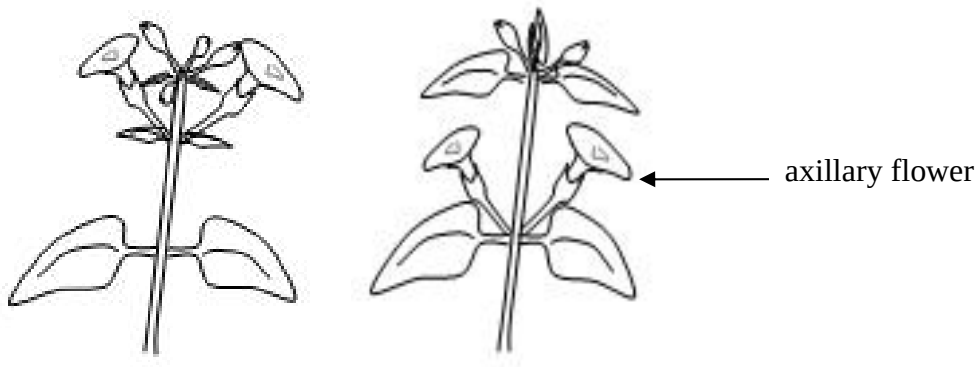
Ad. 7: Leaf blade: incisions of margin



1
dentate

3
crenate

Ad. 9: Inflorescence: axillary flower

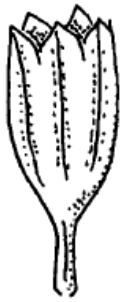


1

9

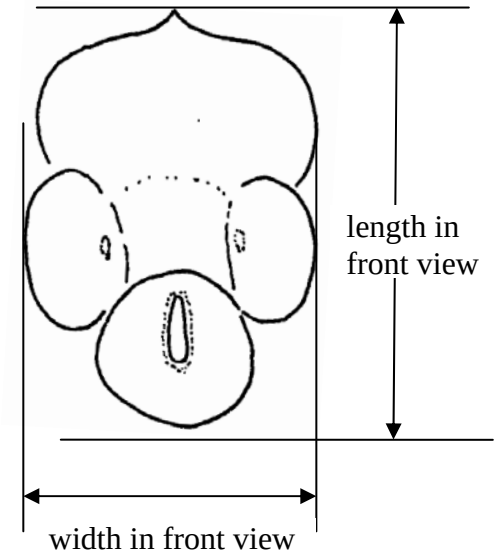
absent present

Ad. 10: Calyx: number of lobes

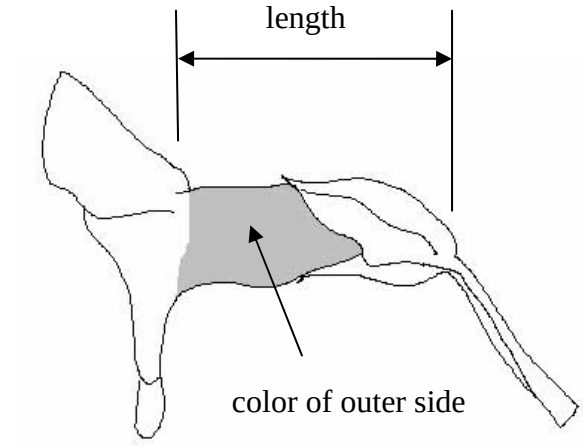


1 2
two five

Ad. 11: Flower: length in front view
Ad. 12: Flower: width in front view



Ad. 13: Corolla tube: length
Ad. 14: Corolla tube: color of outer side



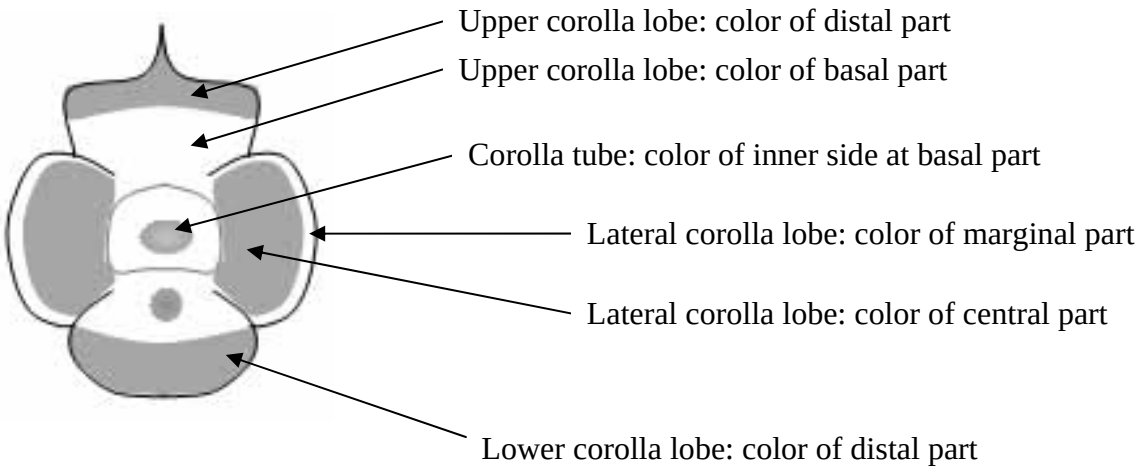
Ad. 15: Corolla tube: vertical lines on inner side

1
absent or weak

2
medium

3
strong

Ad. 16: Corolla tube: color of inner side at basal part
Ad. 19: Upper corolla lobe: color of basal part
Ad. 20: Upper corolla lobe: color of distal part
Ad. 21: Lateral corolla lobe: color of central part
Ad. 22: Lateral corolla lobe: color of marginal part
Ad. 23: Lower corolla lobe: color of distal part

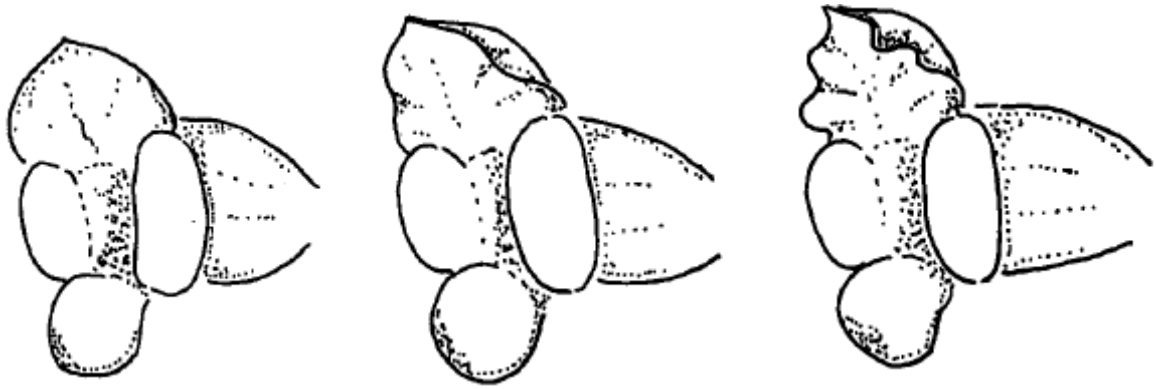


Ad. 17: Corolla lobe: incisions of margin

1
absent

3
strong

Ad. 18: Upper corolla lobe: undulation



1
absent or weak

2
medium

3
strong

Ad. 24: Lower corolla lobe: conspicuousness of blotch

The conspicuousness of the blotch is determined by the color contrast with the color of the lower corolla lobe.

9. Literature

Inoue,Y, et al., 1982: Encyclopedia of Horticulture. Seibundoshinkosya. Tokyo, JP, vol.11, pp.161-162

Tsukamoto,Y., 1994: The Grand Dictionary of Horticulture. Shogakukan. Tokyo, JP, pp.1638-1639

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 (please complete):

1.1 Botanical name	*Torenia* L.
1.2 Common name	Torenia, Bluewings, Wishbone-flower

2. Applicant

Name	
Address	
Telephone No.	
Fax No.	
E-mail address	
Breeder (if different from applicant)	

3. Proposed denomination and breeder's reference

Proposed denomination (if available)	
Breeder's reference	

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:

[#]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)

(……..……..…) x (……..……..…)
female parent male parent

(b) partially known cross [ ]
(please state known parent variety(ies))

(……..……..…) x (……..……..…)
female parent male parent

(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)

[#] 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:

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 [ ]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:

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
5.1 (1)	**Plant: growth habit**		
	upright	Clown Blue	1[ ]
	upright to semi upright		2[ ]
	semi upright		3[ ]
	semi upright to horizontal		4[ ]
	horizontal	Danmoon20	5[ ]
	drooping		6[ ]
5.2(i) (19)	**Upper corolla lobe: color of basal part**		
	RHS Colour Chart (indicate reference number)		
5.2(ii) (19)	**Upper corolla lobe: color of basal part**		
	white		1[ ]
	yellow		2[ ]
	orange		3[ ]
	red		4[ ]
	pink		5[ ]
	purple		6[ ]
	violet		7[ ]
	other (indicate color) …….....		
5.3(i) (20)	**Upper corolla lobe: color of distal part**		
	RHS Colour Chart (indicate reference number)		

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:

	Characteristics	Example Varieties	Note
5.3(ii) (20)	**Upper corolla lobe: color of distal part**		
	white		1[ ]
	yellow		2[ ]
	orange		3[ ]
	red		4[ ]
	pink		5[ ]
	purple		6[ ]
	violet		7[ ]
	other (indicate color) …….....		
5.4(i) (21)	**Lateral corolla lobe: color of central part**		
	RHS Colour Chart (indicate reference number)		
5.4(ii) (21)	**Lateral corolla lobe: color of central part**		
	white		1[ ]
	yellow		2[ ]
	orange		3[ ]
	red		4[ ]
	pink		5[ ]
	purple		6[ ]
	violet		7[ ]
	other (indicate color) …….....		
5.5 (24)	**Lower corolla lobe: conspicuousness of blotch**		
	absent or weak	Hato-04-05	1[ ]
	medium		2[ ]
	strong	Clown Blue	3[ ]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:

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
Example	*Plant: height*	*short*	*medium*

Comments:

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:

[#]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 image 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.

[#] 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:

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]