

TG/25/9(proj.1)
ORIGINAL: English

**DATE:** 2007-05-31

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



#### **CARNATION**

**UPOV Code: DIANT** 

Dianthus L.

Species names to be specified in next version

#### **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 fortieth session, to be held in Kunming, China, from July 2 to 6, 2007

### Alternative Names:\*

Botanical nameEnglishFrenchGermanSpanishDianthus L.Carnation, Clove Pink, Pink,<br/>Sweet William CarnationOeillet<br/>Sweet William CarnationNelkeClavel

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.

<sup>\*</sup> 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.1) Carnation, 2007-05-31 - 2 -

<u>TA</u>	BLE	E OF CONTENTS	<u>PAGE</u>
1.	SITE	BJECT OF THESE TEST GUIDELINES	3
2.		TERIAL REQUIRED	
3.		THOD OF EXAMINATION	
٥.	3.1	Number of Growing Cycles	
	3.2	Testing Place	
		•	
	3.4	-	
	3.4	Number of Plants / Parts of Plants to be Examined	
	0.0		
1			
4.		SESSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY	
	4.1	Distinctness	
	4.2	Uniformity	
	4.3	Stability	5
5.	6		
		ING OF VARIETIES AND ORGANIZATION OF THE GROWING TRIAL	
6.	INT	RODUCTION TO THE TABLE OF CHARACTERISTICS	
	6.1	Categories of Characteristics	
	6.2	States of Expression and Corresponding Notes	
	6.3	Types of Expression	7
	6.4	r	
	6.5	Legend	7
7.		BLE OF CHARACTERISTICS/TABLEAU DES RACTÈRES/MERKMALSTABELLE/TABLA DE CARACTERES	Q
8.		PLANATIONS ON THE TABLE OF CHARACTERISTICS	
o. 9.		ERATURE	
-			
10.	IEC	CHNICAL QUESTIONNAIRE	41

#### 1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Dianthus* L. (all vegetatively propagated varieties).

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

#### 60 cuttings

- 2.4 The plant material supplied should be visibly healthy, not lacking in vigor, nor affected by any important pest or disease.
- 2.5 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

#### 3. Method of Examination

#### 3.1 Number of Growing Cycles

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

### 3.2 Testing Place

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

#### 3.3 Conditions for Conducting the Examination

- 3.3.1 The tests should be carried out under conditions ensuring satisfactory growth for the expression of the relevant characteristics of the variety and for the conduct of the examination.
- 3.3.2 In particular, it may be necessary for separate growing trials to be established for cutflower types, garden types and pot types in order to ensure the satisfactory growth of varieties of those types.

3.3.3 The recommended method of observing the characteristic is indicated by the following key in the second column of the Table 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.

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

#### 3.4 Test Design

- 3.4.1 Each test should be designed to result in a total of at least 36 plants. Separate plots for observation and for measuring can only be used if they have been subject to similar environmental conditions.
- 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.
- 3.4.3 Before the cuttings are planted for the trial a virus test is performed. For this virus test 12 cuttings are used. Each sample is tested individually for the following viruses.

Carnation Mottle Virus
Carnation etched ring virus
Maximum accepted virus infection:
12 cuttings x 15 % = 1.8 virus infected cuttings

A sample will be considered as being positive for virus infection when in the tested sample 2 or more cuttings are positive for the mentioned virusses.

In case of doubt an additional virus test can be done on a part of the not tested cuttings.

3.5 Number of Plants / Parts of Plants to be Examined

Unless otherwise indicated, all observations should be made on 10 plants or parts taken from each of 10 plants. In the case of parts of plants, the number to be taken from each of the plants should be 10

#### 3.6 Additional Tests

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

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

#### 4.1 Distinctness

#### 4.1.1 General Recommendations

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

#### 4.1.2 Consistent Differences

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

#### 4.1.3 Clear Differences

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

#### 4.2 Uniformity

- 4.2.1 It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding uniformity. However, the following points are provided for elaboration or emphasis in these Test Guidelines:
- 4.2.2 For the assessment of uniformity, a population standard of 1 % and an acceptance probability of at least 95 % should be applied. in the case of a sample size of 36 plants, 2 off-types are allowed

#### 4.3 Stability

- 4.3.1 In practice, it is not usual to perform tests of stability that produce results as certain as those of the testing of distinctness and uniformity. However, experience has demonstrated that, for many types of variety, when a variety has been shown to be uniform, it can also be considered to be stable.
- 4.3.2 Where appropriate, or in cases of doubt, stability may be tested, either by growing a further generation, or by testing a new plant stock to ensure that it exhibits the same characteristics as those shown by the previous material supplied

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

- 5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness are aided by the use of grouping characteristics.
- 5.2 Grouping characteristics are those in which the documented states of expression, even where produced at different locations, can be used, either individually or in combination with other such characteristics: (a) to select varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness; and (b) to organize the growing trial so that similar varieties are grouped together.

The following have been agreed as useful grouping characteristics:

(a) Plant: cultural type

Type 1: one flower per stem

Type 2: spray

Type 3: pot carnation
Type 4: outdoor carnation

(b) Flower: type (characteristic 38)

Single (1)

Double (2)

(c) Flower: color group

Group 1: white or near white

Group 2: green

Group 3: yellow

Group 4: orange

Group 5: pink

Group 6: pink purple

Group 7: red

Group 8: violet

Group 9: violet red

The flower color group is determined by the main color of the petals; the main color is the color which is present in the greatest area; if, in case of bicolored or multicolored petals, none of the colors is clearly predominant then the lightest color will be the main color.

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

MG, MS, VG, VS: See Chapter 3.3.3

(+) see explanations on the table of characteristics in Chapter 8

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

		NB: exc	ample varieties to be	included in next ve	rsion	
	English	français	deutsch	español	Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
1.	<u>Disbudded varieties</u> <u>excluded:</u> Stem: laterals without flower buds or flowers					
QL	absent					1
	present					9
2.	Disbudded varieties excluded: Stem: number of internodes between epicalyx and lowest node with laterals with flower buds or flowers					
QL	one					1
	two					2
	three					3
	four					4
	more than four					5
3.	<u>Disbudded varieties</u> <u>excluded:</u> Plant: laterals flower buds or flowers of second order					
QL	absent					1

present

9

## TG/25/9(proj.1) Carnation, 2007-05-31 - 9 -

	English	français	deutsch	español	Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
4.	<u>Disbudded varieties</u> <u>excluded:</u> Varieties					
(+)	with laterals with flower buds or flowers only: Stem: arrangement of totality of flowers					
PQ	horizontal					1
	domed					2
	cylindrical					3
5.	<u>Disbudded varieties</u> <u>excluded:</u> Plant:					
(+)	arrangement of individual flowers, top flower excluded					
QL	one-flowered					1
	clustered					2
	one-flowered and clustered					3
<b>6.</b> (*)	Stem: total length of seven internodes (pot carnations five internodes) directly below flower (only to be observed if at least seven internodes (pot carnations five internodes) are present)					
QN	short					3
	medium					5
	long					7

## TG/25/9(proj.1) Carnation, 2007-05-31 - 10 -

	English	français	deutsch	español	Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
7.	Stem: thickness of fifth internode, (for pot carnation third internode) directly below flower					
QN	very thin					1
	thin					3
	medium					5
	thick					7
	very thick					9
8.	Stem: length of 5th internode, (for pot carnation third internode) directly below flower					
QN	short					3
	medium					5
	long					7
9.	Stem: cross section					
QL	circular					1
	edged					2
10.	Stem: hollowness					
QL	absent					1
	present					9
11. (*)	Leaf: shape					
PQ	ovate					1
	elliptic					2
	obovate					3

#### TG/25/9(proj.1) Carnation, 2007-05-31 - 11 -

	English	français	deutsch	español	Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
12. (*)	Leaf: length at 5th node, (for pot carnation third node) directly below flower					
QN	short					3
	medium					5
	long					7
13. (*)	Leaf: width at 5th node, (for pot carnation third node) directly below flower					
QN	narrow					3
	medium					5
	broad					7
14.	Leaf: longitudinal axis					
PQ	straight					1
	recurved					2
	rolled					3
15.	Leaf: cross section (upper side)					
PQ	straight					1
	weakly concave					3
	concave					5
	strongly concave					7
16.	Leaf: color					
PQ	yellow green					1
	green					2
	blue green					3

## TG/25/9(proj.1) Carnation, 2007-05-31 - 12 -

	English	français	deutsch	español	Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
17.	Leaf: waxy layer					
QN	absent or very weak					1
	weak					3
	medium					5
	strong					7
	very strong					9
18.	Leaf: spiny ciliation of margin					
QL	absent					1
	present					9
<b>19.</b> (*)	Bud: shape (immediately before color shows)	;				
PQ	globose					1
	cylindrical					2
	ovoid					3
	ellipsoid					4
	obovoid					5
20.	Bud: extrusion of styles					
QL	absent					1
	present					9
<b>21.</b> (*)	Flower: diameter					
QN	very small					1
	small					3
	medium					5
	large					7
	very large					9

#### TG/25/9(proj.1) Carnation, 2007-05-31 - 13 -

	English	français	deutsch	español	Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
22. (*) (+)	Flower: height of corolla					
QN	low					3
	medium					5
	tall					7
23. (*) (+)	Flower: profile of upper part of corolla					
PQ	concave					1
	flat					2
	flat convex					3
	convex					4
24. (*) (+)	Flower: profile of lower part of corolla					
PQ	concave					1
	flat					2
	flat convex					3
	convex					4
25.	Epicalyx: position of outer leaves in relation to calyx					
QL	adpressed					1
	free					2
26. (*) (+)	Epicalyx: apex of outer lobes					
QL	acute					1
	acuminate					2

#### TG/25/9(proj.1) Carnation, 2007-05-31 - 14 -

	English	français	deutsch	español	Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
27.	Epicalyx: length of					
(+)	apex of outer lobes					
QN	short					3
	medium					5
	long					7
28. (*) (+)	Epicalyx: apex of inner lobes					
QL	acute					1
	acuminate					2
29.	Epicalyx: length of					
(+)	apex of inner lobes					
QN	short					3
	medium					5
	long					7
30.	Calyx: length					
QN	short					3
	medium					5
	long					7
31. (*) (+)	Calyx: shape					
PQ	funnel-shaped					1
	cylindrical					2
	campanulate					3

## TG/25/9(proj.1) Carnation, 2007-05-31 - 15 -

	English	français	deutsch	español	Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
32.	Calyx: longitudinal axis of lobes (tip					
(+)	excluded)					
PQ	concave					1
	flat					2
	convex					3
33.	Calyx: anthocyanin coloration of lobes					
QL	absent					1
	present					9
34.	Calyx: position of anthocyanin coloration					
PQ	edge of lobe					1
	whole lobe					2
	whole calyx					3
35.	Calyx: hue of anthocyanin coloration					
PQ	reddish					1
	blackish					2
	purplish					3
36.	Calyx: shape of lobe	!				
(+)						
PQ	long acute					1
	short acute					2
	Short acuminate					3

#### TG/25/9(proj.1) Carnation, 2007-05-31 - 16 -

	English	français	deutsch	español	Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
37.	Calyx: length of lobe					
QN	short					3
	medium					5
	long					7
<b>38.</b> (*)	Flower: type					
QL	single					1
	double					2
<b>39.</b> (*)	Varieties with double flowers only: Flower: number of petals					
QN	few					3
	medium					5
	many					7
<b>40.</b> (+)	Petal: predominant shape	;				
QL	type 1					1
	type 2					2
	type 3					3
	type 4					4
	type 5					5
	type 6					6
41.	Petal: surface of blade					
PQ	flat					1
	undulate					2
	folded					3

## TG/25/9(proj.1) Carnation, 2007-05-31 - 17 -

	English	français	deutsch	español	Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>42.</b> (*) (+)	Petal: margin of blade					
PQ	entire					1
	sinuate					2
	crenate					3
	dentate					4
	serrate					5
	crenate-dentate					6
43.	Petal: depth of incisions of blade					
QN	very shallow					1
	shallow					3
	medium					5
	deep					7
	very deep					9
44.	Petal: length					
QN	short					3
	medium					5
	long					7
45.	Petal: width					
QN	narrow					3
	medium					5
	broad					7

#### TG/25/9(proj.1) Carnation, 2007-05-31 - 18 -

	English	français	deutsch	español	Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>46.</b> (*)	Petal: number of colors of blade (claw and macule excluded)					
PQ	one					1
	two					2
	three					3
	four					4
	more than four					5
<b>47.</b> (*)	More colored varieties only: Petal: color distribution of blade (claw and macule excluded)					
QL	picotee					1
	edged					2
	striated					3
	speckled					4
	picotee-striated					5
	picotee-speckled					6
	edged-striated					7
	edged-speckled					8
	picotee-striated- speckled					9
	edged-striated- speckled					10
	striated-speckled					11
	shading off					12
	flushed					13

## TG/25/9(proj.1) Carnation, 2007-05-31 - 19 -

	English	français	deutsch	español	Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>48.</b> (*)	Petal: main color (macule and claw excluded)					
PQ	RHS Colour Chart (indicate reference number)					
49.	Petal: main secondary color of blade (macule and claw excluded)					
PQ	white or near white					1
	yellow					2
	orange					3
	pink					4
	red					5
	pale purple					6
	purple					7
	violet					8
<b>50.</b> (*)	Petal: macule					
QL	absent					1
	present					9
51.	Petal: macule: mair color	1				
PQ	RHS Colour Chart (indicate reference number)					

## TG/25/9(proj.1) Carnation, 2007-05-31 - 20 -

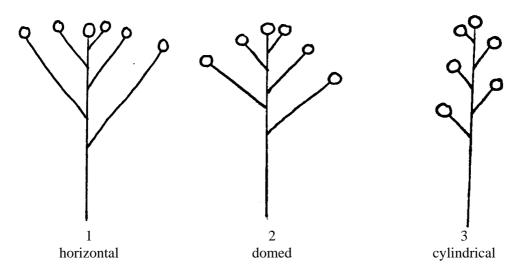
	English	français	deutsch	español	Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
<b>52.</b> (*)	Ovary: shape					
PQ	globose					1
	ellipsoid					2
	ovoid					3
	obovoid					4
	rhomboid					5
53.	Ovary: main color of lower part					
PQ	whitish					1
	yellowish					2
	green					3
54.	Ovary: surface					
QL	smooth					1
	ribbed					2
55.	Styles: number					
QL	only two					1
	two and three					2
	only three					3
	three and four					4
	only four					5
	two, three and four					6
	more than four					7
56.	Style: length					
QN	short					3
	medium					5
	long					7

## TG/25/9(proj.1) Carnation, 2007-05-31 - 21 -

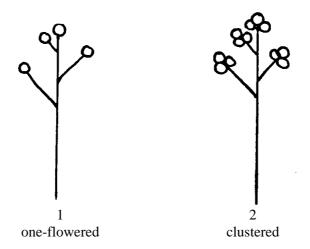
	English	français	deutsch	español	Example varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
57.	Style: shoulder					
(+)						
QL	absent					1
	present					9
<b>58.</b> (*)	Stigma: color					
PQ	white or cream					1
	yellow					2
	pink					3
	white with red flush					4
	white with purple flush					5
	red					6
	pale purple					7
	purple					8

## 8. Explanations on the Table of Characteristics

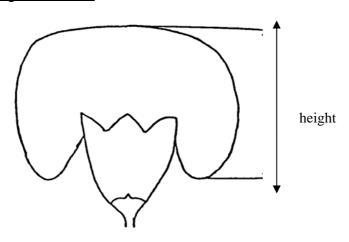
# Ad. 4: Varieties with laterals with flower buds or flowers only: Stem: arrangements of totality of flowers



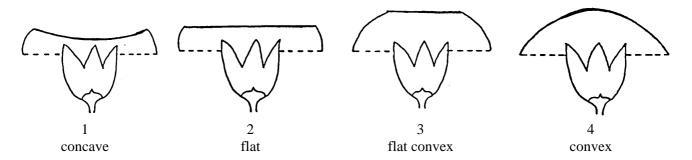
## Ad. 5: Plant: arrangement of individual flowers (non disbudded plants, top flower excluded)



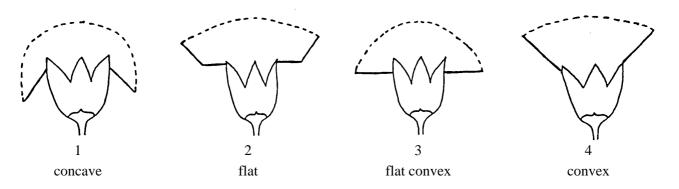
## Ad. 22: Flower: height of corolla



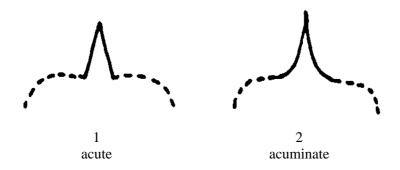
## Ad. 23: Flower: profile of upper part of corolla



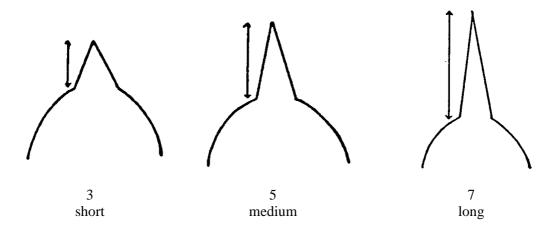
Ad. 24: Flower: profile of lower part of corolla



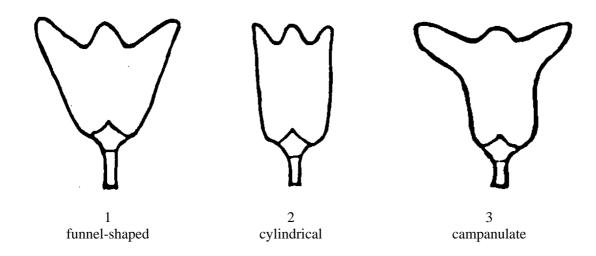
Ad. 26+ 28+ 36: Epicalyx: apex of outer/inner lobes



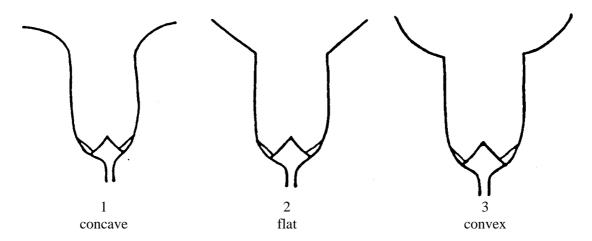
Ad. 27+ 29: Epicalyx: length of apex of outer/inner lobes



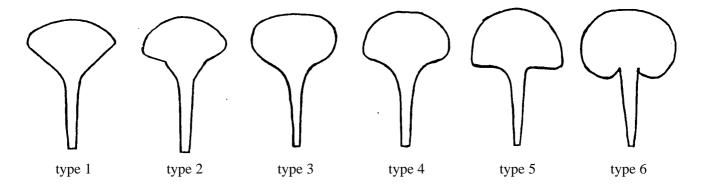
Ad. 31: Calyx: shape



Ad. 32: Calyx: longitudinal axis of lobes (tip excluded)



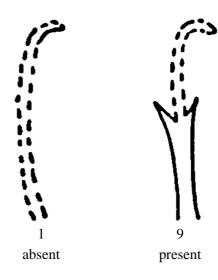
Ad. 40: Petal: predominant shape



## Ad. 42: Petal: margin of blade

1	entire	
2	sinuate	~~~~~~~
3	crenate	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
4	dentate	
5	serrate	
6	crenate-dentate	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

## Ad. 57: Style: shoulder



TG/25/9(proj.1) Carnation, 2007-05-31 - 26 -

## 9. <u>Literature</u>

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

## 10. <u>Technical Questionnaire</u>

TECHNICAL QUESTIONNAIR	RE	Page {x} of {y}	Reference Number:
			Application date: (not to be filled in by the applicant)
		HNICAL QUESTIONN etion with an application	NAIRE on for plant breeders' rights
1. Subject of the Technical	Que	estionnaire	
1.1 Botanical name			
1.2 Common name			
2. Applicant			
Name			
Address			
Telephone No.			
Fax No.			
E-mail address			
Breeder (if different from application)	ant)		
3. Proposed denomination a	and l	oreeder'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 cr		[ ]
(b) partially kno		[ ]
(please state (c) unknown cro	known parent variety(ies oss	s)) [ ]
4.1.2 Mutation (please state	parent variety)	[ ]
<u> </u>	d development where and when discove eloped)	[ ] red
4.1.4 Other (please provi	de details)	[ ]
4.2 Method of propagati	ng the variety	
4.2.1 Vegetative p	ropagation	
<ul><li>(a) cuttings</li><li>(b) in vitro propa</li><li>(c) other (state note)</li></ul>	•	[ ] [ ] [ ]

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

5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the note which best corresponds).

	Characteristics Example Varieties	Note
5.1	Plant: cultural type	
	Type 1: one flower per stem	1 [ ]
	Type 2: spray	2 [ ]
	Type 3: pot carnation	3[]
	Type 4: outdoor carnation	4 [ ]
5.2 (38)	Flower: type	
	single	1 [ ]
	double	2 [ ]
5.3	Flower: colour group	
	white or near white	1 [ ]
	green	2 [ ]
	yellow	3[]
	orange	4 [ ]
	pink	5[ ]
	purple	6[ ]
	red	7[ ]
	violet	8[ ]
	violet red	9[ ]
	The flower color group is determined by the main color of the petals; the main color is the color which is present in the greatest area; if, in case of bicolored or multicolored petals, none of the colors is clearly predominant then the lightest color will be the main color.	

TECHNICAL QUESTI	ONNAIRE	Page {x} o	of {y}	Reference Nu	mber:		
6. Similar varieties and differences from these varieties							
Please use the followi candidate variety differ is (or are) most simila examination of distinct	rs from the va r. this inforn	riety (or va nation may	rieties) wh help the ex	ich, to the bes	t of your knowledge, hority to conduct its		
Denomination(s) of variety(ies) similar to	Characteri which your	` '		the expression aracteristic(s)	Describe the expression of the		
your candidate variety	variety diffe similar va	rs from the	for the <b>similar</b> variety(ies)		characteristic(s) for <b>your</b> candidate variety		
Example	flower color		orange		orange red		
Comments:							

TEC	HNICAI	. QU	ESTIONNAIRE	Page	{x}	} o	f {y}	Reference Number:
#7.	Additio	nal i	nformation which	may he	elp i	in	the examir	nation of the variety
7.1			to the informatio cs which may help					s 5 and 6, are there any additional ety?
	Yes	[ ]	l	No	[	]	I	
	(if yes,	pleas	se provide details)					
7.2	Are th	iere a	ny special condition	ons for	gro	)W	ing the var	riety or conducting the examination?
	Yes	[ ]	l	No	[	]		
	(if yes,	pleas	se provide details)					
7.3	Other	infor	rmation					
	7.2	1	Main yaa					
	7.3	. 1	Main use					
			<ul><li>(a) garden plant</li><li>(b) pot plant</li><li>(c) cut-flower</li><li>(d) other [ ]</li><li>(please provide d)</li></ul>	[ ]				
			(please provide d	etans)				
"a rej	presenta	ive c	olor photograph o	f the va	riet	ty	should acc	company the technical questionnaire."
8.	Autho	 orizat	ion for release					
	(a) concern		•	-	-			ation for release under legislation and animal health?
		Yes	s [ ] No	[ ]				
	(b)	Has	s such authorization	n been	obt	tai	ned?	
		Yes	s [] No	[ ]				
	If the	answ	ver to (b) is yes, plo	ease att	ach	a	copy of th	e authorization.

## TG/25/9(proj.1) Carnation, 2007-05-31 - 32 -

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:	
9. Information on plant material	to be examined or sub	mitted for examination.	
9.1 The expression of a character affected by factors, such as pests are pesticides), effects of tissue culture, phases of a tree, etc.	nd disease, chemical tr	eatment (e.g. growth retarda	ints or
9.2 The plant material should not expression of the characteristics of request such treatment. if the plant is treatment must be given. in this respirit the plant material to be examined h	the variety, unless the material has undergone ect, please indicate bel	ne competent authorities alle e such treatment, full details	ow or of the
(a) Microorganisms (e.g. vir	us, bacteria, phytoplasi	ma) Yes [ ] No	[]
(b) Chemical treatment (e.g.	growth retardant, pesti	cide) Yes [ ] No	[]
(c) Tissue culture Yes [	] No [ ]		
(d) Other factors Yes [	] No [ ]		
Please provide details for wher	e you have indicated "	yes".	
"9.3 Has the plant material to be pathogens?	examined been tested	for the presence of virus or	other
Yes [ ]			
(please provide details as s	pecified by the authori	(y)	
No [ ]"			
10. I hereby declare that, to the form is correct:	best of my knowledge	e, the information provided i	n this
Applicant's name			
Signature			

[End of document]