

UPOV

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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT

CHRYSANTHEMUM

UPOV Codes:
CHRYSA_MOR; CHRYSA_PAC
and relevant linked codes

Chrysanthemum x morifolium Ramat.
(*Chrysanthemum x grandiflorum* Ramat.),
Chrysanthemum pacificum Nakia
(*Ajania pacifica* Bremer and Humphries),
and hybrids between them

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

*prepared by an expert from
the United Kingdom*

*to be considered by the Technical Working Party for Ornamental Plants and Forest Trees
at its thirty-eighth session, to be held in Seoul, Korea, from September 12 to 16, 2005*

Alternative Names:*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Chrysanthemum x grandiflorum</i> Ramat., <i>Chrysanthemum x morifolium</i> Ramat., <i>Dendranthema x grandiflorum</i> (Ramat.) Kitam., <i>Dendranthema x morifolium</i> (Ramat) Tzvelev	Chrysanthemum, Florists Chrysanthemum, Perennial Chrysanthemum	Chrysanthème	Chrysantheme	Crisantemo
<i>Ajania pacifica</i> Bremer and Humphries, <i>Chrysanthemum pacificum</i> Nakia	Ajania, Gold and Silver Chrysanthemum, Iso-giko			

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.

Other associated UPOV 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/222: *Argyranthemum* (*Argyranthemum frutescens* (L.) Schultz-Bip. (*Chrysanthemum frutescens* L.))

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Chrysanthemum ×morifolium* Ramat. (*Chrysanthemum x grandiflorum* Ramat.), *Chrysanthemum pacificum* Nakia (*Ajania pacifica* Bremer and Humphries), and hybrids between them.

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 unrooted cuttings.

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

20 unrooted 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. In particular, growth regulators should not be used. Varieties should be disbudded if bred for such use, but where necessary, in the case of dual purpose varieties, distinctness should also be checked on non-disbudded plants.

3.3.2 Unless otherwise indicated, the optimum stage of development for the assessment of the characteristics is 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 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 *Number of Plants / Parts of Plants to be Examined*

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.

3.6 *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 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 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.

5.3 The following have been agreed as useful grouping characteristics:

- (a) Plant: natural habit (characteristic 2)
- (b) Flower head: type (characteristic 30)
- (c) Excluding double varieties: Disc type (characteristic 31)
- (d) Ray floret: number of colors of the inner side (characteristic 62)
- (e) Ray floret: first color of the inner side by group (characteristic 63)
- (f) Only ray floret with more than one color: Ray floret: second color of the inner side by group (characteristic 65)

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

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

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

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
1.	Plant: height					
(*)						
QN	(a)	short			Machismo Time	3
		medium			Dekyen	5
		tall			Figrand	7
2.	Plant: natural habit					
(*)						
(+)						
QL	(a)	non bushy			Reagan, Anastasia, Casmó, Boulou	1
		bushy			Tripoli, Guitpolin, Elda White, Golden Mariyo	2
3.	Only bushy varieties: Plant: overall shape					
(*)						
(+)						
PQ	(a)	upright			Golden Mariyo	1
		semi upright			Veria Dark	2
		hemispherical			Elda White	3
		spreading				4
		trailing			Fancy That	5
4.	Only bushy varieties: Plant: density of branching					
QN	(a)	sparse			Golden Mariyo	3
		medium			Veria Dark	5
		dense			Elda White	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
5.	Stem: color					
PQ	(a)	green			Yoko Ono	1
	(b)	green tinged with purple or brown			Fancy That	2
		brown				3
		purple			Vymini	4
6.	Stipule: size					
QN	(a)	absent or very small			Zeemimosa	1
	(b)	small			Vymini	3
		medium			Yoko Ono	5
		large			Orinocco	7
7.	Petiole: attitude					
	(+)					
QN	(a)	very strongly upwards			Rex	1
	(c)	moderately upwards			Dekyen	3
		horizontal			Boris Becker	5
		moderately downwards			Breeze	7
		drooping				9
8.	Petiole: length relative to leaf length					
QN	(a)	short			Vymini	3
	(c)	medium			Figrand	5
		long				7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
9. (*)	Leaf: length including petiole					
QN	(a) short				Molfetta Pink	3
	(c) medium				Figrand	5
	long				Yellow Wonder	7
10. (*)	Leaf: width					
QN	(a) narrow				Molfetta Pink	3
	(c) medium				Figrand	5
	broad				Buttermere Anne	7
11. (*)	Leaf: ratio length/width					
QN	(a) low				Buttermere Anne	3
	(c) medium				Figrand	5
	high				Dekyen	7
12. (*) (+)	Leaf: length of terminal lobe relative to leaf length					
QN	(a) short				Le Mans	3
	(c) medium				Figrand	5
	long				Vymini	7
13. (*) (+)	Leaf: length of lowest lateral sinus					
QN	(a) short				Bea	3
	(c) medium				Scott	5
	long				Figrand	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
14.	Leaf: margins of lowest lateral sinus					
PQ	(a)	diverging			Zeemimosa	1
	(c)	parallel			Alma-Ata	2
		converging			Arusha Dark Pink	3
		touching			Vymini	4
		overlapping			Figrand	5
15. (*) (+)	Leaf: predominant shape of base					
PQ	(a)	acute			Zeemimosa	1
	(c)	obtuse			Machismo Time	2
		rounded			Repulse	3
		truncate			Alma-Ata	4
		cordate			Scott	5
		asymmetric				6
16.	Leaf: glossiness of upper side					
QN	(a)	absent or very weak			Veria Dark	1
	(c)	weak			Breeze	2
		strong			Repulse	3

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
17. (*)	Leaf: green color of <u>upper</u> side					
QN	(a)	light				3
	(c)	medium			Ruby Red Reagan	5
		dark			Dekyen	7
18. (*) (+)	<u>Excluding</u> <u>Chrysanthemum x</u> <u>grandiflorum</u>: Leaf: upper surface: prominence of pale margin					
QN	(a)	absent or very weak			Branjania Lotta	1
	(c)	weak				3
		medium			Mont Blanc	5
		strong			Zeemimosa	7
19. (*)	<u>Excluding</u> <u>Chrysanthemum x</u> <u>grandiflorum</u>: Leaf: pubescence of <u>lower</u> side					
QN	(a)	weak				3
	(c)	medium			Benny	5
		strong			Zeemimosa	7
20. (*)	<u>Excluding</u> <u>Chrysanthemum x</u> <u>grandiflorum</u>: Leaf: colour of <u>lower</u> side					
	(a)	RHS colour chart: indicate reference				
	(c)	number				

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
21.	Leaf margin: number of indentations						
(+)							
QN	(a)	low			Bea	3	
	(c)	medium			Le Mans	5	
		high			Vymini	7	
22.	Leaf margin: depth of indentations						
(+)							
QN	(a)	shallow			Anastasia	3	
	(c)	medium			Le Mans	5	
		deep			Machismo Time	7	
23.	<u>Only non-bushy varieties:</u> Inflorescence: form						
(+)							
PQ	(e)	flat-corymbiform				1	
		corymbiform			Machismo Time	2	
		cylindrical			Premium Time	3	
		conical			Breeze	4	
		deeply domed			Yoko Ono	5	
24.	<u>Only non-bushy varieties:</u> Inflorescence: width at widest point						
(+)							
QN	(e)	narrow			Premium Time	3	
		medium			Figrand	5	
		broad				7	

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
25. (* (+)	Only non-bushy varieties: Inflorescence: angle between primary lateral shoot and stem					
QN (e)	small				Delianne	3
	medium				Dekyen	5
	large				Repulse	7
26. (+)	Only non-bushy varieties: Inflorescence: attitude of lateral flower heads					
QN (e)	upright				Scott	1
	semi upright				Ruby Red Reagan	3
	horizontal				Premium Time	5
	nodding					7
27. (+)	Only non-bushy varieties: Total number of flower heads per stem					
QN (e)	low				Delianne	3
	medium				Vymini	5
	high				Breeze	7
28. (+)	Only bushy varieties: Total number of flower heads per plant					
QN	low				Golden Mariyo	3
	medium				Balios	5
	high				Elda White	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
29.	Flower bud: color of outer side just before opening						
PQ	(a)	RHS colour chart: indicate reference number					
	(d)						
30.	Flower head: type						
(*)							
(+)							
PQ	(d)	without ray florets			Zeemimosa	1	
		single			Repulse	2	
		semi double			Figrand	3	
		daisy eyed double			Veria Dark	4	
		double			Delianne	5	
31.	Excluding double varieties: Disc type						
(*)							
(+)							
PQ	(d)	daisy			Figrand	1	
		anemone			Le Mans	2	
32.	Flower head: diameter						
(*)							
QN	(d)	small			Yoko Ono	3	
	(e)	medium			Ruby Red Reagan	5	
		large			Delianne	7	
33.	Only disbudded plants: Flower head: diameter						
(*)							
QN	(d)	small			Boris Becker	3	
		medium				5	
		large			Anastasia	7	

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
34.	Flower head: height					
QN (d)	low				Dekyen	3
	(e) medium				Figrand	5
	high					7
35.	Only disbudded plants: Flower head: height					
QN (d)	low				Anastasia	3
	medium				Anlymp	5
	high					7
36.	Flower head: length of peduncle					
QN (d)	short				Vymini	3
	medium				Delianne	5
	long				Ruby Red Reagan	7
37.	Only semi double and daisy eyed double varieties: Flower head: number of whorls of ray florets					
QN (d)	low				Vymini	3
	medium				Fancy That	5
	high				Veria Dark	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
38. (*)	Only single and semi-double varieties: Flower head: number of ray florets					
QN	(d) low				Repulse	3
	medium				Figrand	5
	high				Vymini	7
39. (*)	Only double and daisy eyed double varieties: Flower head: density of ray florets					
QN	(d) sparse				Balios	3
	medium				Delianne	5
	dense				Anlymp	7
40. (*)	Flower head: number of types of ray florets					
PQ	(d) one				Figrand	1
	two				Banjax	2
	more than two				Arusha Dark Pink	3
41. (*) (+)	Flower head: predominant type of ray floret					
PQ	(d) ligulate				Figrand	1
	incurved				Anlymp, Boulou	2
	spatulate				Banjax	3
	quilled				Anastasia	4
	funnel shaped				Repulse	5

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
42. (*) (+)	Flower head: secondary type of ray floret					
PQ	(d)	ligulate				1
		incurved				2
		spatulate			Arusha Dark Pink	3
		quilled			Banjax	4
		funnel shaped				5
43. (+)	Flower head: tertiary type of ray floret					
	(d)	ligulate				1
		incurved				2
		spatulate				3
		quilled			Arusha Dark Pink	4
		funnel shaped				5
44. (*)	Only single and semi double varieties: Ray floret: attitude of origin					
QN	(d)	moderately ascending			Dekyen	3
	(f)	horizontal			Vymini	5
		moderately descending			Tango	7
45. (+)	Ray floret: upper surface					
PQ	(d)	smooth			Elda White	1
	(f)	ribbed			Ruby Red Reagan	2
		keeled			Vymini	3

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
46.	Ray floret: number of keels					
(+)						
PQ	(d)	one				1
	(f)	two			Vymini	2
		more than two				3
47.	Ray floret: length of corolla tube					
(*)						
QN	(d)	short			Yoko Ono	3
	(f)	medium				5
		long			Repulse	7
48.	Excluding quilled florets: Ray floret: profile in cross section at widest point					
(*)						
(+)						
PQ	(d)	strongly concave with margins overlapping				1
	(f)	strongly concave with margins touching				2
		strongly concave			Anlymp	3
		moderately concave			Yoko Ono	4
		weakly concave			Golden Mariyo	5
		flat				6
		weakly convex			Le Mans	7
		moderately convex			Machismo Time	8
		strongly convex				9
		strongly convex with margins touching				10
		strongly convex with margins overlapping				11

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
49.	<u>Excluding quilled florets:</u> Ray floret:						
(+)	rolling of margin						
PQ	(d)	strongly involute					1
	(f)	moderately involute				Boris Becker	2
		weakly involute					3
		flat (not rolled)				Figrand	4
		weakly revolute				Tango	5
		moderately revolute				Machismo Time	6
		strongly revolute					7
50.	<u>Excluding quilled florets:</u> Ray floret:						
	position of part with rolled margin						
PQ	(d)	basal quarter					1
	(f)	basal half				Boris Becker	2
		basal three quarters					3
		middle half					4
		distal three quarters					5
		distal half				Machismo Time	6
		distal quarter					7
		throughout					8

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
51.	Only spatulate and quilled ray florets:					
	Profile of tube					
PQ	(d)	circular			Repulse	1
	(f)	oblate				2
		flattened			Anastasia	3
52.	Ray floret:					
(*)	longitudinal axis					
(+)						
PQ	(d)	incurving			Anlymp	1
	(f)	straight			Alma-Ata	2
		reflexing			Ruby Red Reagan	3
		sinusoidal				4
		twisted			Lunar Time	5
		broken				6
53.	Excluding straight ray florets: Ray floret: longitudinal axis: proportion not straight					
QN	(d)	distal quarter			Ruby Red Reagan	3
	(f)	distal half			Anlymp	5
		distal three quarters				7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
54.	Excluding straight ray florets: Ray floret: longitudinal axis: strength of curvature					
(+)						
QN	(d)	weak			Ruby Red Reagan	3
	(f)	medium			Anlymp	5
		strong				7
55.	Ray floret: longitudinal axis of majority, if different					
(+)						
PQ	(d)	incurving				1
	(f)	straight				2
		reflexing				3
		sinusoidal				4
		twisted				5
		broken				6
56.	Excluding straight ray florets: Ray floret: longitudinal axis of majority, if different: proportion not straight					
QN	(d)	distal quarter				3
	(f)	distal half				5
		distal three quarters				7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
57.	Excluding straight ray florets: Ray floret: longitudinal axis of majority, if different: strength of curvature					
(+)						
QN	(d)	weak				3
	(f)	medium				5
		strong				7
58.	Ray floret: length					
(*)						
QN	(d)	short			Dekyen	3
	(f)	medium			Figrand	5
		long			Delianne	7
59.	Ray floret: width					
(*)						
QN	(d)	narrow			Dekyen	3
	(f)	medium			Figrand	5
		broad			Boulou	7
60.	Ray floret: ratio length/width					
(*)						
QN	(d)	low			Vymini	3
	(f)	medium			Figrand	5
		high			Delianne	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
61.	Ray floret: shape of tip					
PQ	(d) pointed				Figrand	1
	(f) rounded				Machismo Time	2
	truncate					3
	emarginate					4
	dentate				Dekyen	5
	mamillate				North Bay	6
	fringed				Molfetta	7
	lacinate					8
62.	Ray floret: number of colors of the inner side					
(*)						
PQ	(d) one				Figrand	1
	(f) two				Machismo Time	2
	(g) more than two					3

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
63. (*)	Ray floret: <u>first</u> color of the inner side by group					
PQ	(d) white				Anastasia	1
	(f) off white				Delianne	2
	(g) yellow				Veria Dark	3
	bronze				Machismo Time	4
	orange				Balios	5
	salmon				Reagan Elite Salmon	6
	pink				Reagan	7
	red				Ruby Red Reagan	8
	red purple				Scott	9
	purple					10
	green				Yoko Ono	11
	silver grey					12
64. (*)	Ray floret: <u>first</u> color of the inner side					
	(d) RHS colour chart -					
	(f) indicate reference					
	(g) number					

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
65. (*)	Only ray floret with more than one color: Ray floret: <u>second color of the inner side by group</u>					
PQ	(d)	white				1
	(f)	off white				2
	(g)	yellow				3
		bronze				4
		orange				5
		salmon				6
		pink			North Bay	7
		red			Machismo Time	8
		red purple			Orinocco	9
		purple				10
		green				11
		silver grey				12
66. (*)	Only ray floret with more than one color: Ray floret: <u>second color of the inner side</u>					
	(d)	RHS colour chart -				
	(f)	indicate reference				
	(g)	number				

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
67.	Only ray floret with						
(*)	more than one color:						
(+)	Distribution of						
	<u>second colour</u>						
PQ	(d)	at tip				1	
	(f)	distal 1/4				2	
	(g)	distal 1/2				3	
		distal 3/4			Breeze	4	
		basal 3/4			Machismo Time	5	
		basal 1/2			Culata	6	
		basal 1/4			Lunar Time	7	
		at base				8	
		on margin				9	
		on marginal zone				10	
		central lengthways zone			North Bay	11	
		widthways zone				12	
		throughout			Ceartist Pink	13	
68.	Only ray floret with						
(*)	more than one color:						
(+)	Pattern of <u>second</u>						
	colour						
PQ	(d)	solid or nearly so			Machismo Time	1	
	(f)	flushed			Culata	2	
	(g)	diffuse stripes				3	
		clearly defined stripes				4	
		flecked				5	
		flecked and striped			Ceartist Pink	6	
		mottled				7	

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
69.	<p>Only ray floret with more than two colors: Ray floret: third color of the inner side by group</p>					
PQ	(d)	white				1
	(f)	off white				2
	(g)	yellow				3
		bronze				4
		orange				5
		salmon				6
		pink				7
		red				8
		red purple				9
		purple				10
		green				11
		greyish				12
70.	<p>Only ray floret with more than two colors: Ray floret: third color of the inner side</p>					
	(d)	RHS colour chart -				
	(f)	indicate reference				
	(g)	number				

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
71.	Only ray floret with more than two colors: Distribution of <u>third</u> colour					
(+)						
PQ	(d)	at tip				1
	(f)	distal 1/4				2
	(g)	distal 1/2				3
		distal 3/4				4
		basal 3/4				5
		basal 1/2				6
		basal 1/4				7
		at base				8
		on margin				9
		on marginal zone				10
		central lengthways zone				11
		widthways zone [band]				12
		throughout				13

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
72.	Only ray floret with more than two colors: Pattern of third colour					
(+)						
PQ	(d)	solid or nearly so				1
	(f)	flushed				2
	(g)	diffuse stripes				3
		clearly defined stripes				4
		flecked				5
		flecked and striped				6
		mottled				7
73.	Ray floret: color of the <u>outer</u> side (including tube for quilled and spatulate florets)					
(*)						
PQ	(d)	similar to inner side			Figrand	1
	(f)	markedly different			Repulse	2

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
74. (*)	Ray floret: color of the <u>outer</u> side, where markedly different to inner side, by group					
PQ	(d) white					1
	(f) off-white					2
	yellow				Repulse	3
	bronze					4
	orange					5
	salmon				Dominica	6
	pink				Delbrestar	7
	red				Delbrestar Yellow	8
	red purple					9
	purple					10
	green					11
	silver grey				Boulou	12
75. (*)	Ray floret: color of the <u>outer</u> side, where markedly different to inner side					
	(d) RHS Colour Chart - indicate reference					
	(f) number					
76.	<u>Only double and daisy-eyed double varieties:</u> Ray floret: color of the <u>inner</u> side of the <u>inner</u> florets, if different					
	(d) RHS Colour Chart - indicate reference number					

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
77.	<p>Only double and daisy-eyed double varieties: Ray floret: colour of the <u>outer</u> side of the <u>inner</u> florets, if different</p> <p>(d) RHS Colour Chart - indicate reference number</p>					
78.	<p>Only single and semi-double varieties with daisy type disc: Disc: diameter</p>					
QN	(d) small				Breeze	3
	medium				Machismo Time	5
	large				Figrand	7
79.	<p>Only single and semi-double varieties with anemone type disc: Disc: diameter</p>					
QN	(d) small				Billion Pink	3
	medium				Le Mans	5
	large				Banjax	7
80. (* (+)	<p>Only single and semi-double varieties: Disc diameter relative to head diameter</p>					
QN	(d) small				Scott	3
	medium				Figrand	5
	large				Vymini	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
81.	Only daisy type disc:					
(+)	Disc: profile in cross section					
PQ	(d)					
						1
					Dekyen	2
					Vymini	3
						4
					Tango	5
					Figrand	6
82.	Only daisy type disc:					
(*)	Disc: color group before anther dehiscence					
PQ	(d)					
						1
	(h)					
					Figrand	2
					Machismo Time	3
					Sweet Cherie	4
						5
						6
						7
					Vymini	8
					Acapulco	9
						10

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
83. (*)	Only daisy type disc: Disc: presence of dark spot at centre before anther dehiscence					
QL	(d)	absent			Reagan	1
	(h)	present			High Way	9
84.	Only daisy type disc: Disc: size of dark spot at centre before anther dehiscence, relative to disc size					
PQ	(d)	small			Retaco	3
	(h)	medium			High Way	5
		large			Vyking Orange	7
85.	Only daisy type disc: Disc: color of dark central spot before anther dehiscence					
		RHS Colour Chart - indicate reference number				
86. (*)	Only anemone type disc: Disc: color before anther dehiscence					
	(d)	RHS Colour Chart - indicate reference number				
	(h)	number				

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
87.	Only daisy type disc: Disc: color group at anther dehiscence					
PQ	(d) whitish					1
	green					2
	yellowish green				Figrand	3
	yellow				Ruby Red Reagan	4
	yellow orange				Machismo Time	5
	orange					6
	reddish brown				Vymini	7
	brown					8
	brownish black					9
	purplish black					10
88.	Only anemone type disc: Disc: color at anther dehiscence					
(*)	(d) RHS Colour Chart - indicate reference number					
89.	Only anemone type disc: Disc floret: type					
(+)	(d) enlarged tubular				Yovisalia	1
	funnel shaped					2
	quilled				Banjax	3
	needle shaped				Billion Pink	4
	petaloid				Yograceland	5

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
90.	<u>Only anemone type</u> <u>disc:</u> Disc floret: length					
QN (d)	short				Yovisalia	3
	medium					5
	long				Banjax	7
91.	<u>Only anemone type</u> <u>disc:</u> Disc floret: colour					
(d)	RHS Colour Chart - indicate reference number					
92.	<u>Only where grown</u> <u>with precise</u> <u>daylength control:</u> Response group					
QN (i)	less than 6 weeks					1
	6 weeks				Dekyen	2
	7 weeks				Figrand	3
	8 weeks				Scott	4
	9 weeks				Zeemimosa	5
	10 weeks					6
	11 weeks					7
	12 weeks					8
	more than 12 weeks					9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
93.	Only where grown without precise daylength control: Natural flowering period					
QN	(i)					1
					Yoursula	2
					Destino Pink	3
					Golden Mariyo	4
					Elda White	5
					Veria Dark	6
					Alfredus	7
						8
						9

8. Explanations on the Table of Characteristics

8.1 *Explanations covering several characteristics*

Unless otherwise indicated below, all characteristics should be recorded at the time of full flowering. In single and semi-double varieties this is when the outer two to three rows of disc florets in the terminal flower head have dehisced; in double flowered varieties it is when the terminal flower head is fully open but before it starts to look tired.

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

- (a) Plant, stem, stipule, petiole, leaf and bud characteristics should be observed when the terminal buds are showing full color, just before they begin to open.
- (b) Stem characteristics should be observed on the middle third of the stem.
- (c) Leaf characteristics should be observed on typical leaves taken from the middle third of the stem.
- (d) Flower head characteristics should be recorded on the terminal flower head.
- (e) These characteristics should only be observed on varieties which are grown as sprays without disbudding. In the case of dual-purpose varieties, these characteristics should be observed on the non-disbudded part of the trial. For varieties which are always disbudded or which naturally produce no laterals, these characteristics are not recorded.
- (f) Ray floret characteristics should be observed on the outermost row of florets, unless otherwise indicated. If there are no ray florets, these characteristics are not recorded.
- (g) In single colored ray florets the first color will be the only color. In ray florets where there is more than one color, the first color is defined as the palest color on the floret, regardless of the surface area covered. The second color is the second palest (regardless of surface area) and the third color is the third palest (regardless of surface area).
- (h) These characteristics should be observed after the flower bud has opened, but before the disc florets begin to dehisce
- (i) Chrysanthemums can be grown under a very wide range of cultural regimes depending on climate and region. Varieties may be specifically adapted to one form of culture or another, or they may be multi-purpose, and this should be taken into consideration when designing the trial and selecting comparison varieties.

When varieties are grown and flowered by means of precise artificial daylength control, under an All Year Round (AYR) type system, the Response Group (Characteristic 105) can be recorded.

The Response Group is defined as the number of weeks, to the nearest whole week, from the start of the short day treatment to the production of an inflorescence with at least four fully developed heads in 50% of the plants.

For varieties grown under natural environmental control, the Natural Flowering Period (Characteristic 106) should be recorded.

Exact comparisons between varieties for these characteristics are only meaningful when the varieties are grown under the same conditions and at the same location.

8.2 *Explanations for individual characteristics*

Ad. 2: Plant: natural habit

1. Non bushy: varieties with strong apical dominance which naturally produce a single stem, with or without laterals, unless pinched.
2. Bushy: varieties with weak apical dominance which naturally produce bushy growth with no main single stem.

Ad. 3. Only bushy varieties: Plant: overall shape



1
upright



2
semi-upright



3
hemispherical

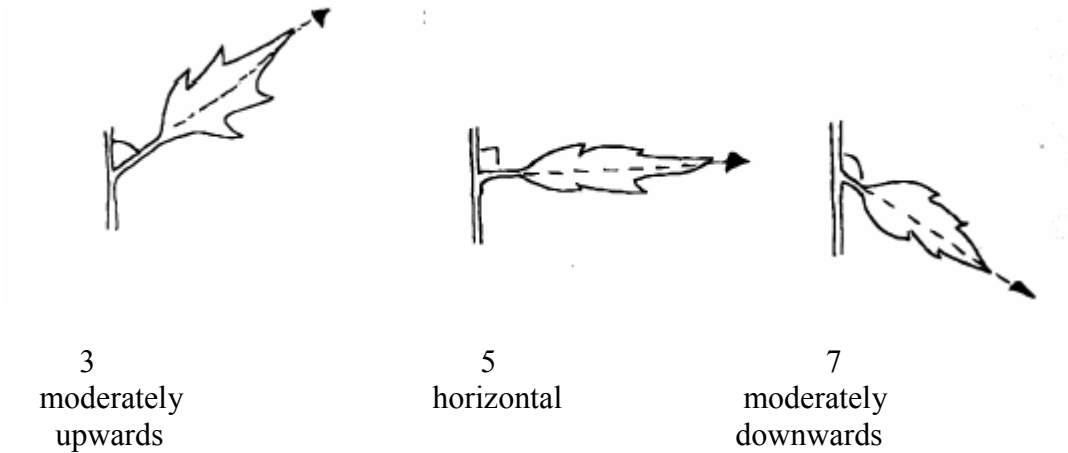


4
spreading

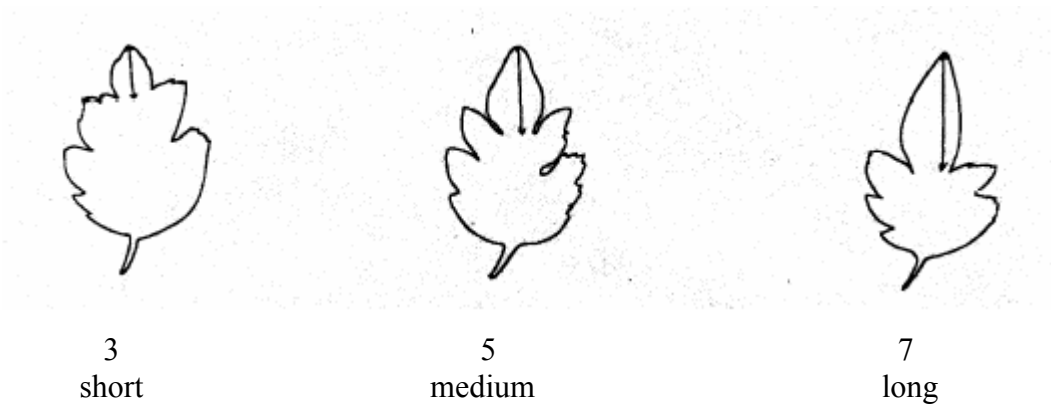


5
trailing

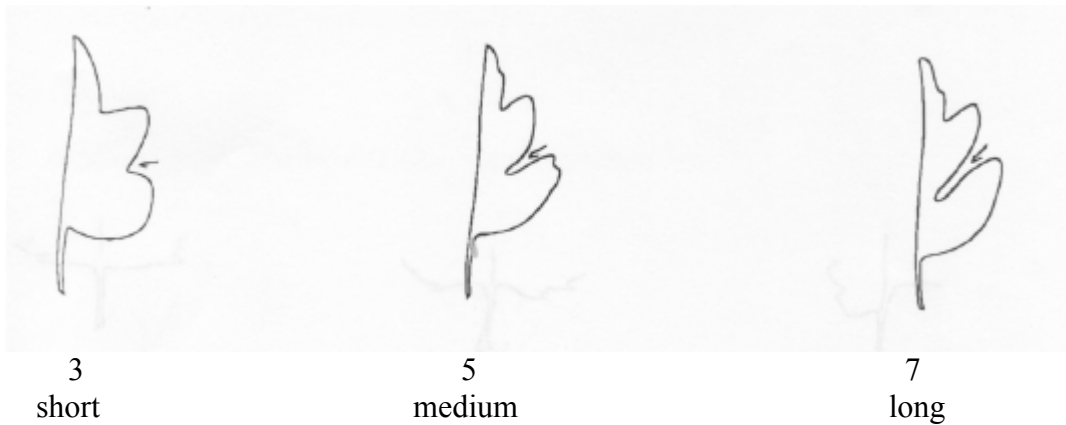
Ad. 7: Petiole: attitude



Ad. 12: Leaf: length of terminal lobe relative to leaf length



Ad. 13: Leaf: length of lowest lateral sinus



Ad. 15: Leaf: predominant shape of base



1
acute



2
obtuse



3
rounded



4
. truncate

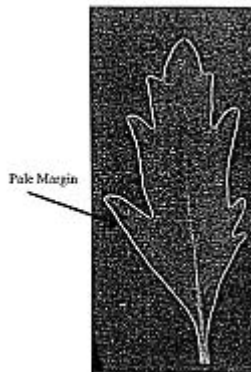


5
cordate



6
asymmetric

Ad. 18: Excluding *Chrysanthemum x grandiflorum*: Leaf: upper surface: prominence of pale margin



Ad. 21: Leaf margin: number of indentations



3
low



5
medium



7
. high

Ad. 22: Leaf margin: depth of indentations



3
shallow



5
medium

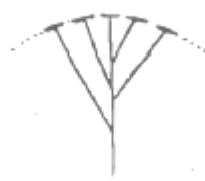


7
deep

Ad. 23: Only non-bushy varieties: Inflorescence: form



1
flat-corymbiform



2
corymbiform



3
cylindrical



4
conical



5
deeply domed

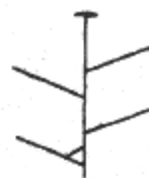
Ad. 25: Only non-bushy varieties: Inflorescence: angle between primary lateral shoot and stem



3
small



5
medium



7
large

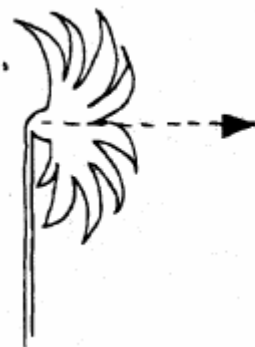
Ad. 26: Only non-bushy varieties: Inflorescence: attitude of lateral flower heads



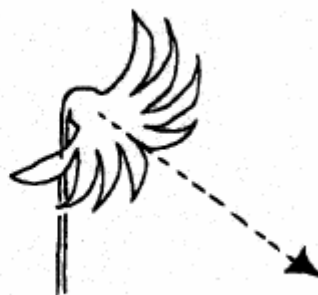
1
upright



3
semi upright



5
horizontal



7
nodding

Ad. 27: Only non-bushy varieties: Total number of flower heads per stem

Ad. 28: Only bushy varieties: Total number of flower heads per plant

The overall floriferousness of the variety is assessed.

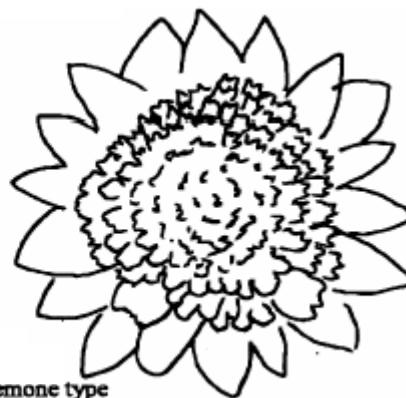
Ad. 30: Flower head: type

1. without ray florets: flower heads consist of disc florets only
2. single: flower heads with one row of ray florets, and a clearly defined central disc which is always visible.
3. semi-double: flower heads with more than one row of ray florets, and a clearly defined central disc which is always visible.
4. daisy-eyed double: double flower heads where a disc is not visible in the early stages of flowering, but can be seen as the flower head opens fully. The disc is not always clearly defined.
5. double: double flower heads where a disc is not visible at any stage of flowering.

Ad. 31: Excluding double varieties: disc type



1
daisy type



2
anemone type

Ad. 41, 42, 43: Flower head: predominant, secondary and tertiary type of ray floret



1
ligulate



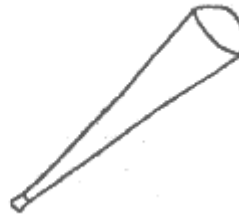
2
incurved



3
spatulate



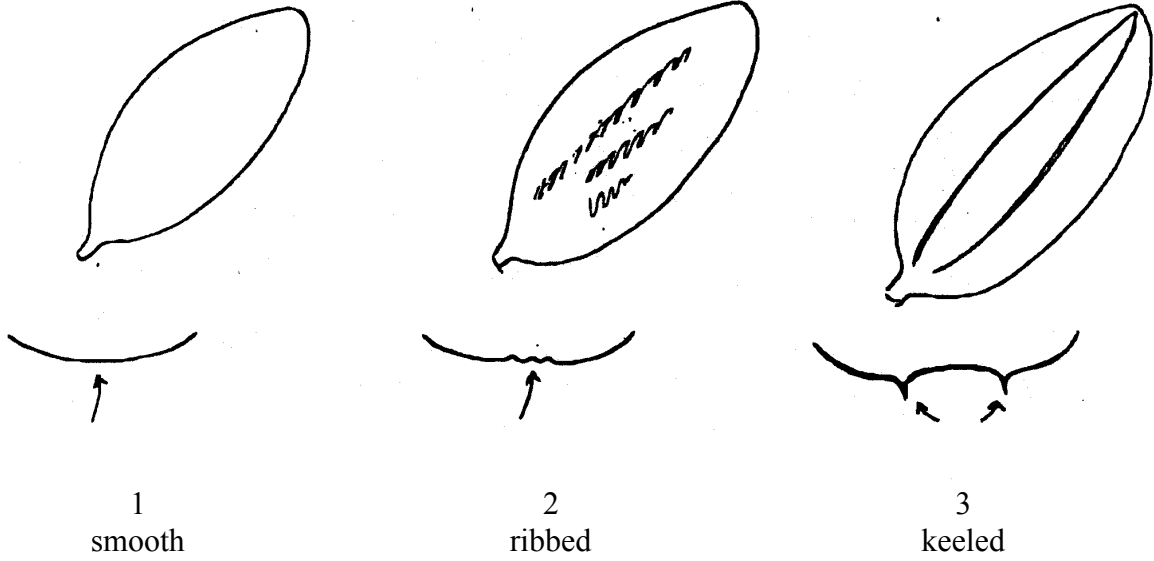
4
quilled



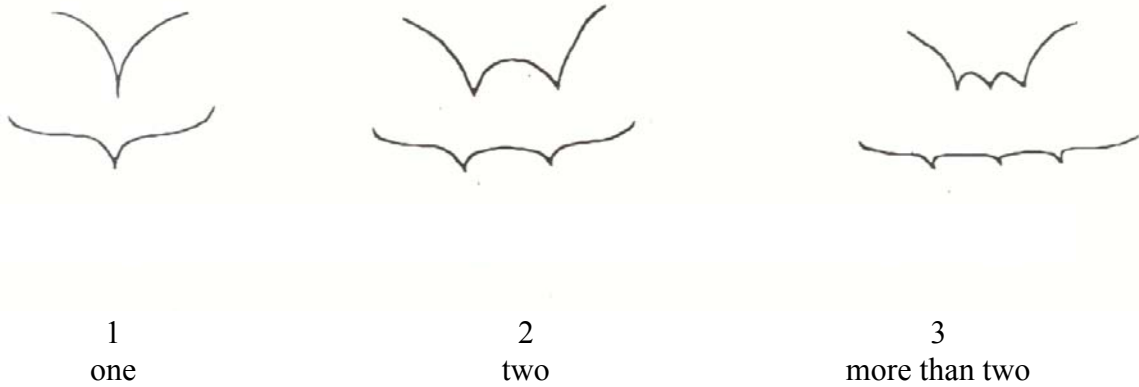
5
funnel shaped

Ad. 45: Ray floret: upper surface

As seen from above (top row) and in profile (bottom row):



Ad. 46: Ray floret: number of keels

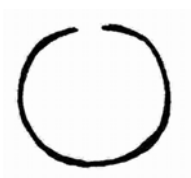


As seen in profile

Ad. 48: Excluding quilled florets: Ray floret: profile in cross section at widest point



1
strongly concave
with margins
overlapping



2
strongly concave
with margins
touching



3
strongly concave



4
moderately concave



5
weakly concave



6
flat



7
weakly convex



8
moderately convex



9
strongly convex

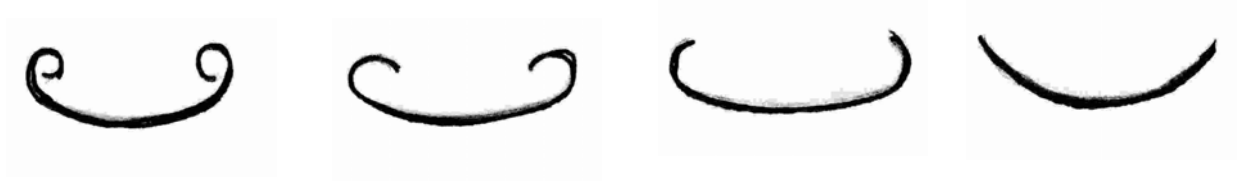


10
strongly convex with
margins touching



11
strongly convex with
margins overlapping

Ad. 49: Excluding quilled florets: Ray floret: rolling of margin



1
strongly involute

2
moderately involute

3
weakly involute

4
flat (not rolled)



5
weakly revolute



6
moderately revolute



7
strongly revolute

Ad. 52: Ray floret: longitudinal axis

Ad. 55: Ray floret: longitudinal axis of majority, if different



1
incurving



2
straight



3
reflexing



4
sinusoidal



5
twisted



6
broken

Ad. 54: Excluding straight ray florets: Ray floret: longitudinal axis: strength of curvature

Ad. 57: Excluding straight ray florets: Ray floret: longitudinal axis of majority, if different: strength of curvature,



3
weak



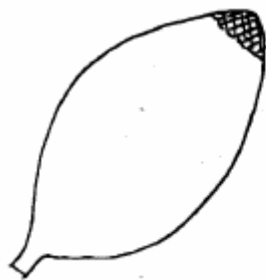
5
medium



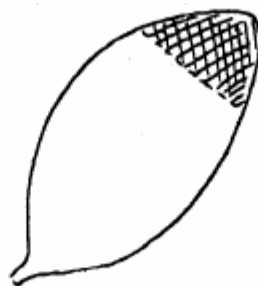
7
strong

Ad. 67: Only ray floret with more than one color: distribution of second color

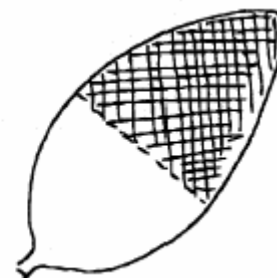
Ad. 71: Only ray floret with more than two colors: distribution of third color



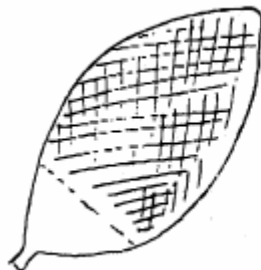
1
at tip



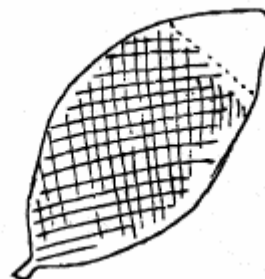
2
distal 1/4



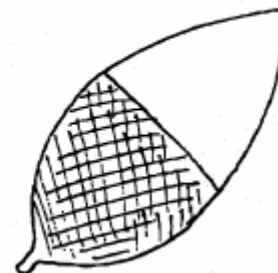
3
distal 1/2



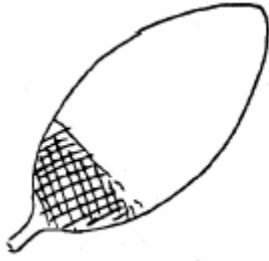
4
distal 3/4



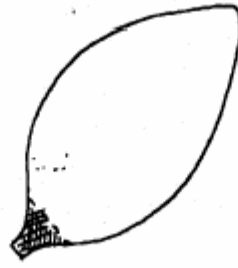
5
basal 3/4



6
basal 1/2



7
basal 1/4



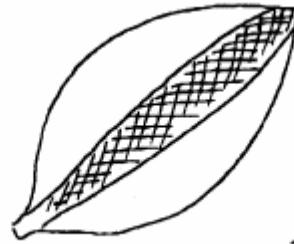
8
at base



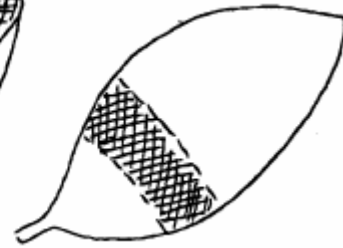
9
on margin



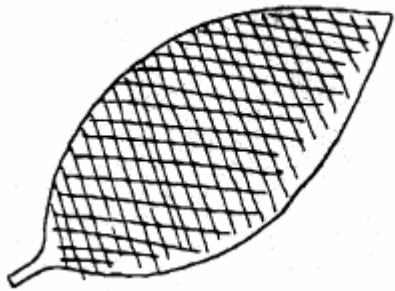
10
on marginal zone



11
central lengthways zone



12
widthways zone



13
throughout

Ad. 68: Only ray floret with more than one color: Pattern of second color

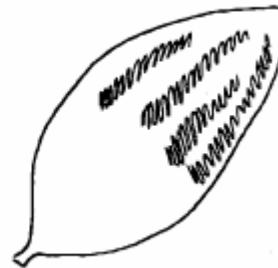
Ad. 72: Only ray floret with more than two colors: Pattern of third color



1
solid or nearly so



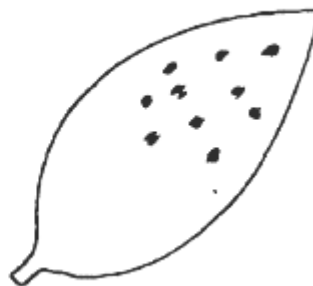
2
flushed



3
diffuse stripes



4
clearly defined stripes



5
flecked

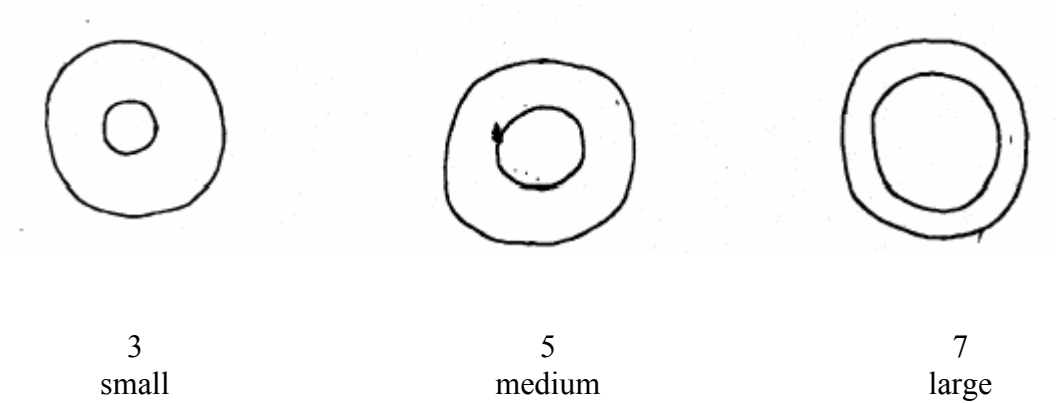


6
flecked and striped

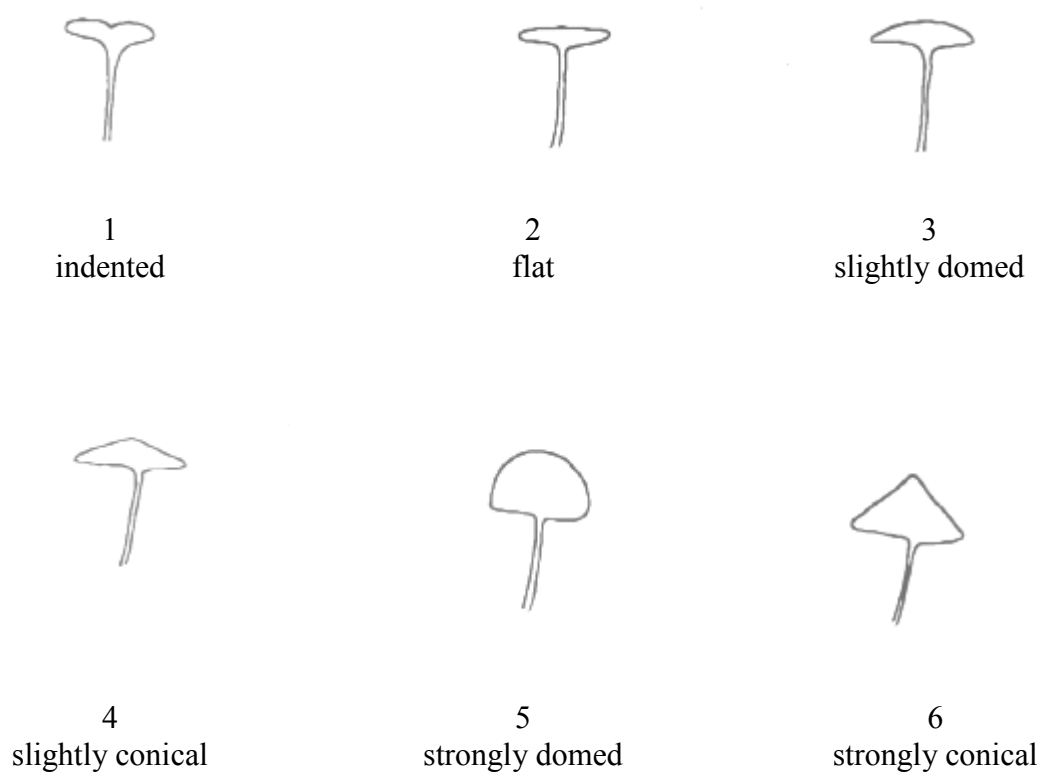


7
mottled

Ad. 80: Only single and semi-double varieties: Disc: diameter relative to head diameter



Ad. 81: Only daisy type discs: Disc: profile in cross section



Ad. 89: Only anemone type discs: Disc floret: type



1
enlarged tubular



2
funnel shaped



3
quilled



4
needle shaped



5
petaloid

9. Literature

Machin, Barrie, 1996: "Cut flower chrysanthemum production", Grower Books, Swanley, Kent, GB

Machin, Barrie, 1997: "Pot chrysanthemum production", Grower Books, Swanley, Kent, GB

Royal Horticultural Society, 1992: "The New RHS Dictionary of Gardening", Macmillan, London GB

10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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	Application date: (not to be filled in by the applicant)
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TECHNICAL QUESTIONNAIRE
 to be completed in connection with an application for plant breeders' rights

1. Subject of the Technical Questionnaire (please indicate the relevant species):

- | | | |
|----------------------|---|-----|
| 1.1.1 Botanical name | <i>Chrysanthemum</i> × <i>morifolium</i> Ramat.
(<i>Chrysanthemum</i> × <i>grandiflorum</i> Ramat.) | [] |
| 1.1.2 Common name | Perennial Chrysanthemum, Florists' Chrysanthemum | |
| 1.2.1 Botanical name | <i>Chrysanthemum pacificum</i> Nakia
(<i>Ajania pacifica</i> Bremer and Humphries) | [] |
| 1.2.2 Common name | Ajania, Gold and Silver Chrysanthemum | |
| 1.3.1 Botanical name | Hybrids between <i>Chrysanthemum</i> × <i>morifolium</i>
Ramat. and <i>Chrysanthemum pacificum</i> Nakia
(<i>Chrysanthemum</i> × <i>grandiflorum</i> Ramat. and <i>Ajania</i>
<i>pacifica</i> Bremer and Humphries) | [] |
| 1.3.2 Common name | | |

2. Applicant

Name

Address

Telephone No.

Fax No.

E-mail address

Breeder (if different from applicant)

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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3. Proposed denomination and breeder's reference	
Proposed denomination (if available)	<input type="text"/>
Breeder's reference	<input type="text"/>

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
<p>#4. Information on the breeding scheme and propagation of the variety</p>		
<p>4.1 Breeding scheme</p>		
<p>Variety resulting from:</p>		
<p>4.1.1 Crossing</p>		
(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)	[]	
<p>4.2 Method of propagating the variety</p>		
<p>4.2.1 Vegetative propagation</p>		
(a) cuttings	[]	
(b) <i>in vitro</i> propagation	[]	
(c) other (state method)	[]	
4.2.2 Seed	[]	
4.2.3 Other (please provide details)	[]	

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

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:	
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: height (1)			
short	Machismo Time	3[]	
medium	Dekyen	5[]	
tall	Figrand	7[]	
5.2 Plant: natural habit (2)			
non bushy	Reagan, Anastasia, Casmo, Boulou	1[]	
bushy	Tripoli, Guitpolin, Elda White, Golden Mariyo	2[]	
5.3 Flower head: type (30)			
without ray florets	Zeemimosa	1[]	
single	Repulse	2[]	
semi double	Figrand	3[]	
daisy eyed double	Veria Dark	4[]	
double	Delianne	5[]	
5.4 <u>Excluding double varieties:</u> Disc type (31)			
daisy	Figrand	1[]	
anemone	Le Mans	2[]	
5.5 Flower head: diameter (32)			
(33)			
small	Spray: Yoko Ono, Disbud: Boris Becker	3[]	
medium	Spray: Ruby Red Reagan, Disbud:	5[]	
large	Spray: Delianne, Disbud: Anastasia	7[]	

TECHNICAL QUESTIONNAIRE		Page {x} of {y}	Reference Number:
Characteristics	Example Varieties	Note	
5.6 Flower head: predominant type of ray floret (41)			
PQ ligulate	Figrand	1[]	
incurved	Anlymp, Boulou	2[]	
spatulate	Banjax	3[]	
quilled	Anastasia	4[]	
funnel shaped	Repulse	5[]	
5.7 Ray floret: number of colors of the inner side (62)			
PQ one	Figrand	1[]	
two	Machismo Time	2[]	
more than two		3[]	
5.8i Ray floret: <u>first</u> color* of the inner side by group (63)			
PQ white	Anastasia	1[]	
off white	Delianne	2[]	
yellow	Veria Dark	3[]	
bronze	Machismo Time	4[]	
orange	Balios	5[]	
salmon	Reagan Elite Salmon	6[]	
pink	Reagan	7[]	
red	Ruby Red Reagan	8[]	
red purple	Scott	9[]	
purple		10[]	
green	Yoko Ono	11[]	
silver grey		12[]	

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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Characteristics	Example Varieties	Note
<p>5.8ii Ray floret: <u>first</u>* color of the inner side (64)</p> <p>RHS colour chart - indicate reference number</p> <p>.....</p>		
<p>5.9i <u>Only ray floret with more than one color:</u> Ray floret: (65) <u>second</u>* color of the inner side by group</p>		
PQ white		1[]
off white		2[]
yellow		3[]
bronze		4[]
orange		5[]
salmon		6[]
pink	North Bay	7[]
red	Machismo Time	8[]
red purple	Orinocco	9[]
purple		10[]
green		11[]
silver grey		12[]
<p>5.9ii <u>Only ray floret with more than one color:</u> Ray floret: (66) <u>second</u>* color of the inner side</p> <p>RHS colour chart - indicate reference number</p> <p>.....</p>		

* In single colored ray florets the first color will be the only color. In ray florets where there is more than one color, the first color is defined as the palest color on the floret, regardless of the surface area covered. The second color is the second palest (regardless of surface area)

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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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
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<i>Example</i>	<i>Flower head: diameter</i>	<i>small</i>	<i>medium</i>
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Comments:

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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#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 full details including reason)

7.3 Use

Please complete according to the growing regime to which the variety is primarily adapted:

7.3.1 Is the variety intended to be grown

- (a) in the glasshouse or under other protection []
- (b) outdoors []

7.3.2 Is the variety intended to be grown with artificial daylength control

- (a) yes []
indicate response group in days.....
- (b) no []
indicate natural flowering season.....

7.3.3 Is the variety intended for disbudding

- (a) yes []
- (b) no []

7.3.4 Is the **main** use of the variety:

- (a) pot plant []
- (b) cut flower []
- (c) garden []
- (d) other []
please provide details.....

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

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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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 for where you have indicated "yes".

.....

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