

TG/25/9(proj.6) ORIGINAL: English DATE: 2013-03-05

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS Geneva

DRAFT

DIANTHUS

UPOV Code: DIANT

Dianthus L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by experts from the Netherlands

to be considered by the

Technical Working Party for Ornamental Plants and Forest Trees at its forty-sixth session, to be held in Melbourne, Australia, from April 22 to 26, 2013

Alternative Names:*

| Botanical name | English | French | German | Spanish |
|----------------|--|---------|--------|---------|
| Dianthus L. | Carnation, Clove Pink, Pink, Sweet William Carnation | Oeillet | Nelke | Clavel |

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

ASSOCIATED DOCUMENTS

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

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

TG/25/9(proj.6) Carnation, 2013-03-05 - 2 -

TABLE OF CONTENTS

PAGE

| 1. | 1. SUBJECT OF THESE TEST GUIDELINES | 3 |
|----|--|----------------------------|
| 2. | 2. MATERIAL REQUIRED | 3 |
| 3. | 3. METHOD OF EXAMINATION | 3 |
| | 3.1 NUMBER OF GROWING CYCLES | 3 3 3 3 3 4 |
| 4. | 4. ASSESSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY | |
| | 4.1 DISTINCTNESS | |
| 5. | 5. GROUPING OF VARIETIES AND ORGANIZATION OF THE GROWING TRIAL | 5 |
| 6. | 6. INTRODUCTION TO THE TABLE OF CHARACTERISTICS | 6 |
| | 6.1 CATEGORIES OF CHARACTERISTICS | 6 6 7 7 7 7 |
| 7. | 7. TABLE OF CHARACTERISTICS/TABLEAU DES CARACTÈRES/MERKMALSTABELLE/TAB CARACTERES | 8LA DE |
| 8. | 8. EXPLANATIONS ON THE TABLE OF CHARACTERISTICS | 21 |
| | 8.1 EXPLANATIONS COVERING SEVERAL CHARACTERISTICS | |
| 9. | 9. LITERATURE | |
| 10 | 10. TECHNICAL QUESTIONNAIRE | |

1. <u>Subject of these Test Guidelines</u>

These Test Guidelines apply to all varieties of Dianthus L.

2. <u>Material Required</u>

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 rooted cuttings.

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

20 rooted cuttings.

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

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

3. <u>Method of Examination</u>

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 In particular, it may be necessary for separate growing trials to be established for cut-flower types, garden types and pot types in order to ensure the satisfactory growth of varieties of those types.

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. 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 20 plants.

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

3.5 Additional Tests

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

4. <u>Assessment of Distinctness, Uniformity and Stability</u>

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 10 plants or parts taken from each of 10 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, a population standard of 1% and an acceptance probability of at least 95 % should be applied. In the case of a sample size of 20 plants, 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. <u>Grouping of Varieties and Organization of the Growing Trial</u>

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

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

5.3 The following have been agreed as useful grouping characteristics:

- (a) Flower: type (characteristic 37)
- (b) Petal: main color (characteristic 50), with the following groups:
 - 1: white or near white
 - 2: green
 - 3: yellow
 - 4: orange
 - 5: pink
 - 6: pink purple
 - 7: red
 - 8: dark red
 - 9: violet
 - 10: violet red
 - 11: purple
 - 12: brownish

TG/25/9(proj.6) Carnation, 2013-03-05 - 6 -

- (c) Petal: secondary color (characteristic 51), with the following groups:
 - 1: none
 - 2: white or near white
 - 3: green
 - 4: yellow
 - 5: orange
 - 6: pink
 - 7: pink purple
 - 8: red
 - 9: dark red
 - 10: violet
 - 11: violet red
 - 12: purple
 - 13: brownish
- (d) Petal: color pattern of secondary color, if present, with the following groups:
 - 1: marginated
 - 2: striated
 - 3: speckled
 - 4: flushed
 - 5: maculated

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. The type is indicated in brackets after the name of the example variety as follows:

(C) cut-flower type:
(Co): one flower per stem
(Cs): spray
(Cu): umbrella (Sweet William)
(G) garden type
(P) pot type

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)-(g) See Explanations on the Table of Characteristics in Chapter 8.1.

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

TG/25/9(proj.6) Carnation, 2013-03-05 - 8 -

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

| | | English | français | deutsch | español | Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|------------------|-----------|---|----------|---------|---------|---|---------------|
| 1. (*) (+) | VG/ MS | Only for varieties bred as cut-flower: Plant: length of stem | | | | | |
| QN | | short | | | | Barmalyn (Cs), Hilbrequeen (Cu) | 3 |
| | | medium | | | | Fire Queen (Cs), Hilbacer (Cs) | 5 |
| | | long | | | | Fransesco (Co), White Giant (Co) | 7 |
| 2. (*) (+) | VG/ MS | Only for varieties bred as garden or pot carnation: Plant: height | | | | | |
| QN | | short | | | | Hiljoli (P), Shooting Star (G) | 3 |
| | | medium | | | | Wp08 ian04 (G), Houndspool Cheryl (G) | 5 |
| | | tall | | | | Devon Wizard (G) | 7 |
| 3. | VG | Only for varieties bred as garden or pot carnation: Plant: density | | | | | |
| QN | | sparse | | | | Fontaine Darkred (P), Devon Wizard (G) | 1 |
| | | medium | | | | Waterloo Sunset (G), Koviol (P) | 2 |
| | | dense | | | | Hiljoli (P), Coral Reef (G) | 3 |
| 4. (*) (+) | VG | Only for varieties bred as garden or pot carnation: Flowers: position compared to foliage | | | | | |
| PQ | | same level | | | | Hiljoli (P), Coral Reef (G) | 1 |
| | | above | | | | Houndspool Cheryl (G), Koviol (P) | 2 |
| | | far above | | | | Waterloo Sunset (G) | 3 |
| 5. (+) | VG | Only for varieties bred as spray carnation: Plant: laterals without flower buds or flowers | | | | | |
| QL | | absent | | | | Hilboska (Cs) | 1 |
| | | present | | | | Martina (Cs) | 9 |

TG/25/9(proj.6) Carnation, 2013-03-05 - 9 -

| | | English | français | deutsch | español | Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|------------------|-----------|---|----------|---------|---------|---|---------------|
| 6. (*) (+) | VG/ MS | Only for varieties bred as spray carnation: Stem: number of internodes | | | | | |
| PQ | | four | | | | | 1 |
| | | five | | | | Hilboska (Cs), Martina (Cs) | 2 |
| | | six | | | | Barocior (Cs), Hilqueen (Cs) | 3 |
| | | more than six | | | | Hilbacer (Cs) | 4 |
| 7. (*) (+) | VG | Only for varieties bred as spray carnation: Plant: laterals with flower buds or flowers of second order | | | | | |
| QN | | absent or very few | | | | Barnita (Cs) | 1 |
| | | few | | | | Kledm10631 (Cs) | 3 |
| | | medium | | | | Barocior (Cs), Weslupe (Cs) | 5 |
| | | many | | | | Kledm10629 (Cs) | 7 |
| 8. (*) (+) | VG | Only for varieties bred as spray carnation: Plant: clustering on lateral branches | | | | | |
| QN | | none | | | | Barnita (Cs), Lekprewi (Cs) | 1 |
| | | some | | | | Beam Cherry (Cs), Martina (Cs) | 2 |
| | | all | | | | Westcherry (Cs) | 3 |
| 9. (+) | VG | Only for varieties bred as spray carnation: Inflorescence: form | | | | | |
| PQ | | horizontal | | | | | 1 |
| | | moderately domed | | | | Martina (Cs) | 2 |
| | | strongly domed | | | | Hilopta (Cs) | 3 |
| 10. (*) | VG/ MS | Stem: length of internode | | | | | |
| QN | (a) | short | | | | Devon Wizard (G) | 3 |
| | | medium | | | | Komari (Co), Lonaveiro (Cs) | 5 |
| | | long | | | | Kleds06013 (Co) | 7 |

TG/25/9(proj.6) Carnation, 2013-03-05 - 10 -

| | | English | français | deutsch | español | Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|-------------------|-----------|------------------------------|----------|---------|---------|---|---------------|
| 11. (*) | VG/ MS | Stem: thickness of internode | | | | | |
| QN | (a) | very thin | | | | Hiljoli (P) | 1 |
| | | thin | | | | Devon Glow (G) | 3 |
| | | medium | | | | Komari (Co), Lekprewi (Cs) | 5 |
| | | thick | | | | Hilbrequeen (Cu), Tico Tico (Co) | 7 |
| | | very thick | | | | Westcrystal (Cs) | 9 |
| 12. (*) (+) | VG | Stem: cross section | | | | | |
| PQ | (a) | circular | | | | Hilbreking (Cu) | 1 |
| | | edged | | | | Martina (Cs), Komari (Co), Sunrrb126 (P) | 2 |
| 13. (*) | VG | Stem: hollowness | | | | | |
| QL | (a) | absent | | | | Komari (Co), Martina (Cs), Sunrrb126 (P) | 1 |
| | | present | | | | Hilbreking (Cu) | 9 |
| 14. (*) (+) | VG | Leaf: shape | | | | | |
| PQ | (b) | ovate | | | | Tico Tico (Co) | 1 |
| | | linear | | | | | 2 |
| | | elliptic | | | | Komari (Co), Martina (Cs) | 3 |
| | | obovate | | | | Shooting Star (G) | 4 |
| 15. (*) | VG/ MS | Leaf: length | | | | | |
| QN | (b) | short | | | | Shooting Star (G) | 3 |
| | | medium | | | | Hilbrebar (Cu), Martina (Cs) | 5 |
| | | long | | | | Kleds06542 (Co), Komari (Co) | 7 |
| 16. (*) | VG/ MS | Leaf: width | | | | | |
| QN | (b) | narrow | | | | Lonaveiro (Cs), Sunrwb135 (P) | 3 |
| | | medium | | | | Hyslam (Co), Komari (Co) | 5 |
| | | broad | | | | Hilbreking (Cu) | 7 |

TG/25/9(proj.6) Carnation, 2013-03-05 - 11 -

Example varieties/ . Exemples/ Note/ English français deutsch español Beispielssorten/ Nota Variedades ejemplo 17. VG Leaf: curvature of (*) (+) longitudinal axis QN Devon Wizard (G), Komari (Co), (b) absent or very weakly 1 recurved Sunrwb135 (P) Shooting Star (G) weakly recurved 2 moderately recurved Hilbrebar (Cu), Martina (Cs) 3 strongly recurved Prado Pino (Co) 4 Raspberry Ripple (G) very strongly recurved 5 18. VG Leaf: cross section (*) (+) QN flat or very weakly Beam Cherry (Cs), 1 (b) Kledp09102 (P) concave Leila (Co), Martina (Cs), weakly concave 2 Tico Tico (Co) moderately concave Hilbreking (Cu), Lonkiro (Co), 3 Sunrrb126 (P) strongly concave Barabril (Cs), Wesroman (Cs) 4 19. VG Leaf: color (*) PQ (b) yellow green 1 2 Leila (Co), Sunrrb126 (P) medium green 3 dark green 20. VG Leaf: glaucosity (*) QN Hilbreking (Cu), Sunrrb126 (P) 1 (b) weak Hyslam (Co), Tico Tico (Co) 2 medium strong Komari (Co), Lekprewi (Cs) 3 21. VG Leaf: spiny ciliation of (*) margin (+) QL (b) absent Komari (Co), Martina (Cs) 1 Hilbreking (Cu), Whatfield Can Can (G) 9 present

TG/25/9(proj.6) Carnation, 2013-03-05

- 12 -

| | | English | français | deutsch | español | Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|-------------------|-----|--|----------|---------|---------|---|---------------|
| 22. (*) (+) | VG | Bud: shape | | | | | |
| PQ | (c) | ovate | | | | Kledcs05045 (Co) | 1 |
| | | oblong | | | | Lonkiro (Co) | 2 |
| | | elliptic | | | | Fontaine Darkred (P), Hiltespret (Cs) | 3 |
| | | circular | | | | Baryetar (Co) | 4 |
| | | obovate | | | | Komari (Co), Leila (Co), Martina (Cs) | 5 |
| 23. (*) (+) | VG | Bud: extrusion of styles | | | | | |
| QL | (c) | absent | | | | Komari (Co), Leila (Co), Martina (Cs) | 1 |
| | | present | | | | Hilvulca (P), Kleds07504 (Co) | 9 |
| 24. (+) | VG | Epicalyx: position of outer lobes in relation to calyx | | | | | |
| QN | | adpressed | | | | Komari (Co), Martina (Cs), Tico Tico (Co) | 1 |
| | | intermediate | | | | | 2 |
| | | free | | | | Kledc05008 (Cs), Leila (Co) | 3 |
| 25. (+) | VG | Epicalyx: apex of outer lobes | | | | | |
| QN | | acute | | | | Komari (Co), Martina (Cs), Tico Tico (Co) | 1 |
| | | acute to acuminate | | | | | 2 |
| | | acuminate | | | | Lonkiro (Co) | 3 |
| 26. | VG | Epicalyx: length of apex of outer lobes: | | | | | |
| (+) | | | | | | | |
| QN | | absent or very short | | | | | 1 |
| | | short | | | | Komari (Co), Martina (Cs), Tico Tico (Co) | |
| | | medium | | | | Devon Glow (G), Leila (Co) | 3 |
| | | long | | | | Sunrrb126 (P), Westcrystal (Cs) | 4 |

TG/25/9(proj.6) Carnation, 2013-03-05 - 13 -

| | | English | français | deutsch | español | Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|-------------------|-----------|----------------------|----------|---------|---------|---|---------------|
| 27. | VG | Epicalyx: apex of | | | | | |
| (+) | | Inner lobes | | | | | |
| QN | | acute | | | | Komari (Co), Martina (Cs), Tico Tico (Co) | 1 |
| | | acute to acuminate | | | | | 2 |
| | | acuminate | | | | Lonkiro (Co) | 3 |
| 28. | VG | Epicalyx: length of | | | | | |
| (+) | | apex of inner lobes | | | | | |
| QN | | absent or very short | | | | | 1 |
| | | short | | | | Komari (Co), Martina (Cs) | 2 |
| | | medium | | | | Sunrrb126 (P) | 3 |
| | | long | | | | Westcrystal (Cs) | 4 |
| 29. | VG/ | Calvx: length | | | | , | |
| (*) | MS | | | | | | |
| QN | | short | | | | Hilbreking (Cu), Whatfield Can Can (G) | 3 |
| | | medium | | | | Komari (Co), Leila (Co), Martina (Cs) | 5 |
| | | long | | | | Kleds10624 (Co), Princess (P) | 7 |
| 30. (*) | VG/ MS | Calyx: width | | | | | |
| QN | | narrow | | | | Sunrrb126 (P) | 3 |
| | | medium | | | | Komari (Co) | 5 |
| | | broad | | | | Kleds10624 (Co) | 7 |
| 31. (*) (+) | VG | Calyx: shape | | | | | |
| PQ | | funnel-shaped | | | | Lonkiro (Co), Tico Tico (Co) | 1 |
| | | cylindrical | | | | Hilbreking (Cu), Martina (Cs), Sunrrb126 (P) | 2 |
| | | campanulate | | | | Gaudina (Co), Komari (Co), Leila (Co) | 3 |

TG/25/9(proj.6) Carnation, 2013-03-05 - 14 -

| | | English | français | deutsch | español | Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|-------------------|----|--|----------|---------|---------|---|---------------|
| 32. (*) (+) | VG | Calyx: longitudinal axis of lobes | | | | | |
| PQ | | straight | | | | Sunrrb126 (P), Whatfield Can Can (G) | 1 |
| | | concave | | | | Martina (Cs), Tico Tico (Co) | 2 |
| | | angled | | | | Hilopta (Cs) | 3 |
| | | convex | | | | Gaudina (Co), Komari (Co), Leila (Co) | 4 |
| 33 (*) | VG | Calyx: distribution of anthocyanin coloration | | | | | |
| PQ | | none | | | | Komari (Co), Leila (Co), Martina (Cs) | 1 |
| | | edge of lobe | | | | Lonaveiro (Cs), Sunrrb126 (P) | 2 |
| | | whole lobe | | | | Hilbrebar (Cu), Houndspool Cheryl (G) | 3 |
| | | whole calyx | | | | Calypso Star (G) | 4 |
| 34. (*) | VG | Calyx: intensity of anthocyanin coloration | | | | | |
| QN | | weak | | | | Lonaveiro (Cs) | 1 |
| | | medium | | | | Shooting Star (G) | 2 |
| | | strong | | | | Simba (P), Sunre130 (P) | 3 |
| 35. | VG | Calyx: shape of apex | | | | | |
| (+) | | of lobe | | | | | |
| PQ | | acute | | | | Komari (Co), Lonaveiro (Cs), Lonkiro (Co), Sunrrb126 (P) | 1 |
| | | acuminate | | | | Barfenix (Co) | 2 |
| 36. (*) | VG | Calyx: length of lobe | | | | | |
| QN | | short | | | | Lonkiro (Co), Komari (Co), Tico Tico (Co) | 3 |
| | | medium | | | | Leila (Co), Lonaveiro (Cs) | 5 |
| | | long | | | | Hilbreking (Cu) | 7 |
| 37. (*) (+) | VG | Flower: type | | | | | |
| QL | | single | | | | Calypso Star (G), Hilbreking (Cu) | 1 |
| | | double | | | | Sam's Pride (Cs), William Sim (Co) | 2 |

TG/25/9(proj.6) Carnation, 2013-03-05 - 15 -

Example varieties/ Exemples/ Note/ English français deutsch español Beispielssorten/ Nota Variedades ejemplo 38. VG/ Flower: diameter (*) MS QN very small 1 small Hilbrebar (Cu), 3 Shooting Star (G), Sunrwb135 (P) medium Devon Wizard (G) 5 Farida (Co), Komari (Co), 7 large Leila (Co) very large 9 39. VG/ Varieties with double MS flowers only: Flower: (*) number of petals QN few Lekclaudia (Cs), Sunrrb126 (P) 3 medium Komari (Co), Martina (Cs) 5 7 Hyslam (Co), Tico Tico (Co) many 40. VG/ Corolla: height (*) (+) MS QN low Sunrwb135 (P), 3 Whatfield Can Can (G) medium Farida (Co) 5 7 high 41. VG Corolla: profile of (*) (+) upper part in lateral view PQ concave Night Star (G) 1 flat Hilbrequeen (Cu), 2 Shooting Star (G), Komari (Co), Lonkiro (Co), flat convex 3 Sunrrb126 (P) Leila (Co), Martina (Cs), 4 convex Tico Tico (Co)

TG/25/9(proj.6) Carnation, 2013-03-05 - 16 -

| | | English | français | deutsch | español | Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|-------------------|-----|--|----------|---------|---------|---|---------------|
| 42. (*) (+) | VG | Corolla: profile of lower part in lateral view | | | | | |
| PQ | | concave | | | | Komari (Co), Martina (Cs), Sunrrb126 (P) | 1 |
| | | flat | | | | Hilbrequeen (Cu), Whatfield Can Can (G), | 2 |
| | | flat convex | | | | Leila (Co), Night Star (G) | 3 |
| | | convex | | | | Coral Reef (G), Waterloo Sunset (G) | 4 |
| 43. | VG | Petal: predominant | | | | | |
| (+) | | Chape | | | | | |
| PQ | (d) | type 1 | | | | Martina (Cs), Tico Tico (Co) | 1 |
| | | type 2 | | | | Baltico (Co) | 2 |
| | | type 3 | | | | Hilbreking (Cu), Sunrwb135 (P) | 3 |
| | | type 4 | | | | Nobroc (Co), Sunrrb126 (P) | 4 |
| | | type 5 | | | | Barlgraa (Co), Wp08 ian04 (G) | 5 |
| | | type 6 | | | | Gaudina (Co) | 6 |
| | | type 7 | | | | Hilstertes (Cs), Minitiara Pink (Cs) | 7 |
| 44. | VG | Petal: undulation | | | | | |
| (+) | | | | | | | |
| QN | (d) | absent or weak | | | | Hilbrequeen (Cu), Hilstertes (Cs) | 1 |
| | | medium | | | | Calypso Star (G), Komari (Co) | 2 |
| | | strong | | | | | 3 |
| 45. (*) (+) | VG | Petal: degree of incisions of margin | | | | | |
| QN | (d) | absent or weak | | | | Barmalyn (Cs), Koyevi (Co) | 1 |
| | | medium | | | | Barlitar (Co) | 2 |
| | | strong | | | | Komari (Co), Martina (Cs), Wesroman (Cs) | 3 |

TG/25/9(proj.6) Carnation, 2013-03-05 - 17 -

Example varieties/ Exemples/ Note/ English français deutsch español Beispielssorten/ Nota Variedades ejemplo 46. ٧G Petal: type of incisions of margin (+) PQ Farida (Co) (d) sinuate 1 Hyslam (Co) 2 crenate dentate Leila (Co) 3 denticulate Hilbrebar (Cu), Sunrwb135 (P) 4 crenate-denticulate Komari (Co), Martina (Cs) 5 47. VG Petal: depth of (*) (+) incisions of margin QN Fleurette (Cs), Leila (Co) (d) very shallow 1 shallow Intermezzo (Cs) 3 medium Hilbrebar (Cu) 5 Pop Star (G) 7 deep very deep CFPC Unforgettable (P) 9 48. VG/ Petal: length (*) MS (d) QN Whatfield Can Can (G) 3 short medium Barcandela (Cs) 5 7 long Gaudina (Co), Komari (Co) 49. VG/ Petal: width (*) MS (d) QN narrow Hilbrebar (Cu), 3 Whatfield Can Can (G) medium Leila (Co), Lonkiro (Co), 5 Tico Tico (Co) Bartorbel (Co), Kleds10625 (Co) 7 broad 50. VG Petal: main color (*) PQ RHS Colour Chart (d) (indicate reference (e) number) 51. VG Petal: secondary color (*) PQ (d) 1 none RHS Colour Chart (e) (indicate reference number)

TG/25/9(proj.6) Carnation, 2013-03-05 - 18 -

| | | English | français | deutsch | español | Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|-------------------|------------|---|----------|---------|---------|---|---------------|
| 52. (*) (+) | VG | Petal: secondary color at margin at upper part | | | | | |
| PQ | (d) (e) | absent | | | | | 1 |
| | (f) | present | | | | Hilbreking (Cu)`, Komari (Co) | 9 |
| 53. (*) (+) | VG | Petal: secondary color: width of margin at upper part (if present) | | | | | |
| PQ | (d) | narrow | | | | Komari (Co), Rodin (P) | 1 |
| | (e) | medium | | | | Hilbreking (Cu), Hilqueen (Cs) | 2 |
| | (f) | broad | | | | | 3 |
| 54. (*) (+) | VG | Petal: secondary color as stripes | | | | | |
| PQ | (d) (e) | absent | | | | | 1 |
| | (f) | present | | | | Komonte (Co) | 9 |
| 55. (*) (+) | VG | Petal: secondary color as speckles | | | | | |
| PQ | (d) (e) | absent | | | | | 1 |
| | (f) | present | | | | Barlitar (Co), CFPC Aztec (P) | 9 |
| 56. (*) (+) | VG | Petal: secondary color as flush | | | | | |
| PQ | (d) (e) | absent | | | | | 1 |
| | (f) | present | | | | Antigua (Co), Hilnotre (Co) | 9 |
| 57. (*) (+) | VG | Petal: secondary color as macule | | | | | |
| PQ | (d) (e) | absent | | | | | 1 |
| | (f) | present | | | | Sunrwb135 (P) | 9 |
| 58. (*) | VG | Petal: tertiary color | | | | | |
| PQ | (d) | none | | | | | 1 |
| | (e) | RHS Colour Chart (indicate reference number) | | | | | |

TG/25/9(proj.6) Carnation, 2013-03-05 - 19 -

| | | English | français | deutsch | español | Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|-------------------|-----|--|----------|---------|---------|---|---------------|
| 59. (*) | VG | Petal: color pattern of tertiary color | | | | | |
| PQ | (d) | marginated | | | | Margarita (P), Sunrwb135 (P) | 1 |
| | (e) | striated | | | | | 2 |
| | (g) | speckled | | | | | 3 |
| | | flushed | | | | | 4 |
| | | maculated | | | | Rodin (P) | 5 |
| 60. (*) (+) | VG | Ovary: shape | | | | | |
| PQ | | ovate | | | | Lekprewi (Cs) | 1 |
| | | oblong | | | | Shooting Star (G) | 2 |
| | | elliptic | | | | Hilbreking (Cu) | 3 |
| | | rhombic | | | | Martina (Cs) | 4 |
| | | obovate | | | | Komari (Co), Leila (Co), Sunrwb135 (P) | 5 |
| 61. | VG | Ovary: color of base | | | | | |
| (+) | | | | | | | |
| PQ | | whitish | | | | Komari (Co), Lekprewi (Cs) | 1 |
| | | yellowish | | | | Kledg10119 (G), Koviol (P) | 2 |
| | | green | | | | Leila (Co), Shooting Star (G) | 3 |
| 62. (*) | VG | Ovary: surface | | | | | |
| QN | | smooth | | | | Leila (Co), Lekclaudia (Cs) | 1 |
| | | slightly ribbed | | | | Sunrrb126 (P) | 2 |
| | | strongly ribbed | | | | Komari (Co), Martina (Cs) | 3 |

TG/25/9(proj.6) Carnation, 2013-03-05 - 20 -

| | | English | français | deutsch | español | Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo | Note/ Nota |
|-------------------|-----------|---------------------------|----------|---------|---------|---|---------------|
| 63. (*) | VG | Style: number | | | | | |
| PQ | | only two | | | | Hilbreking (Cu), Sunrwb135 (P), Tico Tico (Co) | 1 |
| | | two and three | | | | Komari (Co), Lonaveiro (Cs) | 2 |
| | | only three | | | | Barjine (Co), Wesroman (Cs) | 3 |
| | | three and four | | | | Kleds07504 (Co) | 4 |
| | | only four | | | | Baruqedu (Co), Kleds10624 (Co) | 5 |
| | | two, three, four and five | | | | Gaudina (Co) | 6 |
| | | more than five | | | | | 7 |
| 64. (*) | VG/ MS | Style: length | | | | | |
| QN | | short | | | | Hilbreking (Cu), Shooting Star (G) | 1 |
| | | medium | | | | Lonaveiro (Cs), Sunrwb135 (P), Tico Tico (Co) | 2 |
| | | long | | | | Liberty (Co) | 3 |
| 65. (*) (+) | VG | Style: shoulder | | | | | |
| QL | | absent | | | | Martina (Cs), Sunrwb135 (P) | 1 |
| | | present | | | | Komari (Co), Lonaveiro (Cs), Tico Tico (Co) | 9 |
| 66. (*) | VG | Stigma: color | | | | | |
| PQ | | white | | | | Komari (Co), Martina (Cs), Tico Tico (Co) | 1 |
| | | yellow | | | | Leila (Co) | 2 |
| | | pink | | | | Barhugo (Co) | 3 |
| | | white with red flush | | | | Lonaveiro (Cs) | 4 |
| | | white with purple flush | | | | Shooting Star (G) | 5 |
| | | red | | | | Hilbrebar (Cu), Hyslam (Co) | 6 |
| | | purple | | | | Burnob (Co), Sunrrb126 (P) | 7 |

8. <u>Explanations on the Table of Characteristics</u>

8.1 Explanations covering several characteristics

Unless otherwise indicated below, all characteristics should be recorded 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) The main stem can be found by following the most direct line from top-flower to base. In varieties bred to be grown as cut-flowers, the length and thickness of the fifth internode directly below flower should be observed. In varieties bred to be grown as pot and garden carnations, the length and thickness of the third internode directly below flower should be observed.
- (b) In varieties bred to be grown as cut-flowers, to be observed on leaves of the fifth node directly below flower. In varieties bred to be grown as pot and garden carnations, to be observed on leaves of the third node directly below flower.
- (c) To be observed immediately before color appears.
- (d) To be observed on petals of the outer third row.
- (e) The main color is the color with the largest total surface area. In cases where the areas of the main and secondary color are approximately the same, the lightest color will be the main color. In cases where the areas of the secondary and tertiary color are approximately the same, the lightest color will be the secondary color.
- (f) Only to be observed if secondary color is present. The secondary color pattern may cover more than one pattern type
- (g) Only to be observed if tertiary color is present.

TG/25/9(proj.6) Carnation, 2013-03-05 - 22 -

- 8.2 Explanations for individual characteristics
- Ad. 1: Only for varieties bred as cut-flower: Plant: length of stem

Length of stem should be measured from soil level to the end of the plant, excluding the flowers.

Ad. 2: Only for varieties bred as garden or pot carnation: Plant: height

Plant height should be measured from soil level to the end of the plant, including the flowers.

Ad. 4: Only for varieties bred as garden or pot carnation: Flowers: position compared to foliage



same level

above



far above

Ad. 5: Only for varieties bred as spray carnation: Plant: laterals without flower buds or flowers Ad. 6: Only for varieties bred as spray carnation: Stem: number of internodes

The number of internodes should be observed between epicalyx and lowest node with laterals with flower buds or flowers.



Ad. 7: Only for varieties bred as spray carnation: Plant: laterals with flower buds or flowers of second order



Ad. 8: Only for varieties bred as spray carnation: Plant: clustering on lateral branches



TG/25/9(proj.6) Carnation, 2013-03-05 - 24 -

Ad. 9: Only for varieties bred as spray carnation: Inflorescence: form



Ad. 12: Stem: cross section



Ad. 14: Leaf: shape



TG/25/9(proj.6) Carnation, 2013-03-05 - 25 -

Ad. 17: Leaf: curvature of longitudinal axis



Ad. 21: Leaf: spiny ciliation of margin

concave

To be observed by gently rubbing to and fro with your finger along the margin of the leaf.



1 absent



present

Ad. 22: Bud: shape



Ad. 23: Bud: extrusion of styles





TG/25/9(proj.6) Carnation, 2013-03-05 - 27 -

Ad. 24: Epicalyx: position of outer lobes in relation to calyx



adpressed



intermediate



3 free

Ad. 25: Epicalyx: apex of outer lobes Ad. 27: Epicalyx: apex of inner lobes





1 acute

2 acute to acuminate



acuminate

Ad. 26: Epicalyx: length of apex of outer lobes Ad. 28: Epicalyx: length of apex of inner lobes



1 absent or very short



2 short



3 medium

4 long

TG/25/9(proj.6) Carnation, 2013-03-05 - 28 -

Ad. 31: Calyx: shape



Ad. 32: Calyx: longitudinal axis of lobes

When making this observation, the tip of the lobes should be excluded.



Ad. 35: Calyx: shape of apex of lobe



Ad. 37: Flower type

If a flower has more than 5 petals, it can be classified as a double flower type.

TG/25/9(proj.6) Carnation, 2013-03-05 - 29 -

Ad. 40: Corolla: height



Ad. 41: Corolla: profile of upper part in lateral view



Ad. 42: Corolla: profile of lower part in lateral view







Ad. 43: Petal: predominant shape



TG/25/9(proj.6) Carnation, 2013-03-05 - 30 -

Ad. 44: Petal: undulation



Ad. 45: Petal: degree of incisions of margin



Ad. 46: Petal: type of incisions of margin

| 1 | sinuate |
|---|---------------------|
| 2 | crenate |
| 3 | dentate |
| 4 | denticulate |
| 5 | crenate-denticulate |
| | |



Ad. 47: Petal: depth of incisions of margin



Ad. 52: Petal: secondary color at margin at upper part



Ad. 53: Petal: secondary color: width of margin at upper part (if present)





narrow



3

broad

Ad. 54: Petal: secondary color as stripes



1 absent





present

Ad. 55: Petal: secondary color as speckles



1 absent



9 present

Ad. 56: Petal: secondary color as flush



absent



present

Ad. 57: Petal: secondary color as macule



absent





9 present

Ad. 60: Ovary: shape

| | \leftarrow broadest part \rightarrow | | | | |
|----------------------------|--|---------------|--------------|--|--|
| | below middle | at middle | above middle | | |
| narrow (elongated) | | 2 oblong | | | |
| width (ratio length/width) | 1 ovate | 3 elliptic | 5 obovate | | |
| broad (compressed) | | 4 rhombic | | | |

Ad. 61: Ovary: color of base



TG/25/9(proj.6) Carnation, 2013-03-05 - 34 -

Ad. 65: Style: shoulder



absent

9 present

9. <u>Literature</u>

Galbally, J. & Galbally, E., 1997: Carnations and Pinks. Timber Press Inc., Portland, Oregon, ISBN 0-88192-382-6

TG/25/9(proj.6) Carnation, 2013-03-05 - 36 -

10. Technical Questionnaire

| TECH | INICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: | | | | | |
|------|--|----------------------|---|--|--|--|--|--|
| | | | Application date: (not to be filled in by the applicant) | | | | | |
| | T to be completed in cor | ECHNICAL QUESTIONNAI | RE for plant breeders' rights | | | | | |
| 1. | Subject of the Technical Questionnaire | | | | | | | |
| | 1.1 Botanical name Di | anthus L. | | | | | | |
| | 1.2 Common name Dia | anthus | | | | | | |
| 2. | Applicant | | | | | | | |
| | Name | | | | | | | |
| | Address | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | Telephone No. | | | | | | | |
| | Fax No. | | | | | | | |
| | E-mail address | | | | | | | |
| | Breeder (if different from applicant) | | | | | | | |
| | | | | | | | | |
| 3. | Proposed denomination and breeder | 's reference | | | | | | |
| | Proposed denomination (if available) | | | | | | | |
| | Breeder's reference | | | | | | | |

| | | TG/25/9(proj.6) Carnation, 2013-03-05 - 37 - | | |
|---|---|---|---------------------------------|--|
| TECHNICAL QUES | TIONNAIRE | Page {x} of {y} | Reference Number: | |
| 4. Information or 4.1 Breedin Variety 4.1.1 (female pa | n the breeding scheme a ng scheme resulting from: Crossing (a) controlled cros (please state p | nd propagation of the varie separent varieties) x (male p | ety []) arent [] | |
| (female pa | arent | x (male p |) arent | |
| 4.1.2 | (c) unknown cross Mutation (please state parent v | ariety) | [] | |
| 4.1.3 Discovery and development (please state where and when discovered and how deve | | [] ow developed) | | |
| 4.1.4 | Other (please provide details | s) | [] | |

TG/25/9(proj.6) Carnation, 2013-03-05 - 38 -

| TECHNICA | L QUESTIONNAIRE | Page {x} of {y} | Reference Number: | |
|----------|---|-----------------|-------------------|--|
| 4.2 | Method of propagating the varie 4.2.1 Vegetative propagation | ty 1 | | |
| | (a) cuttings | | [] | |
| | (b) in vitro propagatio | on | [] | |
| | (c) other (state metho | (bc | [] | |
| | 4.2.2 Other (please provide details | 3) | [] | |
| | | | | |

TG/25/9(proj.6) Carnation, 2013-03-05

- 39 -

| TECH | NICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: | | | | |
|--|--|-----------------|---|------|--|--|--|
| 5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the note which best corresponds). | | | | | | | |
| | Characteristics | | Example Varieties | Note | | | |
| 5.1 (37) | Flower: type | | | | | | |
| | single | | Calypso Star (G), Hilbreking (Cu) | 1[] | | | |
| | double | | Sam's Pride(Cs), William Sim (Co) | 2[] | | | |
| 5.2 (45) | Petal: degree of incisions of margin | | | | | | |
| | absent or weak | | Barmalyn (Cs), Koyevi (Co) | 1[] | | | |
| | medium | | Barlitar (Co) | 2[] | | | |
| | strong | | Komari (Co), Martina (Cs), Wesroman (Cs) | 3[] | | | |
| 5.3i (50) | Petal: main color | | | | | | |
| | RHS Colour Chart (indicate reference nur | mber) | | | | | |
| 5.3ii (50) | Petal: main color | | | | | | |
| | white or near white | | | 1[] | | | |
| | green | | | 2[] | | | |
| | yellow | | | 3[] | | | |
| | orange | | | 4[] | | | |
| | pink | | | 5[] | | | |
| | pink purple | | | 6[] | | | |
| | red | | | 7[] | | | |
| | dark red | | | 8[] | | | |
| | violet | | | 9[] | | | |
| | violet red | | | 10[] | | | |
| | purple | | | 11[] | | | |
| | brownish | | | 12[] | | | |
| 5.4i (51) | Petal: secondary color | | | | | | |

RHS Colour Chart (indicate reference number)

TG/25/9(proj.6) Carnation, 2013-03-05 - 40 -

| TECH | NICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: | |
|---------------|------------------------|-----------------|-------------------|------|
| | Characteristics | | Example Varieties | Note |
| 5.4ii (51) | Petal: secondary color | | | |
| (01) | | | | 45.1 |
| | none | | | 1[] |
| | white or near white | | | 2[] |
| | green | | | 3[] |
| | yellow | | | 4[] |
| | orange | | | 5[] |
| | pink | | | 6[] |
| | pink purple | | | 7[] |
| | red | | | 8[] |
| | dark red | | | 9[] |
| | violet | | | 10[] |
| | violet red | | | 11[] |
| | purple | | | 12[] |
| | brownish | | | 13[] |

TG/25/9(proj.6) Carnation, 2013-03-05

- 41 -

| TECHNICAL QUESTIONNA | IRE | 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 your candidate from the simila | c(s) in which variety differs ar variety(ies) | Describe th the charact similar | ne expression of teristic(s) for the r variety(ies) | Describe the expression of the characteristic(s) for your candidate variety | | | |
| Example | Flower: | color | C | orange | orange red | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Comments: | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

TG/25/9(proj.6) Carnation, 2013-03-05

- 42 -

| TECH | INICAL QU | JESTIO | NNAIRE | Page {x} of {y | /} | Reference Number: | | |
|------------------|---|-------------------------|---|-----------------------------------|------------------------------|---|--|--|
| [#] 7. | Additional information which may belo in the examination of the variety | | | | | | | |
| 7.1 | In additic help to d | on to the listinguis | information provided the variety? | 1 in sections 5 | and 6, are th | nere any additional characteristics which may | | |
| | Yes | [] | I | No [] | | | | |
| | (If yes, pl | ease pro | ovide details) | | | | | |
| 7.2 | Are there | e any sp | ecial conditions for g | rowing the vari | ety or condu | icting the examination? | | |
| | Yes | [] | I | No [] | | | | |
| | (If yes, pl | ease pro | ovide details) | | | | | |
| 7.3 | Other inf | ormatio | n | | | | | |
| | 7.3. | 1 | Cultural-type | | | | | |
| In va | (a) gatter plant [] (b) pot plant [] (c) cut-flower [] - spray [] - umbrella (Sweet William) [] - one flower per stem [] (d) other [] (please provide details) [] | | | | | | | |
| variet | ies bred to ved at an e | be grov arly stag | yn as one flower per ge to leave just the te | stem carnation rminal flower h | , the lateral i lead. | flower heads or lateral shoots (if existing) are | | |
| Variet Variet | ties bred to ties bred to | be grov be grov | vn as pot carnation d vn as garden carnatio | o not need a c on, do need a c | old treatmen cold treatme | t (period) to induce optimal flowering. nt (period) to induce optimal flowering. | | |
| 7.3.2 | A repre | sentativ | e color image of the | variety should a | accompany | the Technical Questionnaire. | | |
| 8. | Authoriza | ation for | release | | | | | |
| | (a) D the enviro | oes the onment, | variety require prior a human and animal h | authorization fo ealth? | or release un | der legislation concerning the protection of | | |
| | Y | es | [] | No | [] | | | |
| | (b) H | as such | authorization been o | btained? | | | | |
| | Y | es | [] | No | [] | | | |
| | If the answer to (b) is yes, please attach a copy of the authorization. | | | | | | | |

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

TG/25/9(proj.6) Carnation, 2013-03-05 - 43 -

Г

No

Applicant's name

Signature

10.

[]

| TECHNICAL QUESTIONNAIRE | | | Page {x} of {y} | Reference Number: | |
|---|---|---|--|--|---|
| | | | | | |
| 9. | Information on plant material to be examined or submitted for examination. | | | | |
| 9.1 The expression of a characteristic or several characteristics of a variety may be affected by factors, such as pests and disease, chemical treatment (e.g. growth retardants or pesticides), effects of tissue culture, different rootstocks, scions taken from different growth phases of a tree, etc. | | | | | |
| 9.2 charao has ur the be | The period teristic dergoist of yo | plant material should not have s of the variety, unless the com ne such treatment, full details of pur knowledge, if the plant mater | undergone any treatment upetent authorities allow or f the treatment must be given rial to be examined has been | It which would affect the exp request such treatment. If the en. In this respect, please ind en subjected to: | pression of the e plant material dicate below, to |
| | (a) | Microorganisms (e.g. virus, ba | cteria, phytoplasma) | Yes [] | No [] |
| | (b) Chemical treatment (e.g. grow | | rth retardant, pesticide) | Yes [] | No [] |
| | (c) | Tissue culture | | Yes [] | No [] |
| | (d) | Other factors | | Yes [] | No [] |
| | Please provide details for where you have indicated "yes". | | | | |
| | | | | | |
| 9.3 | Has the plant material to be examined been tested for the presence of virus or other pathogens? | | | | |
| | Yes (pleas | [] se provide details as specified b | y the Authority) | | |

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

Date

[End of document]