



TG/305/1

ORIGINAL: English

DATE: 2015-03-25

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

Geneva

**CAMPANULA**

UPOV Code: CAMPA

*Campanula* L.**GUIDELINES****FOR THE CONDUCT OF TESTS****FOR DISTINCTNESS, UNIFORMITY AND STABILITY***Alternative Names:*\*

| <i>Botanical name</i> | <i>English</i>            | <i>French</i> | <i>German</i> | <i>Spanish</i> |
|-----------------------|---------------------------|---------------|---------------|----------------|
| <i>Campanula</i> L.   | Campanula,<br>Bell flower | Campanule     | Glockenblume  | Campánula      |

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.]

| <u>TABLE OF CONTENTS</u>                                                                        | <u>PAGE</u> |
|-------------------------------------------------------------------------------------------------|-------------|
| 1. SUBJECT OF THESE TEST GUIDELINES.....                                                        | 3           |
| 2. MATERIAL REQUIRED.....                                                                       | 3           |
| 3. METHOD OF EXAMINATION .....                                                                  | 3           |
| 3.1 NUMBER OF GROWING CYCLES .....                                                              | 3           |
| 3.2 TESTING PLACE .....                                                                         | 3           |
| 3.3 CONDITIONS FOR CONDUCTING THE EXAMINATION .....                                             | 3           |
| 3.4 TEST DESIGN .....                                                                           | 3           |
| 3.5 ADDITIONAL TESTS.....                                                                       | 3           |
| 4. ASSESSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY .....                                   | 4           |
| 4.1 DISTINCTNESS .....                                                                          | 4           |
| 4.2 UNIFORMITY .....                                                                            | 5           |
| 4.3 STABILITY.....                                                                              | 5           |
| 5. GROUPING OF VARIETIES AND ORGANIZATION OF THE GROWING TRIAL.....                             | 5           |
| 6. INTRODUCTION TO THE TABLE OF CHARACTERISTICS .....                                           | 6           |
| 6.1 CATEGORIES OF CHARACTERISTICS .....                                                         | 6           |
| 6.2 STATES OF EXPRESSION AND CORRESPONDING NOTES .....                                          | 6           |
| 6.3 TYPES OF EXPRESSION .....                                                                   | 6           |
| 6.4 EXAMPLE VARIETIES.....                                                                      | 6           |
| 6.5 LEGEND .....                                                                                | 7           |
| 7. TABLE OF CHARACTERISTICS/TABLEAU DES CARACTÈRES/MERKMALSTABELLE/TABLA DE<br>CARACTERES ..... | 8           |
| 8. EXPLANATIONS ON THE TABLE OF CHARACTERISTICS.....                                            | 20          |
| 8.1 EXPLANATIONS COVERING SEVERAL CHARACTERISTICS .....                                         | 20          |
| 8.2 EXPLANATIONS FOR INDIVIDUAL CHARACTERISTICS .....                                           | 20          |
| 9. LITERATURE .....                                                                             | 30          |
| 10. TECHNICAL QUESTIONNAIRE.....                                                                | 31          |

1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Campanula* 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 young plants.

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

10 plants.

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. The plants should be grown in containers to observe the plant growth habit (characteristic 1).

3.3.2 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.

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 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, 1 off-type is 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 further examined by testing a new 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) Plant: height (characteristic 2)
- (c) Leaf blade: main color (characteristic 13)
- (d) Flower: attitude (characteristic 20)
- (e) Flower: type (characteristic 21)
- (f) Corolla: number of whorls (characteristic 25)
- (g) Corolla: main color of outer side (characteristic 28)
  - Gr. 1: white
  - Gr. 2: pink
  - Gr. 3: red purple
  - Gr. 4: purple
  - Gr. 5: blue
- (h) Corolla: main color of inner side (characteristic 34)
  - Gr. 1: white
  - Gr. 2: pink
  - Gr. 3: red purple
  - Gr. 4: purple
  - Gr. 5: blue
- (i) Corolla: spots on inner side (characteristic 37)

5.4 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)-(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<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|------------------------------|----------------------------|------------------------------------|---------------------------|--------------------------------------|------------------------------------------------------------------------|---------------|
| <b>1. VG (*) (+)</b>         | <b>Plant: growth habit</b> | <b>Plante : type de croissance</b> | <b>Pflanze: Wuchsform</b> | <b>Planta: hábito de crecimiento</b> |                                                                        |               |
| <b>PQ</b>                    | upright                    | dressé                             | aufrecht                  | erguida                              | La Bello                                                               | 1             |
|                              | semi-upright               | demi-dressé                        | halbaufrecht              | semierguida                          | Sarastro                                                               | 2             |
|                              | spreading                  | étalé                              | breitwüchsig              | extendida                            | PKMP05                                                                 | 3             |
|                              | horizontal                 | horizontal                         | waagerecht                | horizontal                           | Blue Rivulet                                                           | 4             |
|                              | drooping                   | retombant                          | überhängend               | colgante                             | Camp trailbule                                                         | 5             |
| <b>2. VG/ MG/ MS (*) (+)</b> | <b>Plant: height</b>       | <b>Plante : hauteur</b>            | <b>Pflanze: Höhe</b>      | <b>Planta: altura</b>                |                                                                        |               |
| <b>QN</b>                    | extremely short            | extrêmement courte                 | extrem niedrig            | extremadamente baja                  | Puck                                                                   | 1             |
|                              | very short                 | très courte                        | sehr niedrig              | muy baja                             | Samantha                                                               | 3             |
|                              | short                      | courte                             | niedrig                   | baja                                 | Caroline                                                               | 5             |
|                              | medium                     | moyenne                            | mittel                    | media                                | Sarastro                                                               | 7             |
|                              | tall                       | haute                              | hoch                      | alta                                 | Kent Belle                                                             | 9             |
|                              | very tall                  | très haute                         | sehr hoch                 | muy alta                             |                                                                        | 11            |
|                              | extremely tall             | extrêmement haute                  | extrem hoch               | extremadamente alta                  | Aida                                                                   | 13            |
| <b>3. VG/ MG/ MS (*) (+)</b> | <b>Plant: width</b>        | <b>Plante : largeur</b>            | <b>Pflanze: Breite</b>    | <b>Planta: anchura</b>               |                                                                        |               |
| <b>QN</b>                    | very narrow                | très étroite                       | sehr schmal               | muy estrecha                         |                                                                        | 1             |
|                              | narrow                     | étroite                            | schmal                    | estrecha                             | Napoli Blue                                                            | 3             |
|                              | medium                     | moyenne                            | mittel                    | media                                | PKMP05                                                                 | 5             |
|                              | broad                      | large                              | breit                     | ancha                                | Sarastro                                                               | 7             |
|                              | very broad                 | très large                         | sehr breit                | muy ancha                            | Blue Rivulet                                                           | 9             |
| <b>4. VG (*) (+)</b>         | <b>Plant: density</b>      | <b>Plante : densité</b>            | <b>Pflanze: Dichte</b>    | <b>Planta: densidad</b>              |                                                                        |               |
| <b>QN</b>                    | very sparse                | très clairsemée                    | sehr locker               | muy escasa                           | PKM01                                                                  | 1             |
|                              | sparse                     | clairsemée                         | locker                    | escasa                               | Caroline                                                               | 3             |
|                              | medium                     | assez dense                        | mittel                    | media                                | Samantha                                                               | 5             |
|                              | dense                      | dense                              | dicht                     | densa                                | PKMP05                                                                 | 7             |
|                              | very dense                 | très dense                         | sehr dicht                | muy densa                            | PKMP01                                                                 | 9             |

|            |                           | English                                      | français                                           | deutsch                                            | español                                      | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|------------|---------------------------|----------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------|---------------|
| <b>5.</b>  | <b>VG</b>                 | <b>Stem: color</b>                           | <b>Tige : couleur</b>                              | <b>Trieb: Farbe</b>                                | <b>Tallo: color</b>                          |                                                                        |               |
| <b>(+)</b> |                           |                                              |                                                    |                                                    |                                              |                                                                        |               |
| <b>PQ</b>  |                           | yellow green                                 | vert-jaune                                         | gelbgrün                                           | verde amarillento                            | Blue Eyed Blonde                                                       | 1             |
|            |                           | light green                                  | vert clair                                         | hellgrün                                           | verde claro                                  | PKMP05                                                                 | 2             |
|            |                           | medium green                                 | vert moyen                                         | mittelgrün                                         | verde medio                                  | Sarastro                                                               | 3             |
|            |                           | dark green                                   | vert foncé                                         | dunkelgrün                                         | verde oscuro                                 | PKM01                                                                  | 4             |
|            |                           | grey green                                   | vert-gris                                          | graugrün                                           | verde grisáceo                               | PKMFOR168                                                              | 5             |
|            |                           | green tinged with red<br>purple              | vert teinté de<br>pourpre-rouge                    | grün meliert mit<br>purpurrot                      | verde teñido de púrpura<br>rojizo            | Blue Rivulet                                                           | 6             |
|            |                           | red purple                                   | pourpre-rouge                                      | purpurrot                                          | púrpura rojizo                               | Silver Bells                                                           | 7             |
| <b>6.</b>  | <b>VG/<br/>MG/<br/>MS</b> | <b>Leaf blade: length</b>                    | <b>Limbe : longueur</b>                            | <b>Blattspreite: Länge</b>                         | <b>Limbo: longitud</b>                       |                                                                        |               |
| <b>(*)</b> |                           |                                              |                                                    |                                                    |                                              |                                                                        |               |
| <b>QN</b>  | <b>(a)</b>                | very short                                   | très court                                         | sehr kurz                                          | muy corto                                    | PKMP05                                                                 | 1             |
|            |                           | short                                        | court                                              | kurz                                               | corto                                        | Napoli Blue                                                            | 3             |
|            |                           | medium                                       | moyen                                              | mittel                                             | medio                                        | Blue Rivulet                                                           | 5             |
|            |                           | long                                         | long                                               | lang                                               | largo                                        | Caroline                                                               | 7             |
|            |                           | very long                                    | très long                                          | sehr lang                                          | muy largo                                    | Elizabeth                                                              | 9             |
| <b>7.</b>  | <b>VG/<br/>MG/<br/>MS</b> | <b>Leaf blade: width</b>                     | <b>Limbe : largeur</b>                             | <b>Blattspreite: Breite</b>                        | <b>Limbo: anchura</b>                        |                                                                        |               |
| <b>(*)</b> |                           |                                              |                                                    |                                                    |                                              |                                                                        |               |
| <b>(+)</b> |                           |                                              |                                                    |                                                    |                                              |                                                                        |               |
| <b>QN</b>  | <b>(a)</b>                | very narrow                                  | très étroit                                        | sehr schmal                                        | muy estrecho                                 | Pink Octopus                                                           | 1             |
|            |                           | narrow                                       | étroit                                             | schmal                                             | estrecho                                     | Blue Eyed Blonde                                                       | 3             |
|            |                           | medium                                       | moyen                                              | mittel                                             | medio                                        | Caroline                                                               | 5             |
|            |                           | broad                                        | large                                              | breit                                              | ancho                                        | Silver Bells                                                           | 7             |
|            |                           | very broad                                   | très large                                         | sehr breit                                         | muy ancho                                    | Sarastro                                                               | 9             |
| <b>8.</b>  | <b>VG/<br/>MG/<br/>MS</b> | <b>Leaf blade: length/width ratio</b>        | <b>Limbe : rapport longueur/largeur</b>            | <b>Blattspreite: Verhältnis Länge/Breite</b>       | <b>Limbo: relación longitud/anchura</b>      |                                                                        |               |
| <b>(*)</b> |                           |                                              |                                                    |                                                    |                                              |                                                                        |               |
| <b>(+)</b> |                           |                                              |                                                    |                                                    |                                              |                                                                        |               |
| <b>QN</b>  | <b>(a)</b>                | low                                          | bas                                                | klein                                              | baja                                         | Caroline                                                               | 3             |
|            |                           | medium                                       | moyen                                              | mittel                                             | media                                        | Pink Octopus                                                           | 5             |
|            |                           | high                                         | élevé                                              | groß                                               | alta                                         | Blue Eyed Blond                                                        | 7             |
| <b>9.</b>  | <b>VG</b>                 | <b>Leaf blade: position of broadest part</b> | <b>Limbe : position de la partie la plus large</b> | <b>Blattspreite: Position des breitesten Teils</b> | <b>Limbo: posición de la parte más ancha</b> |                                                                        |               |
| <b>(+)</b> |                           |                                              |                                                    |                                                    |                                              |                                                                        |               |
| <b>QN</b>  | <b>(a)</b>                | strongly towards base                        | fortement vers la base                             | stark zur Basis hin                                | fuertemente hacia la base                    |                                                                        | 1             |
|            |                           | moderately towards base                      | modérément vers la base                            | mäßig zur Basis hin                                | moderadamente hacia la base                  |                                                                        | 2             |
|            |                           | at middle                                    | au milieu                                          | in der Mitte                                       | en la mitad                                  |                                                                        | 3             |
|            |                           | towards apex                                 | vers l'apex                                        | zur Spitze hin                                     | hacia el ápice                               |                                                                        | 4             |

|            |            | English                          | français                          | deutsch                              | español                        | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|------------|------------|----------------------------------|-----------------------------------|--------------------------------------|--------------------------------|------------------------------------------------------------------------|---------------|
| <b>10.</b> | <b>VG</b>  | <b>Leaf blade: shape of apex</b> | <b>Limbe : forme de l'apex</b>    | <b>Blattspreite: Form der Spitze</b> | <b>Limbo: forma del ápice</b>  |                                                                        |               |
|            | <b>(+)</b> |                                  |                                   |                                      |                                |                                                                        |               |
| <b>PQ</b>  | <b>(a)</b> | acuminate                        | acuminé                           | zugespitzt                           | acuminado                      |                                                                        | 1             |
|            |            | acute                            | aigu                              | spitz                                | agudo                          |                                                                        | 2             |
|            |            | obtuse                           | obtus                             | stumpf                               | obtuso                         |                                                                        | 3             |
| <b>11.</b> | <b>VG</b>  | <b>Leaf blade: shape of base</b> | <b>Limbe : forme de la base</b>   | <b>Blattspreite: Form der Basis</b>  | <b>Limbo: forma de la base</b> |                                                                        |               |
|            | <b>(+)</b> |                                  |                                   |                                      |                                |                                                                        |               |
| <b>PQ</b>  | <b>(a)</b> | attenuate                        | amincie                           | keilförmig zugespitzt                | atenuada                       |                                                                        | 1             |
|            |            | acute                            | aiguë                             | spitz                                | aguda                          |                                                                        | 2             |
|            |            | obtuse                           | obtuse                            | stumpf                               | obtusa                         |                                                                        | 3             |
|            |            | rounded                          | arrondie                          | abgerundet                           | redondeada                     |                                                                        | 4             |
|            |            | truncate                         | tronquée                          | abgestumpft                          | truncada                       |                                                                        | 5             |
|            |            | cordate                          | cordiforme                        | herzförmig                           | cordiforme                     |                                                                        | 6             |
| <b>12.</b> | <b>VG</b>  | <b>Leaf blade: variegation</b>   | <b>Limbe : panachure</b>          | <b>Blattspreite: Panaschierung</b>   | <b>Limbo: variegación</b>      |                                                                        |               |
|            | <b>(*)</b> |                                  |                                   |                                      |                                |                                                                        |               |
| <b>QL</b>  | <b>(a)</b> | absent                           | absente                           | fehlend                              | ausente                        | Pink Octopus                                                           | 1             |
|            |            | present                          | présente                          | vorhanden                            | presente                       | Kifu                                                                   | 9             |
| <b>13.</b> | <b>VG</b>  | <b>Leaf blade: main color</b>    | <b>Limbe : couleur principale</b> | <b>Blattspreite: Hauptfarbe</b>      | <b>Limbo: color principal</b>  |                                                                        |               |
|            | <b>(*)</b> |                                  |                                   |                                      |                                |                                                                        |               |
|            | <b>(+)</b> |                                  |                                   |                                      |                                |                                                                        |               |
| <b>PQ</b>  | <b>(a)</b> | whitish                          | blanchâtre                        | weißlich                             | blanquecino                    |                                                                        | 1             |
|            |            | yellow                           | jaune                             | gelb                                 | amarillo                       | Kifu                                                                   | 2             |
|            |            | yellow green                     | vert-jaune                        | gelbgrün                             | verde amarillento              | Blue Eyed Blonde                                                       | 3             |
|            |            | light green                      | vert clair                        | hellgrün                             | verde claro                    | Caroline                                                               | 4             |
|            |            | medium green                     | vert moyen                        | mittelgrün                           | verde medio                    | Sarastro                                                               | 5             |
|            |            | dark green                       | vert foncé                        | dunkelgrün                           | verde oscuro                   | PKM01                                                                  | 6             |
|            |            | grey green                       | vert-gris                         | graugrün                             | verde grisáceo                 | Silver Bells                                                           | 7             |
|            |            | green tinged with purplish red   | vert teinté de rouge violacé      | grün meliert mit purpurrot           | verde teñido de rojo púrpura   | Blue Rivulet                                                           | 8             |
| <b>14.</b> | <b>VG</b>  | <b>Leaf blade: rugosity</b>      | <b>Limbe : rugosité</b>           | <b>Blattspreite: Blasigkeit</b>      | <b>Limbo: rugosidad</b>        |                                                                        |               |
|            | <b>(a)</b> |                                  |                                   |                                      |                                |                                                                        |               |
| <b>QN</b>  | <b>(a)</b> | absent or very weak              | absente ou très faible            | fehlend oder sehr gering             | nula o muy débil               | PKM01                                                                  | 1             |
|            |            | weak                             | faible                            | gering                               | débil                          | Pink Octopus                                                           | 2             |
|            |            | medium                           | moyenne                           | mittel                               | media                          | Sarastro                                                               | 3             |
|            |            | strong                           | forte                             | stark                                | fuerte                         | Elizabeth                                                              | 4             |
|            |            | very strong                      | très forte                        | sehr stark                           | muy fuerte                     | Hot Lips                                                               | 5             |

|            |            | English                                                    | français                                                     | deutsch                                            | español                                                          | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|------------|------------|------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------|---------------|
| <b>15.</b> | <b>VG</b>  | <b>Leaf blade:<br/>glossiness</b>                          | <b>Limbe : brilliance</b>                                    | <b>Blattspreite: Glanz</b>                         | <b>Limbo: brillo</b>                                             |                                                                        |               |
| <b>QN</b>  | <b>(a)</b> | absent or very weak                                        | absente ou très faible                                       | fehlend oder sehr schwach                          | ausente o muy débil                                              | PKM01                                                                  | 1             |
|            |            | weak                                                       | faible                                                       | schwach                                            | débil                                                            | Pink Octopus                                                           | 2             |
|            |            | medium                                                     | moyenne                                                      | mittel                                             | medio                                                            | Caroline                                                               | 3             |
|            |            | strong                                                     | forte                                                        | stark                                              | fuerte                                                           | Silver Bells                                                           | 4             |
| <b>16.</b> | <b>VG</b>  | <b>Leaf blade:<br/>pubescence</b>                          | <b>Limbe : pubescence</b>                                    | <b>Blattspreite:<br/>Behaarung</b>                 | <b>Limbo: pubescencia</b>                                        |                                                                        |               |
| <b>QN</b>  | <b>(a)</b> | absent or very sparse                                      | absente ou très clairsemée                                   | fehlend oder sehr gering                           | ausente o muy escasa                                             | PKM01                                                                  | 1             |
|            |            | sparse                                                     | clairsemée                                                   | gering                                             | escasa                                                           | Pink Octopus                                                           | 2             |
|            |            | medium                                                     | assez dense                                                  | mittel                                             | media                                                            | Sarastro                                                               | 3             |
|            |            | dense                                                      | dense                                                        | dicht                                              | densa                                                            | Caroline                                                               | 4             |
|            |            | very dense                                                 | très dense                                                   | sehr dicht                                         | muy densa                                                        | PKMFOR168                                                              | 5             |
| <b>17.</b> | <b>VG</b>  | <b>Leaf blade:<br/>indentations of<br/>margin</b>          | <b>Limbe : denticulations<br/>du bord</b>                    | <b>Blattspreite:<br/>Randeinschnitte</b>           | <b>Limbo: indentaciones<br/>del borde</b>                        |                                                                        |               |
| <b>QN</b>  | <b>(a)</b> | absent or very few                                         | absentes ou très peu nombreuses                              | fehlend oder sehr wenige                           | ausente o muy pocas                                              | PKM01                                                                  | 1             |
|            |            | few                                                        | peu nombreuses                                               | wenige                                             | pocas                                                            | Napoli Blue                                                            | 2             |
|            |            | medium                                                     | assez nombreuses                                             | mittel                                             | medio                                                            | Sarastro                                                               | 3             |
|            |            | many                                                       | nombreuses                                                   | viele                                              | abundantes                                                       | Caroline                                                               | 4             |
|            |            | very many                                                  | très nombreuses                                              | sehr viele                                         | muy abundantes                                                   | Elizabeth                                                              | 5             |
| <b>18.</b> | <b>VG</b>  | <b>Leaf blade: depth of<br/>indentations of<br/>margin</b> | <b>Limbe : profondeur<br/>des denticulations<br/>du bord</b> | <b>Blattspreite: Tiefe der<br/>Randeinschnitte</b> | <b>Limbo: profundidad<br/>de las indentaciones<br/>del borde</b> |                                                                        |               |
| <b>QN</b>  | <b>(a)</b> | very shallow                                               | très peu profondes                                           | sehr flach                                         | muy poco profundas                                               | PKM01                                                                  | 1             |
|            |            | shallow                                                    | peu profondes                                                | flach                                              | poco profundas                                                   | Caroline                                                               | 2             |
|            |            | medium                                                     | assez profondes                                              | mittel                                             | medias                                                           | Pink Octopus                                                           | 3             |
|            |            | deep                                                       | profondes                                                    | tief                                               | profundas                                                        | Camp trailbule                                                         | 4             |
|            |            | very deep                                                  | très profondes                                               | sehr tief                                          | muy profundas                                                    | Sarastro                                                               | 5             |
| <b>19.</b> | <b>VG</b>  | <b>Leaf blade:<br/>undulation of margin</b>                | <b>Lime : ondulation du<br/>bord</b>                         | <b>Blattspreite:<br/>Randwellung</b>               | <b>Limbo: ondulación<br/>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                                              | Sarastro                                                               | 1             |
|            |            | weak                                                       | faible                                                       | gering                                             | débil                                                            | Caroline                                                               | 2             |
|            |            | medium                                                     | moyenne                                                      | mittel                                             | media                                                            | Elizabeth                                                              | 3             |
|            |            | strong                                                     | forte                                                        | stark                                              | fuerte                                                           | PKMFOR168                                                              | 4             |
|            |            | very strong                                                | très forte                                                   | sehr stark                                         | muy fuerte                                                       | Hot Lips                                                               | 5             |

|                            |            | English                                                                                                      | français                                                                                                                                              | deutsch                                                                                                          | español                                                                                                                                     | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|----------------------------|------------|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------|
| <b>20.<br/>(*)<br/>(+)</b> | <b>VG</b>  | <b>Flower: attitude</b>                                                                                      | <b>Fleur : port</b>                                                                                                                                   | <b>Blüte: Haltung</b>                                                                                            | <b>Flor: porte</b>                                                                                                                          |                                                                        |               |
| <b>QN</b>                  | <b>(b)</b> | upwards                                                                                                      | dressé                                                                                                                                                | aufwärts                                                                                                         | erecta                                                                                                                                      | Samantha                                                               | 1             |
|                            |            | slightly outwards                                                                                            | légèrement<br>perpendiculaire                                                                                                                         | leicht horizontal                                                                                                | ligeramente hacia<br>afuera                                                                                                                 | PKMP05                                                                 | 2             |
|                            |            | strongly outwards                                                                                            | fortement<br>perpendiculaire                                                                                                                          | stark horizontal                                                                                                 | fuertemente hacia<br>afuera                                                                                                                 | Blue Eyed Blonde                                                       | 3             |
|                            |            | slightly downwards                                                                                           | légèrement retombant                                                                                                                                  | leicht abwärts                                                                                                   | ligeramente hacia abajo                                                                                                                     | Pink Octopus                                                           | 4             |
|                            |            | strongly downwards                                                                                           | fortement retombant                                                                                                                                   | stark abwärts                                                                                                    | fuertemente hacia<br>abajo                                                                                                                  | Sarastro                                                               | 5             |
| <b>21.<br/>(*)<br/>(+)</b> | <b>VG</b>  | <b>Flower: type</b>                                                                                          | <b>Fleur : type</b>                                                                                                                                   | <b>Blüte: Typ</b>                                                                                                | <b>Flor: tipo</b>                                                                                                                           |                                                                        |               |
| <b>PQ</b>                  | <b>(b)</b> | tubular                                                                                                      | tubulaire                                                                                                                                             | röhrenförmig                                                                                                     | tubular                                                                                                                                     | Sarastro                                                               | 1             |
|                            |            | campanulate                                                                                                  | campanulée                                                                                                                                            | glockenförmig                                                                                                    | acampanada                                                                                                                                  | PKMH01                                                                 | 2             |
|                            |            | rotate                                                                                                       | arrondie                                                                                                                                              | radförmig                                                                                                        | rotácea                                                                                                                                     | Samantha                                                               | 3             |
|                            |            | stellate (with<br>strap-shaped lobes)                                                                        | étoilée (avec des lobes<br>en forme de ruban)                                                                                                         | sternförmig (mit<br>bandförmigen Lappen)                                                                         | estrellada (con lóbulos<br>ligulados)                                                                                                       | Pink Octopus                                                           | 4             |
| <b>22.<br/>(*)<br/>(+)</b> | <b>VG</b>  | <b>Calyx: petaloid lobes</b>                                                                                 | <b>Calice : lobes<br/>pétaloïdes</b>                                                                                                                  | <b>Kelch:<br/>Nebenkronlappen</b>                                                                                | <b>Cáliz: lóbulos<br/>petaloides</b>                                                                                                        |                                                                        |               |
| <b>QL</b>                  | <b>(b)</b> | absent                                                                                                       | absents                                                                                                                                               | fehlend                                                                                                          | ausentes                                                                                                                                    | Kent Belle                                                             | 1             |
|                            |            | present                                                                                                      | présents                                                                                                                                              | vorhanden                                                                                                        | presentes                                                                                                                                   | Pantaloons                                                             | 9             |
| <b>23.</b>                 | <b>VG</b>  | <b><u>Only varieties with<br/>calyx: petaloid lobes<br/>present:</u> Calyx lobe:<br/>color of outer side</b> | <b><u>Seulement les<br/>variétés avec un<br/>calice : lobes<br/>pétaloïdes présents :</u><br/>Lobe du calice :<br/>couleur de la face<br/>externe</b> | <b><u>Nur Sorten mit Kelch:<br/>Nebenkronlappen<br/>vorhanden:</u><br/>Kelchlappen: Farbe<br/>der Außenseite</b> | <b><u>Únicamente<br/>variedades con cáliz:<br/>lóbulos petaloides<br/>presentes:</u> lóbulo del<br/>cáliz: color de la cara<br/>externa</b> |                                                                        |               |
| <b>PQ</b>                  | <b>(b)</b> | RHS Colour Chart<br>(indicate reference<br>number)                                                           | Code RHS des<br>couleurs (indiquer le<br>numéro de référence)                                                                                         | RHS-Farbkarte<br>(Nummer angeben)                                                                                | Carta de colores RHS<br>(indíquese el número<br>de referencia)                                                                              |                                                                        |               |
| <b>24.<br/>(+)</b>         | <b>VG</b>  | <b>Calyx: position of<br/>lobes</b>                                                                          | <b>Calice : position des<br/>lobes</b>                                                                                                                | <b>Kelch: Haltung der<br/>Lappen</b>                                                                             | <b>Cáliz: posición de los<br/>lóbulos</b>                                                                                                   |                                                                        |               |
| <b>QN</b>                  | <b>(b)</b> | adpressed to corolla                                                                                         | appliqués contre la<br>corolle                                                                                                                        | anliegend an Krone                                                                                               | adpresos a la corola                                                                                                                        |                                                                        | 1             |
|                            |            | moderately spreading                                                                                         | modérément étalés                                                                                                                                     | etwas abstehend                                                                                                  | moderadamente<br>extendidos                                                                                                                 |                                                                        | 3             |
|                            |            | horizontal                                                                                                   | horizontaux                                                                                                                                           | waagrecht                                                                                                        | horizontales                                                                                                                                |                                                                        | 5             |
|                            |            | moderately reflexed                                                                                          | modérément réfléchis                                                                                                                                  | etwas zurückgebogen                                                                                              | moderadamente<br>reflejos                                                                                                                   |                                                                        | 7             |
|                            |            | strongly reflexed                                                                                            | fortement réfléchis                                                                                                                                   | stark zurückgebogen                                                                                              | fuertemente reflejos                                                                                                                        |                                                                        | 9             |

|                            |                           | English                                                       | français                                                                  | deutsch                                                   | español                                                             | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|----------------------------|---------------------------|---------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------------------|---------------|
| <b>25.<br/>(*)<br/>(+)</b> | <b>VG</b>                 | <b>Corolla: number of whorls</b>                              | <b>Corolle : nombre de verticilles</b>                                    | <b>Krone: Anzahl Wirtel</b>                               | <b>Corola: número de verticilos</b>                                 |                                                                        |               |
| <b>QN</b>                  | <b>(b)</b>                | very few                                                      | très petit                                                                | sehr wenige                                               | muy bajo                                                            | PKMH01                                                                 | 1             |
|                            |                           | few                                                           | petit                                                                     | wenige                                                    | bajo                                                                | Haviddb701                                                             | 2             |
|                            |                           | medium                                                        | moyen                                                                     | mittel                                                    | medio                                                               | White Ball                                                             | 3             |
|                            |                           | many                                                          | grand                                                                     | viele                                                     | alto                                                                | La Bello                                                               | 4             |
| <b>26.<br/>(*)<br/>(+)</b> | <b>VG/<br/>MG/<br/>MS</b> | <b>Corolla: length</b>                                        | <b>Corolle : longueur</b>                                                 | <b>Krone: Länge</b>                                       | <b>Corola: longitud</b>                                             |                                                                        |               |
| <b>QN</b>                  | <b>(b)</b>                | very short                                                    | très courte                                                               | sehr kurz                                                 | muy corta                                                           | Blue Rivulet                                                           | 1             |
|                            |                           | short                                                         | courte                                                                    | kurz                                                      | corta                                                               | Jelly Bells                                                            | 3             |
|                            |                           | medium                                                        | moyenne                                                                   | mittel                                                    | media                                                               | Caroline                                                               | 5             |
|                            |                           | long                                                          | longue                                                                    | lang                                                      | larga                                                               | Pantaloons                                                             | 7             |
|                            |                           | very long                                                     | très longue                                                               | sehr lang                                                 | muy larga                                                           | Sarastro                                                               | 9             |
| <b>27.<br/>(*)<br/>(+)</b> | <b>VG/<br/>MG/<br/>MS</b> | <b>Corolla: diameter</b>                                      | <b>Corolle : diamètre</b>                                                 | <b>Krone: Durchmesser</b>                                 | <b>Corola: diámetro</b>                                             |                                                                        |               |
| <b>QN</b>                  | <b>(b)</b>                | very small                                                    | très petit                                                                | sehr klein                                                | muy pequeño                                                         |                                                                        | 1             |
|                            |                           | small                                                         | petit                                                                     | klein                                                     | pequeño                                                             | PKMP05                                                                 | 3             |
|                            |                           | medium                                                        | moyen                                                                     | mittel                                                    | medio                                                               | Sarastro                                                               | 5             |
|                            |                           | large                                                         | grand                                                                     | groß                                                      | grande                                                              | Blue Eyed Blonde                                                       | 7             |
|                            |                           | very large                                                    | très grand                                                                | sehr groß                                                 | muy grande                                                          | Pink Octopus                                                           | 9             |
| <b>28.<br/>(*)</b>         | <b>VG</b>                 | <b>Corolla: main color of outer side</b>                      | <b>Corolle : couleur principale de la face externe</b>                    | <b>Krone: Hauptfarbe der Außenseite</b>                   | <b>Corola: color principal de la cara externa</b>                   |                                                                        |               |
| <b>PQ</b>                  | <b>(b)<br/>(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>29.<br/>(+)</b>         | <b>VG</b>                 | <b>Corolla: distribution of secondary color of outer side</b> | <b>Corolle : distribution de la couleur secondaire de la face externe</b> | <b>Krone: Verteilung der Sekundärfarbe der Außenseite</b> | <b>Corola: distribución del color secundario de la cara externa</b> |                                                                        |               |
| <b>PQ</b>                  | <b>(b)</b>                | none                                                          | aucune                                                                    | keine                                                     | ninguno                                                             |                                                                        | 1             |
|                            | <b>(c)</b>                | distal quarter                                                | quart distal                                                              | im distalen Viertel                                       | en el cuarto distal                                                 |                                                                        | 2             |
|                            |                           | basal half                                                    | moitié basale                                                             | in der basalen Hälfte                                     | en la mitad basal                                                   |                                                                        | 3             |
|                            |                           | basal quarter                                                 | quart basal                                                               | im basalen Viertel                                        | en el cuarto basal                                                  |                                                                        | 4             |
|                            |                           | at base                                                       | à la base                                                                 | an der Basis                                              | en la base                                                          |                                                                        | 5             |
|                            |                           | marginal zone                                                 | zone marginale                                                            | in der Randzone                                           | en la zona del borde                                                |                                                                        | 6             |
|                            |                           | midribs                                                       | nervures médianes                                                         | auf den Mittelrippen                                      | en los nervios centrales                                            |                                                                        | 7             |
|                            |                           | midribs and marginal zone                                     | nervures médianes et zone marginale                                       | auf den Mittelrippen und in der Randzone                  | en los nervios centrales y en la zona del borde                     |                                                                        | 8             |
|                            |                           | along veins                                                   | le long des nervures                                                      | entlang der Adern                                         | a lo largo de los nervios                                           |                                                                        | 9             |

|                    |                    | English                                             | français                                                         | deutsch                                                        | español                                                                        | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|--------------------|--------------------|-----------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------|
| <b>30.<br/>(*)</b> | <b>VG</b>          | <b>Corolla: secondary color of outer side</b>       | <b>Corolle : couleur secondaire de la face externe</b>           | <b>Krone: Sekundärfarbe der Außenseite</b>                     | <b>Corola: color secundario de la cara externa</b>                             |                                                                        |               |
| <b>PQ</b>          | <b>(b)<br/>(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>31.<br/>(*)</b> | <b>VG</b>          | <b>Corolla: spots on outer side</b>                 | <b>Corolle : taches sur la face externe</b>                      | <b>Krone: Flecken an der Außenseite</b>                        | <b>Corola: manchas en la cara externa</b>                                      |                                                                        |               |
| <b>QL</b>          | <b>(b)</b>         | absent                                              | absentes                                                         | fehlend                                                        | ausentes                                                                       | Sarastro                                                               | 1             |
|                    |                    | present                                             | présentes                                                        | vorhanden                                                      | presentes                                                                      | Pink Chimes                                                            | 9             |
| <b>32.<br/>(+)</b> | <b>VG</b>          | <b>Corolla: distribution of spots on outer side</b> | <b>Corolle : distribution des taches sur la face externe</b>     | <b>Krone: Verteilung der Flecken auf der Außenseite</b>        | <b>Corola: distribución de las manchas en la cara externa</b>                  |                                                                        |               |
| <b>PQ</b>          | <b>(b)</b>         | mainly in basal quarter                             | principalement sur le quart basal                                | hauptsächlich im basalen Viertel                               | principalmente en el cuarto basal                                              |                                                                        | 1             |
|                    |                    | mainly in basal half                                | principalement sur la moitié basale                              | hauptsächlich in der basalen Hälfte                            | principalmente en la mitad basal                                               |                                                                        | 2             |
|                    |                    | mainly in basal three quarters                      | principalement sur les trois quarts basaux                       | hauptsächlich im basalen Dreiviertel                           | principalmente en los tres cuartos basales                                     |                                                                        | 3             |
|                    |                    | throughout                                          | partout                                                          | überall                                                        | en la totalidad                                                                |                                                                        | 4             |
|                    |                    | mainly along basal quarter of midribs               | principalement sur le quart basal des nervures médianes          | hauptsächlich entlang dem basalen Viertel der Mittelrippen     | principalmente a lo largo del cuarto basal de los nervios centrales            |                                                                        | 5             |
|                    |                    | mainly along basal half of midribs                  | principalement sur la moitié basale des nervures médianes        | hauptsächlich entlang der basalen Hälfte der Mittelrippen      | principalmente a lo largo de la mitad basal de los nervios centrales           |                                                                        | 6             |
|                    |                    | mainly along basal three quarters of midribs        | principalement sur les trois quarts basaux des nervures médianes | hauptsächlich entlang dem basalen Dreiviertel der Mittelrippen | principalmente a lo largo de los tres cuartos basales de los nervios centrales |                                                                        | 7             |
|                    |                    | mainly along entire length of midribs               | principalement sur toute la longueur des nervures médianes       | hauptsächlich entlang der gesamten Länge der Mittelrippen      | principalmente en toda la longitud de los nervios centrales                    |                                                                        | 8             |
| <b>33.</b>         | <b>VG</b>          | <b>Corolla: density of spots on outer side</b>      | <b>Corolle : densité des taches sur la face externe</b>          | <b>Krone: Dichte der Flecken auf der Außenseite</b>            | <b>Corola: densidad de las manchas de la cara externa</b>                      |                                                                        |               |
| <b>QN</b>          | <b>(b)</b>         | very sparse                                         | très clairsemées                                                 | sehr locker                                                    | muy escasa                                                                     |                                                                        | 1             |
|                    |                    | sparse                                              | clairsemées                                                      | locker                                                         | escasa                                                                         | Silver Bells                                                           | 3             |
|                    |                    | medium                                              | assez clairsemées                                                | mittel                                                         | media                                                                          | Elizabeth                                                              | 5             |
|                    |                    | dense                                               | denses                                                           | dicht                                                          | densa                                                                          | Pink Chimes                                                            | 7             |
|                    |                    | very dense                                          | très denses                                                      | sehr dicht                                                     | muy densa                                                                      |                                                                        | 9             |
| <b>34.<br/>(*)</b> | <b>VG</b>          | <b>Corolla: main color of inner side</b>            | <b>Corolle : couleur principale de la face interne</b>           | <b>Krone: Hauptfarbe der Innenseite</b>                        | <b>Corola: color principal de la cara interna</b>                              |                                                                        |               |
| <b>PQ</b>          | <b>(b)<br/>(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<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|------------|------------|---------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------|
| <b>35.</b> | <b>VG</b>  | <b>Corolla: distribution of secondary color of inner side</b> | <b>Corolle : distribution de la couleur secondaire de la face interne</b> | <b>Krone: Verteilung der Sekundärfarbe der Innenseite</b>      | <b>Corola: distribución del color secundario de la cara interna</b>            |                                                                        |               |
| <b>PQ</b>  | <b>(b)</b> | none                                                          | aucune                                                                    | keine                                                          | ninguno                                                                        |                                                                        | 1             |
|            | <b>(c)</b> | distal quarter                                                | quart distal                                                              | im distalen Viertel                                            | en el cuarto distal                                                            |                                                                        | 2             |
|            |            | basal half                                                    | moitié basale                                                             | in der basalen Hälfte                                          | en la mitad basal                                                              |                                                                        | 3             |
|            |            | basal quarter                                                 | quart basal                                                               | im basalen Viertel                                             | en el cuarto basal                                                             |                                                                        | 4             |
|            |            | at base                                                       | à la base                                                                 | an der Basis                                                   | en la base                                                                     |                                                                        | 5             |
|            |            | marginal zone                                                 | zone marginale                                                            | in der Randzone                                                | en la zona del borde                                                           |                                                                        | 6             |
|            |            | midribs                                                       | nervures médianes                                                         | auf den Mittelrippen                                           | en los nervios centrales                                                       |                                                                        | 7             |
|            |            | longitudinal zone                                             | zone longitudinale                                                        | an der Längsseite der Kronlappen                               | en la zona longitudinal                                                        |                                                                        | 8             |
|            |            | along veins                                                   | le long des nervures                                                      | entlang der Adern                                              | a lo largo de los nervios                                                      |                                                                        | 9             |
| <b>36.</b> | <b>VG</b>  | <b>Corolla: secondary color of inner side</b>                 | <b>Corolle : couleur secondaire de la face interne</b>                    | <b>Krone: Sekundärfarbe der Innenseite</b>                     | <b>Corola: color secundario de la cara interna</b>                             |                                                                        |               |
| <b>PQ</b>  | <b>(b)</b> | RHS Colour Chart                                              | Code RHS des couleurs (indiquer le numéro de référence)                   | RHS-Farbkarte (Nummer angeben)                                 | Carta de colores RHS (indíquese el número de referencia)                       |                                                                        |               |
|            | <b>(c)</b> | (indicate reference number)                                   |                                                                           |                                                                |                                                                                |                                                                        |               |
| <b>37.</b> | <b>VG</b>  | <b>Corolla: spots on inner side</b>                           | <b>Corolle : taches sur la face interne</b>                               | <b>Krone: Flecken an der Innenseite</b>                        | <b>Corola: manchas en la cara interna</b>                                      |                                                                        |               |
| <b>QL</b>  | <b>(b)</b> | absent                                                        | absentes                                                                  | fehlend                                                        | ausentes                                                                       | La Bello                                                               | 1             |
|            |            | present                                                       | présentes                                                                 | vorhanden                                                      | presentes                                                                      | Pink Octopus                                                           | 9             |
| <b>38.</b> | <b>VG</b>  | <b>Corolla: distribution of spots on inner side</b>           | <b>Corolle : distribution des taches sur la face interne</b>              | <b>Krone: Verteilung der Flecken auf der Innenseite</b>        | <b>Corola: distribución de las manchas en la cara interna</b>                  |                                                                        |               |
| <b>PQ</b>  | <b>(b)</b> | mainly in basal quarter                                       | principalement sur le quart basal                                         | hauptsächlich im basalen Viertel                               | principalmente en el cuarto basal                                              |                                                                        | 1             |
|            |            | mainly in basal half                                          | principalement sur la moitié basale                                       | hauptsächlich in der basalen Hälfte                            | principalmente en la mitad basal                                               |                                                                        | 2             |
|            |            | mainly in basal three quarters                                | principalement sur les trois quarts basaux                                | hauptsächlich im basalen Dreiviertel                           | principalmente en los tres cuartos basales                                     |                                                                        | 3             |
|            |            | throughout                                                    | partout                                                                   | überall                                                        | en la totalidad                                                                |                                                                        | 4             |
|            |            | mainly along basal quarter of midribs                         | principalement sur le quart basal des nervures médianes                   | hauptsächlich entlang dem basalen Viertel der Mittelrippen     | principalmente a lo largo del cuarto basal de los nervios centrales            |                                                                        | 5             |
|            |            | mainly along basal half of midribs                            | principalement sur la moitié basale des nervures médianes                 | hauptsächlich entlang der basalen Hälfte der Mittelrippen      | principalmente a lo largo de la mitad basal de los nervios centrales           |                                                                        | 6             |
|            |            | mainly along basal three quarters of midribs                  | principalement sur les trois quarts basaux des nervures médianes          | hauptsächlich entlang dem basalen Dreiviertel der Mittelrippen | principalmente a lo largo de los tres cuartos basales de los nervios centrales |                                                                        | 7             |
|            |            | mainly along entire length of midribs                         | principalement sur toute la longueur des nervures médianes                | hauptsächlich entlang der gesamten Länge der Mittelrippen      | principalmente en toda la longitud de los nervios centrales                    |                                                                        | 8             |

|            |                                   | English                                                                        | français                                                                                              | deutsch                                                                                | español                                                                                    | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|------------|-----------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------|
| <b>39.</b> | <b>VG</b>                         | <b>Corolla: density of spots on inner side</b>                                 | <b>Corolle : densité des taches sur la face interne</b>                                               | <b>Krone: Dichte der Flecken auf der Innenseite</b>                                    | <b>Corola: densidad de las manchas de la cara interna</b>                                  |                                                                        |               |
| <b>QN</b>  | <b>(b)</b>                        | very sparse                                                                    | très clairsemées                                                                                      | sehr locker                                                                            | muy escasa                                                                                 |                                                                        | 1             |
|            |                                   | sparse                                                                         | clairsemées                                                                                           | locker                                                                                 | escasa                                                                                     | Silver Bells                                                           | 3             |
|            |                                   | medium                                                                         | assez clairsemées                                                                                     | mittel                                                                                 | media                                                                                      | Pink Octopus                                                           | 5             |
|            |                                   | dense                                                                          | denses                                                                                                | dicht                                                                                  | densa                                                                                      | Pink Chimes                                                            | 7             |
|            |                                   | very dense                                                                     | très denses                                                                                           | sehr dicht                                                                             | muy densa                                                                                  | Hot Lips                                                               | 9             |
| <b>40.</b> | <b>VG</b>                         | <b>Corolla: color of spots on inner side</b>                                   | <b>Corolle : couleur des taches sur la face interne</b>                                               | <b>Krone: Farbe der Flecken auf der Innenseite</b>                                     | <b>Corola: color de las manchas de la cara interna</b>                                     |                                                                        |               |
| <b>PQ</b>  | <b>(b)</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>41.</b> | <b>VG</b>                         | <b>Corolla: pubescence of inner side</b>                                       | <b>Corolle : pubescence de la face interne</b>                                                        | <b>Krone: Behaarung der Innenseite</b>                                                 | <b>Corola: pubescencia de la cara interna</b>                                              |                                                                        |               |
| <b>QL</b>  | <b>(b)</b>                        | absent                                                                         | absente                                                                                               | fehlend                                                                                | ausente                                                                                    | Caroline                                                               | 1             |
|            |                                   | present                                                                        | présente                                                                                              | vorhanden                                                                              | presente                                                                                   | Pink Octopus                                                           | 9             |
| <b>42.</b> | <b>VG/<br/>MG/<br/>MS<br/>(+)</b> | <b>Corolla: length of fused part</b>                                           | <b>Corolle : longueur de la partie soudée</b>                                                         | <b>Krone: Länge des verwachsenen Teils</b>                                             | <b>Corola: longitud de la parte soldada</b>                                                |                                                                        |               |
| <b>QN</b>  | <b>(b)</b>                        | absent or extremely short                                                      | absente ou extrêmement courte                                                                         | fehlend oder extrem kurz                                                               | ausente o extremadamente corta                                                             | Pink Octopus                                                           | 1             |
|            |                                   | very short                                                                     | très courte                                                                                           | sehr kurz                                                                              | muy corta                                                                                  | PKM01                                                                  | 3             |
|            |                                   | short                                                                          | courte                                                                                                | kurz                                                                                   | corta                                                                                      | Caroline                                                               | 5             |
|            |                                   | medium                                                                         | moyenne                                                                                               | mittel                                                                                 | media                                                                                      | Kent Belle                                                             | 7             |
|            |                                   | long                                                                           | longue                                                                                                | lang                                                                                   | larga                                                                                      | Pantaloons                                                             | 9             |
|            |                                   | very long                                                                      | très longue                                                                                           | sehr lang                                                                              | muy larga                                                                                  | Elizabeth                                                              | 11            |
|            |                                   | extremely long                                                                 | extrêmement longue                                                                                    | extrem lang                                                                            | extremadamente larga                                                                       | Sarastro                                                               | 13            |
| <b>43.</b> | <b>VG</b>                         | <b>Corolla: relative length of fused part compared to total corolla length</b> | <b>Corolle : longueur relative de la partie soudée par rapport à la longueur totale de la corolle</b> | <b>Krone: relative Länge des verwachsenen Teils im Vergleich zur Gesamtkronenlänge</b> | <b>Corola: longitud de la parte soldada en relación con la longitud total de la corola</b> |                                                                        |               |
| <b>QN</b>  | <b>(b)</b>                        | absent or very short                                                           | absente ou très courte                                                                                | fehlend oder sehr kurz                                                                 | ausente o muy corta                                                                        |                                                                        | 1             |
|            |                                   | short                                                                          | courte                                                                                                | kurz                                                                                   | corta                                                                                      |                                                                        | 3             |
|            |                                   | medium                                                                         | moyenne                                                                                               | mittel                                                                                 | media                                                                                      |                                                                        | 5             |
|            |                                   | long                                                                           | longue                                                                                                | lang                                                                                   | larga                                                                                      |                                                                        | 7             |
|            |                                   | very long                                                                      | très longue                                                                                           | sehr lang                                                                              | muy larga                                                                                  |                                                                        | 9             |

|            |                                   | English                                                       | français                                                             | deutsch                                                     | español                                                           | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|------------|-----------------------------------|---------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------------------|---------------|
| <b>44.</b> | <b>VG/<br/>MG/<br/>MS<br/>(+)</b> | <b>Corolla: diameter of fused part</b>                        | <b>Corolle : diamètre de la partie soudée</b>                        | <b>Krone: Durchmesser des verwachsenen Teils</b>            | <b>Corola: diámetro de la parte soldada</b>                       |                                                                        |               |
| <b>QN</b>  | <b>(b)</b>                        | absent or very small                                          | nul ou très petit                                                    | fehlend oder sehr klein                                     | nulo o muy pequeño                                                | PKMP05                                                                 | 1             |
|            |                                   | small                                                         | petit                                                                | klein                                                       | pequeño                                                           | Samantha                                                               | 3             |
|            |                                   | medium                                                        | moyen                                                                | mittel                                                      | medio                                                             | Elizabeth                                                              | 5             |
|            |                                   | large                                                         | grand                                                                | groß                                                        | grande                                                            |                                                                        | 7             |
|            |                                   | very large                                                    | très grand                                                           | sehr groß                                                   | muy grande                                                        | Blue Eyed Blonde                                                       | 9             |
| <b>45.</b> | <b>VG<br/>(*)<br/>(+)</b>         | <b>Corolla: profile of fused part in longitudinal section</b> | <b>Corolle : profil de la partie soudée en section longitudinale</b> | <b>Krone: Profil des verwachsenen Teils im Längsschnitt</b> | <b>Corola: perfil de la parte soldada en sección longitudinal</b> |                                                                        |               |
| <b>PQ</b>  | <b>(b)</b>                        | converging                                                    | convergent                                                           | zusammenlaufend                                             | convergente                                                       |                                                                        | 1             |
|            |                                   | parallel                                                      | parallèle                                                            | parallel                                                    | paralelo                                                          |                                                                        | 2             |
|            |                                   | very weakly diverging                                         | très faiblement divergent                                            | sehr wenig auseinanderlaufend                               | muy débilmente divergente                                         |                                                                        | 3             |
|            |                                   | weakly diverging                                              | faiblement divergent                                                 | wenig auseinanderlaufend                                    | débilmente divergente                                             |                                                                        | 4             |
|            |                                   | moderately diverging                                          | modérément divergent                                                 | mäßig auseinanderlaufend                                    | moderadamente divergente                                          |                                                                        | 5             |
|            |                                   | strongly diverging                                            | fortement divergent                                                  | stark auseinanderlaufend                                    | fuertemente divergente                                            |                                                                        | 6             |
|            |                                   | very strongly diverging                                       | très fortement divergent                                             | sehr stark auseinanderlaufend                               | muy fuertemente divergente                                        |                                                                        | 7             |
| <b>46.</b> | <b>VG<br/>(*)<br/>(+)</b>         | <b>Corolla lobe: shape</b>                                    | <b>Lobe de la corolle : forme</b>                                    | <b>Kronlappen: Form</b>                                     | <b>Lóbulo de la corola: forma</b>                                 |                                                                        |               |
| <b>PQ</b>  | <b>(b)</b>                        | triangular                                                    | triangulaire                                                         | dreieckig                                                   | triangular                                                        |                                                                        | 1             |
|            |                                   | ovate                                                         | ovale                                                                | eiförmig                                                    | oval                                                              |                                                                        | 2             |
|            |                                   | elliptic                                                      | elliptique                                                           | elliptisch                                                  | elíptico                                                          |                                                                        | 3             |
|            |                                   | oblong                                                        | oblong                                                               | rechteckig                                                  | oblongo                                                           |                                                                        | 4             |
| <b>47.</b> | <b>VG/<br/>MG/<br/>MS<br/>(+)</b> | <b>Corolla lobe: length</b>                                   | <b>Lobe de la corolle : longueur</b>                                 | <b>Kronlappen: Länge</b>                                    | <b>Lóbulo de la corola: longitud</b>                              |                                                                        |               |
| <b>QN</b>  | <b>(b)</b>                        | very short                                                    | très court                                                           | sehr kurz                                                   | muy corto                                                         | Jelly Bells                                                            | 1             |
|            |                                   | short                                                         | court                                                                | kurz                                                        | corto                                                             | PKMP05                                                                 | 3             |
|            |                                   | medium                                                        | moyen                                                                | mittel                                                      | medio                                                             | Blue Eyed Blonde                                                       | 5             |
|            |                                   | long                                                          | long                                                                 | lang                                                        | largo                                                             |                                                                        | 7             |
|            |                                   | very long                                                     | très long                                                            | sehr lang                                                   | muy largo                                                         |                                                                        | 9             |
|            |                                   | extremely long                                                | extrêmement long                                                     | extrem lang                                                 | extremadamente largo                                              | Pink Octopus                                                           | 11            |

|            |                                   | English                                | français                                        | deutsch                                | español                                         | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|------------|-----------------------------------|----------------------------------------|-------------------------------------------------|----------------------------------------|-------------------------------------------------|------------------------------------------------------------------------|---------------|
| <b>48.</b> | <b>VG/<br/>MG/<br/>MS<br/>(+)</b> | <b>Corolla lobe: width</b>             | <b>Lobe de la corolle :<br/>largeur</b>         | <b>Kronlappen: Breite</b>              | <b>Lóbulo de la corola:<br/>anchura</b>         |                                                                        |               |
| <b>QN</b>  | <b>(b)</b>                        | very narrow                            | très étroit                                     | sehr schmal                            | muy estrecho                                    | Blue Rivulet                                                           | 1             |
|            |                                   | narrow                                 | étroit                                          | schmal                                 | estrecho                                        | Caroline                                                               | 3             |
|            |                                   | medium                                 | moyen                                           | mittel                                 | medio                                           | Kent Belle                                                             | 5             |
|            |                                   | broad                                  | large                                           | breit                                  | ancho                                           | La Bello                                                               | 7             |
|            |                                   | very broad                             | très large                                      | sehr breit                             | muy ancho                                       | Blue Eyed Blonde                                                       | 9             |
| <b>49.</b> | <b>VG<br/>(*)<br/>(+)</b>         | <b>Corolla lobe: curvature</b>         | <b>Lobe de la corolle :<br/>courbure</b>        | <b>Kronlappen: Biegung</b>             | <b>Lóbulo de la corola:<br/>curvatura</b>       |                                                                        |               |
| <b>QN</b>  | <b>(b)</b>                        | very weakly incurving                  | très faiblement incurvé                         | sehr schwach<br>eingebogen             | muy débilmente<br>incurvado                     |                                                                        | 1             |
|            |                                   | straight                               | droit                                           | gerade                                 | recto                                           |                                                                        | 2             |
|            |                                   | very weakly reflexing                  | très faiblement<br>recourbé                     | sehr schwach<br>zurückgebogen          | muy débilmente reflexo                          |                                                                        | 3             |
|            |                                   | weakly reflexing                       | faiblement recourbé                             | schwach<br>zurückgebogen               | débilmente reflexo                              |                                                                        | 4             |
|            |                                   | moderately reflexing                   | modérément recourbé                             | mäßig zurückgebogen                    | moderadamente reflexo                           |                                                                        | 5             |
|            |                                   | strongly reflexing                     | fortement recourbé                              | stark zurückgebogen                    | fuertemente reflexo                             |                                                                        | 6             |
|            |                                   | very strongly reflexing                | très fortement recourbé                         | sehr stark<br>zurückgebogen            | muy fuertemente<br>reflexo                      |                                                                        | 7             |
| <b>50.</b> | <b>VG<br/>(+)</b>                 | <b>Corolla lobe: shape of<br/>apex</b> | <b>Lobe de la corolle :<br/>forme de l'apex</b> | <b>Kronlappen: Form der<br/>Spitze</b> | <b>Lóbulo de la corola:<br/>forma del ápice</b> |                                                                        |               |
| <b>PQ</b>  | <b>(b)</b>                        | acuminate                              | acuminé                                         | zugespitzt                             | acuminado                                       |                                                                        | 1             |
|            |                                   | acute                                  | aigu                                            | spitz                                  | agudo                                           |                                                                        | 2             |
|            |                                   | obtuse                                 | obtus                                           | stumpf                                 | obtuso                                          |                                                                        | 3             |
|            |                                   | rounded                                | arrondi                                         | abgerundet                             | redondeado                                      |                                                                        | 4             |
|            |                                   | truncate                               | tronqué                                         | abgestumpft                            | truncado                                        |                                                                        | 5             |
| <b>51.</b> | <b>VG</b>                         | <b>Pollen: color</b>                   | <b>Pollen : couleur</b>                         | <b>Pollen: Farbe</b>                   | <b>Polen: color</b>                             |                                                                        |               |
| <b>PQ</b>  | <b>(b)</b>                        | whitish                                | blanchâtre                                      | weißlich                               | blanquecino                                     | Pink Octopus                                                           | 1             |
|            |                                   | greenish                               | verdâtre                                        | grünlich                               | verdoso                                         |                                                                        | 2             |
|            |                                   | yellowish                              | jaunâtre                                        | gelblich                               | amarillento                                     | Caroline                                                               | 3             |
|            |                                   | purplish                               | violacé                                         | purpurn                                | purpúreo                                        | June Bell                                                              | 4             |
|            |                                   | bluish                                 | bleuâtre                                        | bläulich                               | azulado                                         | PKM01                                                                  | 5             |

## 8. Explanations on the Table of Characteristics

### 8.1 *Explanations covering several characteristics*

Observation should be made at the time of full flowering.

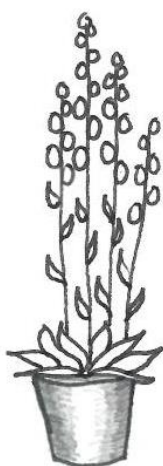
Characteristics containing the following key in the second column of the Table of Characteristics should be examined as indicated below:

- (a) Observations on the leaf blade should be made on fully expanded leaves from the middle third of a flowering stem, excluding the inflorescence. Observations are not made on the basal leaves of the plant. The upper side of the leaf should always be observed unless otherwise stated.
- (b) Observations on the calyx and corolla should be made on new fully open flowers.
- (c) The main color is the color with the largest surface area, excluding any spots that may be present. The color with the second largest area is the secondary color, excluding any spots that may be present. In cases where the areas of the main and secondary color are too similar to reliably decide which color has the largest area, the darkest color is considered to be the main color. The guideline makes provision for two colors; if more colors are present, those with the smallest area should not be observed.

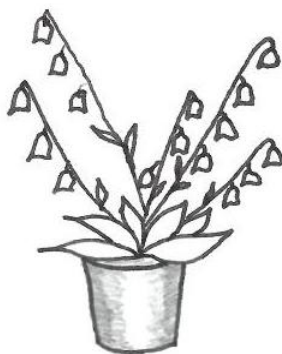
### 8.2 *Explanations for individual characteristics*

#### Ad. 1: Plant: growth habit

The plants should be grown in containers to observe the plant growth habit.



1  
upright



2  
semi-upright



3  
spreading



4  
horizontal

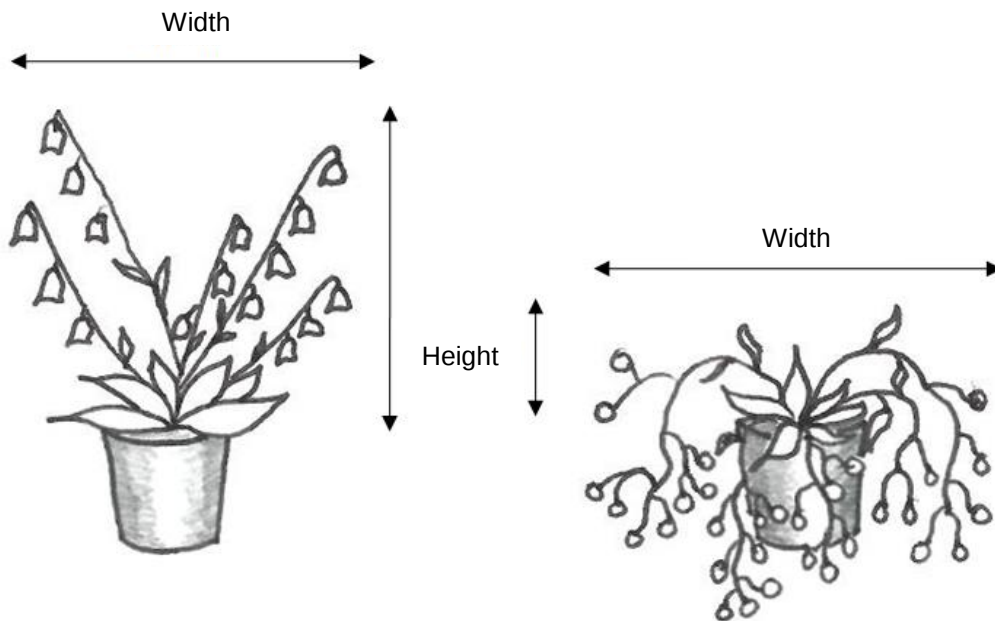


5  
drooping

Ad. 2: Plant: height

Ad. 3: Plant: width

The natural height of the plant should be assessed from the surface of the growing medium. The natural width of the plants should be observed.



Ad. 4: Plant: density

This is an overall assessment of the density of the whole plant, including flowers and leaves.

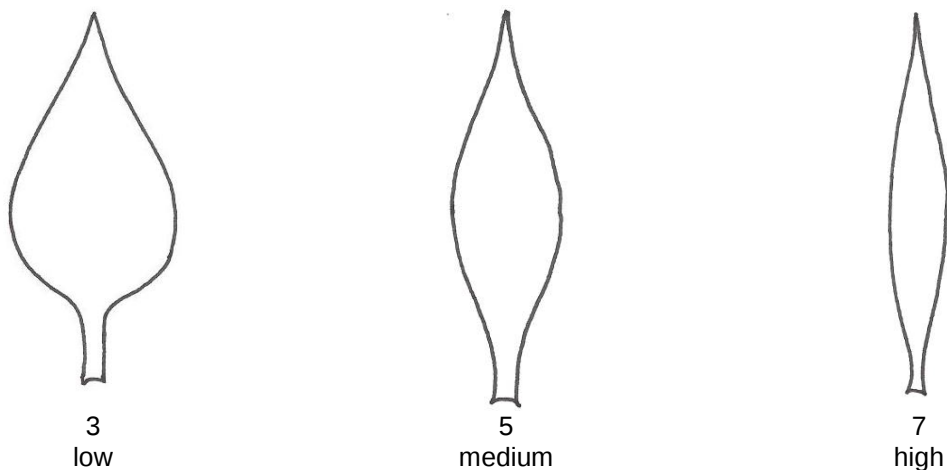
Ad. 5: Stem: color

To be observed in the middle third of the flowering stem, excluding the flowering part.

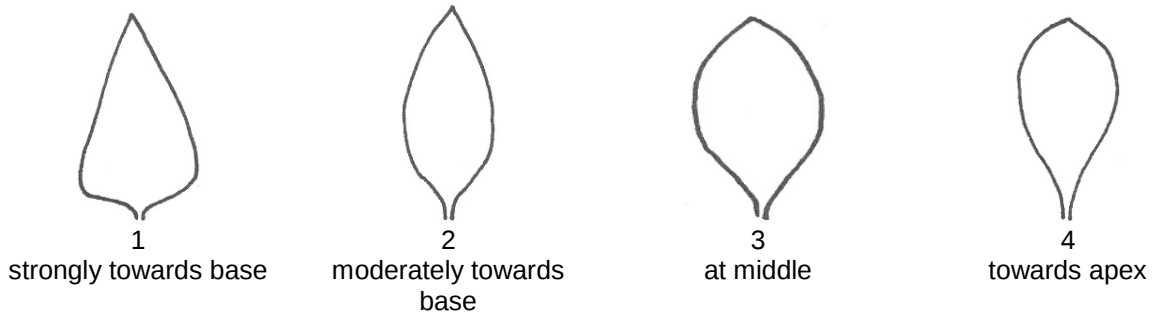
Ad. 7: Leaf blade: width

To be observed at the broadest part of the leaf blade.

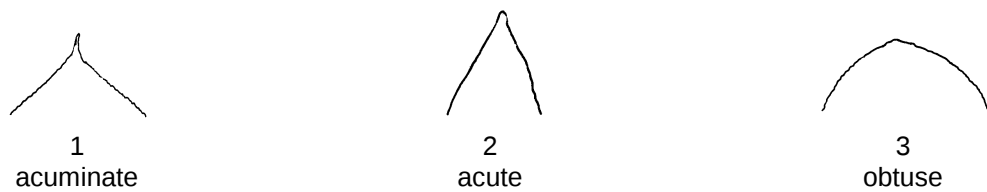
Ad. 8: Leaf blade: length/width ratio



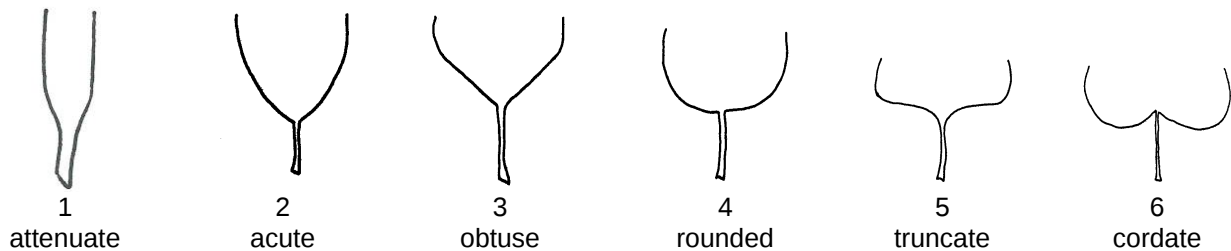
Ad. 9: Leaf blade: position of broadest part



Ad. 10: Leaf blade: shape of apex



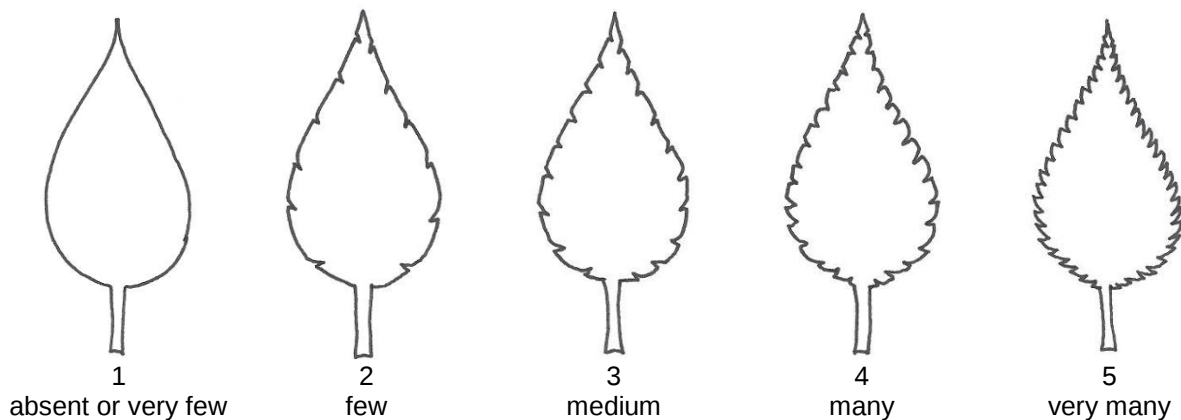
Ad. 11: Leaf blade: shape of base



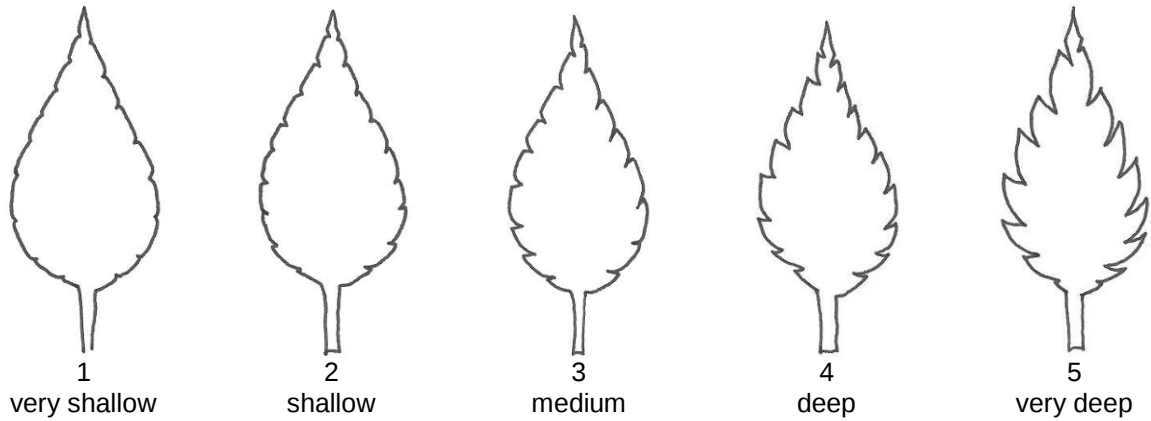
Ad. 13: Leaf blade: main color

The main color is the color with the largest surface area. In cases where the areas of the main and secondary colors are too similar to reliably decide which color has the largest area, the darkest color is considered to be the main color.

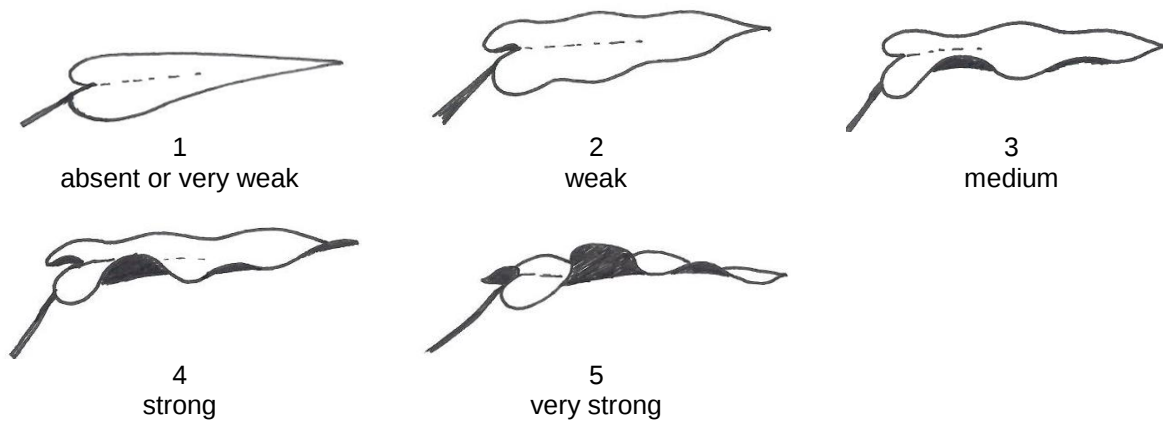
Ad. 17: Leaf blade: indentations of margin



Ad. 18: Leaf blade: depth of indentations of margin

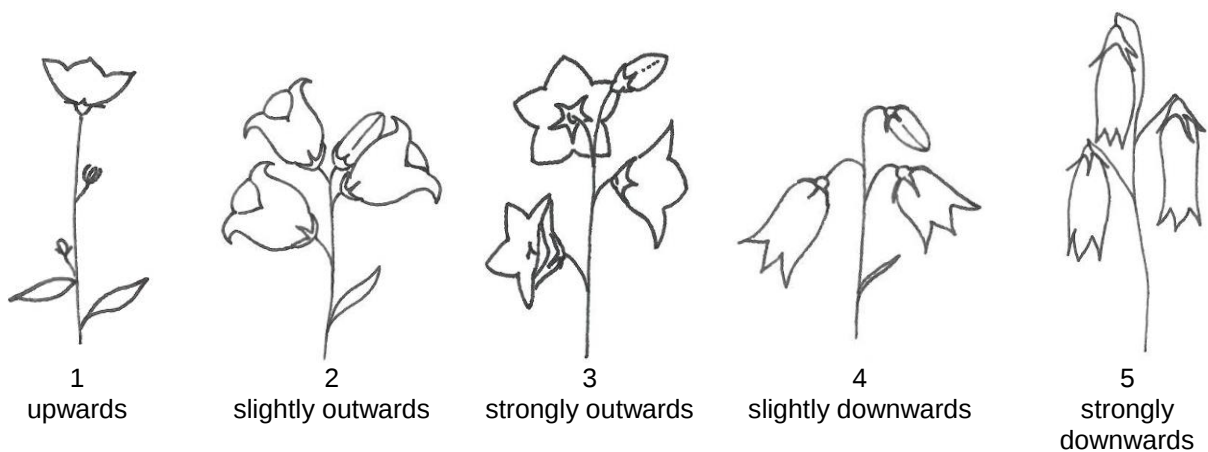


Ad. 19: Leaf blade: undulation of margin



Ad. 20: Flower: attitude

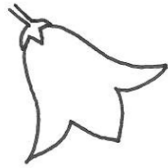
The natural attitude of the corolla should be observed irrespective of the angle of the pedicel.



Ad. 21: Flower: type



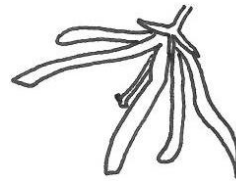
1  
tubular



2  
campanulate



3  
rotate



4  
stellate (with strap-shaped lobes)

Ad. 22: Calyx: petaloid lobes



1  
absent



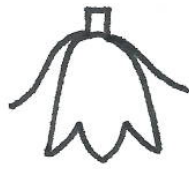
9  
present

Ad. 24: Calyx: position of lobes

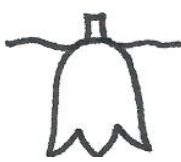
The observation is on the lobe of the calyx and excludes any appendage that might be present between the lobes.



1  
adpressed to  
corolla



3  
moderately  
spreading



5  
horizontal



7  
moderately reflexed



9  
strongly reflexed

Ad. 25: Corolla: number of whorls

This does not include the petaloid calyx where present.



1  
very few



2  
few



3  
medium

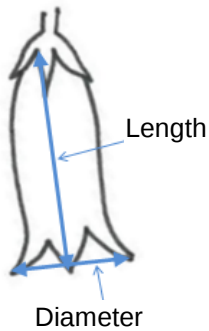


4  
many

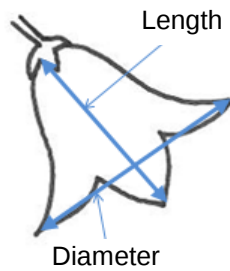
Ad. 26: Corolla: length

Ad. 27: Corolla: diameter

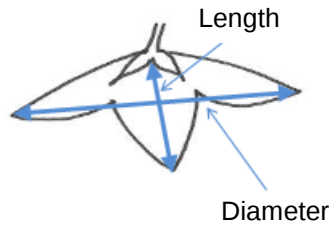
Assess the natural length of the corolla from the lowest to highest point, and assess the natural diameter of the corolla at its widest point.



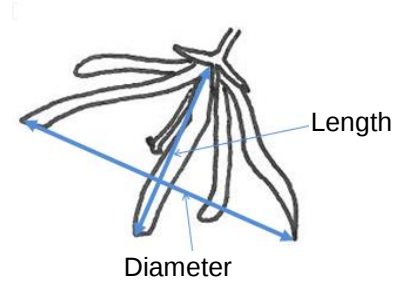
Flower type: tubular



Flower type: campanulate



Flower type: rotate



Flower type: stellate (with strap-shaped lobes)

Ad. 29: Corolla: distribution of secondary color of outer side



1  
none



2  
distal quarter



3  
basal half



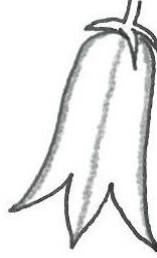
4  
basal quarter



5  
at base



6  
marginal zone



7  
midribs



8  
midribs and marginal zone

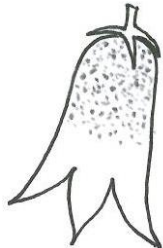


9  
along veins  
(including midrib)

Ad. 32: Corolla: distribution of spots on outer side



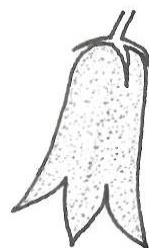
1  
mainly in basal quarter



2  
mainly in basal half



3  
mainly in basal three quarters



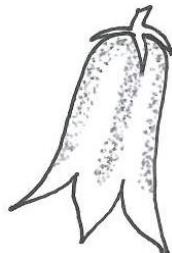
4  
throughout



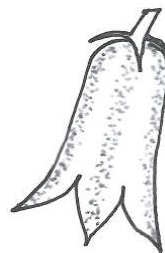
5  
mainly along basal quarter of midribs



6  
mainly along basal half of midribs

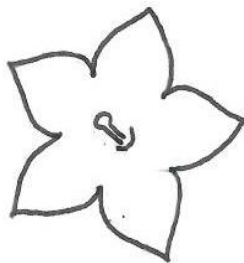


7  
mainly along basal three quarters of midribs

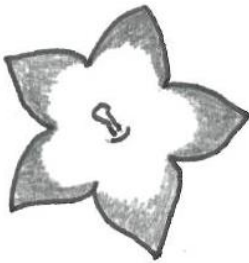


8  
mainly along entire length of midribs

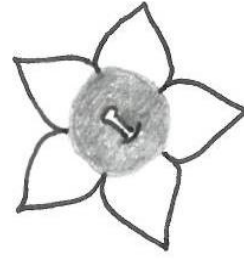
Ad. 35: Corolla: distribution of secondary color of inner side



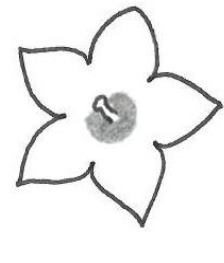
1  
none



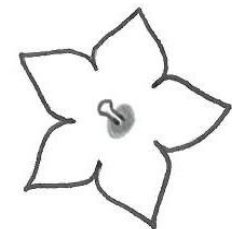
2  
distal quarter



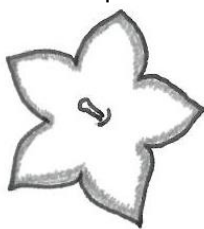
3  
basal half



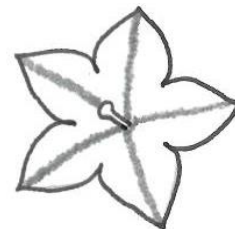
4  
basal quarter



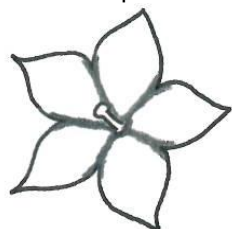
5  
at base



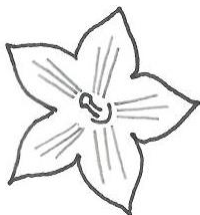
6  
marginal zone



7  
midribs

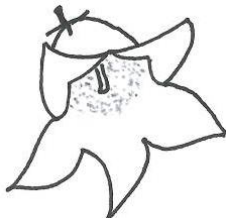


8  
longitudinal zone (lobe sinus to base)

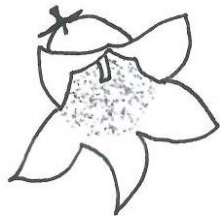


9  
along veins

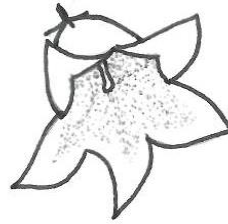
Ad. 38: Corolla: distribution of spots on inner side



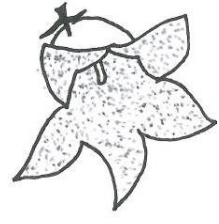
1  
mainly in basal quarter



2  
mainly in basal half



3  
mainly in basal three  
quarters



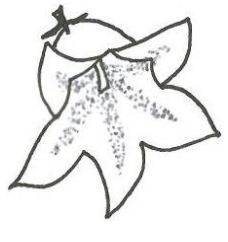
4  
throughout



5  
mainly along basal  
quarter of midribs



6  
mainly along basal half  
of midribs



7  
mainly along basal  
three quarters of  
midribs



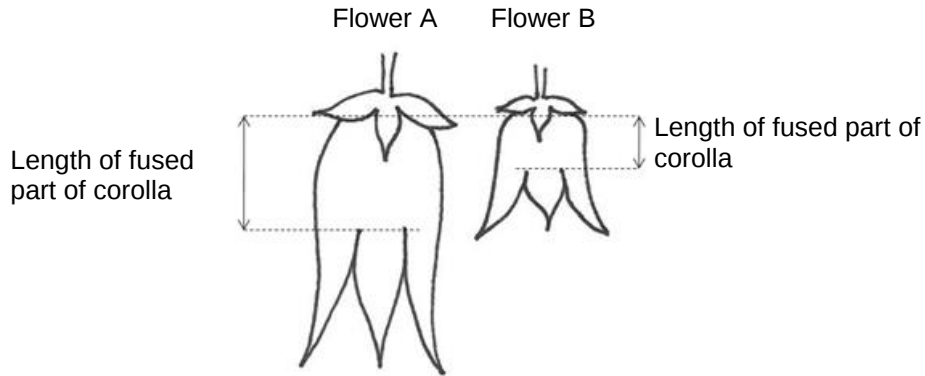
8  
mainly along entire  
length of midribs

Ad. 42: Corolla: length of fused part

Ad. 43: Corolla: relative length of fused part compared to total corolla length

The length of the fused part of the corolla can be expressed in absolute terms in characteristic 42, or as a proportion of the total length of the corolla in characteristic 43. The expression of the two characteristics is independent as shown in the two examples below.

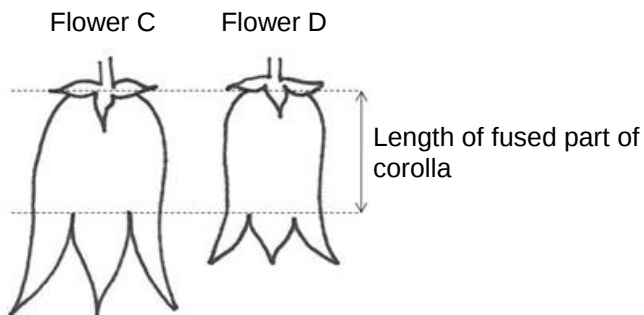
Example 1



Characteristic 42 – the note observed for the absolute length of the fused part of the corolla for flower A would be different from flower B as A is twice the length of B.

Characteristics 43 – the note observed would be the same for flower A and flower B as the proportion of the corolla made up of the fused part is 'medium' for both.

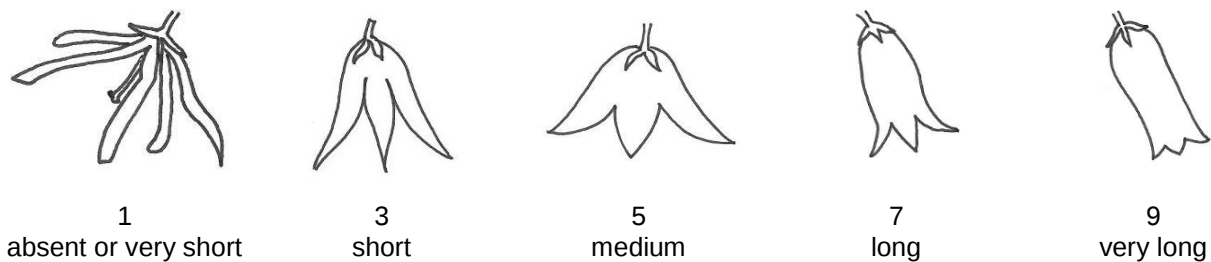
Example 2



Characteristic 42 – the note observed for the absolute length of flower C would be the same as flower D.

Characteristic 43 – the note observed for flower C would be 5 (medium) and for flower D it would be 7 (long), this is because the proportion of the corolla made up of the fused part is different.

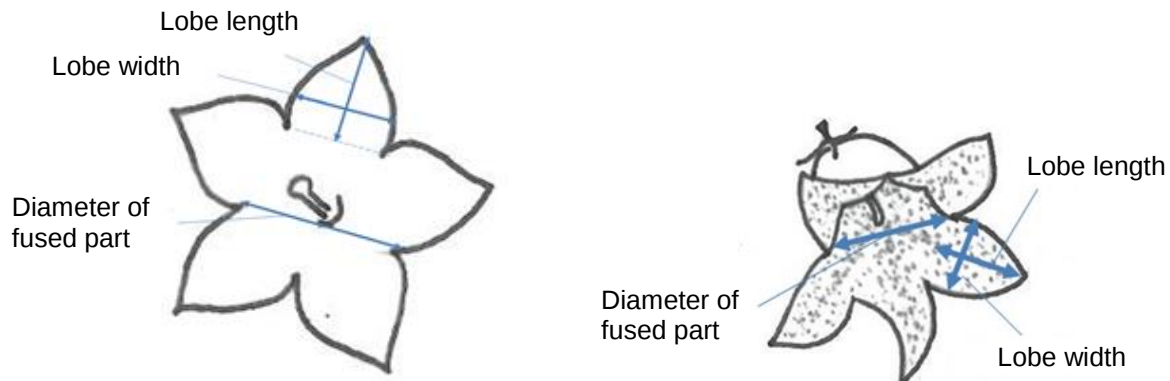
Ad. 43: Corolla: relative length of fused part compared to total corolla length



Ad. 44: Corolla: diameter of fused part

Ad. 47: Corolla lobe: length

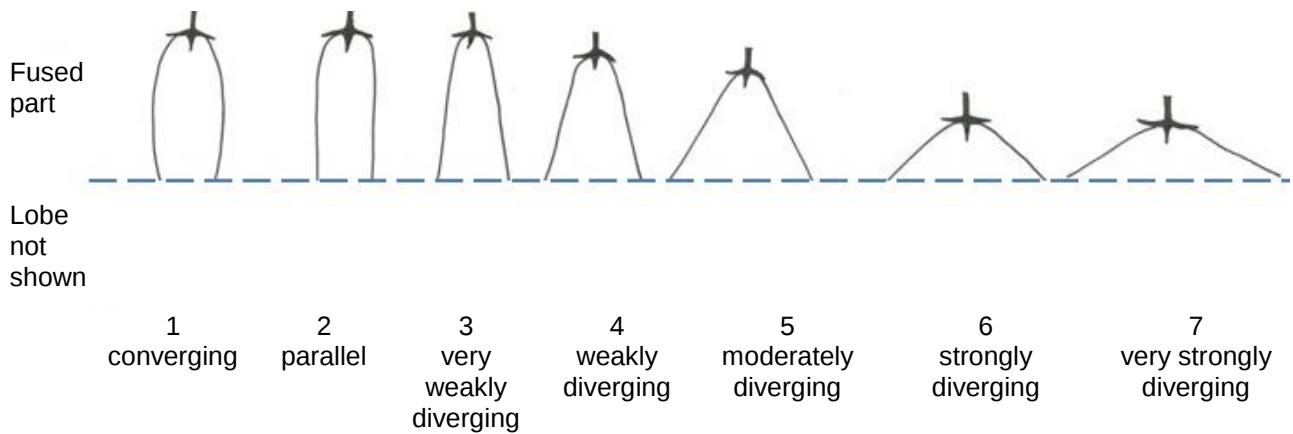
Ad. 48: Corolla lobe: width



Ad. 45: Corolla: profile of fused part in longitudinal section

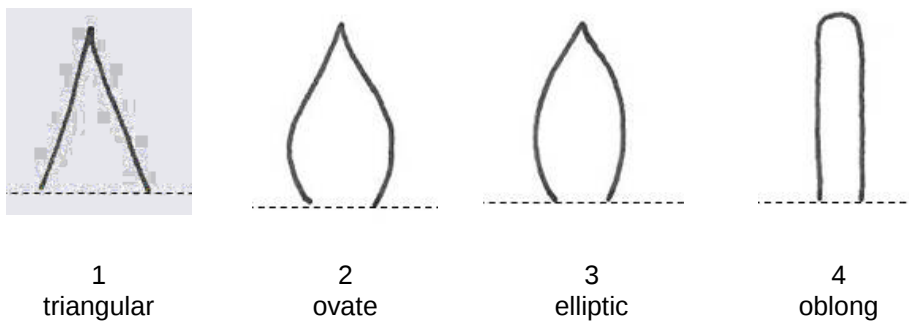
Only to be observed on varieties where Characteristic 43 "Corolla: relative length of fused part compared to total corolla length", has been observed to be equal to or greater than note 5.

The observation excludes the angle of the lobe.

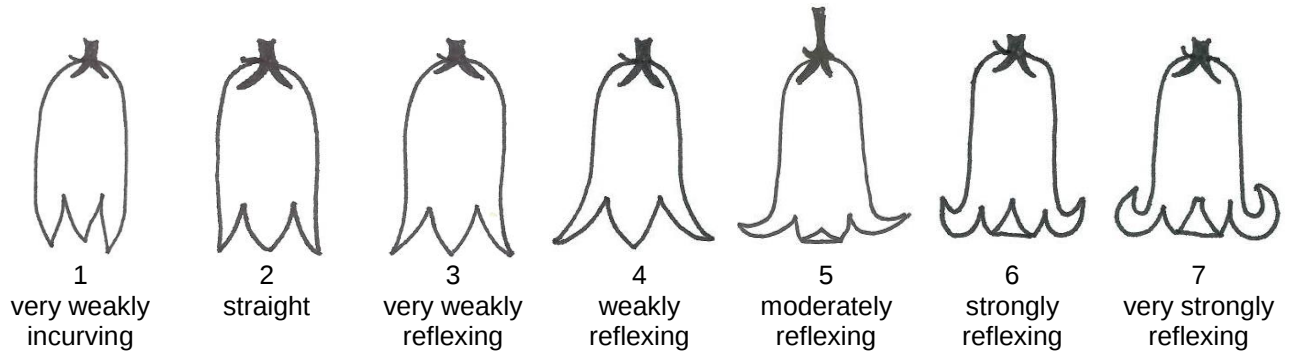


Ad. 46: Corolla lobe: shape

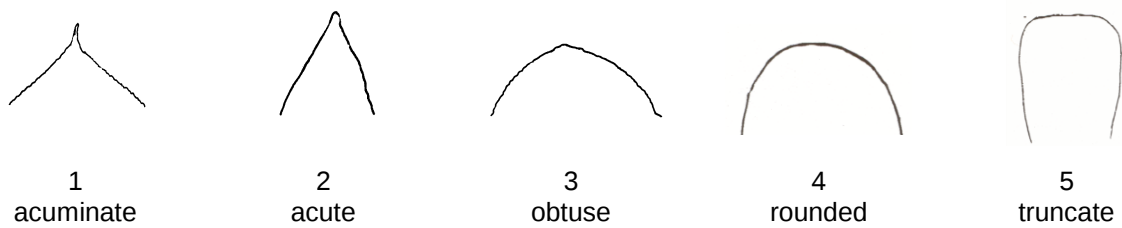
The lobe is the unfused part of the corolla.



Ad. 49: Corolla lobe: curvature



Ad. 50: Corolla lobe: shape of apex



9. Literature

Brickell, C.,(ed.), 1996: The Royal Horticultural Society A-Z Encyclopedia of Garden Plants. Dorling Kindersley Ltd.. London, GB, 219-223

Huxley, A., (ed.), Griffiths, M., (ed.), Levy, M., (ed.), 1999: The Royal Horticultural Society Dictionary of Gardening. McMillan Reference Ltd.. London, GB, 1: 485-495

Lewis, P., Lynch, M., 1989: Campanulas. Christopher Helm Ltd. Bromley, Kent, GB

Nicholls, G., 2006: Dwarf Campanulas and Associated Genera. Timber Press Inc. Oregon, US

10. Technical Questionnaire

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

|  |                                                             |
|--|-------------------------------------------------------------|
|  | Application date:<br>(not to be filled in by the applicant) |
|--|-------------------------------------------------------------|

|                                                                                                         |  |
|---------------------------------------------------------------------------------------------------------|--|
| TECHNICAL QUESTIONNAIRE<br>to be completed in connection with an application for plant breeders' rights |  |
|---------------------------------------------------------------------------------------------------------|--|

|                                           |                                           |
|-------------------------------------------|-------------------------------------------|
| 1. Subject of the Technical Questionnaire |                                           |
| 1.1 Genus                                 | <input type="text" value="Campanula L."/> |
| 1.2 Common name                           | <input type="text" value="Campanula"/>    |
| 1.3 Species<br>(please complete)          | <input type="text"/>                      |

|                                       |                      |
|---------------------------------------|----------------------|
| 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<br>(if available)          | <input type="text"/> |
| Breeder's reference                              | <input type="text"/> |

|                         |                 |                   |
|-------------------------|-----------------|-------------------|
| 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)

|                         |                 |                   |
|-------------------------|-----------------|-------------------|
| 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 [ ]  
(please provide details)

|                         |                 |                   |
|-------------------------|-----------------|-------------------|
| 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  |
|----------------------------------------------|-------------------|-------|
| <b>5.1 Plant: growth habit</b><br><b>(1)</b> |                   |       |
| upright                                      | La Bello          | 1[ ]  |
| semi-upright                                 | Sarastro          | 2[ ]  |
| spreading                                    | PKMP05            | 3[ ]  |
| horizontal                                   | Blue Rivulet      | 4[ ]  |
| drooping                                     | Camp trailbule    | 5[ ]  |
| <b>5.2 Plant: height</b><br><b>(2)</b>       |                   |       |
| extremely short                              | Puck              | 1[ ]  |
| extremely short to very short                |                   | 2[ ]  |
| very short                                   | Samantha          | 3[ ]  |
| very short to short                          |                   | 4[ ]  |
| short                                        | Caroline          | 5[ ]  |
| short to medium                              |                   | 6[ ]  |
| medium                                       | Sarastro          | 7[ ]  |
| medium to tall                               |                   | 8[ ]  |
| tall                                         | Kent Belle        | 9[ ]  |
| tall to very tall                            |                   | 10[ ] |
| very tall                                    |                   | 11[ ] |
| very tall to extremely tall                  |                   | 12[ ] |
| extremely tall                               | Aida              | 13[ ] |

| TECHNICAL QUESTIONNAIRE                                                    |                   | Page {x} of {y} | Reference Number: |
|----------------------------------------------------------------------------|-------------------|-----------------|-------------------|
| Characteristics                                                            | Example Varieties | Note            |                   |
| <b>5.3 Leaf blade: main color</b><br>(13)                                  |                   |                 |                   |
| whitish                                                                    |                   | 1[ ]            |                   |
| yellow                                                                     | Kifu              | 2[ ]            |                   |
| yellow green                                                               | Blue Eyed Blonde  | 3[ ]            |                   |
| light green                                                                | Caroline          | 4[ ]            |                   |
| medium green                                                               | Sarastro          | 5[ ]            |                   |
| dark green                                                                 | PKM01             | 6[ ]            |                   |
| grey green                                                                 | Silver Bells      | 7[ ]            |                   |
| green tinged with purplish red                                             | Blue Rivulet      | 8[ ]            |                   |
| <b>5.4 Flower: attitude</b><br>(20)                                        |                   |                 |                   |
| upwards                                                                    | Samantha          | 1[ ]            |                   |
| slightly outwards                                                          | PKMP05            | 2[ ]            |                   |
| strongly outwards                                                          | Blue Eyed Blonde  | 3[ ]            |                   |
| slightly downwards                                                         | Pink Octopus      | 4[ ]            |                   |
| strongly downwards                                                         | Sarastro          | 5[ ]            |                   |
| <b>5.5 Flower: type</b><br>(21)                                            |                   |                 |                   |
| tubular                                                                    | Sarastro          | 1[ ]            |                   |
| campanulate                                                                | PKMH01            | 2[ ]            |                   |
| rotate                                                                     | Samantha          | 3[ ]            |                   |
| stellate (with strap-shaped lobes)                                         | Pink Octopus      | 4[ ]            |                   |
| <b>5.6 Corolla: number of whorls</b><br>(25)                               |                   |                 |                   |
| very few                                                                   | PKMH01            | 1[ ]            |                   |
| few                                                                        | Haviddb701        | 2[ ]            |                   |
| medium                                                                     | White Ball        | 3[ ]            |                   |
| many                                                                       | La Bello          | 4[ ]            |                   |
| <b>5.7 (i) Corolla: main color of outer side (excluding spots)</b><br>(28) |                   |                 |                   |
| RHS Colour Chart (indicate reference number)                               |                   |                 |                   |

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

| Characteristics                                                                         | Example Varieties | Note |
|-----------------------------------------------------------------------------------------|-------------------|------|
| <b>5.7 (ii) Corolla: main color of outer side (excluding spots)</b><br><b>(28)</b>      |                   |      |
| white                                                                                   | La Bello          | 1[ ] |
| pink                                                                                    | Elizabeth         | 2[ ] |
| red purple                                                                              |                   | 3[ ] |
| purple                                                                                  | Sarastro          | 4[ ] |
| blue                                                                                    | Blue Rivulet      | 5[ ] |
| <b>5.8 (i) Corolla: secondary color of outer side (excluding spots)</b><br><b>(30)</b>  |                   |      |
| RHS Colour Chart (indicate reference number)                                            |                   |      |
| <b>5.8 (ii) Corolla: secondary color of outer side (excluding spots)</b><br><b>(30)</b> |                   |      |
| white                                                                                   | Elizabeth         | 1[ ] |
| pink                                                                                    |                   | 2[ ] |
| red purple                                                                              |                   | 3[ ] |
| purple                                                                                  |                   | 4[ ] |
| blue                                                                                    | La Bello          | 5[ ] |
| <b>5.9 (i) Corolla: main color of inner side (excluding spots)</b><br><b>(34)</b>       |                   |      |
| RHS Colour Chart (indicate reference number)                                            |                   |      |
| <b>5.9 (ii) Corolla: main color of inner side (excluding spots)</b><br><b>(34)</b>      |                   |      |
| white                                                                                   | Pink Octopus      | 1[ ] |
| pink                                                                                    | Elizabeth         | 2[ ] |
| red purple                                                                              |                   | 3[ ] |
| purple                                                                                  | Sarastro          | 4[ ] |
| blue                                                                                    | Samantha          | 5[ ] |
| <b>5.10 (i) Corolla: secondary color of inner side (excluding spots)</b><br><b>(36)</b> |                   |      |
| RHS Colour Chart (indicate reference number)                                            |                   |      |

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

| Characteristics                                                                          | Example Varieties | Note |
|------------------------------------------------------------------------------------------|-------------------|------|
| <b>5.10 (ii) Corolla: secondary color of inner side (excluding spots)</b><br><b>(36)</b> |                   |      |
| white                                                                                    | Elizabeth         | 1[ ] |
| pink                                                                                     | Caroline          | 2[ ] |
| red purple                                                                               |                   | 3[ ] |
| purple                                                                                   |                   | 4[ ] |
| blue                                                                                     | La Bello          | 5[ ] |
| <b>5.11 Corolla: spots on inner side</b><br><b>(37)</b>                                  |                   |      |
| absent                                                                                   | La Bello          | 1[ ] |
| present                                                                                  | Pink Octopus      | 9[ ] |

|                         |                 |                   |
|-------------------------|-----------------|-------------------|
| 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 <b>similar</b> variety(ies) | Describe the expression of the characteristic(s) for the characteristic(s) for <b>your</b> candidate variety |
|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| <i>Example</i>                                                    | <i>Flower: attitude</i>                                                                 | <i>upwards</i>                                                                       | <i>slightly outwards</i>                                                                                     |
|                                                                   |                                                                                         |                                                                                      |                                                                                                              |
|                                                                   |                                                                                         |                                                                                      |                                                                                                              |
|                                                                   |                                                                                         |                                                                                      |                                                                                                              |
| 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 Main use of the variety

- |     |                          |                              |
|-----|--------------------------|------------------------------|
| (a) | pot plant                | [ <input type="checkbox"/> ] |
| (b) | garden plant             | [ <input type="checkbox"/> ] |
| (c) | cut flower               | [ <input type="checkbox"/> ] |
| (d) | other                    | [ <input type="checkbox"/> ] |
|     | (please provide details) |                              |

.....

7.4 A representative color photograph of the variety displaying its main distinguishing feature(s), should accompany the Technical Questionnaire. The photograph will provide a visual illustration of the candidate variety which supplements the information provided in the Technical Questionnaire.

The key points to consider when taking a photograph of the candidate variety are:

- Indication of the date and geographic location
- Correct labeling (breeder's reference)
- Good quality printed photograph (minimum 10 cm x 15 cm) and/or sufficient resolution electronic format version (minimum 960 x 1280 pixels)

Further guidance on providing photographs with the Technical Questionnaire is available in document TGP/7 "Development of Test Guidelines", Guidance Note 35 (<http://www.upov.int/tgp/en/>).

[The link provided may be deleted by members of the Union when developing authorities' own test guidelines.]

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

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.

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 <input type="checkbox"/> | No <input type="checkbox"/> |
| (b) Chemical treatment (e.g. growth retardant, pesticide) | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (c) Tissue culture                                        | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| (d) Other factors                                         | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

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]