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

GENEVA

DRAFT

**ZONAL PELARGONIUM, IVY-LEAVED PELARGONIUM**

UPOV Code: PELAR\_ZON, PELAR\_PEL  
(PELAR\_PZO, PELAR\_ZPE, PELAR\_ZTO)

*Pelargonium* Zonale Group, *Pelargonium peltatum* (L.) Hér  
and hybrids between those species and other species of  
*Pelargonium* L'Hér. ex Ait.

## GUIDELINES

## FOR THE CONDUCT OF TESTS

## FOR DISTINCTNESS, UNIFORMITY AND STABILITY

*prepared by an expert from Germany  
to be considered by the*

*Technical Working Party for Ornamental Plants and Forest Trees  
at its fortieth session, to be held in Kunming, China, from July 2 to 6, 2007*

## Alternative Names:\*

| <i>Botanical name</i>   | <i>English</i>   | <i>French</i>                   | <i>German</i>                                      | <i>Spanish</i> |
|---|--|---------------------------------|--|----------------|
| <i>Pelargonium</i> Zonale Group,<br><i>Pelargonium ×hortorum</i> L. H.<br>Bailey,<br><i>Pelargonium-Zonale-Hybridae</i> | Zonal Pelargonium,<br>Horseshoed pelargonium   | Géranium,<br>Pelargonium zonale | Zonal-Pelargonie                                   |                |
| <i>Pelargonium peltatum</i> (L.) Hér,<br><i>Pelargonium-Peltatum-</i><br><i>Hybridae</i>                                | Ivy-leaved Pelargonium,<br>Hanging geranium,<br>Ivy geranium,<br>Ivy-leaf pelargonium, | Géranium-lierre                 | Efeupelargonie,<br>Efeu-blättrige,<br>Halbpeltaten |                |

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

## ASSOCIATED DOCUMENTS

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

\* These names were correct at the time of the introduction of these Test Guidelines but may be revised or updated. [Readers are advised to consult the UPOV Code, which can be found on the UPOV Website ([www.upov.int](http://www.upov.int)), for the latest information.]



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## 1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Pelargonium* Zonale Group (*syn. Pelargonium xhortorum* L.H. Bailey) and *Pelargonium peltatum* (L.) Hér. as well as to hybrids between these species and other species of *Pelargonium* L'Hér. ex Aiton of the family *Geraniaceae*.

## 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 well rooted cuttings or seeds.

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

vegetatively propagated varieties: 15 well rooted cuttings, not pinched

seed-propagated varieties: sufficient seed to produce 30 plants

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

2.5 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

## 3. Method of Examination

### 3.1 *Number of Growing Cycles*

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

### 3.2 *Testing Place*

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

### 3.3 *Conditions for Conducting the Examination*

3.3.1 The tests should be carried out under conditions ensuring satisfactory growth for the expression of the relevant characteristics of the variety and for the conduct of the examination.

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

3.3.3 Because daylight varies, color determinations made against a color chart should be made either in a suitable cabinet providing artificial daylight or in the middle of the day in a room without direct sunlight. The spectral distribution of the illuminant for artificial daylight should conform with the CIE Standard of Preferred Daylight D 6500 and should fall within the tolerances set out in the British Standard 950, Part I. These determinations should be made with the plant part placed against a white background.

#### 3.4 *Test Design*

3.4.1 Vegetatively propagated varieties: each test should be designed to result in a total of at least 15 plants.

3.4.2 Seed-propagated varieties: each test should be designed to result in a total of at least 30 plants.

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

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

3.5.1 Vegetatively propagated varieties: unless otherwise indicated, all observations on single plants should be made on 10 plants or parts taken from each of 10 plants and any other observations made on all plants in the test.

3.5.2 Seed propagated varieties: unless otherwise indicated, all observations on single plants should be made on 20 plants or parts taken from each of 20 plants and any other observations made on all plants in the test.

#### 3.6 *Additional Tests*

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

### 4. Assessment of Distinctness, Uniformity and Stability

#### 4.1 *Distinctness*

##### 4.1.1 General Recommendations

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

##### 4.1.2 Consistent Differences

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

#### 4.1.3 Clear Differences

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

#### 4.2 *Uniformity*

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

4.2.2 For the assessment of uniformity 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 15 plants, 1 off-type is allowed.

4.2.3 For the assessment of uniformity of seed-propagated varieties which are self-pollinated, a population standard of 2% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 30 plants, 2 off-types are allowed.

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

#### 4.3 *Stability*

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

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

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

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

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

5.3 Besides the botanical species the following characteristics have been agreed as useful grouping characteristics:

- (a) Leaf blade: variegation (characteristic 13)
- (b) Flower: type (characteristic 29)
- (c) Lower petal: color of middle of upper side (characteristic 48) with the following groups:
  - Gr. 1: white
  - Gr. 2: orange pink
  - Gr. 3: orange
  - Gr. 4: red
  - Gr. 5: purple
  - Gr. 6: blue pink

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

## 6. Introduction to the Table of Characteristics

### 6.1 *Categories of Characteristics*

#### 6.1.1 Standard Test Guidelines Characteristics

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

#### 6.1.2 Asterisked Characteristics

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

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

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

### 6.3 *Types of Expression*

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

### 6.4 *Example Varieties*

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

6.5 *Legend*

(\*) Asterisked characteristic – see Chapter 6.1.2

QL Qualitative characteristic – see Chapter 6.3

QN Quantitative characteristic – see Chapter 6.3

PQ Pseudo-qualitative characteristic – see Chapter 6.3

(a)-(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.</b> | <b>Plant: height of foliage</b>                                |          | <b>Pflanze: Höhe der Laubzone</b>                          |         |  |               |
| <b>QN</b> | <b>(a)</b> short   |          | niedrig  |         |  | 3             |
|           | medium   |          | mittel   |         |  | 5             |
|           | tall   |          | hoch   |         |  | 7             |
| <b>2.</b> | <b><u>Only trailing varieties:</u><br/>Plant: shoot length</b> |          | <b><u>Nur hängende Sorten:</u><br/>Pflanze: Trieblänge</b> |         |  |               |
| <b>QN</b> | short  |          | kurz   |         |  | 3             |
|           | medium   |          | mittel   |         |  | 5             |
|           | long   |          | lang   |         |  | 7             |
| <b>3.</b> | <b>Plant: width</b>  |          | <b>Pflanze: Breite</b>                                     |         |  |               |
| <b>QN</b> | <b>(a)</b> narrow  |          | schmal   |         |  | 3             |
|           | medium   |          | mittel   |         |  | 5             |
|           | broad  |          | breit  |         |  | 7             |
| <b>4.</b> | <b>Stem: color</b>   |          | <b>Trieb: Farbe</b>  |         |  |               |
| <b>PQ</b> | <b>(b)</b> whitish   |          | weißlich   |         |  | 1             |
|           | green  |          | grün   |         |  | 2             |
|           | reddish  |          | rötlich  |         |  | 3             |
| <b>5.</b> | <b>Stem: thickness</b>   |          | <b>Trieb: Dicke</b>  |         |  |               |
| <b>QN</b> | <b>(a)</b> thin  |          | dünn   |         |  | 3             |
|           | <b>(b)</b> medium  |          | mittel   |         |  | 5             |
|           | thick  |          | dick   |         |  | 7             |

|                         | English  | français | deutsch  | español | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|-------------------------|--|----------|--|---------|--|---------------|
| <b>6.</b><br>(*)<br>(+) | <b>Leaf blade: length</b>  |          | <b>Blattspreite: Länge</b>   |         |  |               |
| <b>QN</b>               | (b) short  |          | kurz   |         |  | 3             |
|                         | medium   |          | mittel   |         |  | 5             |
|                         | long   |          | lang   |         |  | 7             |
| <b>7.</b><br>(*)<br>(+) | <b>Leaf blade: width</b>   |          | <b>Blattspreite: Breite</b>  |         |  |               |
| <b>QN</b>               | (b) narrow   |          | schmal   |         |  | 3             |
|                         | medium   |          | mittel   |         |  | 5             |
|                         | broad  |          | breit  |         |  | 7             |
| <b>8.</b><br>(+)        | <b>Leaf blade: degree of lobing</b>                              |          | <b>Blattspreite: Ausprägung der Lappung</b>                        |         |  |               |
| <b>QN</b>               | (b) weak   |          | gering   |         |  | 3             |
|                         | medium   |          | mittel   |         |  | 5             |
|                         | strong   |          | stark  |         |  | 7             |
| <b>9.</b>               | <b><u>Only trailing varieties:</u> Leaf blade: apex of lobes</b> |          | <b><u>Nur hängende Sorten:</u> Blattspreite: Spitze der Lappen</b> |         |  |               |
| <b>QL</b>               | (b) acute  |          | spitz  |         |  | 1             |
|                         | rounded  |          | abgerundet   |         |  | 2             |
| <b>10.</b>              | <b>Leaf blade: depth of incisions of margin</b>                  |          | <b>Blattspreite: Tiefe der Randeinschnitte</b>                     |         |  |               |
| <b>QN</b>               | (b) absent or very shallow                                       |          | fehlend oder sehr flach  |         |  | 1             |
|                         | shallow  |          | flach  |         |  | 3             |
|                         | medium   |          | mittel   |         |  | 5             |
|                         | deep   |          | tief   |         |  | 7             |

|            | English   | français | deutsch                                | español | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|------------|---|----------|--|---------|--|---------------|
| <b>11.</b> | <b>Leaf blade:<br/>undulation of<br/>margin</b> |          | <b>Blattspreite:<br/>Randwellung</b>   |         |  |               |
| <b>QN</b>  | <b>(b)</b> weak                                 |          | gering                                 |         |  | 3             |
|            | medium  |          | mittel                                 |         |  | 5             |
|            | strong  |          | stark                                  |         |  | 7             |
| <b>12.</b> | <b>Leaf blade: base</b>                         |          | <b>Blattspreite: Basis</b>             |         |  |               |
| <b>(+)</b> |   |          |  |         |  |               |
| <b>QN</b>  | <b>(b)</b> wide open                            |          | weit offen                             |         |  | 1             |
|            | open  |          | offen                                  |         |  | 3             |
|            | closed  |          | geschlossen                            |         |  | 5             |
|            | partly overlapping                              |          | gering überlappend                     |         |  | 7             |
|            | strongly overlapping                            |          | stark überlappend                      |         |  | 9             |
| <b>13.</b> | <b>Leaf blade:<br/>variegation</b>              |          | <b>Blattspreite:<br/>Panaschierung</b> |         |  |               |
| <b>(*)</b> |   |          |  |         |  |               |
| <b>QL</b>  | <b>(b)</b> absent                               |          | fehlend                                |         |  | 1             |
|            | present   |          | vorhanden                              |         |  | 9             |
| <b>14.</b> | <b>Leaf blade: main<br/>color</b>               |          | <b>Blattspreite:<br/>Hauptfarbe</b>    |         |  |               |
| <b>(*)</b> |   |          |  |         |  |               |
| <b>(+)</b> |   |          |  |         |  |               |
|            | yellow  |          | gelb                                   |         |  | 1             |
| <b>PQ</b>  | <b>(b)</b> light green                          |          | hellgrün                               |         |  | 2             |
|            | medium green                                    |          | mittelgrün                             |         |  | 3             |
|            | dark green                                      |          | dunkelgrün                             |         |  | 4             |
|            | dark red  |          | dunkelrot                              |         |  | 5             |

|                     | English  | français | deutsch  | español | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|---------------------|--|----------|--|---------|--|---------------|
| <b>15.</b>          | <b>Leaf blade:<br/>secondary color</b>             |          | <b>Blattspreite:<br/>Sekundärfarbe</b>         |         |  |               |
| <b>PQ</b>           | <b>(b)</b> white                                   |          | weiß   |         |  | 1             |
|                     | yellow   |          | gelb   |         |  | 5             |
|                     | light green  |          | hellgrün                                       |         |  | 2             |
|                     | medium green                                       |          | mittelgrün                                     |         |  | 3             |
|                     | dark green   |          | dunkelgrün                                     |         |  | 4             |
| <b>16.</b>          | <b>Leaf blade:<br/>glossiness</b>                  |          | <b>Blattspreite: Glanz</b>                     |         |  |               |
| <b>QN</b>           | <b>(b)</b> absent or very weak                     |          | fehlend oder sehr gering                       |         |  | 1             |
|                     | weak   |          | gering   |         |  | 3             |
|                     | medium   |          | mittel   |         |  | 5             |
| <b>17.<br/>(* )</b> | <b>Leaf blade:<br/>conspicuousness of<br/>zone</b> |          | <b>Blattspreite: Aus-<br/>prägung der Zone</b> |         |  |               |
| <b>QN</b>           | <b>(b)</b> absent or very weak                     |          | fehlend oder sehr gering                       |         |  | 1             |
|                     | weak   |          | gering   |         |  | 3             |
|                     | medium   |          | mittel   |         |  | 5             |
|                     | strong   |          | stark  |         |  | 7             |
|                     | very strong  |          | sehr stark                                     |         |  | 9             |
| <b>18.<br/>(+)</b>  | <b>Leaf blade: position<br/>of zone</b>            |          | <b>Blattspreite:<br/>Position der Zone</b>     |         |  |               |
| <b>PQ</b>           | <b>(b)</b> at base                                 |          | an der Basis                                   |         |  | 1             |
|                     | in the middle                                      |          | in der Mitte                                   |         |  | 2             |
|                     | towards margin                                     |          | zum Rand hin                                   |         |  | 3             |

|            | English   | français | deutsch   | español | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|------------|---|----------|---|---------|--|---------------|
| <b>19.</b> | <b>Leaf blade: width of zone</b>  |          | <b>Blattspreite: Breite der Zone</b>                              |         |  |               |
| (+)        |   |          |   |         |  |               |
| <b>QN</b>  | <b>(b)</b> very narrow  |          | sehr schmal   |         |  | 1             |
|            | medium  |          | mittel  |         |  | 2             |
|            | broad   |          | breit   |         |  | 3             |
| <b>20.</b> | <b>Inflorescence: length of peduncle</b>                                |          | <b>Blütenstand: Länge des Stiels</b>                              |         |  |               |
| <b>QN</b>  | <b>(c)</b> short  |          | kurz  |         |  | 3             |
|            | medium  |          | mittel  |         |  | 5             |
|            | long  |          | lang  |         |  | 7             |
| <b>21.</b> | <b>Inflorescence: anthocyanin coloration on upper third of peduncle</b> |          | <b>Blütenstand: Anthocyanfärbung im oberen Drittel des Stiels</b> |         |  |               |
| <b>QN</b>  | <b>(c)</b> absent or very weak  |          | fehlend oder sehr gering  |         |  | 1             |
|            | weak  |          | gering  |         |  | 3             |
|            | medium  |          | mittel  |         |  | 5             |
|            | strong  |          | stark   |         |  | 7             |
| <b>22.</b> | <b>Inflorescence: diameter</b>  |          | <b>Blütenstand: Durchmesser</b>                                   |         |  |               |
| <b>(*)</b> |   |          |   |         |  |               |
| <b>QN</b>  | <b>(c)</b> small  |          | klein   |         |  | 3             |
|            | medium  |          | mittel  |         |  | 5             |
|            | large   |          | groß  |         |  | 7             |
| <b>23.</b> | <b>Inflorescence: number of open flowers</b>                            |          | <b>Blütenstand: Anzahl offener Blüten</b>                         |         |  |               |
| <b>QN</b>  | <b>(c)</b> few  |          | gering  |         |  | 3             |
|            | medium  |          | mittel  |         |  | 5             |
|            | many  |          | hoch  |         |  | 7             |

|                   | English   | français | deutsch  | español | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|-------------------|---|----------|--|---------|--|---------------|
| <b>24.</b><br>(*) | <b>Inflorescence:<br/>diameter of largest<br/>flower</b>      |          | <b>Blütenstand: Durch-<br/>messer der größten<br/>Blüte</b>    |         |  |               |
| <b>QN</b>         | (c) small   |          | klein  |         |  | 3             |
|                   | medium  |          | mittel   |         |  | 5             |
|                   | large   |          | groß   |         |  | 7             |
| <b>25.</b>        | <b>Inflorescence: length<br/>of longest pedicel</b>           |          | <b>Blütenstand: Länge<br/>des längsten<br/>Blütenstiels</b>    |         |  |               |
| <b>QN</b>         | (c) short   |          | kurz   |         |  | 3             |
|                   | medium  |          | mittel   |         |  | 5             |
|                   | long  |          | lang   |         |  | 7             |
| <b>26.</b>        | <b>Pedicel: anthocyanin<br/>coloration on upper<br/>third</b> |          | <b>Blütenstiel:<br/>Anthocyanfärbung<br/>im oberen Drittel</b> |         |  |               |
| <b>QN</b>         | (c) absent or very weak                                       |          | fehlend oder sehr<br>gering                                    |         |  | 1             |
|                   | weak  |          | gering   |         |  | 3             |
|                   | medium  |          | mittel   |         |  | 5             |
|                   | strong  |          | stark  |         |  | 7             |
| <b>27.</b><br>(+) | <b>Pedicel: swelling</b>                                      |          | <b>Blütenstiel:<br/>Verdickungen</b>                           |         |  |               |
| <b>QL</b>         | (c) predominantly absent                                      |          | überwiegend fehlend  |         |  | 1             |
|                   | predominantly<br>present                                      |          | überwiegend<br>vorhanden                                       |         |  | 2             |
| <b>28.</b><br>(+) | <b>Flower bud: shape</b>                                      |          | <b>Blütenknospe: Form</b>                                      |         |  |               |
| <b>PQ</b>         | (c) elliptic  |          | elliptisch   |         |  | 1             |
|                   | round   |          | rund   |         |  | 2             |
|                   | asymmetric  |          | asymmetrisch   |         |  | 3             |

|                         | English  | français | deutsch  | español | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|-------------------------|--|----------|--|---------|--|---------------|
| <b>29.</b><br>(*<br>(+) | <b>Flower: type</b>  |          | <b>Blüte: Typ</b>  |         |  |               |
| <b>QL</b>               | single   |          | einfach  |         |  | 1             |
|                         | double   |          | gefüllt  |         |  | 2             |
| <b>30.</b><br>(*        | <b><u>Only double<br/>flowering varieties:</u><br/>Flower: number of<br/>petals</b>                                    |          | <b><u>Nur gefüllt blühende<br/>Sorten: Blüte:<br/>Anzahl<br/>Blütenblätter</u></b>                                       |         |  |               |
| <b>QN</b> (c)           | few  |          | gering   |         |  | 3             |
|                         | medium   |          | mittel   |         |  | 5             |
|                         | many   |          | groß   |         |  | 7             |
| <b>31.</b><br>(+)       | <b><u>Only single<br/>flowering varieties:</u><br/>Flower:<br/>arrangement of<br/>upper petals to<br/>lower petals</b> |          | <b><u>Nur einfach<br/>blühende Sorten:<br/>Blüte: Anordnung<br/>der oberen zu den<br/>unteren<br/>Blütenblättern</u></b> |         |  |               |
| <b>QN</b> (c)           | free   |          | frei stehend   |         |  | 1             |
|                         | touching   |          | sich berührend   |         |  | 3             |
|                         | slightly overlapping   |          | gering überlappend   |         |  | 5             |
|                         | strongly overlapping   |          | stark überlappend  |         |  | 7             |
| <b>32.</b><br>(+)       | <b>Flower: cross<br/>section in lateral<br/>view</b>   |          | <b>Blüte: Querschnitt<br/>in der Seitensansicht</b>  |         |  |               |
| <b>QN</b> (c)           | concave  |          | konkav   |         |  | 3             |
|                         | flat   |          | gerade   |         |  | 5             |
|                         | convex   |          | konvex   |         |  | 7             |
| <b>33.</b><br>(+)       | <b>Sepal: color</b>  |          | <b>Kelchblatt: Farbe</b>   |         |  |               |
| <b>PQ</b> (c)           | green  |          | grün   |         |  | 1             |
|                         | reddish  |          | rötlich  |         |  | 2             |
|                         | red  |          | rot  |         |  | 3             |

|                         | English   | français | deutsch   | español | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|-------------------------|---|----------|---|---------|--|---------------|
| <b>34.</b><br>(*<br>(+) | <b>Upper petal: width</b>   |          | <b>Oberes Blütenblatt:<br/>Breite</b>   |         |  |               |
| <b>QN</b>               | (c) narrow  |          | schmal  |         |  | 3             |
|                         | medium  |          | mittel  |         |  | 5             |
|                         | broad   |          | breit   |         |  | 7             |
| <b>35.</b><br>(+)       | <b>Upper petal: shape</b>   |          | <b>Oberes Blütenblatt:<br/>Form</b>   |         |  |               |
| <b>PQ</b>               | (c) triangular  |          | dreieckig   |         |  | 1             |
|                         | spatulate   |          | löffelförmig  |         |  | 2             |
|                         | round   |          | rund  |         |  | 3             |
|                         | rhombic   |          | rhombisch   |         |  | 4             |
| <b>36.</b><br>(+)       | <b>Upper petal: margin<br/>of apical part</b>                       |          | <b>Oberes Blütenblatt:<br/>oberer Rand</b>                                      |         |  |               |
| <b>PQ</b>               | (c) entire  |          | ganzrandig  |         |  | 1             |
|                         | divided   |          | gespalten   |         |  | 2             |
|                         | fringed   |          | gefranst  |         |  | 3             |
| <b>37.</b><br>(*<br>(+) | <b><u>Upper</u> petal: color of<br/>margin of <u>upper side</u></b> |          | <b><u>Oberes</u> Blütenblatt:<br/>Farbe des Randes<br/>der <u>Oberseite</u></b> |         |  |               |
| <b>PQ</b>               | (c) RHS Colour Chart<br>(indicate reference<br>number)              |          | RHS-Farbkarte<br>(Nummer angeben)   |         |  |               |
| <b>38.</b><br>(*<br>(+) | <b><u>Upper</u> petal: color of<br/>middle of <u>upper side</u></b> |          | <b><u>Oberes</u> Blütenblatt:<br/>Farbe der Mitte der<br/><u>Oberseite</u></b>  |         |  |               |
| <b>PQ</b>               | (c) RHS Colour Chart<br>(indicate reference<br>number)              |          | RHS-Farbkarte<br>(Nummer angeben)   |         |  |               |
| <b>39.</b><br>(*<br>(+) | <b><u>Upper</u> petal: color of<br/><u>lower side</u></b>           |          | <b><u>Oberes</u> Blütenblatt:<br/>Farbe der <u>Unterseite</u></b>               |         |  |               |
| <b>PQ</b>               | (c) RHS Colour Chart<br>(indicate reference<br>number)              |          | RHS-Farbkarte<br>(Nummer angeben)   |         |  |               |



|                          | English   | français | deutsch  | español | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|--------------------------|---|----------|--|---------|--|---------------|
| <b>40.</b>               | <b><u>Upper</u> petal:<br/>conspicuousness of<br/>marking</b> |          | <b><u>Oberes</u> Blütenblatt:<br/>Ausprägung der<br/>Zeichnung</b> |         |  |               |
| <b>QN</b>                | (c) absent or very weak                                       |          | fehlend oder sehr<br>gering  |         |  | 1             |
|                          | weak  |          | gering   |         |  | 3             |
|                          | medium  |          | mittel   |         |  | 5             |
|                          | strong  |          | stark  |         |  | 7             |
| <b>41.</b><br>(*)<br>(+) | <b><u>Upper</u> petal: type of<br/>marking</b>                |          | <b><u>Oberes</u> Blütenblatt:<br/>Art der Zeichnung</b>            |         |  |               |
| <b>PQ</b>                | (c) stripes   |          | gestreift  |         |  | 1             |
|                          | stripes and dots  |          | gestreift und Punkte   |         |  | 2             |
|                          | stripes and spot/spots  |          | gestreift und<br>Fleck/Flecken                                     |         |  | 3             |
| <b>42.</b><br>(+)        | <b><u>Upper</u> petal: size of<br/>spot</b>                   |          | <b><u>Oberes</u> Blütenblatt:<br/>Größe des Flecks</b>             |         |  |               |
| <b>QN</b>                | (c) small   |          | klein  |         |  | 3             |
|                          | medium  |          | mittel   |         |  | 5             |
|                          | large   |          | groß   |         |  | 7             |
| <b>43.</b><br>(+)        | <b><u>Upper</u> petal: color of<br/>spot</b>                  |          | <b><u>Oberes</u> Blütenblatt:<br/>Farbe des Flecks</b>             |         |  |               |
| <b>PQ</b>                | (c) RHS Colour Chart<br>(indicate reference<br>number)        |          | RHS-Farbkarte<br>(Nummer angeben)                                  |         |  |               |
| <b>44.</b><br>(+)        | <b><u>Upper</u> petal: zone at<br/>base</b>                   |          | <b><u>Oberes</u> Blütenblatt:<br/>Zone an der Basis</b>            |         |  |               |
| <b>QL</b>                | (c) absent  |          | fehlend  |         |  | 1             |
|                          | present   |          | vorhanden  |         |  | 9             |

|                         | English   | français | deutsch  | español | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|-------------------------|---|----------|--|---------|--|---------------|
| <b>45.</b><br>(+)       | <b>Upper petal: size of zone at base</b>          |          | <b>Oberes Blütenblatt: Größe der Zone an der Basis</b>     |         |  |               |
| <b>QN</b>               | (c) small   |          | klein  |         |  | 3             |
|                         | medium  |          | mittel   |         |  | 5             |
|                         | large   |          | groß   |         |  | 7             |
| <b>46.</b><br>(*<br>(*) | <b>Upper petal: color of zone at base</b>         |          | <b>Oberes Blütenblatt: Farbe der Zone an der Basis</b>     |         |  |               |
| <b>PQ</b>               | (c) white   |          | weiß   |         |  | 1             |
|                         | orange red  |          | orangerot  |         |  | 2             |
| <b>47.</b><br>(*<br>(+) | <b>Lower petal: color of margin of upper side</b> |          | <b>Unteres Blütenblatt: Farbe des Randes der Oberseite</b> |         |  |               |
| <b>PQ</b>               | (c) RHS Colour Chart (indicate reference number)  |          | RHS-Farbkarte (Nummer angeben)                             |         |  |               |
| <b>48.</b><br>(*<br>(+) | <b>Lower petal: color of middle of upper side</b> |          | <b>Unteres Blütenblatt: Farbe der Mitte der Oberseite</b>  |         |  |               |
| <b>PQ</b>               | (c) RHS Colour Chart (indicate reference number)  |          | RHS-Farbkarte (Nummer angeben)                             |         |  |               |
| <b>49.</b><br>(*<br>(+) | <b>Lower petal: color of lower side</b>           |          | <b>Unteres Blütenblatt: Farbe der Unterseite</b>           |         |  |               |
| <b>PQ</b>               | (c) RHS Colour Chart (indicate reference number)  |          | RHS-Farbkarte (Nummer angeben)                             |         |  |               |
| <b>50.</b><br>(+)       | <b>Lower petal: conspicuousness of marking</b>    |          | <b>Unteres Blütenblatt: Ausprägung der Zeichnung</b>       |         |  |               |
| <b>QN</b>               | (c) absent or very weak                           |          | fehlend oder sehr gering                                   |         |  | 1             |
|                         | weak  |          | gering   |         |  | 3             |
|                         | medium  |          | mittel   |         |  | 5             |
|                         | strong  |          | stark  |         |  | 7             |

|            | English   | français | deutsch   | español | Example Varieties<br>Exemples<br>Beispielssorten<br>Variedades ejemplo | Note/<br>Nota |
|------------|---|----------|---|---------|--|---------------|
| <b>51.</b> | <b><u>Lower</u> petal: type of marking</b>  |          | <b><u>Unteres</u> Blütenblatt:<br/>Art der Zeichnung</b>  |         |  |               |
| (+)        |   |          |   |         |  |               |
| <b>PQ</b>  | (c) stripes   |          | gestreift   |         |  | 1             |
|            | stripes and dots  |          | gestreift und Punkte  |         |  | 2             |
|            | stripes and spot/spots  |          | gestreift und Fleck   |         |  | 3             |
| <b>52.</b> | <b><u>Lower</u> petal: size of spot</b>   |          | <b><u>Unteres</u> Blütenblatt:<br/>Größe des Flecks</b>   |         |  |               |
| (+)        |   |          |   |         |  |               |
| <b>QN</b>  | (c) small   |          | klein   |         |  | 3             |
|            | medium  |          | mittel  |         |  | 5             |
|            | large   |          | groß  |         |  | 7             |
| <b>53.</b> | <b><u>Only</u> double<br/><u>flowering varieties:</u><br/>Inner petal: color of<br/>middle of <u>upper side</u></b> |          | <b><u>Nur</u> gefüllt blühende<br/><u>Sorten:</u> Inneres<br/>Blütenblatt: Farbe<br/>der Mitte der<br/><u>Oberseite</u></b> |         |  |               |
| (*)        |   |          |   |         |  |               |
| <b>PQ</b>  | (c) RHS Colour Chart<br>(indicate reference<br>number)  |          | RHS-Farbkarte<br>(Nummer angeben)   |         |  |               |

## 8. Explanations on the Table of Characteristics

### *8.1 Explanations covering several characteristics*

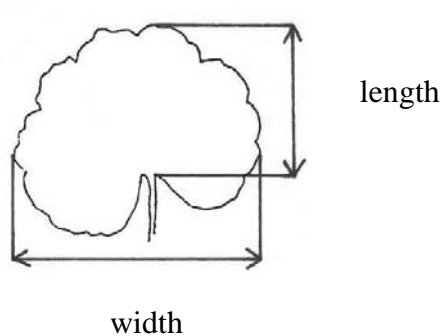
Characteristics containing the following key in the second column of the Table of Characteristics should be examined as indicated below:

- (a) Trailing varieties excluded.
- (b) Observations on the stem and the leaf should be made at the base of the second inflorescence of the strongest stem. All observations on the leaf should be made on the upper side.
- (c) Observations on the inflorescence, the flower bud and the flower should be made on the second inflorescence of the strongest stem at full flowering of the plant.

### *8.2 Explanations for individual characteristics*

Ad. 6: Leaf blade: length

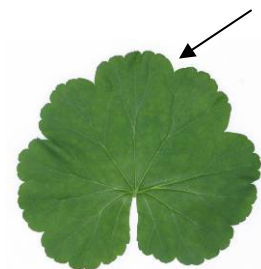
Ad. 7: Leaf blade: width



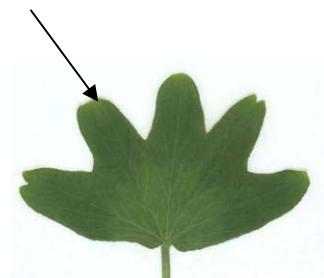
Ad. 8: Leaf blade: degree of lobing



1  
absent or very weak

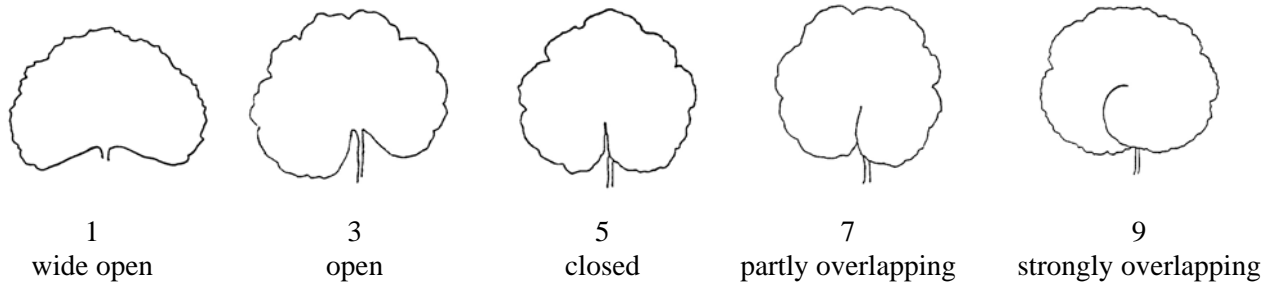


5  
medium



7  
strong

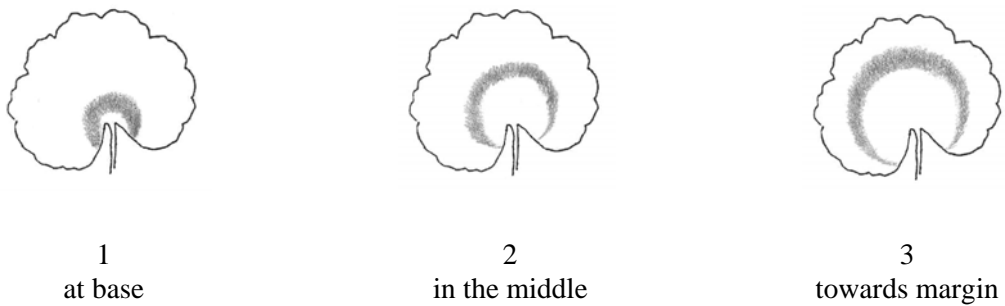
Ad. 12: Leaf blade: base



Ad. 14: Leaf blade: main color

Main color: color of the largest area of the leaf blade. If the area of the colors is nearly half and half, the darker color is the main color.

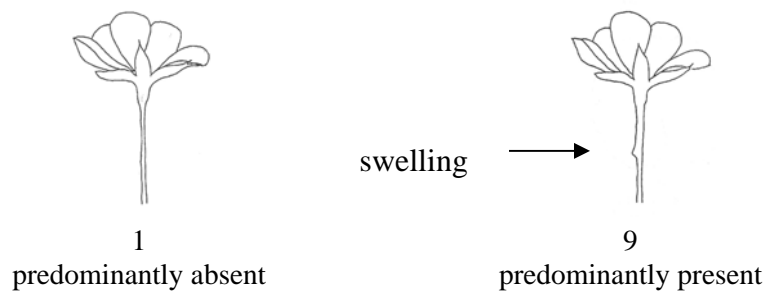
Ad. 18: Leaf blade: position of zone



Ad. 19: Leaf blade: width of zone

The width of the zone should be observed in relation to the size of the leaf.

Ad. 27: Pedicel: swelling



Ad. 28: Flower bud: shape



1  
elliptic



2  
round

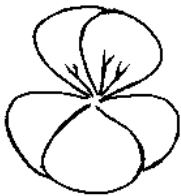


3  
asymmetric

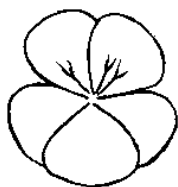
Ad. 29: Flower: type

A single flower has 5 petals only. A double flower has more than 5 petals.

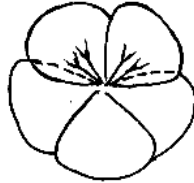
Ad. 31: Flower: arrangement of upper petals in relation to lower petals



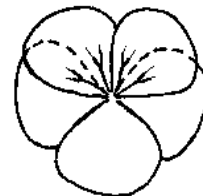
1  
free



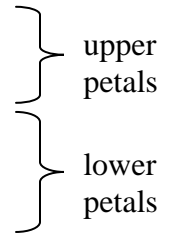
3  
touching



5  
slightly overlapping



7  
strongly overlapping



Ad.: 32: Flower: cross section in lateral view



3  
concave



5  
flat

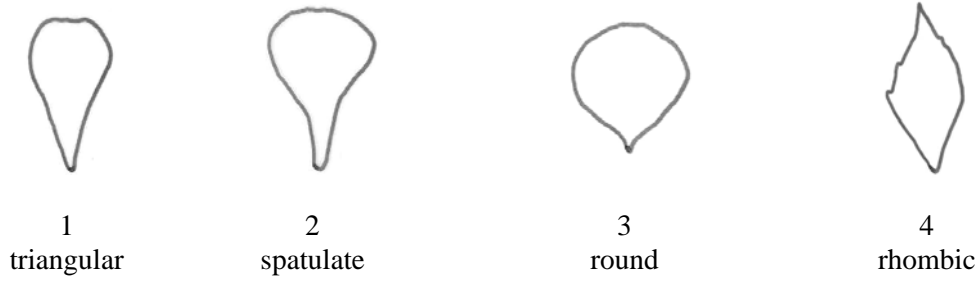


7  
convex

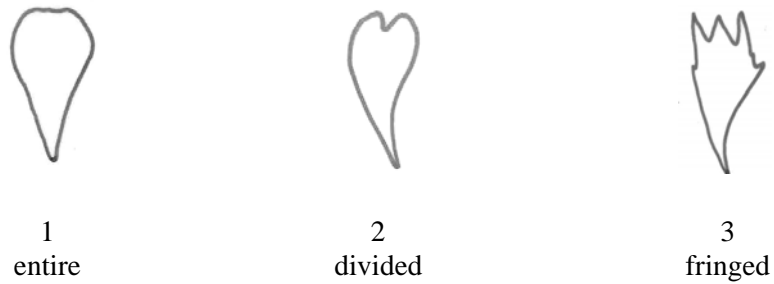
Ad. 32: Sepal: color

Observations on the sepal should be made on the largest sepal of a fully open flower.

Ad. 35: Upper petal: shape

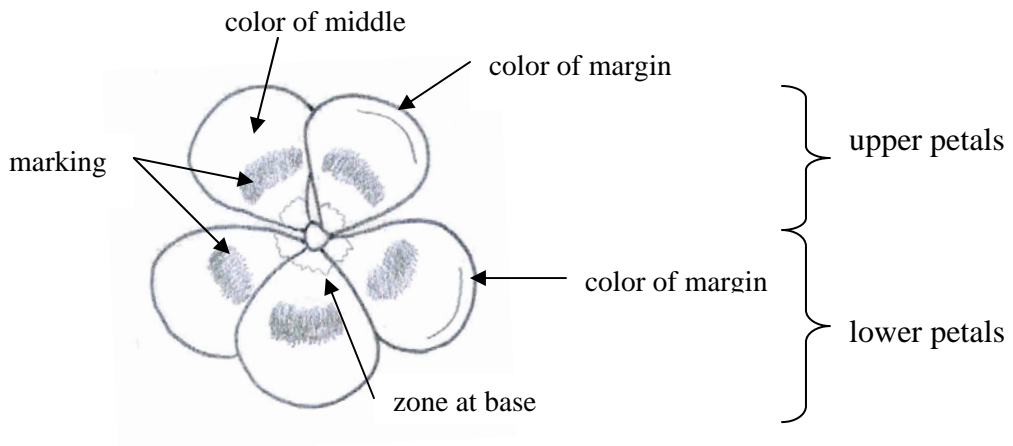


Ad. 36: Upper petal: margin of apical part



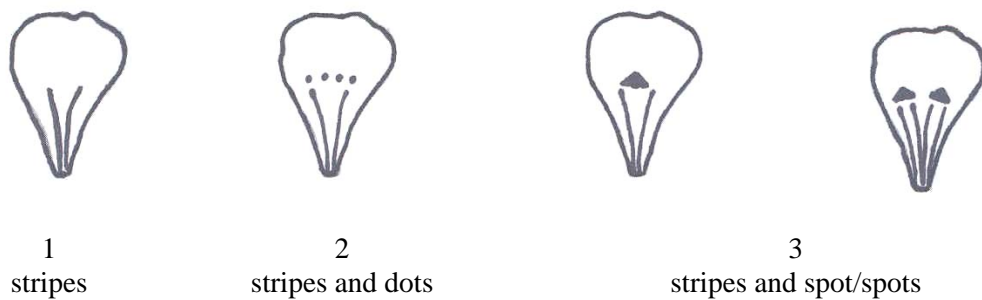
Ad. 37: Upper petal: color of margin of upper side

Ad. 38: Upper petal: color of middle of upper side



Ad 41: Upper petal: type of marking

Ad 52: Lower petal: type of marking



Ad. 42: Upper petal: size of spot

Ad. 52: Lower petal: size of spot



3  
small



5  
medium



7  
large

Ad 43: Upper petal: color of spot

Only for varieties with spot with at least size "medium" (5)



9. Literature

Maatsch et al, 1977: Pelargonien, Verlag Paul Parey, Berlin, Hamburg

10. Technical Questionnaire

|  |  |   |
|--|--|---|
| TECHNICAL QUESTIONNAIRE  | Page {x} of {y}  | Reference Number:   |
|  |  | Application date:<br>(not to be filled in by the applicant) |
| <b>TECHNICAL QUESTIONNAIRE</b><br>to be completed in connection with an application for plant breeders' rights |  |   |
| 1. Subject of the Technical Questionnaire  |  |   |
| 1.1.1 Botanical name   | <input type="text" value="Pelargonium Zonale Group&lt;br/&gt;(syn. Pelargonium xhortorum L.H. Bailey)"/> | [ ]   |
| 1.1.2 Common name  | <input type="text" value="Zonal Pelargonium"/>   |   |
| 1.2.1 Botanical name   | <input type="text" value="Pelargonium peltatum (L.) Hér."/>  | [ ]   |
| 1.2.2 Common name  | <input type="text" value="Ivy-leaved Pelargonium"/>  |   |
| Hybrid: please indicate name(s) of species used in the crossing  |  |   |
| 1.3 Botanical name   | <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"/>   |   |

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

3. Proposed denomination and breeder's reference

Proposed denomination  
(if available)

Breeder's reference

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

#4. Information on the breeding scheme and propagation of the variety

4.1 Breeding scheme

Variety resulting from:

4.1.1 Crossing

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

4.1.2 Mutation  [ ]  
(please state parent variety)

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

4.1.4 Other  [ ]  
(please provide details)

4.2 Method of propagating the variety

4.2.1 Seed-propagated varieties

- (a) Self-pollination  [ ]
- (b) Cross pollination  [ ]
  - (i) population  [ ]
  - (ii) synthetic variety  [ ]
- (c) Hybrid  [ ]
- (d) Other  [ ]  
(please provide details)

4.2.2 Vegetative propagation

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

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 Leaf blade: variegation (13)</b>  |                   |      |
| absent   |                   | 1[ ] |
| present  |                   | 9[ ] |
| <b>5.2 Leaf blade: main color (15)</b>   |                   |      |
| yellow   |                   | 1[ ] |
| light green  |                   | 2[ ] |
| medium green   |                   | 3[ ] |
| dark green   |                   | 4[ ] |
| dark red   |                   | 5[ ] |
| <b>5.3 Leaf blade: conspicuousness of zone on upper side (17)</b>                |                   |      |
| absent or very weak  |                   | 1[ ] |
| weak   |                   | 3[ ] |
| medium   |                   | 5[ ] |
| strong   |                   | 7[ ] |
| very strong  |                   | 9[ ] |
| <b>5.4 Inflorescence: anthocyanin coloration on upper third of peduncle (21)</b> |                   |      |
| absent or very weak  |                   | 1[ ] |
| weak   |                   | 3[ ] |
| medium   |                   | 5[ ] |
| strong   |                   | 7[ ] |
| <b>5.5 Flower: type (29)</b>   |                   |      |
| single   |                   | 1[ ] |
| double   |                   | 2[ ] |

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

| Characteristics  | Example Varieties | Note |
|--|-------------------|------|
| <b>5.6 Upper petal: conspicuousness of marking</b><br>(40)             |                   |      |
| absent or very weak  |                   | 1[ ] |
| weak   |                   | 3[ ] |
| medium   |                   | 5[ ] |
| strong   |                   | 7[ ] |
| <b>5.7 Upper petal: type of marking</b><br>(41)                        |                   |      |
| stripes  |                   | 1[ ] |
| stripes and dots   |                   | 2[ ] |
| stripes and spot/spots   |                   | 3[ ] |
| <b>5.8i Lower petal: color of middle of <u>upper side</u></b><br>(48)  |                   |      |
| RHS Colour Chart (indicate reference number)                           | .....             |      |
| <b>5.8ii Lower petal: color of middle of <u>upper side</u></b><br>(48) |                   |      |
| white  |                   | 1[ ] |
| orange pink  |                   | 2[ ] |
| orange   |                   | 3[ ] |
| red  |                   | 4[ ] |
| purple   |                   | 5[ ] |
| blue pink  |                   | 6[ ] |
| other (indicate color)   | .....             |      |

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

6. Similar varieties and differences from these varieties

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

| Denomination(s) of variety(ies) similar to your candidate variety | Characteristic(s) in which your candidate variety differs from the similar variety(ies) | Describe the expression of the characteristic(s) for the similar variety(ies) | Describe the expression of the characteristic(s) for your candidate variety |
|---|---|---|---|
| <i>(Example)</i>  | <i>Flower: type</i>   | <i>single</i>   | <i>double</i>   |

#7. Additional information which may help in the examination of the variety

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

Yes [ ] No [ ]

(If yes, please provide details)

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

Yes [ ] No [ ]

(If yes, please provide details):

7.3 Other information

A representative color photograph of the variety should accompany the Technical Questionnaire.

|                         |                 |                   |
|-------------------------|-----------------|-------------------|
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|-------------------------|-----------------|-------------------|

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 [ ] | No [ ] |
| (b) Chemical treatment (e.g. growth retardant, pesticide) | Yes [ ] | No [ ] |
| (c) Tissue culture  | Yes [ ] | No [ ] |
| (d) Other factors   | Yes [ ] | No [ ] |

Please provide details of 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]