


UPOV

TG/226/1

ORIGINAL: English

DATE: 2006-04-05

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
GENEVA

DAHLIA

UPOV Code: DAHLI

Dahlia Cav.

*

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

Alternative Names:*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Dahlia</i> Cav.	Dahlia	Dahlia	Dahlie	Dalia

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.]

TABLE OF CONTENTS

PAGE

1. SUBJECT OF THESE TEST GUIDELINES.....	3
2. MATERIAL REQUIRED	3
3. METHOD OF EXAMINATION.....	3
3.1 Number of Growing Cycles	3
3.2 Testing Place	3
3.3 Conditions for Conducting the Examination.....	3
3.4 Test Design	4
3.5 Number of Plants / Parts of Plants to be Examined.....	4
3.6 Additional Tests	4
4. ASSESSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY	4
4.1 Distinctness	4
4.2 Uniformity.....	5
4.3 Stability	5
5. GROUPING OF VARIETIES AND ORGANIZATION OF THE GROWING TRIAL.....	5
6. INTRODUCTION TO THE TABLE OF CHARACTERISTICS	6
6.1 Categories of Characteristics.....	6
6.2 States of Expression and Corresponding Notes.....	7
6.3 Types of Expression.....	7
6.4 Example Varieties	7
6.5 Legend.....	7
7. TABLE OF CHARACTERISTICS/TABLEAU DES CARACTÈRES/MERKMALSTABELLE/TABLA DE CARACTERES.....	8
8. EXPLANATIONS ON THE TABLE OF CHARACTERISTICS	27
8.1 Explanations covering several characteristics.....	27
8.2 Explanations for individual characteristics	28
9. LITERATURE.....	42
10. TECHNICAL QUESTIONNAIRE.....	43

1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Dahlia* Cav. of the family *Asteraceae*.

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 rooted cuttings or tubers.

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

18 rooted cuttings or tubers.

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, the plants in the test should not be disbudded.

3.3.2 *Stage of development for the assessment*

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

3.3.3 *Observation of color by eye*

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 12 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 12 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) Leaf: color (characteristic 9)
- (b) Flower head: type (characteristic 21)
- (c) Only single and semi double varieties (see char. 21): Flower head: disc type (characteristic 22)
- (d) Flower head: diameter (characteristic 25)
- (e) Ray floret: number of colors of inner side (characteristic 43)

- (f) Ray floret: main color of inner side (characteristic 44) with the following color groups :
- Gr. 1: white
 - Gr. 2: off-white
 - Gr. 3: yellow
 - Gr. 4: bronze
 - Gr. 5: orange
 - Gr. 6: orange red
 - Gr. 7: salmon
 - Gr. 8: pink
 - Gr. 9: red
 - Gr. 10: red purple
 - Gr. 11: purple
 - Gr. 12: violet
- (g) Ray floret: second color of inner side (characteristic 45) with the following color groups :
- Gr. 1: white
 - Gr. 2: off-white
 - Gr. 3: yellow
 - Gr. 4: bronze
 - Gr. 5: orange
 - Gr. 6: orange red
 - Gr. 7: salmon
 - Gr. 8: pink
 - Gr. 9: red
 - Gr. 10: red purple
 - Gr. 11: purple
 - Gr. 12: violet

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)-(d) 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: growth habit	Plante: port	Pflanze: Wuchsform	Planta: porte		
PQ	upright	dressé	aufrecht	erecto	Red Fox	1
	semi-upright	demi-dressé	halbaufrecht	semierecto	Dark Desire	2
	semi-spreading	demi-étalé	halbliegend	semirastrero	Carolina Orange	3
	spreading	étalé	breitwüchsig	rastrero	Papagaya	4
2. (*)	Plant: height	Plante: hauteur	Pflanze: Höhe	Planta: altura		
QN	short	basse	niedrig	corta	Gallery Rubens	3
	medium	moyenne	mittel	media	Dark Desire	5
	tall	haute	hoch	alta	Hot Chocolate	7
3. (+)	Stem: color	Tige: couleur	Trieb: Farbe	Tallo: color		
PQ	green	vert	grün	verde	Jaimaica	1
	green tinged with brownish red or purple	vert teinté de rouge brunâtre ou pourpre	grün meliert mit bräunlichrot oder purpurn	verde teñido de rojo amarronado o púrpura	Carolina Orange	2
	brownish red	rouge brunâtre	bräunlichrot	rojo amarronado	Dark Desire	3
	purple	pourpre	purpurn	púrpura	Hot Chocolate	4

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
4.	Leaf: type	Feuille: type	Blatt: Typ	Hoja: tipo		
(+)						
PQ	(a)					
	predominantly simple	essentiellement simple	vorwiegend einfach	predominantemente simple	Papagaya	1
	simple and pinnate (no predominance)	simple et penné (aucune prédominance)	einfach und gefiedert (keine Prädominanz)	simple y pinnada (sin predominio)	Carolina Orange	2
	predominantly pinnate	essentiellement penné	vorwiegend gefiedert	predominantemente pinnada	Hot Chocolate	3
	pinnate and bipinnate (no predominance)	penné et bipenné (aucune prédominance)	gefiedert und doppelt gefiedert (keine Prädominanz)	pinnada y bipinnada (sin predominio)	Ragged Robin	4
	predominantly bipinnate	essentiellement bipenné	vorwiegend doppelt gefiedert	predominantemente bipinnada	Bishop of Llandaff	5
5.	Leaf: wing	Feuille: aile	Blatt: Flügel	Hoja: ala		
(+)						
QN	(a)					
	absent or weak	absente ou faible	fehlend oder klein	ausente o débil	Melody Lisa	1
	moderate	moyenne	mittel	moderado	Karma Royal Seas	2
	strong	forte	groß	fuerte	Ace Summer Emotions	3
6.	Leaf: length including petiole	Feuille: longueur pétiole compris	Blatt: Länge, einschließlich Blattstiel	Hoja: longitud incluido el peciolo		
(*)						
(+)						
QN	(a)					
	short	courte	kurz	corta	Carolina Orange	3
	medium	moyenne	mittel	media	Jaimaica	5
	long	longue	lang	larga	Ragged Robin	7
7.	Leaf: width	Feuille: largeur	Blatt: Breite	Hoja: anchura		
(*)						
(+)						
QN	(a)					
	narrow	étroite	schmal	estrecha	Carolina Orange	3
	medium	moyenne	mittel	media	Gallery Rubens	5
	broad	large	breit	ancha	Ragged Robin	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
8. (*)	Leaf: length/ width ratio	Feuille: rapport longueur/largeur	Blatt: Verhältnis Länge/Breite	Hoja: relación longitud/anchura			
QN	(a)	low	faible	klein	baja	Ragged Robin	3
		medium	moyen	mittel	media	Olinda	5
		high	élevé	groß	alta	Carolina Orange	7
9. (*)	Leaf: color	Feuille: couleur	Blatt: Farbe	Hoja: color			
PQ	(a)	light green	vert clair	hellgrün	verde claro	Rio	1
		medium green	vert moyen	mittelgrün	verde medio	Red Fox	2
		dark green	vert foncé	dunkelgrün	verde oscuro	Frivolous Glow	3
		green tinged with brownish red	vert teinté de rouge brunâtre	grün meliert mit bräunlichrot	verde teñido de rojo amarronado	City of Rotterdam	4
		green tinged with purple	vert teinté de pourpre	grün meliert mit purpurn	verde teñido de púrpura	Passion	5
		brownish red	rouge brunâtre	bräunlichrot	rojo amarronado	Nippon	6
		purple	pourpre	purpurn	púrpura	Tresor	7
10.	Leaf: glossiness	Feuille: brillance	Blatt: Glanz	Hoja: brillo			
QN	(a)	weak	faible	gering	débil	Red Fox	3
		medium	moyenne	mittel	medio	Papagaya	5
		strong	forte	stark	fuerte		7
11.	Leaf: texture of surface	Feuille: texture de la surface	Blatt: Textur der Oberfläche	Hoja: textura de la superficie			
QN	(a)	smooth or very weakly rugose	lisse ou très faiblement rugueuse	glatt oder sehr schwach blasig	lisa o muy poco rugosa	Hot Chocolate	1
		weakly rugose	faiblement rugueuse	schwach blasig	poco rugosa	Karma Ventura	2
		strongly rugose	fortement rugueuse	stark blasig	muy rugosa	Carolina Orange	3
12.	Leaf: veins	Feuille: nervures	Blatt: Adern	Hoja: nervadura			
QN	(a)	depressed	déprimées	eingesenkt	deprimida		1
		flat	plates	flach	plana		2
		raised	en relief	vorgewölbt	protuberante	Carolina Orange	3

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
13.	Leaflet: shape	Foliole: forme	Blattfieder: Form	Foliolo: forma		
(+)						
PQ	ovate	ovale	eiförmig	ovada	Carolina Orange	1
	elliptic	elliptique	elliptisch	elíptica	Olinda	2
	oblanceolate	oblancéolée	verkehrt lanzettlich	obolanceolada	Frivolous Glow	3
14.	Leaflet: shape of base	Foliole: forme de la base	Blattfieder: Form der Basis	Foliolo: forma de la base		
(+)						
PQ	acute	aiguë	spitz	aguda	Frivolous Glow	1
	obtuse	obtuse	stumpf	obtusa	Olinda	2
	rounded	arrondie	abgerundet	redondeada	Carolina Orange	3
	truncate	tronquée	gerade	truncada		4
	cordate	cordiforme	herzförmig	cordiforme		5
	asymmetric	asymétrique	asymmetrisch	asimétrica		6
15.	Leaflet margin: number of incisions (excluding lobes)	Bord de la foliole: nombre de découpures (lobes exclus)	Rand der Blattfieder: Anzahl Einschnitte (ohne Lappen)	Borde del foliolo: número de incisiones (excluidos los lóbulos)		
(+)						
QN	few	peu nombreuses	gering	bajo	Passion	3
	medium	moyennes	mittel	medio	Carolina Orange	5
	many	nombreuses	groß	alto	Frivolous Glow	7
16.	Leaflet margin: depth of incisions (excluding lobes)	Bord de la foliole: profondeur des découpures (lobes exclus)	Rand der Blattfieder: Tiefe der Einschnitte (ohne Lappen)	Borde del foliolo: profundidad de las incisiones (excluidos los lóbulos)		
(+)						
QN	shallow	peu profondes	flach	poco profunda	Hot Chocolate	3
	medium	moyennes	mittel	media	Frivolous Glow	5
	deep	profondes	tief	profunda	Baronesse	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
17.	Peduncle: length	Pédoncule: longueur	Blumenstiel: Länge	Pedúnculo: longitud		
QN	short	court	kurz	corta	Bounty	3
	medium	moyen	mittel	media	Dark Desire	5
	long	long	lang	larga	Red Fox	7
18.	Peduncle: color	Pédoncule: couleur	Blumenstiel: Farbe	Pedúnculo: color		
PQ	green	vert	grün	verde	Jaimaica	1
	green tinged with brownish red or purple	vert teinté de rouge brunâtre ou pourpre	grün meliert mit bränlichrot oder purpurn	verde teñido de rojo amarronado o púrpura	Carolina Orange	2
	brownish red	rouge brunâtre	bräunlichrot	rojo amarronado	Dark Desire	3
	purple	pourpre	purpurn	púrpura	Hot Chocolate	4
19. (*)	Flower heads: position in relation to foliage	Capitules: position par rapport au feuillage	Blumen: Position im Verhältnis zum Laub	Capítulos: posición en relación con el follaje		
QN	below foliage	au-dessous du feuillage	unterhalb	por debajo del follaje		1
	at same level	au même niveau	auf gleicher Höhe	al mismo nivel	Gallery Rubens	2
	moderately above foliage	légèrement au-dessus du feuillage	etwas überhalb	moderadamente por encima del follaje	Frivolous Glow	3
	high above foliage	nettement au-dessus du feuillage	weit überhalb	muy por encima del follaje	Red Fox	4
20. (+)	Flower head: attitude	Capitule: port	Blume: Haltung	Capítulo: porte		
QN	upright	dressé	aufrecht	erecto	Gallery Rubens	1
	semi upright	demi-dressé	halbaufrecht	semierecto	Passion	3
	horizontal	horizontal	waagerecht	horizontal	Carolina Orange	5
	moderately downward	moyennement retombante	leicht abwärts gerichtet	moderadamente descendente		7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
21. (*) (+)	Flower head: type	Capitule: type	Blume: Typ	Capítulo: tipo		
PQ	single	simple	einfach	sencillo	Dark Desire	1
	semi double	semi-double	halbgefüllt	semidoble	The Bishop of Llandaff	2
	daisy-eyed double	double à œil de marguerite	gefüllt margeritenförmig	doble tipo margarita	Carolina Orange	3
	double	double	gefüllt	doble	Passion	4
22. (*) (+)	<u>Only single and semi double varieties (see char. 21):</u> Flower head: disc type	<u>Seulement les variétés simples ou semi-doubles (voir car. 21):</u> Capitule: type de disque	<u>Nur einfache und halbgefüllte Sorten (siehe Merkmal 21):</u> Blume: Typ der Scheibe	<u>Únicamente variedades con capítulo sencillo y semidoble (véase el carácter 21):</u> Capítulo: tipo de disco		
QL	daisy	marguerite	margeritenförmig	margarita	Dark Desire	1
	anemone	anémone	anemonenförmig	anémona	Scarlet Comet	2
23. (*) (+)	Flower head: collar segments	Capitule: segments de collerette	Blume: Kragensegmente	Capítulo: lígulas de collar		
QL	absent	absents	fehlend	ausentes	Dark Desire	1
	present (collerette type)	présents (type collerette)	vorhanden (Kragentyp)	presentes (tipo collerette)	Famoso	9
24.	Flower head: length of collar segments relative to ray florets	Capitule: longueur des segments de collerette par rapport aux fleurons	Blume: Länge der Kragensegmente im Verhältnis zu den Zungenblüten	Capítulo: longitud de las lígulas del collar en relación con las lígulas		
QN	about quarter the length	environ un quart de la longueur	etwa ein Viertel der Länge	aprox. un cuarto de la longitud	Cher Ami	3
	about half the length	environ la moitié de la longueur	etwa die Hälfte der Länge	aprox. la mitad de la longitud	Famoso	5
	about three quarters the length	environ trois quarts de la longueur	etwa drei Viertel der Länge	aprox. tres cuartos de la longitud	Bumble Rumble	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
25. (*)	Flower head: diameter	Capitule: diamètre	Blume: Durchmesser	Capítulo: diámetro		
QN	small	petit	klein	pequeño	Jaimaica	3
	medium	moyen	mittel	medio	Passion	5
	large	grand	groß	largo		7
26. (+)	<u>Only double and daisy-eyed double varieties (see char. 21):</u> Flower head: height	<u>Seulement les variétés doubles et doubles à œil de marguerite (voir car. 21):</u> Capitule: hauteur	<u>Nur gefüllte und gefüllt margeritenförmige Sorten (siehe Merkmal 21):</u> Blume: Höhe	<u>Únicamente variedades con capítulo doble y doble tipo margarita (véase el carácter 21):</u> Capítulo: altura		
QN	short	court	niedrig	corta	Frivolous Glow	3
	medium	moyen	mittel	media	Hot Chocolate	5
	tall	haut	hoch	alta	Karma Bon Bini	7
27. (*)	<u>Only single, semi double and daisy-eyed double varieties (see char. 21):</u> Flower head: number of ray florets	<u>Seulement les variétés simples, semi-doubles et doubles à œil de marguerite (voir car. 21):</u> Capitule: nombre de fleurons	<u>Nur halbgefüllte und gefüllt margeritenförmige Sorten (siehe Merkmal 21):</u> Blume: Anzahl Zungenblüten	<u>Únicamente variedades con capítulo doble y doble tipo margarita (véase el carácter 21):</u> Capítulo: número de lígulas		
QN	few	peu nombreux	gering	bajo	The Bishop of Llandaff	3
	medium	moyennement nombreux	mittel	medio	Carolina Orange	5
	many	nombreux	groß	alto	Bahamas	7
28. (*)	<u>Only double varieties (see char. 21):</u> Flower head: density of ray florets	<u>Seulement les variétés doubles (voir car. 21):</u> Capitule: densité des fleurons	<u>Nur gefüllte Sorten (siehe Merkmal 21):</u> Blume: Dichte der Zungenblüten	<u>Únicamente variedades con capítulo doble (véase el carácter 21):</u> Capítulo: densidad de las lígulas		
QN	sparse	faible	locker	baja	Karma Ventura	3
	medium	moyenne	mittel	media	Karma Bob Bini	5
	dense	forte	dicht	alta	Red Fox	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
29. (*)	Ray floret: length	Fleuron: longueur	Zungenblüte: Länge	Lígula: longitud		
QN (b)	short	court	kurz	corta	Red Fox	3
	medium	moyen	mittel	media	Kiedahboa	5
	long	long	lang	larga	Gallery Bellini	7
30. (*)	Ray floret: width	Fleuron: largeur	Zungenblüte: Breite	Lígula: anchura		
QN (b)	narrow	étroit	schmal	estrecha	Frivolous Glow	3
	medium	moyen	mittel	media	Gallery Rubens	5
	broad	large	breit	ancha	Passion	7
31. (*)	Ray floret: length/ width ratio	Fleuron: rapport longueur/largeur	Zungenblüte: Verhältnis Länge/Breite	Lígula: relación longitud/anchura		
QN (b)	low	faible	klein	baja	Bounty	3
	medium	moyen	mittel	media	Dark Desire	5
	high	élevé	groß	alta	Gallery Bellini	7
32. (+)	Ray floret: upper surface	Fleuron: face supérieure	Zungenblüte: Oberfläche	Lígula: cara superior		
PQ (c)	smooth	lisse	glatt	lisa		1
	ribbed	ridée	gerippt	acanalada		2
	keeled	carénée	gekielt	carepada	Moonshine	3
33. (+)	Ray floret: number of keels on keeled florets	Fleuron: nombre de carènes sur les fleurons carénés	Zungenblüte: Anzahl Kiele an den gekielten Zungenblüten	Lígula: número de quillas en las lígulas carenadas		
PQ (c)	one	une	einer	una		1
	two	deux	zwei	dos	Moonshine	2
	more than two	plus de deux	mehr als zwei	más de dos		3

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
34. (* (+)	Ray floret: profile in cross section <u>at</u> <u>mid point</u>	Fleuron: profil en section transversale <u>au point médian</u>	Zungenblüte: Profil im Querschnitt <u>am</u> <u>Mittelpunkt</u>	Lígula: perfil en sección transversal <u>en el punto medio</u>		
QN	(c)					
	strongly concave with margins overlapping	fortement concave à bords chevauchants	stark konkav mit überlappenden Rändern	fuertemente cóncava con bordes superpuestos		1
	strongly concave with margins touching	fortement concave à bords tangents	stark konkav mit sich berührenden Rändern	fuertemente cóncava con bordes que se tocan		2
	strongly concave	fortement concave	stark konkav	fuertemente cóncava	Red Fox	3
	moderately concave	moyennement concave	mittel konkav	moderadamente cóncava	Jaimaica	4
	weakly concave	faiblement concave	schwach konkav	débilmente cóncava	Salvador	5
	flat	plat	flach	plana	Dark Desire	6
	weakly convex	faiblement convexe	schwach konvex	débilmente convexa	Karma Ventura	7
	moderately convex	moyennement convexe	mittel konvex	moderadamente convexa	Mick's Peppermint	8
	strongly convex	fortement convexe	stark konvex	fuertemente convexa		9
	strongly convex with margins touching	fortement convexe à bords tangents	stark konvex mit sich berührenden Rändern	fuertemente convexa con bordes que se tocan		10
	strongly convex with margins overlapping	fortement convexe à bords chevauchants	stark konvex mit überlappenden Rändern	fuertemente convexa con bordes superpuestos	Alfred Grille	11

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
35. (+)	Ray floret: profile in cross section at <u>¾ point from base, if different from mid-point</u>	Fleuron: profil en section transversale <u>au point situé au 3/4 depuis la base, s'il est différent du point médian</u>	Zungenblüte: Profil im Querschnitt <u>am Dreiviertelpunkt von der Basis, wenn vom Mittelpunkt verschieden</u>	Lígula: perfil en sección transversal <u>en un punto a ¾ de la base, si difiere del punto medio</u>		
QN	(c)					
	strongly concave with margins overlapping	fortement concave à bords chevauchants	stark konkav mit überlappenden Rändern	fuertemente cóncava con bordes superpuestos		1
	strongly concave with margins touching	fortement concave à bords tangents	stark konkav mit sich berührenden Rändern	fuertemente cóncava con bordes que se tocan		2
	strongly concave	fortement concave	stark konkav	fuertemente cóncava		3
	moderately concave	moyennement concave	mittel konkav	moderadamente cóncava		4
	weakly concave	faiblement concave	schwach konkav	débilmente cóncava		5
	flat	plat	flach	plana		6
	weakly convex	faiblement convexe	schwach konvex	débilmente convexa		7
	moderately convex	moyennement convexe	mittel konvex	moderadamente convexa		8
	strongly convex	fortement convexe	stark konvex	fuertemente convexa		9
	strongly convex with margins touching	fortement convexe à bords tangents	stark konvex mit sich berührenden Rändern	fuertemente convexa con bordes que se tocan		10
	strongly convex with margins overlapping	fortement convexe à bords chevauchants	stark konvex mit überlappenden Rändern	fuertemente convexa con bordes superpuestos		11

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
36. (+)	Ray floret: rolling of margin	Fleuron: enroulement du bord	Zungenblüte: Rollen des Randes	Lígula: curvatura del borde		
QN	(c)	strongly involute	fortement involutif	stark einwärts gerollt	fuertemente curvado hacia adentro	1
		moderately involute	moyennement involutif	mittel einwärts gerollt	moderadamente curvado hacia adentro	Hot Chocolate 2
		weakly involute	faiblement involutif	schwach einwärts gerollt	débilmente curvado hacia adentro	Carolina Orange 3
		flat (not rolled)	plat (non enroulé)	flach (nicht gerollt)	plano (sin curvatura)	Frivolous Glow 4
		weakly revolute	faiblement révolutif	schwach zurückgerollt	débilmente curvado hacia afuera	Blue Angel 5
		moderately revolute	moyennement révolutif	mittel zurückgerollt	moderadamente curvado hacia afuera	6
		strongly revolute	fortement révolutif	stark zurückgerollt	fuertemente curvado hacia afuera	Mick's Peppermint 7
37.	Ray floret: position of part with rolled margin	Fleuron: position de la partie à bord enroulé	Zungenblüte: Position des Teils mit gerolltem Rand	Lígula: posición de la parte con borde incurvado		
PQ	(c)	basal quarter	quart basal	basales Viertel	cuarto, zona inferior	1
		basal half	moitié basale	basale Hälfte	mitad, zona inferior	Hot Chocolate 2
		basal three quarters	trois quarts basaux	basale drei Viertel	tres cuartos, zona inferior	3
		middle half	moitié médiane	mittlere Hälfte	mitad, zona central	4
		distal three quarters	trois quarts distaux	distale drei Viertel	tres cuartos, zona distal	5
		distal half	moitié distale	distale Hälfte	mitad, zona distal	Mick's Peppermint 6
		distal quarter	quart distal	distales Viertel	cuarto, zona distal	7
		throughout	totalité	überall	la totalidad	8

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
38. (*) (+)	Ray floret: longitudinal axis	Fleuron: axe longitudinal	Zungenblüte: Längsachse	Lígula: eje longitudinal		
QN	(c) incurving	incurvé	aufgebogen	curvado hacia arriba	Karma Bon Bini	1
	straight	droit	gerade	recto	Kiedahboa	2
	reflexing	recourbé	zurückgebogen	curvado hacia abajo	Baronesse	3
39.	Ray floret: part of axis curved	Fleuron: partie de l'axe courbé	Zungenblüte: Teils der gebogenen Achse	Lígula: parte del eje que es curvado		
QN	(c) distal quarter	quart distal	distales Viertel	cuarto distal	Baronesse	1
	distal half	moitié distale	distale Hälfte	mitad distal		2
	distal three quarters	trois quarts distaux	distale drei Viertel	tres cuartos, zona distal	Karma Bon Bini	3
40.	Ray floret: strength of curvature	Fleuron: degré de courbure	Zungenblüte: Stärke der Biegung	Lígula: intensidad de la curvatura		
QN	(c) weak	faible	gering	débil	Frivolous Glow	3
	medium	moyenne	mittel	media	Karma Bon Bini	5
	strong	forte	stark	fuerte		7
41. (+)	Ray floret: twisting	Fleuron: torsion	Zungenblüte: Verdrehung	Lígula: torsión		
QN	(c) absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Gallery Rubens	1
	weak or moderate	faible ou moyenne	gering oder mittel	débil o moderada	Ragged Robin	2
	strong	forte	stark	fuerte		3

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
42. (+) (*)	Ray floret: shape of apex	Fleuron: forme du sommet	Zungenblüte: Form der Spitze	Lígula: forma del ápice			
PQ	(c)	pointed	pointu	spitz	en punta	Carolina Orange	1
		rounded	arrondi	abgerundet	redondeada	Bounty	2
		retuse	échancré	eingedrückt	retusa	Gallery Rubens	3
		dentate	denté	gezähnt	dentada	Karma Bon Bini	4
		mamillate	mamelonné	warzenförmig	mamilar	Passion	5
		fringed	frangé	gefranst	con flecos	Jacy	6
		laciniate	lacinié	zerteilt	laciniada	My Beverly	7
		horned	cornu	hornförmig	corniforme		8
43. (*)	Ray floret: number of colors of inner side	Fleuron: nombre de couleurs de la face interne	Zungenblüte: Anzahl Farben der Innenseite	Lígula: número de colores de la cara interna			
PQ	(c)	one	une	eine	uno	Red Fox	1
	(d)	two	deux	zwei	dos	Papagaya	2
		more than two	plus de deux	mehr als zwei	más de dos	Secret Glow	3
44. (*)	Ray floret: main color of inner side	Fleuron: couleur principale de la face interne	Zungenblüte: Hauptfarbe der Innenseite	Lígula: color principal de la cara interna			
PQ	(c) (d)	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar el número de referencia)		
45. (*)	Ray floret: second color of inner side	Fleuron: couleur secondaire de la face interne	Zungenblüte: Sekundärfarbe der Innenseite	Lígula: color secundario de la cara interna			
PQ	(c) (d)	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar el número de referencia)		

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
46. (*) (+)	Ray floret: distribution of second color of inner side	Fleuron: distribution de la couleur secondaire de la face interne	Zungenblüte: Position der Sekundärfarbe der Innenseite	Lígula: distribución del color secundario de la cara interna		
PQ	(c) at tip	au sommet	an der Spitze	en el extremo		1
	(d) distal quarter	sur le quart distal	distales Viertel	en un cuarto, zona distal	Salvador	2
	distal half	sur la moitié distale	distale Hälfte	en la mitad, zona distal		3
	distal three quarters	sur les trois quarts distaux	distale drei Viertel	en tres cuartos, zona distal	Kiedahbasar	4
	basal three quarters	sur les trois quarts basaux	basale drei Viertel	en tres cuartos, zona inferior		5
	basal half	sur la moitié basale	basale Hälfte	en la mitad, zona inferior	Papagaya	6
	basal quarter	sur le quart basal	basales Viertel	en un cuarto, zona inferior	Secret Glow	7
	at base	à la base	an der Basis	en la base		8
	on margin	sur le bord	am Rand	en el borde		9
	marginal zone	sur la zone marginale	Randzone	en la zona del borde		10
	central bar	sur la barre centrale	Mittelstreifen	en la raya central	Famoso	11
	transverse zone [band]	sur la zone transversale [bande]	Querzone [Band]	en la zona transversal [franja]	Fabula	12
	throughout	sur la totalité	überall	en toda la superficie	Mick's Peppermint	13

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
47. (* (+)	Ray floret: pattern of second color of inner side	Fleuron: distribution de la couleur secondaire de la face interne	Zungenblüte: Position der Sekundärfarbe der Innenseite	Lígula: diseño del color secundario de la cara interna		
PQ	(c) solid or nearly solid	en plages continues ou presque	ganzflächig oder nahezu ganzflächig	uniforme o prácticamente uniforme	Fabula, Papagaya, Secret Glow	1
	(d) flushed	en plages diffuses	flächig	difuso	Famoso, Salvador	2
	diffuse stripes	rayures diffuses	diffuse Streifen	en franjas difusas		3
	clearly defined stripes	rayures nettement délimitées	deutliche Streifen	en franjas claramente definidas		4
	flecked	tacheté	gefleckt	en manchas		5
	flecked and striped	tacheté et rayé	gefleckt und gestreift	en manchas y franjas	Mick's Peppermint	6
	mottled	marbré	gepunktet	jaspeado		7
48. (*	Ray floret: third color of inner side	Fleuron: couleur tertiaire de la face interne	Zungenblüte: Tertiärfarbe der Innenseite	Lígula: color terciario de la cara interna		
PQ	(c) RHS Colour Chart	Code RHS des	RHS-Farbkarte	Carta de colores RHS		
	(d) (indicate reference number)	couleurs (indiquer le numéro de référence)	(Nummer angeben)	(indicar el número de referencia)		

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
49. (*) (+)	Ray floret: distribution of third color of inner side	Fleuron: distribution de la couleur tertiaire de la face interne	Zungenblüte: Position der Tertiärfarbe der Innenseite	Lígula: distribución del color terciario de la cara interna		
PQ	(c) at tip	au sommet	an der Spitze	en el extremo		1
	(d) distal quarter	sur le quart distal	distales Viertel	en un cuarto, zona distal	Secret Glow	2
	distal half	sur la moitié distale	distale Hälfte	en la mitad, zona distal		3
	distal three quarters	sur les trois quarts distaux	distale drei Viertel	en tres cuartos, zona distal		4
	basal three quarters	sur les trois quarts basaux	basale drei Viertel	en tres cuartos, zona inferior		5
	basal half	sur la moitié basale	basale Hälfte	en la mitad, zona inferior		6
	basal quarter	sur le quart basal	basales Viertel	en un cuarto, zona inferior		7
	at base	à la base	an der Basis	en la base	Fabula	8
	on margin	sur le bord	am Rand	en el borde	Oriental Dream	9
	marginal zone	sur la zone marginale	Randzone	en la zona del borde		10
	central bar	sur la barre centrale	Mittelstreifen	en la raya central		11
	transverse zone [band]	sur zone transversale [bande]	Querzone [Band]	en la zona transversal [franja]		12
	throughout	sur la totalité	überall	en toda la superficie	D’Alaïs	13

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
50. (*) (+)	Ray floret: pattern of third color of inner side	Fleuron: distribution de la couleur tertiaire de la face interne	Zungenblüte: Position der Tertiärfarbe der Innenseite	Lígula: diseño del color terciario de la cara interna		
PQ	(c)	solid or nearly solid	en plages continues ou presque	ganzflächig oder nahezu ganzflächig	uniforme o prácticamente uniforme	1
	(d)	flushed	en plages	flächig	difuso	2
		diffuse stripes	rayures diffuses	diffuse Streifen	en franjas difusas	3
		clearly defined stripes	rayures nettement délimitées	deutliche Streife	en franjas claramente definidas	4
		flecked	tacheté	gefleckt	en manchas	5
		flecked and striped	tacheté et rayé	gefleckt und gestreift	en manchas y franjas	6
		mottled	marbré	gepunktet	jaspeado	7
51. (*)	Ray floret: color of the outer side compared to main color of inner side	Fleuron: couleur de la face externe par rapport à la couleur principale de la face interne	Zungenblüte: Farbe der Außenseite im Vergleich zur Hauptfarbe der Innenseite	Lígula: color de la cara externa en comparación con el color principal de la cara interna		
QL	(c)	similar	similaire	ähnlich	similar	1
		markedly different	nettement différente	deutlich verschieden	marcadamente distinto	2
52.	Ray floret: color of outer side, where markedly different to inner side	Fleuron: couleur de la face externe, si elle est nettement différente de celle de la face interne	Zungenblüte: Farbe der Außenseite, wenn deutlich verschieden von der Innenseite	Lígula: color de la cara externa, si es marcadamente distinto al de la cara interna		
PQ	(c)	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar el número de referencia)	

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
53. (*)	<u>Only single and semi double varieties (see char. 21):</u> Disc: diameter relative to flower head diameter	<u>Seulement les variétés simples et semi-doubles (voir car. 21):</u> Disque: diamètre par rapport au diamètre du capitule	<u>Nur einfache und halbgefüllte Sorten (siehe Merkmal 21):</u> Scheibe: Durchmesser im Verhältnis zum Durchmesser der Blume	<u>Únicamente variedades con capítulo sencillo y semidoble (véase el carácter 21):</u> Disco: diámetro en relación con el diámetro del capítulo		
QN	small	petit	klein	pequeño	Dark Desire	3
	medium	moyen	mittel	medio	Bumble Rumble	5
	large	grand	groß	grande	Scarlet Comet	7
54. (*)	<u>Only single and semi double varieties (see char. 21) which are daisy type (see char. 22):</u> Disc: color before anther dehiscence	<u>Seulement les variétés simples et semi-doubles (voir car. 21) de type marguerite (voir car. 22):</u> Disque: couleur avant la déhiscence des anthères	<u>Nur einfache und halbgefüllte Sorten (siehe Merkmal 21), mit margeritenförmiger Scheibe (siehe Merkmal 22):</u> Scheibe: Farbe vor dem Pollenstäuben	<u>Únicamente variedades con capítulo sencillo y semidoble (véase el carácter 21) que sean del tipo margarita (véase el carácter 22):</u> Disco: color antes de la dehiscencia de la antera		
PQ	whitish	blanchâtre	weißlich	blancuzco		1
	green	vert	grün	verde		2
	yellow green	vert jaune	gelbgrün	verde amarillento	Salvador	3
	yellow	jaune	gelb	amarillo		4
	orange	orange	orange	naranja	Kiedahlem	5
	red brown	brun rouge	rotbraun	marrón rojizo	Dark Desire	6
	purple brown	brun pourpre	purpurbraun	marrón púrpura		7
	brown	brun	braun	marrón		8
	purple black	noir pourpre	purpurschwarz	negro púrpura		9
	brown black	noir brun	braunschwarz	negro amarronado		10

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
55.	<u>Only single and semi double varieties (see char. 21) which are daisy type (see char. 22):</u> Disc: color at anther dehiscence	<u>Seulement les variétés simples et semi-doubles (voir car. 21) de type marguerite (voir car. 22):</u> Disque: couleur à la déhiscence des anthères	<u>Nur einfache und halbgefüllte Sorten (siehe Merkmal 21), mit margeritenförmiger Scheibe (siehe Merkmal 22):</u> Scheibe: Farbe bei Pollenstäuben	<u>Únicamente variedades con capítulo sencillo y semidoble (véase el carácter 21) que sean del tipo margarita (véase el carácter 22):</u> Disco: color en la dehiscencia de las anteras		
PQ	whitish	blanchâtre	weißlich	blancuzco		1
	green	vert	grün	verde		2
	yellow green	vert jaune	gelbgrün	verde amarillento		3
	yellow	jaune	gelb	amarillo	Salvador	4
	orange	orange	orange	naranja	Kiedahlem	5
	red brown	brun rouge	rotbraun	marrón rojizo		6
	purple brown	brun pourpre	purpurbraun	marrón púrpura		7
	brown	brun	braun	marrón		8
	purple black	noir pourpre	purpurschwarz	negro púrpura		9
	brown black	noir brun	braunschwarz	negro amarronado		10
56. (*)	<u>Only anemone-type varieties (see char. 22):</u> Disc florets: color	<u>Seulement les variétés de type anémone (voir car. 22):</u> Fleurons du disque: couleur	<u>Nur Sorten mit anemonenförmiger Scheibe (siehe Merkmal 22):</u> Scheibenblüten: Farbe	<u>Únicamente variedades del tipo anémona (véase el carácter 22):</u> Flósculos del disco: color		
PQ	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar el número de referencia)		
57. (*)	<u>Only collerette-type varieties (see char. 23):</u> Collar segments: color	<u>Seulement les variétés de type collerette (voir car. 23):</u> Segments de collerette: couleur	<u>Nur Sorten mit Kragensegmenten (siehe Merkmal 23):</u> Kragensegmente: Farbe	<u>Únicamente variedades de tipo collerette (véase el carácter 23):</u> lígulas del collar: color		
PQ	RHS Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer le numéro de référence)	RHS-Farbkarte (Nummer angeben)	Carta de colores RHS (indicar el número de referencia)		

8. Explanations on the Table of Characteristics

8.1 *Explanations covering several characteristics*

Unless otherwise indicated, all characteristics should be examined 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) Leaf characteristics are recorded on typical leaves taken from the middle third of the stem, and are recorded on the whole leaf regardless of the number of leaflets, looking at the upper surface.
- (b) Ray floret length and width characteristics should be observed on the outermost row of ray florets.
- (c) In all but single flowered varieties, all ray floret characteristics, other than length and width characteristics (see note (b)), should be observed on the most typical florets, excluding the innermost and outermost rows, unless otherwise stated.
- (d) The main color is the color with the largest total surface area, the second color (if present) is the color with the second largest total surface area, and the third color (if present) is that with the third largest total surface area.

8.2 *Explanations for individual characteristics*

Ad. 1: Plant: growth habit



1
upright



2
semi-upright



3
semi-spreading



4
spreading

Ad. 3: Stem: color

The stem color should be observed on the middle third of the stem, excluding the peduncle.

Ad. 4: Leaf: type



simple



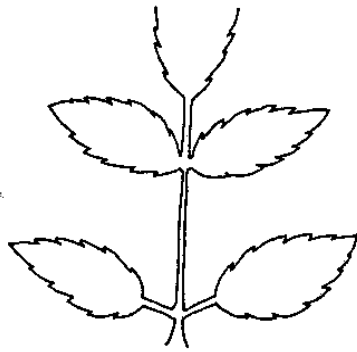
pinnate



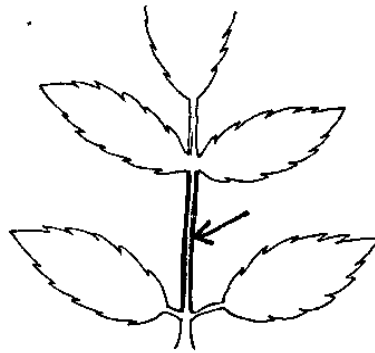
bipinnate

It is common to find a number of different leaf types within each plant of a Dahlia variety but the proportion of each type on the plant should be consistent within a variety.

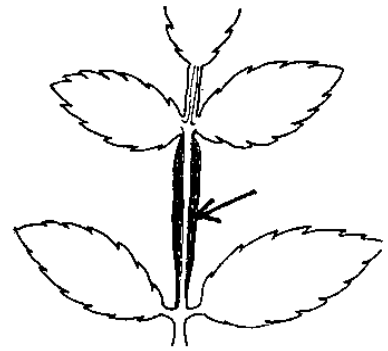
Ad. 5: Leaf: wing



1
absent or weak



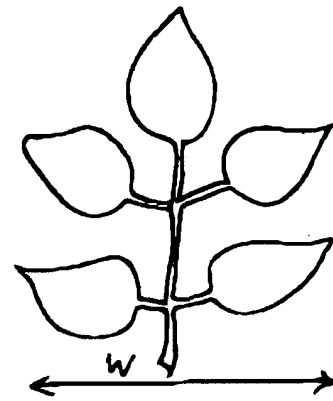
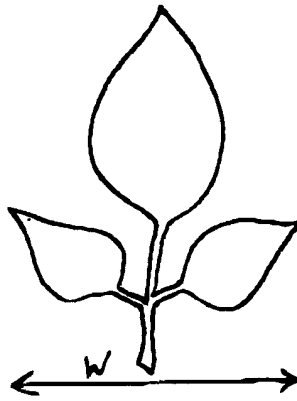
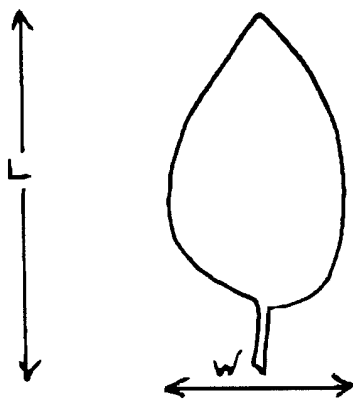
2
moderate



3
strong

Ad. 6: Leaf: length including petiole

Ad. 7: Leaf: width



Ad. 13: Leaflet: shape

Ad. 14: Leaflet: shape of base

Ad. 15: Leaflet margin: number of incisions (excluding lobes)

Ad. 16: Leaflet margin: depth of incisions (excluding lobes)

These characteristics should be recorded on the terminal leaflet for compound leaves. In the case of simple leaves, they are recorded on the whole leaf.

Ad. 14: Leaflet: shape of base



1
acute



2
obtuse



3
rounded



4
truncate



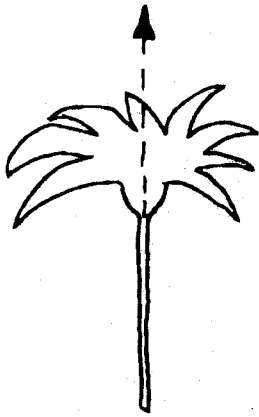
5
cordate



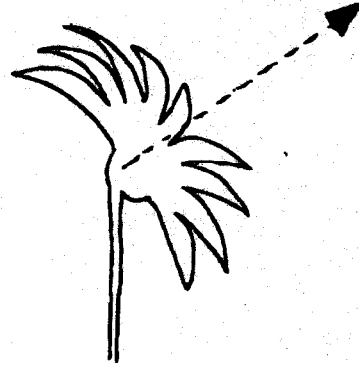
6
asymmetric

All varieties with asymmetric bases should be observed as state 6 for this characteristic, although the shape of the base of asymmetric varieties may be different from each other.

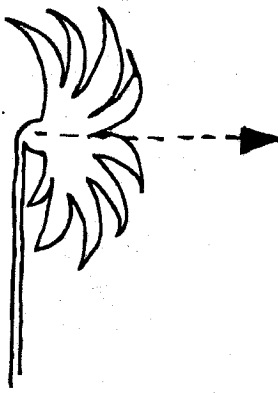
Ad. 20: Flower head: attitude



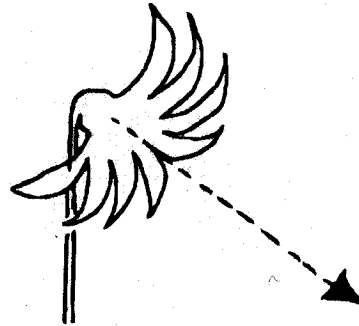
1
upward



3
semi upright



5
horizontal



7
moderately downward

Ad. 21: Flower head: type

1. single: flower heads with one row of ray florets, and a clearly defined central disc which is always visible.
2. semi double: flower heads with more than one row of ray florets, and a clearly defined central disc which is always visible.
3. 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.
4. double: double flower heads where a disc is not visible at any stage of flowering.



1
single



2
semi double



3
daisy-eyed double



4
double

Ad. 22: Only single and semi double varieties (see char. 21): Flower head: disc type



1
daisy



2
anemone

Ad. 23: Flower head: collar segments

Collar segments

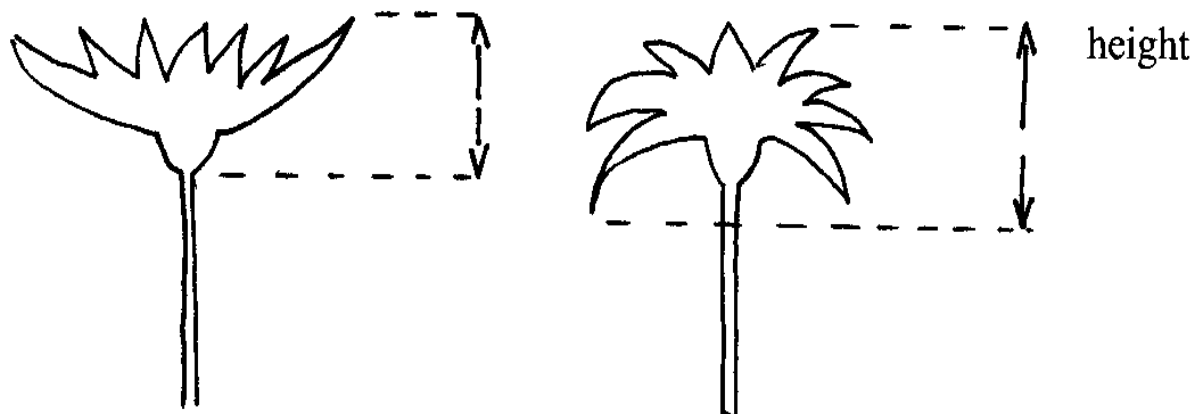


1
absent



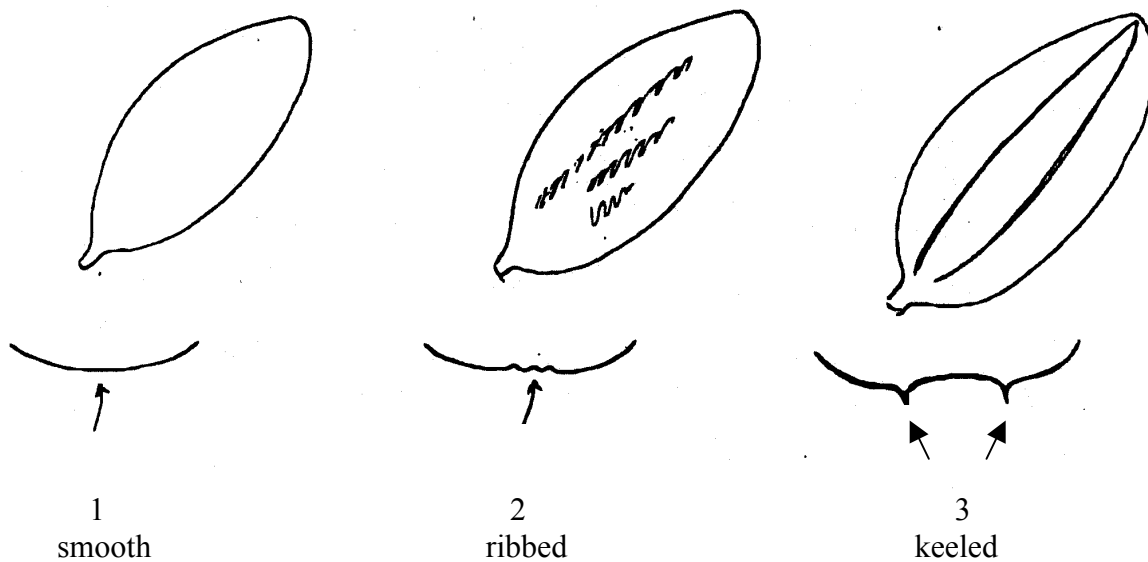
9
present (collerette type)

Ad. 26: Only double and daisy-eyed double varieties (see char. 21): Flower head: height



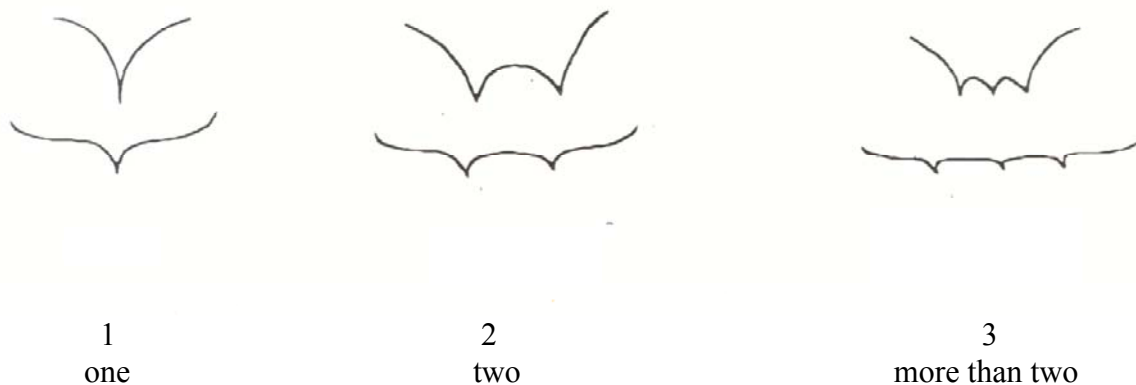
Ad. 32: Ray floret: upper surface

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



Ad. 33: Ray floret: number of keels on keeled florets

As seen in profile.

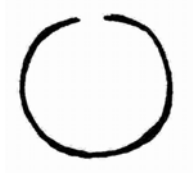


Ad. 34: Ray floret: profile in cross section at mid point

Ad. 35: Ray floret: profile in cross section at $\frac{3}{4}$ point from base, if different from mid-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. 36: 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. 38: Ray floret: longitudinal axis



1
incurving



2
straight



3
reflexing

Ad. 41: Ray floret: twisting



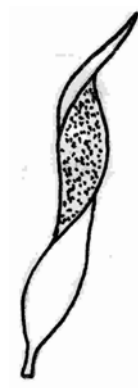
1

absent or very weak



2

weak or moderate



3

strong

Ad. 42: Ray floret: shape of apex



1
pointed



2
rounded



3
retuse



4
dentate



5
mamillate



6
fringed



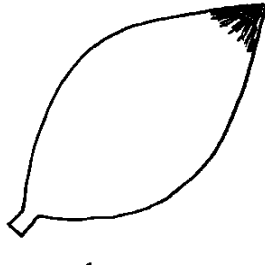
7
laciniate



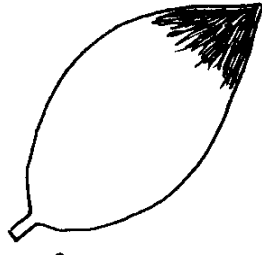
8
horned

Ad. 46: Ray floret: distribution of second colour of inner side

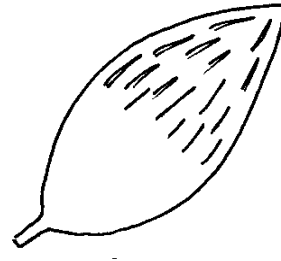
Ad. 49: Ray floret: distribution of third colour of inner side



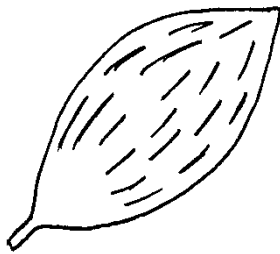
1
at tip



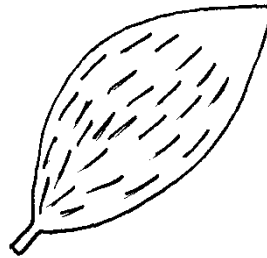
2
distal quarter



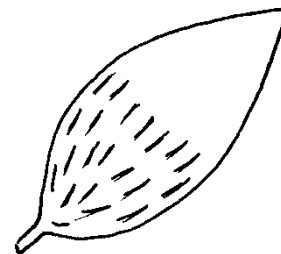
3
distal half



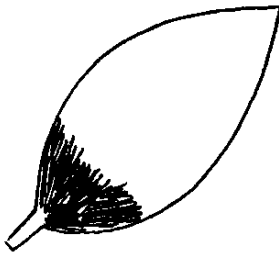
4
distal three quarters



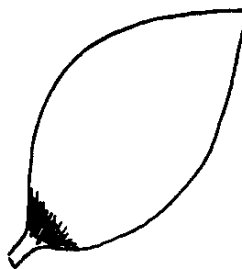
5
basal three quarters



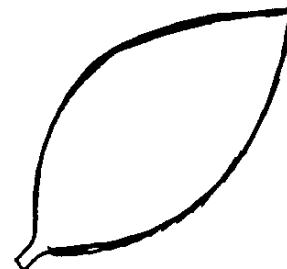
6
basal half



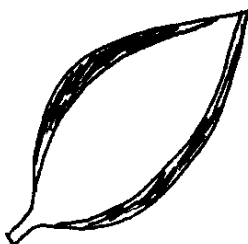
7
basal quarter



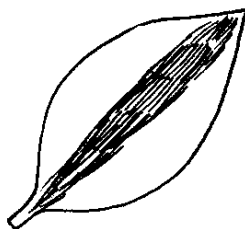
8
at base



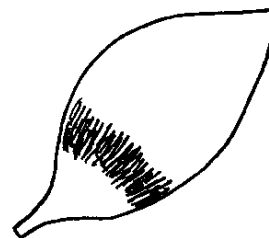
9
on margin



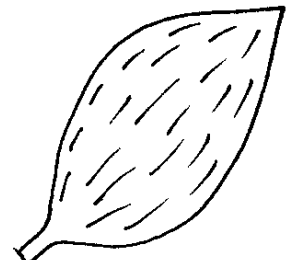
10
marginal zone



11
central bar



12
transverse zone
[band]



13
throughout

Ad. 47: Ray floret: pattern of second colour of inner side

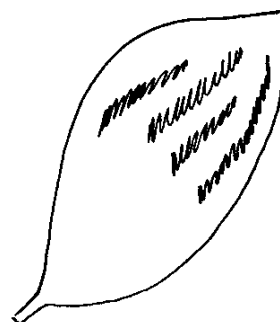
Ad. 50: Ray floret: pattern of third colour of inner side



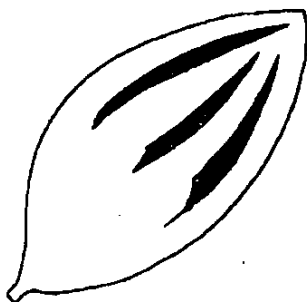
1
solid or nearly
solid



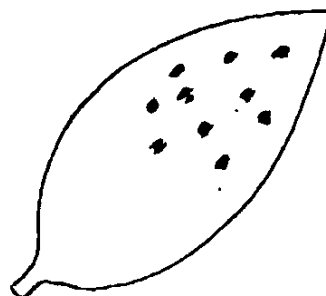
2
flushed



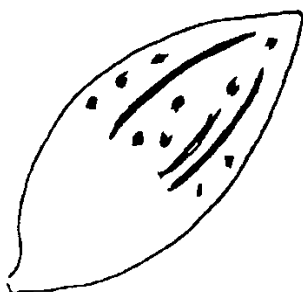
3
diffuse stripes



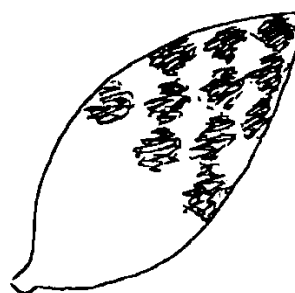
4
clearly defined
stripes



5
flecked



6
flecked and
striped



7
mottled

9. Literature

Collins, Ted, 2001: The New Plant Library - Dahlias, Anness Publishing Ltd, London, UK

Collins, Ted, 2003: Dahlias - A Colour Guide, The Crowood Press Ltd, Marlborough, UK

McClaren, Bill, 2004: Encyclopedia of Dahlias, Timber Press, Portland, US

Rowlands, Gareth, 1999: The Gardeners Guide to Growing Dahlias, David and Charles Publishers, Devon, UK

The Royal Horticultural Society 1969 - 2005: The International Dahlia Register (1969) and supplements, The Royal Horticultural Society, London, UK

The Royal Horticultural Society 1992: The New RHS Dictionary Index of Gardening, Macmillan Press, London, UK

The Royal Horticultural Society, 1994: The New RHS Dictionary Index of Garden Plants, Macmillan Press, London, UK

The Royal Horticultural Society, 1998: A-Z Encyclopedia of Garden Plants, Dorling Kindersley, London, UK

10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
		Application date: (not to be filled in by the applicant)
TECHNICAL QUESTIONNAIRE to be completed in connection with an application for plant breeders' rights		
1. Subject of the Technical Questionnaire		
1.1 Botanical name	Dahlia Cav.	
1.2 Common name	Dahlia	
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		

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
#4. Information on the breeding scheme and propagation of the variety 4.1 Breeding scheme Variety resulting from: 4.1.1 Crossing (a) controlled cross [] (please state parent varieties) (b) partially known cross [] (please state known parent variety(ies)) (c) unknown cross [] 4.1.2 Mutation [] (please state parent variety) 4.1.3 Discovery and development [] (please state where and when discovered and how developed) 4.1.4 Other [] (please provide details) 4.2 Method of propagating the variety 4.2.1 Vegetative propagation (a) cuttings [] (b) tubers [] (c) <i>in vitro</i> propagation [] (d) other (state method) [] 4.2.2 Seed [] (please provide details) 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		
(2)			
	short	Gallery Rubens	3[]
	medium	Dark Desire	5[]
	tall	Hot Chocolate	7[]
5.2	Leaf: color		
(9)			
	light green	Rio	1[]
	medium green	Red Fox	2[]
	dark green	Frivolous Glow	3[]
	green tinged with brownish red	City of Rotterdam	4[]
	green tinged with purple	Passion	5[]
	brownish red	Nippon	6[]
	purple	Tresor	7[]
5.3	Flower head: type		
(21)			
	single	Dark Desire	1[]
	semi double	Bishop of Llandaff	2[]
	daisy-eyed double	Carolina Orange	3[]
	double	Passion	4[]
5.4	<u>Only single and semi double varieties (see char. 21):</u>		
(22)	Flower head: disc type		
	daisy	Dark Desire	1[]
	anemone	Scarlet Comet	2[]

TECHNICAL QUESTIONNAIRE		Page {x} of {y}	Reference Number:
Characteristics		Example Varieties	Note
5.5 (25)	Flower head: diameter		
	small	Jaimaica	3[]
	medium	Passion	5[]
	large		7[]
5.6 (43)	Ray floret: number of colors of inner side		
	one	Red Fox	1[]
	two	Papagaya	2[]
	more than two	Secret Glow	3[]
5.7(i) (44)	Ray floret: main color of inner side		
	RHS Colour Chart (indicate reference number)		
			
5.7(ii) (44)	Ray floret: main color of inner side		
	white		1[]
	off-white		2[]
	yellow		3[]
	bronze		4[]
	orange		5[]
	orange red		6[]
	salmon		7[]
	pink		8[]
	red		9[]
	red purple		10[]
	purple		11[]
	violet		12[]
	other color (indicate)		13[]
			

TECHNICAL QUESTIONNAIRE		Page {x} of {y}	Reference Number:
Characteristics		Example Varieties	Note
5.8(i) Ray floret: second color of inner side (45) RHS Colour Chart (indicate reference number) 			
5.8(ii) Ray floret: second color of inner side (45) white 1[] off-white 2[] yellow 3[] bronze 4[] orange 5[] orange red 6[] salmon 7[] pink 8[] red 9[] red purple 10[] purple 11[] violet 12[] other color (indicate) 13[] 			

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:	
6. Similar varieties and differences from these varieties <i>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.</i>			
Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the similar variety(ies)	Describe the expression of the characteristic(s) for your candidate variety
<i>Example</i>	<i>Flower head: diameter</i>	<i>small</i>	<i>medium</i>
Comments:			

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:												
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: <table style="width: 100%; border: none;"><tr><td style="width: 60%;">(a) Microorganisms (e.g. virus, bacteria, phytoplasma)</td><td style="width: 20%;">Yes []</td><td style="width: 20%;">No []</td></tr><tr><td>(b) Chemical treatment (e.g. growth retardant, pesticide)</td><td>Yes []</td><td>No []</td></tr><tr><td>(c) Tissue culture</td><td>Yes []</td><td>No []</td></tr><tr><td>(d) Other factors</td><td>Yes []</td><td>No []</td></tr></table> Please provide details for where you have indicated “yes”. 			(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 []
(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 []												
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]