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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT

TULIP

UPOV Code: TULIP

(Tulipa L.)

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from the Netherlands

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

Alternative Names:*

<i>Latin</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Tulipa L.</i>	Tulip	Tulipe	Tulpe	Tulipán

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.]

<u>TABLE OF CONTENTS</u>	<u>PAGE</u>
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.....	6
6.3 Types of Expression.....	6
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	17
8.1 Explanations covering several characteristics	17
8.2 Explanations for individual characteristics	17
8.3 Plant: classification: groups	17
9. LITERATURE.....	19
10. TECHNICAL QUESTIONNAIRE.....	20

ANNEX

1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Tulipa L.*

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 bulbs of flowering **and commercial** size.

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

30 bulbs

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, unless otherwise indicated, all observations should be made on fully grown, typical organs, shortly after the flower has opened for the first time.

3.3.2 *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 25 flowering 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 should be made on 10 plants or parts taken from each of 10 plants. In the case of parts of plants, the number to be taken from each of the plants should be one.

3.6 *Additional Tests*

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

4. Assessment of Distinctness, Uniformity and Stability

4.1 *Distinctness*

4.1.1 General Recommendations

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

4.1.2 Consistent Differences

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

4.1.3 Clear Differences

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

4.2 *Uniformity*

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

4.2.2 For the assessment of uniformity, a population standard of 1% and an acceptance probability of at least 95 % should be applied. In the case of a sample size of 25 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) Flower: type (characteristic 10)
- (b) Flower: main color group (characteristic 14): UPOV Color groups

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

5.5 Tulips can be classified according to the following two classification groups (see Chapter 8.3):

A.

Single-flowered	(1)
Double-flowered	(2)

B.

Lily-flowered	(1)
Fringed	(2)
Viridiflora	(3)
Parrot	(4)
Kaufmanniana	(5)
Fosteriana	(6)
Greigii	(7)
Other	(8)

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) 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	very short				Red Hunter (<i>T.batalinii</i>), Lilliput (<i>T.humilis</i>)	1
	short				Canasta, Peach Blossom	3
	medium				Upstar	5
	tall				Apeldoorn	7
	very tall				Temple of Beauty	9
2. (*)	Stem: number of flowers					
QL	one				Apeldoorn	1
	more than one				Georgette	2
3. (*)	Stem: anthocyanin coloration					
QL	absent				Upstar	1
	present				Dow Jones	9
4. (*)	Stem: position of anthocyanin coloration					
QL	distal part only				Dow Jones	1
	whole stem				Halloween	2

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
5. (*)	Leaf: shape					
PQ	linear				Lilliput (<i>T. humilis</i>)	1
	narrow elliptic					2
	medium elliptic				Blushing Beauty	3
	broad elliptic				Apeldoorn	4
	narrow ovate					5
	medium ovate				Havran	6
	broad ovate				Grand Prestige	7
6. (*)	Leaf: variegation					
QL	absent				Apeldoorn	1
	present				Unicum (<i>T. praestans</i>)	9
7. (*)	Leaf: pattern of variegation					
PQ	picotee				Madame Lefeber, Happy Generation	1
	margin				Diplomat, Flashpoint	2
	dots				Grand Prestige, Fiesta	3
	dots and stripes				Calypso, Ali Baba	4
	stripes				Toulon	5
8. (*)	Leaf: color of variegation					
PQ	white				Madame Lefeber, Unicum (<i>T. praestans</i>)	1
	yellow green				Darwen Design	2
	yellow				Ton Augustinus	3
	pink					4
	red					5
	purple				First Love, Kopenhagen	6

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
9. (*)	Leaf: undulation of margin						
QL	absent				Apeldoorn	1	
	present				Christmas Marvel	9	
10. (*)	Flower: type						
(+)	single				Apeldoorn	1	
QL	double				Monte Carlo	2	
11. (*)	Flower: length						
QN	very short				Lilliput (<i>T.humilis</i>)	1	
	short				Monte Carlo	3	
	medium				Pink Impression	5	
	long				Gander	7	
	very long				Tender Beauty	9	
12. (*)	<u>Double and Lily flowered types excluded:</u>Flower: shape						
QL	ellipsoid				Prinses Irene	1	
	ovoid				Purple States, Apeldoorn	2	
13. (*)	Flower: main color						
PQ	RHS Colour Chart						
	(Indicate reference number)						

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
14. (*) (+)	Flower: main color group						
PQ	(a) UPOV Color groups						
	(Indicate reference number)						
15. (*)	Flower: number of colors on outer side						
QL	one				Apeldoorn	1	
	two				Early Surprise	2	
	three or more				Tricolette	3	
16. (*)	<u>Only varieties with more than one color on outer side:</u>						
	Flower: distribution of secondary color on outer side:						
PQ	picotee				Yellow Pompenette	1	
	marginied				Lustige Witwe	2	
	flamed				Prinses Irene	3	
	flushed				Peach Blossom	4	
	bottom				Gudosnik	5	
17.	<u>Only varieties with more than one color on outer side:</u>						
	Flower: secondary color on outer side						
PQ	RHS Colour Chart						
	(Indicate reference number)						

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
18.	<u>Only varieties with more than one color on outer side:</u>						
	Flower: secondary color on outer side						
PQ	(a) UPOV Color Groups						
	(Indicate reference number)						
19.	Flower: fringe						
(*)							
QL	absent				Apeldoorn	1	
	present				Fancy Frills, Barbados	9	
20.	Flower: conspicuousness of fringe						
(*)							
QN	weak				Arma	1	
	medium				Crystal Beauty	2	
	strong				Valery Gergiev, Barbados	3	
21.	Flower: position of fringe on tepals						
(*)							
PQ	top only				Calibra	1	
	all over the margin				Hamilton, Capri	2	
	irregular					3	
22.	Flower: shape of tip of outer tepal						
(*)							
PQ	acuminate				Aladdin	1	
	acute				Temple of Beauty	2	
	rounded				Caravelle	3	
	emarginate				Jan van Nes	4	

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
23. (*)	Flower: main color of central part of <u>outer side</u> of inner tepal					
PQ	RHS Colour Chart (indicate reference number)					
24. (*)	Flower: main color of marginal part of <u>outer side</u> of inner tepal					
PQ	RHS Colour Chart (indicate reference number)					
25. (*)	Flower: main color of central part of <u>inner side</u> of inner tepal					
PQ	RHS Colour Chart (indicate reference number)					
26.	Flower: main color of central part of <u>inner side</u> of inner tepal					
PQ (a)	UPOV Color Group (indicate reference number)					
27. (*)	Flower: main color of marginal part of <u>inner side</u> of inner tepal					
PQ	RHS Colour Chart (indicate reference number)					

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
28.	Flower: main color of marginal part of <u>inner side of inner tepal</u>					
PQ	(a) UPOV Color Group					
	(indicate reference number)					
29.	Flower: main color of macule on inner side					
(+)						
PQ	RHS Colour Chart					
	(Indicate reference number)					
30.	Flower: main color of macule on inner side					
(*)						
(+)						
PQ	(a) UPOV Color Groups					
	(Indicate reference number)					
31.	Flower: different color of border of macule					
(*)						
QL	absent				Blushing Apeldoorn	1
	present				Apeldoorn	9
32.	Stamen: number of colors of filament					
(*)						
QL	one					1
	two					2

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
33. (*)	Stamen: color of basal half of filament					
PQ	white					1
	light yellow					2
	medium yellow					3
	dark yellow					4
	purple					5
	blue					6
	black					7
34. (*)	Stamen: color of distal half of filament					
PQ	white					1
	light yellow					2
	medium yellow					3
	dark yellow					4
	purple					5
	blue					6
	black					7
35. (*)	Stamen: color of pollen					
PQ	greenish				Easter Moon	1
	yellow				Gander Special	2
	yellow and purple or black					3
	purple or black				Christmas Orange	4

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
36. (*)	Plant: beginning of flowering					
QN	early				Lovesong (<i>T.kaufmanniana</i>)	1
	medium				Apeldoorn	2
	late				Temple of Beauty	3

8. Explanations on the Table of Characteristics

8.1 *Explanations covering several characteristics*

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

- (a) The UPOV color groups are presented in the Annex to these Test Guidelines.

8.2 *Explanations for individual characteristics*

Ad. 10: Flower: type

Double varieties are varieties with 12 or more tepals.

Ad. 29, 30: Flower: main color of macule on inner side

The macule should be observed as an entity and the tepals should not be spread.

8.3 *Plant: classification: groups*

A.

1. Single-flowered group
2. Double-flowered group

B.

1. Lily-flowered group: usually single flowered, mid season or late flowering, flowers with pointed reflexed tepals. Stem of variable length.
2. Fringed group: usually single flowered tepals are edged with crystal shaped fringes, mid season or late flowering. Stem of variable length.
3. Viridiflora group: usually single flowered with partly greenish tepals. Late flowering. Stem of variable length.
4. Parrot group: single flowered with lacinate, curled and twisted tepals. Mainly late flowering. Stem of variable length.
5. Kaufmanniana group: *Tulipa kaufmanniana* with her cultivars, subspecies, varieties and hybrids, which resemble *T.kaufmanniana*. Very early flowering, sometimes with mottled foliage. Flower with multicolored base opens fully. Exterior normally with a clear carmine blush. Height up to 20 cm.
6. Fosteriana group: *Tulipa fosteriana* with her cultivars, subspecies, varieties, and hybrids which resemble *T.fosteriana*. Early flowering, leaves very broad, green or grey green, sometimes mottled or striped. Stem medium to long. Large long flower, base variable.
7. Greigii group: *Tulipa greigii* with her cultivars, subspecies, varieties, and hybrids which resemble *T.greigii*. Mostly with striped or mottled foliage, flowering later than *kaufmanniana*. Leaves spreading normally on the ground, mostly strongly undulated. Flower shape variable or striped. Stem medium to long. Large long flower, base variable.
8. In fact not a cultivar group, but the collection of all species, varieties and their cultivars in which the wild species is evident, not belonging to any of the above mentioned cultivar groups.

9. Literature

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Scheepen, J.van, 1995: Cultivar groups in the genus *Tulipa L. (Liliaceae)*, Acta Hort. 413, p. 137-143

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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	<input type="text" value="Tulipa L."/>	
1.2 Common name	<input type="text" value="Tulip"/>	
2. Applicant		
Name	<input type="text"/>	
Address	<input type="text"/>	
Telephone No.	<input type="text"/>	
Fax No.	<input type="text"/>	
E-mail address	<input type="text"/>	
Breeder (if different from applicant)	<input type="text"/>	
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:
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#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

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:
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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: classification: groups		
	lily flowered		1[]
	fringed		2[]
	viridiflora		3[]
	parrot		4[]
	kaufmanniana		5[]
	fosteriana		6[]
	greigii		7[]
	Other (please specify)		8[]
5.2 (10)	Flower: type		
	single	Apeldoorn	1[]
	double	Monte Carlo	2[]
5.3i (13)	Flower: main color		
	RHS Colour Chart		
	(Indicate reference number)		
5.3ii (14)	Flower: main color group		
	UPOV Color Group		
	(Indicate reference number)		
5.4 (36)	Plant: beginning of flowering		
	early	<i>T. kaufmanniana</i>	1[]
	medium	Apeldoorn	2[]
	late	Temple of Beauty	3[]

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
---	---	--	--

<i>Example</i>		<i>(example to be inserted)</i>	<i>(example to be inserted)</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 details)

7.3 Other information

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

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.

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:
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9. Information on plant material to be examined.

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 or pesticide) | Yes [] | No [] |
| (c) Tissue culture | Yes [] | No [] |
| (d) Other factors | Yes [] | No [] |

Please provide details of where you have indicated “yes”.

.....

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

Applicant's name

Signature

Date

[Annex follows]

ANNEX

UPOV COLOR GROUPS

1. The 50 UPOV color groups are as follows:

UPOV Group No.	English	français	deutsch	español
1	yellow green		gelbgrün	
2	yellow		gelb	
3	light yellow		hellgelb	
4	yellow orange		gelborange	
5	light yellow orange		hellgelborange	
6	orange		orange	
7	orange pink		orangerosa	
8	orange red		orangerot	
9	red		rot	
10	light red pink		hellrotrosa	
11	red pink		rotrosa	
12	dark pink red		dunkelrosarot	
13	purple red		purpurrot	
14	dark purple red		dunkelpurpurrot	
15	purple		purpur	
16	light blue pink		hellblaurosa	
17	blue pink		blaurosa	
18	violet		violett	
19	light blue violet		hellblauviolett	
20	dark violet		dunkelviolett	
21	blue violet		blauviolett	
22	violet blue		violettblau	
23	light violet blue		hellviolettblau	
24	blue		blau	
25	dark blue		dunkelblau	
26	light blue		hellblau	
27	light green blue		hellgrünblau	
28	green blue		grünblau	
29	light blue green		hellblaugrün	
30	grey blue		graublau	
31	blue green		blaugrün	
32	grey green		graugrün	
33	green		grün	
34	light green		hellgrün	
35	brown green		braungrün	
36	green brown		grünbraun	
37	dark green		dunkelgrün	
38	grey brown		graubraun	
39	yellow brown		gelbbraun	
40	orange brown		orangebraun	
41	light brown		hellbraun	
42	brown		braun	
43	brown red		braunrot	
44	brown purple		braunpurpur	
45	dark brown		dunkelbraun	
46	light yellow brown		hellgelbbraun	

UPOV Group No.	English	français	deutsch	español
47	grey		grau	
48	green grey		grüngrau	
49	black		schwarz	
50	white		weiss	

2. The following sections of this Annex allocate the colors in the RHS Colour Chart to the appropriate UPOV color groups as follows:

Section I: Allocation of Color Groups for each RHS Color in
RHS Reference order

Section II: RHS Colors contained in each UPOV Group

[Section I follows]

SECTION I

UPOV COLOR GROUPS ACCORDING TO
RHS COLOUR CHART REFERENCE (2001 EDITION)

UPOV Group No.	English	français	deutsch	español
001A	yellow		gelb	
001B	yellow green		gelbgrün	
001C	yellow green		gelbgrün	
001D	yellow green		gelbgrün	
002A	yellow		gelb	
002B	yellow		gelb	
002C	yellow green		gelbgrün	
002D	yellow green		gelbgrün	
003A	yellow		gelb	
003B	yellow		gelb	
003C	yellow		gelb	
003D	yellow green		gelbgrün	
004A	yellow		gelb	
004B	yellow		gelb	
004C	yellow green		gelbgrün	
004D	light yellow		hellgelb	
005A	yellow		gelb	
005B	yellow		gelb	
005C	yellow		gelb	
005D	light yellow		hellgelb	
006A	yellow		gelb	
006B	yellow		gelb	
006C	yellow		gelb	
006D	light yellow		hellgelb	
007A	yellow		gelb	
007B	yellow		gelb	
007C	yellow		gelb	
007D	yellow		gelb	
008A	yellow		gelb	
008B	light yellow		hellgelb	
008C	light yellow		hellgelb	
008D	light yellow		hellgelb	
009A	yellow		gelb	
009B	yellow		gelb	
009C	light yellow		hellgelb	
009D	light yellow		hellgelb	
010A	light yellow		hellgelb	
010B	light yellow		hellgelb	
010C	light yellow		hellgelb	
010D	light yellow		hellgelb	
011A	yellow orange		gelborange	
011B	light yellow		hellgelb	
011C	light yellow		hellgelb	
011D	light yellow orange		hellgelborange	
012A	yellow		gelb	
012B	yellow		gelb	
012C	light yellow		hellgelb	

UPOV Group No.	English	français	deutsch	español
012D	light yellow		hellgelb	
013A	yellow orange		gelborange	
013B	yellow orange		gelborange	
013C	yellow orange		gelborange	
013D	light yellow		hellgelb	
014A	yellow orange		gelborange	
014B	yellow orange		gelborange	
014C	yellow orange		gelborange	
014D	light yellow		hellgelb	
015A	yellow orange		gelborange	
015B	yellow orange		gelborange	
015C	yellow orange		gelborange	
015D	light yellow		hellgelb	
016A	yellow orange		gelborange	
016B	yellow orange		gelborange	
016C	yellow orange		gelborange	
016D	light yellow		hellgelb	
017A	yellow orange		gelborange	
017B	yellow orange		gelborange	
017C	yellow orange		gelborange	
017D	yellow orange		gelborange	
018A	yellow orange		gelborange	
018B	light yellow orange		hellgelborange	
018C	light yellow orange		hellgelborange	
018D	light yellow orange		hellgelborange	
019A	yellow orange		gelborange	
019B	light yellow orange		hellgelborange	
019C	light yellow orange		hellgelborange	
019D	light yellow orange		hellgelborange	
020A	yellow orange		gelborange	
020B	yellow orange		gelborange	
020C	light yellow orange		hellgelborange	
020D	light yellow orange		hellgelborange	
021A	yellow orange		gelborange	
021B	yellow orange		gelborange	
021C	yellow orange		gelborange	
021D	light yellow orange		hellgelborange	
022A	yellow orange		gelborange	
022B	light yellow orange		hellgelborange	
022C	light yellow orange		hellgelborange	
022D	light yellow orange		hellgelborange	
023A	yellow orange		gelborange	
023B	yellow orange		gelborange	
023C	light yellow orange		hellgelborange	
023D	light yellow orange		hellgelborange	
024A	orange		orange	
024B	orange		orange	
024C	orange		orange	
024D	orange		orange	
025A	orange		orange	
025B	orange		orange	

UPOV Group No.	English	français	deutsch	español
025C	orange		orange	
025D	orange		orange	
N 025A	orange red		orangerot	
N 025B	orange		orange	
N 025C	orange		orange	
N 025D	yellow orange		gelborange	
026A	orange		orange	
026B	orange		orange	
026C	orange		orange	
026D	orange		orange	
027A	orange pink		orangerosa	
027B	orange pink		orangerosa	
027C	orange pink		orangerosa	
027D	orange pink		orangerosa	
028A	orange red		orangerot	
028B	orange		orange	
028C	orange		orange	
028D	orange		orange	
029A	orange		orange	
029B	orange		orange	
029C	orange pink		orangerosa	
029D	orange pink		orangerosa	
030A	orange red		orangerot	
030B	orange red		orangerot	
030C	orange red		orangerot	
030D	orange		orange	
N 030A	red		rot	
N 030B	orange red		orangerot	
N 030C	orange red		orangerot	
N 030D	orange		orange	
031A	orange red		orangerot	
031B	orange brown		orangebraun	
031C	orange brown		orangebraun	
031D	orange pink		orangerosa	
032A	orange red		orangerot	
032B	orange red		orangerot	
032C	orange brown		orangebraun	
032D	orange pink		orangerosa	
033A	red		rot	
033B	orange red		orangerot	
033C	orange brown		orangebraun	
033D	orange pink		orangerosa	
034A	red		rot	
034B	orange brown		orangebraun	
034C	orange brown		orangebraun	
034D	orange brown		orangebraun	
N 034A	dark purple red		dunkelpurpurrot	
N 034B	red		rot	
N 034C	dark pink red		dunkelrosarot	
N 034D	orange brown		orangebraun	
035A	orange brown		orangebraun	

UPOV Group No.	English	français	deutsch	español
035B	orange red		orangerot	
035C	orange pink		orangerosa	
035D	light red pink		hellrotrosa	
036A	light red pink		hellrotrosa	
036B	light red pink		hellrotrosa	
036C	light red pink		hellrotrosa	
036D	light red pink		hellrotrosa	
037A	orange pink		orangerosa	
037B	orange pink		orangerosa	
037C	light red pink		hellrotrosa	
037D	light red pink		hellrotrosa	
038A	light red pink		hellrotrosa	
038B	light red pink		hellrotrosa	
038C	light red pink		hellrotrosa	
038D	light red pink		hellrotrosa	
039A	orange red		orangerot	
039B	orange red		orangerot	
039C	light red pink		hellrotrosa	
039D	light red pink		hellrotrosa	
040A	red		rot	
040B	red		rot	
040C	orange red		orangerot	
040D	orange red		orangerot	
041A	red		rot	
041B	orange red		orangerot	
041C	orange red		orangerot	
041D	light red pink		hellrotrosa	
042A	red		rot	
042B	red		rot	
042C	red		rot	
042D	orange red		orangerot	
043A	red		rot	
043B	red		rot	
043C	red pink		rotrosa	
043D	red pink		rotrosa	
044A	red		rot	
044B	red		rot	
044C	red		rot	
044D	orange red		orangerot	
045A	red		rot	
045B	red		rot	
045C	red		rot	
045D	dark pink red		dunkelrosarot	
046A	dark purple red		dunkelpurpurrot	
046B	red		rot	
046C	red		rot	
046D	dark pink red		dunkelrosarot	
047A	red		rot	
047B	red		rot	
047C	dark pink red		dunkelrosarot	
047D	red pink		rotrosa	

UPOV Group No.	English	français	deutsch	español
048A	dark pink red		dunkelrosarot	
048B	red pink		rotrosa	
048C	red pink		rotrosa	
048D	red pink		rotrosa	
049A	red pink		rotrosa	
049B	light red pink		hellrotrosa	
049C	light red pink		hellrotrosa	
049D	light red pink		hellrotrosa	
050A	red		rot	
050B	dark pink red		dunkelrosarot	
050C	red pink		rotrosa	
050D	light red pink		hellrotrosa	
051A	dark pink red		dunkelrosarot	
051B	dark pink red		dunkelrosarot	
051C	red pink		rotrosa	
051D	red pink		rotrosa	
052A	dark pink red		dunkelrosarot	
052B	red pink		rotrosa	
052C	red pink		rotrosa	
052D	red pink		rotrosa	
053A	dark purple red		dunkelpurpurrot	
053B	dark purple red		dunkelpurpurrot	
053C	dark pink red		dunkelrosarot	
053D	dark pink red		dunkelrosarot	
054A	purple red		purpurrot	
054B	purple red		purpurrot	
054C	purple red		purpurrot	
054D	light blue pink		hellblaurosa	
055A	purple red		purpurrot	
055B	purple red		purpurrot	
055C	light blue pink		hellblaurosa	
055D	light blue pink		hellblaurosa	
056A	light blue pink		hellblaurosa	
056B	light blue pink		hellblaurosa	
056C	light blue pink		hellblaurosa	
056D	light blue pink		hellblaurosa	
N 057A	purple red		purpurrot	
N 057B	purple red		purpurrot	
N 057C	purple red		purpurrot	
N 057D	purple red		purpurrot	
058A	purple		purpur	
058B	purple red		purpurrot	
058C	purple red		purpurrot	
058D	purple red		purpurrot	
059A	dark purple red		dunkelpurpurrot	
059B	dark purple red		dunkelpurpurrot	
059C	purple		purpur	
059D	purple red		purpurrot	
060A	dark purple red		dunkelpurpurrot	
060B	dark purple red		dunkelpurpurrot	
060C	purple		purpur	

UPOV Group No.	English	français	deutsch	español
060D	purple red		purpurrot	
061A	purple		purpur	
061B	purple		purpur	
061C	purple red		purpurrot	
061D	purple red		purpurrot	
062A	blue pink		blaurosa	
062B	light blue pink		hellblaurosa	
062C	light blue pink		hellblaurosa	
062D	light blue pink		hellblaurosa	
063A	purple red		purpurrot	
063B	blue pink		blaurosa	
063C	blue pink		blaurosa	
063D	light blue pink		hellblaurosa	
064A	purple		purpur	
064B	purple		purpur	
064C	blue pink		blaurosa	
064D	blue pink		blaurosa	
065A	blue pink		blaurosa	
065B	light blue pink		hellblaurosa	
065C	light blue pink		hellblaurosa	
065D	light blue pink		hellblaurosa	
N 066A	purple red		purpurrot	
N 066B	purple red		purpurrot	
N 066C	blue pink		blaurosa	
N 066D	blue pink		blaurosa	
067A	purple		purpur	
067B	blue pink		blaurosa	
067C	blue pink		blaurosa	
067D	blue pink		blaurosa	
068A	blue pink		blaurosa	
068B	blue pink		blaurosa	
068C	blue pink		blaurosa	
068D	light blue pink		hellblaurosa	
069A	light blue pink		hellblaurosa	
069B	light blue pink		hellblaurosa	
069C	light blue violet		hellblauviolett	
069D	light blue violet		hellblauviolett	
070A	purple		purpur	
070B	purple		purpur	
070C	blue pink		blaurosa	
070D	light blue pink		hellblaurosa	
071A	purple		purpur	
071B	purple		purpur	
071C	purple		purpur	
071D	blue pink		blaurosa	
072A	purple		purpur	
072B	purple		purpur	
072C	blue pink		blaurosa	
072D	blue pink		blaurosa	
073A	blue pink		blaurosa	
073B	blue pink		blaurosa	

UPOV Group No.	English	français	deutsch	español
073C	light blue pink		hellblaurosa	
073D	light blue pink		hellblaurosa	
N 074A	purple		purpur	
N 074B	purple		purpur	
N 074C	blue pink		blaurosa	
N 074D	blue pink		blaurosa	
075A	violet		violett	
075B	violet		violett	
075C	violet		violett	
075D	violet		violett	
076A	light blue violet		hellblauviolett	
076B	light blue violet		hellblauviolett	
076C	light blue violet		hellblauviolett	
076D	light blue violet		hellblauviolett	
077A	violet		violett	
077B	violet		violett	
077C	violet		violett	
077D	violet		violett	
N 077A	brown purple		braunpurpur	
N 077B	violet		violett	
N 077C	dark violet		dunkelviolett	
N 077D	violet		violett	
N 078A	violet		violett	
N 078B	violet		violett	
N 078C	violet		violett	
N 078D	violet		violett	
079A	dark violet		dunkelviolett	
079B	dark violet		dunkelviolett	
079C	dark violet		dunkelviolett	
079D	dark violet		dunkelviolett	
N 079A	dark violet		dunkelviolett	
N 079B	dark violet		dunkelviolett	
N 079C	purple		purpur	
N 079D	violet		violett	
N 080A	violet		violett	
N 080B	violet		violett	
N 080C	violet		violett	
N 080D	violet		violett	
N 081A	violet		violett	
N 081B	violet		violett	
N 081C	violet		violett	
N 081D	violet		violett	
N 082A	violet		violett	
N 082B	violet		violett	
N 082C	violet		violett	
N 082D	violet		violett	
083A	dark violet		dunkelviolett	
083B	dark violet		dunkelviolett	
083C	blue violet		blauviolett	
083D	blue violet		blauviolett	
084A	violet		violett	

UPOV Group No.	English	français	deutsch	español
084B	violet		violett	
084C	light blue violet		hellblauviolett	
084D	light blue violet		hellblauviolett	
085A	light blue violet		hellblauviolett	
085B	light blue violet		hellblauviolett	
085C	light blue violet		hellblauviolett	
085D	light blue violet		hellblauviolett	
086A	dark violet		dunkelviolett	
086B	blue violet		blauviolett	
086C	blue violet		blauviolett	
086D	blue violet		blauviolett	
N 087A	violet		violett	
N 087B	violet		violett	
N 087C	violet		violett	
N 087D	violet		violett	
N 088A	blue violet		blauviolett	
N 088B	blue violet		blauviolett	
N 088C	blue violet		blauviolett	
N 088D	blue violet		blauviolett	
N 089A	violet blue		violettblau	
N 089B	violet blue		violettblau	
N 089C	blue violet		blauviolett	
N 089D	blue violet		blauviolett	
090A	blue violet		blauviolett	
090B	blue violet		blauviolett	
090C	blue violet		blauviolett	
090D	blue violet		blauviolett	
091A	violet blue		violettblau	
091B	light violet blue		hellviolettblau	
091C	light violet blue		hellviolettblau	
091D	light violet blue		hellviolettblau	
092A	violet blue		violettblau	
092B	light violet blue		hellviolettblau	
092C	light violet blue		hellviolettblau	
092D	light violet blue		hellviolettblau	
N 092A	dark violet		dunkelviolett	
N 092B	violet blue		violettblau	
N 092C	violet blue		violettblau	
N 092D	blue violet		blauviolett	
093A	violet blue		violettblau	
093B	violet blue		violettblau	
093C	violet blue		violettblau	
093D	light violet blue		hellviolettblau	
094A	violet blue		violettblau	
094B	violet blue		violettblau	
094C	violet blue		violettblau	
094D	light violet blue		hellviolettblau	
095A	violet blue		violettblau	
095B	violet blue		violettblau	
095C	violet blue		violettblau	
095D	light violet blue		hellviolettblau	

UPOV Group No.	English	français	deutsch	español
096A	violet blue		violettblau	
096B	violet blue		violettblau	
096C	violet blue		violettblau	
096D	violet blue		violettblau	
097A	violet blue		violettblau	
097B	light violet blue		hellviolettblau	
097C	light violet blue		hellviolettblau	
097D	light violet blue		hellviolettblau	
098A	blue		blau	
098B	blue		blau	
098C	blue		blau	
098D	blue		blau	
099A	dark blue		dunkelblau	
099B	dark blue		dunkelblau	
099C	blue		blau	
099D	blue		blau	
100A	blue		blau	
100B	blue		blau	
100C	blue		blau	
100D	light violet blue		hellviolettblau	
101A	blue		blau	
101B	blue		blau	
101C	blue		blau	
101D	light blue		hellblau	
102A	dark blue		dunkelblau	
102B	blue		blau	
102C	blue		blau	
102D	blue		blau	
103A	dark blue		dunkelblau	
103B	dark blue		dunkelblau	
103C	dark blue		dunkelblau	
103D	blue		blau	
104A	blue		blau	
104B	blue		blau	
104C	blue		blau	
104D	light blue		hellblau	
105A	blue		blau	
105B	blue		blau	
105C	blue		blau	
105D	blue		blau	
106A	blue		blau	
106B	light blue		hellblau	
106C	light blue		hellblau	
106D	light blue		hellblau	
107A	blue		blau	
107B	blue		blau	
107C	light blue		hellblau	
107D	light blue		hellblau	
108A	light blue		hellblau	
108B	light blue		hellblau	
108C	light blue		hellblau	

UPOV Group No.	English	français	deutsch	español
108D	light blue		hellblau	
N 109A	blue		blau	
N 109B	blue		blau	
N 109C	blue		blau	
N 109D	light blue		hellblau	
110A	blue		blau	
110B	blue		blau	
110C	light green blue		hellgrünblau	
110D	light green blue		hellgrünblau	
111A	green blue		grünblau	
111B	green blue		grünblau	
111C	light green blue		hellgrünblau	
111D	light green blue		hellgrünblau	
112A	light blue		hellblau	
112B	light blue		hellblau	
112C	light green blue		hellgrünblau	
112D	light green blue		hellgrünblau	
113A	green blue		grünblau	
113B	green blue		grünblau	
113C	light green blue		hellgrünblau	
113D	light green blue		hellgrünblau	
114A	green blue		grünblau	
114B	green blue		grünblau	
114C	green blue		grünblau	
114D	green blue		grünblau	
115A	green blue		grünblau	
115B	green blue		grünblau	
115C	grey blue		graublau	
115D	grey blue		graublau	
116A	green blue		grünblau	
116B	green blue		grünblau	
116C	green blue		grünblau	
116D	green blue		grünblau	
117A	light green blue		hellgrünblau	
117B	light green blue		hellgrünblau	
117C	light green blue		hellgrünblau	
117D	light green blue		hellgrünblau	
118A	green blue		grünblau	
118B	green blue		grünblau	
118C	light green blue		hellgrünblau	
118D	light green blue		hellgrünblau	
119A	green blue		grünblau	
119B	grey blue		graublau	
119C	grey blue		graublau	
119D	light green blue		hellgrünblau	
120A	light blue green		hellblaugrün	
120B	light blue green		hellblaugrün	
120C	light blue green		hellblaugrün	
120D	light green blue		hellgrünblau	
121A	green blue		grünblau	
121B	light blue green		hellblaugrün	

UPOV Group No.	English	français	deutsch	español
121C	light green blue		hellgrünblau	
121D	light green blue		hellgrünblau	
122A	grey blue		graublau	
122B	grey blue		graublau	
122C	grey blue		graublau	
122D	light green blue		hellgrünblau	
123A	light blue green		hellblaugrün	
123B	light blue green		hellblaugrün	
123C	light blue green		hellblaugrün	
123D	light blue green		hellblaugrün	
124A	green		grün	
124B	blue green		blaugrün	
124C	light blue green		hellblaugrün	
124D	light blue green		hellblaugrün	
125A	green		grün	
125B	green		grün	
125C	blue green		blaugrün	
125D	blue green		blaugrün	
126A	grey green		graugrün	
126B	grey green		graugrün	
126C	grey green		graugrün	
126D	blue green		blaugrün	
127A	grey green		graugrün	
127B	green		grün	
127C	green		grün	
127D	blue green		blaugrün	
128A	green		grün	
128B	blue green		blaugrün	
128C	blue green		blaugrün	
128D	blue green		blaugrün	
129A	green		grün	
129B	blue green		blaugrün	
129C	blue green		blaugrün	
129D	blue green		blaugrün	
130A	green		grün	
130B	green		grün	
130C	blue green		blaugrün	
130D	blue green		blaugrün	
131A	dark green		dunkelgrün	
131B	dark green		dunkelgrün	
131C	dark green		dunkelgrün	
131D	green		grün	
132A	dark green		dunkelgrün	
132B	dark green		dunkelgrün	
132C	green		grün	
132D	green		grün	
133A	dark green		dunkelgrün	
133B	grey green		graugrün	
133C	grey green		graugrün	
133D	grey green		graugrün	
134A	green		grün	

UPOV Group No.	English	français	deutsch	español
134B	green		grün	
134C	green		grün	
134D	light green		hellgrün	
N 134A	dark green		dunkelgrün	
N 134B	dark green		dunekgrün	
N 134C	green		grün	
N 134D	green		grün	
135A	dark green		dunkelgrün	
135B	dark green		dunkelgrün	
135C	green		grün	
135D	light green		hellgrün	
136A	dark green		dunkelgrün	
136B	dark green		dunkelgrün	
136C	brown green		braungrün	
136D	light green		hellgrün	
137A	dark green		dunkelgrün	
137B	brown green		braungrün	
137C	brown green		braungrün	
137D	brown green		braungrün	
138A	brown green		braungrün	
138B	brown green		braungrün	
138C	light green		hellgrün	
138D	light green		hellgrün	
N 138A	dark green		dunkelgrün	
N 138B	brown green		braungrün	
N 138C	brown green		braungrün	
N 138D	brown green		braungrün	
139A	dark green		dunkelgrün	
139B	brown green		braungrün	
139C	brown green		braungrün	
139D	light green		hellgrün	
140A	green		grün	
140B	green		grün	
140C	light green		hellgrün	
140D	light green		hellgrün	
141A	dark green		dunkelgrün	
141B	dark green		dunkelgrün	
141C	dark green		dunkelgrün	
141D	light green		hellgrün	
142A	green		grün	
142B	light green		hellgrün	
142C	light green		hellgrün	
142D	light green		hellgrün	
143A	dark green		dunkelgrün	
143B	dark green		dunkelgrün	
143C	dark green		dunkelgrün	
143D	light green		hellgrün	
144A	dark green		dunkelgrün	
144B	light green		hellgrün	
144C	light green		hellgrün	
144D	light green		hellgrün	

UPOV Group No.	English	français	deutsch	español
N 144A	light green		hellgrün	
N 144B	light green		hellgrün	
N 144C	light green		hellgrün	
N 144D	light green		hellgrün	
145A	light green		hellgrün	
145B	light green		hellgrün	
145C	light green		hellgrün	
145D	light green		hellgrün	
146A	brown green		braungrün	
146B	brown green		braungrün	
146C	brown green		braungrün	
146D	brown green		braungrün	
147A	dark green		dunkelgrün	
147B	brown green		braungrün	
147C	brown green		braungrün	
147D	brown green		braungrün	
148A	brown green		braungrün	
148B	brown green		braungrün	
148C	brown green		braungrün	
148D	brown green		braungrün	
149A	yellow green		gelbgrün	
149B	light green		hellgrün	
149C	light green		hellgrün	
149D	light green		hellgrün	
150A	yellow green		gelbgrün	
150B	yellow green		gelbgrün	
150C	yellow green		gelbgrün	
150D	yellow green		gelbgrün	
151A	green brown		grünbraun	
151B	green brown		grünbraun	
151C	green brown		grünbraun	
151D	green brown		grünbraun	
152A	green brown		grünbraun	
152B	green brown		grünbraun	
152C	green brown		grünbraun	
152D	green brown		grünbraun	
153A	green brown		grünbraun	
153B	green brown		grünbraun	
153C	green brown		grünbraun	
153D	green brown		grünbraun	
154A	yellow green		gelbgrün	
154B	yellow green		gelbgrün	
154C	yellow green		gelbgrün	
154D	yellow green		gelbgrün	
155A	white		weiss	
155B	white		weiss	
155C	white		weiss	
155D	white		weiss	
N 155A	white		weiss	
N 155B	white		weiss	
N 155C	white		weiss	

UPOV Group No.	English	français	deutsch	español
N 155D	white		weiss	
156A	grey		grau	
156B	grey		grau	
156C	grey		grau	
156D	grey		grau	
157A	grey		grau	
157B	grey		grau	
157C	grey		grau	
157D	white		weiss	
158A	light yellow brown		hellgelbbraun	
158B	light yellow brown		hellgelbbraun	
158C	light yellow brown		hellgelbbraun	
158D	light yellow brown		hellgelbbraun	
159A	light yellow brown		hellgelbbraun	
159B	light yellow brown		hellgelbbraun	
159C	light yellow brown		hellgelbbraun	
159D	light yellow brown		hellgelbbraun	
160A	light yellow brown		hellgelbbraun	
160B	light yellow brown		hellgelbbraun	
160C	light yellow brown		hellgelbbraun	
160D	light yellow brown		hellgelbbraun	
161A	light yellow brown		hellgelbbraun	
161B	light yellow brown		hellgelbbraun	
161C	light yellow brown		hellgelbbraun	
161D	light yellow brown		hellgelbbraun	
162A	light yellow brown		hellgelbbraun	
162B	light yellow brown		hellgelbbraun	
162C	light yellow brown		hellgelbbraun	
162D	light yellow brown		hellgelbbraun	
163A	yellow brown		gelbbraun	
163B	light yellow brown		hellgelbbraun	
163C	light yellow brown		hellgelbbraun	
163D	light yellow brown		hellgelbbraun	
N 163A	orange brown		orangebraun	
N 163B	orange brown		orangebraun	
N 163C	yellow brown		gelbbraun	
N 163D	yellow brown		gelbbraun	
164A	yellow brown		gelbbraun	
164B	yellow brown		gelbbraun	
164C	yellow brown		gelbbraun	
164D	light yellow brown		hellgelbbraun	
165A	brown		braun	
165B	yellow brown		gelbbraun	
165C	yellow brown		gelbbraun	
165D	light yellow brown		hellgelbbraun	
166A	brown		braun	
166B	brown		braun	
166C	light brown		hellbraun	
166D	light brown		hellbraun	
167A	yellow brown		gelbbraun	
167B	yellow brown		gelbbraun	

UPOV Group No.	English	français	deutsch	español
167C	yellow brown		gelbbraun	
167D	yellow brown		gelbbraun	
N 167A	yellow brown		gelbbraun	
N 167B	yellow brown		gelbbraun	
N 167C	yellow brown		gelbbraun	
N 167D	yellow brown		gelbbraun	
168A	orange brown		orangebraun	
168B	orange brown		orangebraun	
168C	yellow brown		gelbbraun	
168D	yellow brown		gelbbraun	
169A	orange brown		orangebraun	
169B	orange brown		orangebraun	
169C	orange brown		orangebraun	
169D	orange brown		orangebraun	
170A	orange brown		orangebraun	
170B	orange brown		orangebraun	
170C	orange brown		orangebraun	
170D	orange brown		orangebraun	
N 170A	light brown		hellbraun	
N 170B	light brown		hellbraun	
N 170C	light brown		hellbraun	
N 170D	orange brown		orangebraun	
171A	brown		braun	
171B	orange brown		orangebraun	
171C	orange brown		orangebraun	
171D	orange brown		orangebraun	
172A	brown		braun	
172B	brown		braun	
172C	orange brown		orangebraun	
172D	orange brown		orangebraun	
N 172A	orange brown		orangebraun	
N 172B	orange brown		orangebraun	
N 172C	orange brown		orangebraun	
N 172D	yellow brown		gelbbraun	
173A	brown		braun	
173B	orange brown		orangebraun	
173C	light brown		hellbraun	
173D	light brown		hellbraun	
174A	brown		braun	
174B	light brown		hellbraun	
174C	light brown		hellbraun	
174D	light brown		hellbraun	
175A	brown		braun	
175B	brown		braun	
175C	brown		braun	
175D	brown		braun	
176A	brown		braun	
176B	brown		braun	
176C	brown		braun	
176D	light brown		hellbraun	
177A	brown		braun	

UPOV Group No.	English	français	deutsch	español
177B	brown		braun	
177C	light brown		hellbraun	
177D	light brown		hellbraun	
178A	brown purple		braunpurpur	
178B	brown purple		braunpurpur	
178C	brown red		braunrot	
178D	brown red		braunrot	
179A	brown red		braunrot	
179B	brown red		braunrot	
179C	orange brown		orangebraun	
179D	orange pink		orangerosa	
180A	brown red		braunrot	
180B	brown red		braunrot	
180C	brown red		braunrot	
180D	brown red		braunrot	
181A	brown red		braunrot	
181B	brown red		braunrot	
181C	brown red		braunrot	
181D	brown red		braunrot	
182A	brown red		braunrot	
182B	brown red		braunrot	
182C	brown red		braunrot	
182D	brown red		braunrot	
183A	brown purple		braunpurpur	
183B	brown purple		braunpurpur	
183C	brown purple		braunpurpur	
183D	brown purple		braunpurpur	
184A	brown purple		braunpurpur	
184B	brown purple		braunpurpur	
184C	brown purple		braunpurpur	
184D	brown purple		braunpurpur	
185A	dark purple red		dunkelpurpurrot	
185B	brown purple		braunpurpur	
185C	brown purple		braunpurpur	
185D	brown purple		braunpurpur	
186A	brown purple		braunpurpur	
186B	brown purple		braunpurpur	
186C	blue pink		blaurosa	
186D	blue pink		blaurosa	
N 186A	black		schwarz	
N 186B	black		schwarz	
N 186C	dark brown		dunkelbraun	
N 186D	dark purple red		dunkelpurpurrot	
187A	brown purple		braunpurpur	
187B	dark purple red		dunkelpurpurrot	
187C	dark purple red		dunkelpurpurrot	
187D	dark purple red		dunkelpurpurrot	
N 187A	black		schwarz	
N 187B	grey		grau	
N 187C	grey		grau	
N 187D	grey		grau	

UPOV Group No.	English	français	deutsch	español
188A	green grey		grüngrau	
188B	green grey		grüngrau	
188C	green grey		grüngrau	
188D	green grey		grüngrau	
189A	brown green		braungrün	
189B	green grey		grüngrau	
189C	green grey		grüngrau	
189D	green grey		grüngrau	
N 189A	green grey		grüngrau	
N 189B	green grey		grüngrau	
N 189C	green grey		grüngrau	
N 189D	green grey		grüngrau	
190A	green grey		grüngrau	
190B	green grey		grüngrau	
190C	green grey		grüngrau	
190D	green grey		grüngrau	
191A	brown green		braungrün	
191B	brown green		braungrün	
191C	green grey		grüngrau	
191D	green grey		grüngrau	
192A	green grey		grüngrau	
192B	green grey		grüngrau	
192C	green grey		grüngrau	
192D	green grey		grüngrau	
193A	brown green		braungrün	
193B	brown green		braungrün	
193C	green grey		grüngrau	
193D	green grey		grüngrau	
194A	brown green		braungrün	
194B	brown green		braungrün	
194C	brown green		braungrün	
194D	grey		grau	
195A	grey		grau	
195B	grey		grau	
195C	grey		grau	
195D	grey		grau	
196A	grey		grau	
196B	grey		grau	
196C	grey		grau	
196D	grey		grau	
197A	grey		grau	
197B	grey		grau	
197C	grey		grau	
197D	grey		grau	
198A	grey		grau	
198B	grey		grau	
198C	grey		grau	
198D	grey		grau	
199A	grey brown		graubraun	
199B	grey brown		graubraun	
199C	grey brown		graubraun	

UPOV Group No.	English	français	deutsch	español
199D	grey brown		graubraun	
N 199A	grey brown		graubraun	
N 199B	dark brown		dunkelbraun	
N 199C	grey brown		graubraun	
N 199D	grey brown		graubraun	
200A	dark brown		dunkelbraun	
200B	dark brown		dunkelbraun	
200C	dark brown		dunkelbraun	
200D	brown		braun	
N 200A	dark brown		dunkelbraun	
N 200B	grey		grau	
N 200C	grey		grau	
N 200D	grey		grau	
201A	grey		grau	
201B	grey		grau	
201C	grey		grau	
201D	grey		grau	
202A	black		schwarz	
202B	grey		grau	
202C	grey		grau	
202D	grey		grau	

[Section II follows]

SECTION II

UPOV COLORS (RHS COLOUR CHART, EDITION 2001) BY UPOV COLOR GROUPS

UPOV Group No.	RHS Reference	English	français	deutsch	español
1	001B	yellow green		gelbgrün	
1	001C	yellow green		gelbgrün	
1	001D	yellow green		gelbgrün	
1	002C	yellow green		gelbgrün	
1	002D	yellow green		gelbgrün	
1	003D	yellow green		gelbgrün	
1	004C	yellow green		gelbgrün	
1	149A	yellow green		gelbgrün	
1	150A	yellow green		gelbgrün	
1	150B	yellow green		gelbgrün	
1	150C	yellow green		gelbgrün	
1	150D	yellow green		gelbgrün	
1	154A	yellow green		gelbgrün	
1	154B	yellow green		gelbgrün	
1	154C	yellow green		gelbgrün	
1	154D	yellow green		gelbgrün	
2	001A	yellow		gelb	
2	002A	yellow		gelb	
2	002B	yellow		gelb	
2	003A	yellow		gelb	
2	003B	yellow		gelb	
2	003C	yellow		gelb	
2	004A	yellow		gelb	
2	004B	yellow		gelb	
2	005A	yellow		gelb	
2	005B	yellow		gelb	
2	005C	yellow		gelb	
2	006A	yellow		gelb	
2	006B	yellow		gelb	
2	006C	yellow		gelb	
2	007A	yellow		gelb	
2	007B	yellow		gelb	
2	007C	yellow		gelb	
2	007D	yellow		gelb	
2	008A	yellow		gelb	
2	009A	yellow		gelb	
2	009B	yellow		gelb	
2	012A	yellow		gelb	
2	012B	yellow		gelb	
3	004D	light yellow		hellgelb	
3	005D	light yellow		hellgelb	
3	006D	light yellow		hellgelb	
3	008B	light yellow		hellgelb	
3	008C	light yellow		hellgelb	
3	008D	light yellow		hellgelb	
3	009C	light yellow		hellgelb	
3	009D	light yellow		hellgelb	

UPOV Group No.	RHS Reference	English	français	deutsch	español
3	010A	light yellow		hellgelb	
3	010B	light yellow		hellgelb	
3	010C	light yellow		hellgelb	
3	010D	light yellow		hellgelb	
3	011B	light yellow		hellgelb	
3	011C	light yellow		hellgelb	
3	012C	light yellow		hellgelb	
3	012D	light yellow		hellgelb	
3	013D	light yellow		hellgelb	
3	014D	light yellow		hellgelb	
3	015D	light yellow		hellgelb	
3	016D	light yellow		hellgelb	
4	011A	yellow orange		gelborange	
4	013A	yellow orange		gelborange	
4	013B	yellow orange		gelborange	
4	013C	yellow orange		gelborange	
4	014A	yellow orange		gelborange	
4	014B	yellow orange		gelborange	
4	014C	yellow orange		gelborange	
4	015A	yellow orange		gelborange	
4	015B	yellow orange		gelborange	
4	015C	yellow orange		gelborange	
4	016A	yellow orange		gelborange	
4	016B	yellow orange		gelborange	
4	016C	yellow orange		gelborange	
4	017A	yellow orange		gelborange	
4	017B	yellow orange		gelborange	
4	017C	yellow orange		gelborange	
4	017D	yellow orange		gelborange	
4	018A	yellow orange		gelborange	
4	019A	yellow orange		gelborange	
4	020A	yellow orange		gelborange	
4	020B	yellow orange		gelborange	
4	021A	yellow orange		gelborange	
4	021B	yellow orange		gelborange	
4	021C	yellow orange		gelborange	
4	022A	yellow orange		gelborange	
4	023A	yellow orange		gelborange	
4	023B	yellow orange		gelborange	
4	N 025D	yellow orange		gelborange	
5	011D	light yellow orange		hellgelborange	
5	018B	light yellow orange		hellgelborange	
5	018C	light yellow orange		hellgelborange	
5	018D	light yellow orange		hellgelborange	
5	019B	light yellow orange		hellgelborange	
5	019C	light yellow orange		hellgelborange	
5	019D	light yellow orange		hellgelborange	
5	020C	light yellow orange		hellgelborange	
5	020D	light yellow orange		hellgelborange	
5	021D	light yellow orange		hellgelborange	

UPOV Group No.	RHS Reference	English	français	deutsch	español
5	022B	light yellow orange		hellgelborange	
5	022C	light yellow orange		hellgelborange	
5	022D	light yellow orange		hellgelborange	
5	023C	light yellow orange		hellgelborange	
5	023D	light yellow orange		hellgelborange	
6	024A	orange		orange	
6	024B	orange		orange	
6	024C	orange		orange	
6	024D	orange		orange	
6	025A	orange		orange	
6	025B	orange		orange	
6	025C	orange		orange	
6	025D	orange		orange	
6	N 025B	orange		orange	
6	N 025C	orange		orange	
6	026A	orange		orange	
6	026B	orange		orange	
6	026C	orange		orange	
6	026D	orange		orange	
6	028B	orange		orange	
6	028C	orange		orange	
6	028D	orange		orange	
6	029A	orange		orange	
6	029B	orange		orange	
6	030D	orange		orange	
6	N 030D	orange		orange	
7	027A	orange pink		orangerosa	
7	027B	orange pink		orangerosa	
7	027C	orange pink		orangerosa	
7	027D	orange pink		orangerosa	
7	029C	orange pink		orangerosa	
7	029D	orange pink		orangerosa	
7	031D	orange pink		orangerosa	
7	032D	orange pink		orangerosa	
7	033D	orange pink		orangerosa	
7	035C	orange pink		orangerosa	
7	037A	orange pink		orangerosa	
7	037B	orange pink		orangerosa	
7	179D	orange pink		orangerosa	
8	N 025A	orange red		orangerot	
8	028A	orange red		orangerot	
8	030A	orange red		orangerot	
8	030B	orange red		orangerot	
8	030C	orange red		orangerot	
8	N 030B	orange red		orangerot	
8	N 030C	orange red		orangerot	
8	031A	orange red		orangerot	
8	032A	orange red		orangerot	
8	032B	orange red		orangerot	
8	033B	orange red		orangerot	

UPOV Group No.	RHS Reference	English	français	deutsch	español
8	035B	orange red		orangerot	
8	039A	orange red		orangerot	
8	039B	orange red		orangerot	
8	040C	orange red		orangerot	
8	040D	orange red		orangerot	
8	041B	orange red		orangerot	
8	041C	orange red		orangerot	
8	042D	orange red		orangerot	
8	044D	orange red		orangerot	
9	N 030A	red		rot	
9	033A	red		rot	
9	034A	red		rot	
9	N 034B	red		rot	
9	040A	red		rot	
9	040B	red		rot	
9	041A	red		rot	
9	042A	red		rot	
9	042B	red		rot	
9	042C	red		rot	
9	043A	red		rot	
9	043B	red		rot	
9	044A	red		rot	
9	044B	red		rot	
9	044C	red		rot	
9	045A	red		rot	
9	045B	red		rot	
9	045C	red		rot	
9	046B	red		rot	
9	046C	red		rot	
9	047A	red		rot	
9	047B	red		rot	
9	050A	red		rot	
10	035D	light red pink		hellrotrosa	
10	036A	light red pink		hellrotrosa	
10	036B	light red pink		hellrotrosa	
10	036C	light red pink		hellrotrosa	
10	036D	light red pink		hellrotrosa	
10	037C	light red pink		hellrotrosa	
10	037D	light red pink		hellrotrosa	
10	038A	light red pink		hellrotrosa	
10	038B	light red pink		hellrotrosa	
10	038C	light red pink		hellrotrosa	
10	038D	light red pink		hellrotrosa	
10	039C	light red pink		hellrotrosa	
10	039D	light red pink		hellrotrosa	
10	041D	light red pink		hellrotrosa	
10	049B	light red pink		hellrotrosa	
10	049C	light red pink		hellrotrosa	
10	049D	light red pink		hellrotrosa	
10	050D	light red pink		hellrotrosa	

UPOV Group No.	RHS Reference	English	français	deutsch	español
11	043C	red pink		rotrosa	
11	043D	red pink		rotrosa	
11	047D	red pink		rotrosa	
11	048B	red pink		rotrosa	
11	048C	red pink		rotrosa	
11	048D	red pink		rotrosa	
11	049A	red pink		rotrosa	
11	050C	red pink		rotrosa	
11	051C	red pink		rotrosa	
11	051D	red pink		rotrosa	
11	052B	red pink		rotrosa	
11	052C	red pink		rotrosa	
11	052D	red pink		rotrosa	
12	N 034C	dark pink red		dunkelrosarot	
12	045D	dark pink red		dunkelrosarot	
12	046D	dark pink red		dunkelrosarot	
12	047C	dark pink red		dunkelrosarot	
12	048A	dark pink red		dunkelrosarot	
12	050B	dark pink red		dunkelrosarot	
12	051A	dark pink red		dunkelrosarot	
12	051B	dark pink red		dunkelrosarot	
12	052A	dark pink red		dunkelrosarot	
12	053C	dark pink red		dunkelrosarot	
12	053D	dark pink red		dunkelrosarot	
13	054A	purple red		purpurrot	
13	054B	purple red		purpurrot	
13	054C	purple red		purpurrot	
13	055A	purple red		purpurrot	
13	055B	purple red		purpurrot	
13	N 057A	purple red		purpurrot	
13	N 057B	purple red		purpurrot	
13	N 057C	purple red		purpurrot	
13	N 057D	purple red		purpurrot	
13	058B	purple red		purpurrot	
13	058C	purple red		purpurrot	
13	058D	purple red		purpurrot	
13	059D	purple red		purpurrot	
13	060D	purple red		purpurrot	
13	061C	purple red		purpurrot	
13	061D	purple red		purpurrot	
13	063A	purple red		purpurrot	
13	N 066A	purple red		purpurrot	
13	N 066B	purple red		purpurrot	
14	N 034A	dark purple red		dunkelpurpurrot	
14	046A	dark purple red		dunkelpurpurrot	
14	053A	dark purple red		dunkelpurpurrot	
14	053B	dark purple red		dunkelpurpurrot	
14	059A	dark purple red		dunkelpurpurrot	
14	059B	dark purple red		dunkelpurpurrot	
14	060A	dark purple red		dunkelpurpurrot	

UPOV Group No.	RHS Reference	English	français	deutsch	español
14	060B	dark purple red		dunkelpurpurrot	
14	185A	dark purple red		dunkelpurpurrot	
14	N 186D	dark purple red		dunkelpurpurrot	
14	187B	dark purple red		dunkelpurpurrot	
14	187C	dark purple red		dunkelpurpurrot	
14	187D	dark purple red		dunkelpurpurrot	
15	058A	purple		purpur	
15	059C	purple		purpur	
15	060C	purple		purpur	
15	061A	purple		purpur	
15	061B	purple		purpur	
15	064A	purple		purpur	
15	064B	purple		purpur	
15	067A	purple		purpur	
15	070A	purple		purpur	
15	070B	purple		purpur	
15	071A	purple		purpur	
15	071B	purple		purpur	
15	071C	purple		purpur	
15	072A	purple		purpur	
15	072B	purple		purpur	
15	N 074A	purple		purpur	
15	N 074B	purple		purpur	
15	N 079C	purple		purpur	
16	054D	light blue pink		hellblaurosa	
16	055C	light blue pink		hellblaurosa	
16	055D	light blue pink		hellblaurosa	
16	056A	light blue pink		hellblaurosa	
16	056B	light blue pink		hellblaurosa	
16	056C	light blue pink		hellblaurosa	
16	056D	light blue pink		hellblaurosa	
16	062B	light blue pink		hellblaurosa	
16	062C	light blue pink		hellblaurosa	
16	062D	light blue pink		hellblaurosa	
16	063D	light blue pink		hellblaurosa	
16	065B	light blue pink		hellblaurosa	
16	065C	light blue pink		hellblaurosa	
16	065D	light blue pink		hellblaurosa	
16	068D	light blue pink		hellblaurosa	
16	069A	light blue pink		hellblaurosa	
16	069B	light blue pink		hellblaurosa	
16	070D	light blue pink		hellblaurosa	
16	073C	light blue pink		hellblaurosa	
16	073D	light blue pink		hellblaurosa	
17	062A	blue pink		blaurosa	
17	063B	blue pink		blaurosa	
17	063C	blue pink		blaurosa	
17	064C	blue pink		blaurosa	
17	064D	blue pink		blaurosa	
17	065A	blue pink		blaurosa	

UPOV Group No.	RHS Reference	English	français	deutsch	español
17	N 066C	blue pink		blaurosa	
17	N 066D	blue pink		blaurosa	
17	067B	blue pink		blaurosa	
17	067C	blue pink		blaurosa	
17	067D	blue pink		blaurosa	
17	068A	blue pink		blaurosa	
17	068B	blue pink		blaurosa	
17	068C	blue pink		blaurosa	
17	070C	blue pink		blaurosa	
17	071D	blue pink		blaurosa	
17	072C	blue pink		blaurosa	
17	072D	blue pink		blaurosa	
17	073A	blue pink		blaurosa	
17	073B	blue pink		blaurosa	
17	N 074C	blue pink		blaurosa	
17	N 074D	blue pink		blaurosa	
17	186C	blue pink		blaurosa	
17	186D	blue pink		blaurosa	
18	075A	violet		violett	
18	075B	violet		violett	
18	075C	violet		violett	
18	075D	violet		violett	
18	077A	violet		violett	
18	077B	violet		violett	
18	077C	violet		violett	
18	077D	violet		violett	
18	N 077B	violet		violett	
18	N 077D	violet		violett	
18	N 078A	violet		violett	
18	N 078B	violet		violett	
18	N 078C	violet		violett	
18	N 078D	violet		violett	
18	N 079D	violet		violett	
18	N 080A	violet		violett	
18	N 080B	violet		violett	
18	N 080C	violet		violett	
18	N 080D	violet		violett	
18	N 081A	violet		violett	
18	N 081B	violet		violett	
18	N 081C	violet		violett	
18	N 081D	violet		violett	
18	N 082A	violet		violett	
18	N 082B	violet		violett	
18	N 082C	violet		violett	
18	N 082D	violet		violett	
18	084A	violet		violett	
18	084B	violet		violett	
18	N 087A	violet		violett	
18	N 087B	violet		violett	
18	N 087C	violet		violett	

UPOV Group No.	RHS Reference	English	français	deutsch	español
18	N 087D	violet		violett	
19	069C	light blue violet		hellblauviolett	
19	069D	light blue violet		hellblauviolett	
19	076A	light blue violet		hellblauviolett	
19	076B	light blue violet		hellblauviolett	
19	076C	light blue violet		hellblauviolett	
19	076D	light blue violet		hellblauviolett	
19	084C	light blue violet		hellblauviolett	
19	084D	light blue violet		hellblauviolett	
19	085A	light blue violet		hellblauviolett	
19	085B	light blue violet		hellblauviolett	
19	085C	light blue violet		hellblauviolett	
19	085D	light blue violet		hellblauviolett	
20	N 077C	dark violet		dunkelviolet	
20	079A	dark violet		dunkelviolet	
20	079B	dark violet		dunkelviolet	
20	079C	dark violet		dunkelviolet	
20	079D	dark violet		dunkelviolet	
20	N 079A	dark violet		dunkelviolet	
20	N 079B	dark violet		dunkelviolet	
20	083A	dark violet		dunkelviolet	
20	083B	dark violet		dunkelviolet	
20	086A	dark violet		dunkelviolet	
20	N 092A	dark violet		dunkelviolet	
21	083C	blue violet		blauviolett	
21	083D	blue violet		blauviolett	
21	086B	blue violet		blauviolett	
21	086C	blue violet		blauviolett	
21	086D	blue violet		blauviolett	
21	N 088A	blue violet		blauviolett	
21	N 088B	blue violet		blauviolett	
21	N 088C	blue violet		blauviolett	
21	N 088D	blue violet		blauviolett	
21	N 089C	blue violet		blauviolett	
21	N 089D	blue violet		blauviolett	
21	090A	blue violet		blauviolett	
21	090B	blue violet		blauviolett	
21	090C	blue violet		blauviolett	
21	090D	blue violet		blauviolett	
21	N 092D	blue violet		blauviolett	
22	N 089A	violet blue		violettblau	
22	N 089B	violet blue		violettblau	
22	091A	violet blue		violettblau	
22	092A	violet blue		violettblau	
22	N 092B	violet blue		violettblau	
22	N 092C	violet blue		violettblau	
22	093A	violet blue		violettblau	
22	093B	violet blue		violettblau	
22	093C	violet blue		violettblau	
22	094A	violet blue		violettblau	

UPOV Group No.	RHS Reference	English	français	deutsch	español
22	094B	violet blue		violettblau	
22	094C	violet blue		violettblau	
22	095A	violet blue		violettblau	
22	095B	violet blue		violettblau	
22	095C	violet blue		violettblau	
22	096A	violet blue		violettblau	
22	096B	violet blue		violettblau	
22	096C	violet blue		violettblau	
22	096D	violet blue		violettblau	
22	097A	violet blue		violettblau	
23	091B	light violet blue		hellviolettblau	
23	091C	light violet blue		hellviolettblau	
23	091D	light violet blue		hellviolettblau	
23	092B	light violet blue		hellviolettblau	
23	092C	light violet blue		hellviolettblau	
23	092D	light violet blue		hellviolettblau	
23	093D	light violet blue		hellviolettblau	
23	094D	light violet blue		hellviolettblau	
23	095D	light violet blue		hellviolettblau	
23	097B	light violet blue		hellviolettblau	
23	097C	light violet blue		hellviolettblau	
23	097D	light violet blue		hellviolettblau	
23	100D	light violet blue		hellviolettblau	
24	098A	blue		blau	
24	098B	blue		blau	
24	098C	blue		blau	
24	098D	blue		blau	
24	099C	blue		blau	
24	099D	blue		blau	
24	100A	blue		blau	
24	100B	blue		blau	
24	100C	blue		blau	
24	101A	blue		blau	
24	101B	blue		blau	
24	101C	blue		blau	
24	102B	blue		blau	
24	102C	blue		blau	
24	102D	blue		blau	
24	103D	blue		blau	
24	104A	blue		blau	
24	104B	blue		blau	
24	104C	blue		blau	
24	105A	blue		blau	
24	105B	blue		blau	
24	105C	blue		blau	
24	105D	blue		blau	
24	106A	blue		blau	
24	107A	blue		blau	
24	107B	blue		blau	
24	N 109A	blue		blau	

UPOV Group No.	RHS Reference	English	français	deutsch	español
24	N 109B	blue		blau	
24	N 109C	blue		blau	
24	110A	blue		blau	
24	110B	blue		blau	
25	099A	dark blue		dunkelblau	
25	099B	dark blue		dunkelblau	
25	102A	dark blue		dunkelblau	
25	103A	dark blue		dunkelblau	
25	103B	dark blue		dunkelblau	
25	103C	dark blue		dunkelblau	
26	101D	light blue		hellblau	
26	104D	light blue		hellblau	
26	106B	light blue		hellblau	
26	106C	light blue		hellblau	
26	106D	light blue		hellblau	
26	107C	light blue		hellblau	
26	107D	light blue		hellblau	
26	108A	light blue		hellblau	
26	108B	light blue		hellblau	
26	108C	light blue		hellblau	
26	108D	light blue		hellblau	
26	N 109D	light blue		hellblau	
26	112A	light blue		hellblau	
26	112B	light blue		hellblau	
27	110C	light green blue		hellgrünblau	
27	110D	light green blue		hellgrünblau	
27	111C	light green blue		hellgrünblau	
27	111D	light green blue		hellgrünblau	
27	112C	light green blue		hellgrünblau	
27	112D	light green blue		hellgrünblau	
27	113C	light green blue		hellgrünblau	
27	113D	light green blue		hellgrünblau	
27	117A	light green blue		hellgrünblau	
27	117B	light green blue		hellgrünblau	
27	117C	light green blue		hellgrünblau	
27	117D	light green blue		hellgrünblau	
27	118C	light green blue		hellgrünblau	
27	118D	light green blue		hellgrünblau	
27	119D	light green blue		hellgrünblau	
27	120D	light green blue		hellgrünblau	
27	121C	light green blue		hellgrünblau	
27	121D	light green blue		hellgrünblau	
27	122D	light green blue		hellgrünblau	
28	111A	green blue		grünblau	
28	111B	green blue		grünblau	
28	113A	green blue		grünblau	
28	113B	green blue		grünblau	
28	114A	green blue		grünblau	
28	114B	green blue		grünblau	
28	114C	green blue		grünblau	

UPOV Group No.	RHS Reference	English	français	deutsch	español
28	114D	green blue		grünblau	
28	115A	green blue		grünblau	
28	115B	green blue		grünblau	
28	116A	green blue		grünblau	
28	116B	green blue		grünblau	
28	116C	green blue		grünblau	
28	116D	green blue		grünblau	
28	118A	green blue		grünblau	
28	118B	green blue		grünblau	
28	119A	green blue		grünblau	
28	121A	green blue		grünblau	
29	120A	light blue green		hellblaugrün	
29	120B	light blue green		hellblaugrün	
29	120C	light blue green		hellblaugrün	
29	121B	light blue green		hellblaugrün	
29	123A	light blue green		hellblaugrün	
29	123B	light blue green		hellblaugrün	
29	123C	light blue green		hellblaugrün	
29	123D	light blue green		hellblaugrün	
29	124C	light blue green		hellblaugrün	
29	124D	light blue green		hellblaugrün	
30	115C	grey blue		graublau	
30	115D	grey blue		graublau	
30	119B	grey blue		graublau	
30	119C	grey blue		graublau	
30	122A	grey blue		graublau	
30	122B	grey blue		graublau	
30	122C	grey blue		graublau	
31	124B	blue green		blaugrün	
31	125C	blue green		blaugrün	
31	125D	blue green		blaugrün	
31	126D	blue green		blaugrün	
31	127D	blue green		blaugrün	
31	128B	blue green		blaugrün	
31	128C	blue green		blaugrün	
31	128D	blue green		blaugrün	
31	129B	blue green		blaugrün	
31	129C	blue green		blaugrün	
31	129D	blue green		blaugrün	
31	130C	blue green		blaugrün	
31	130D	blue green		blaugrün	
32	126A	grey green		graugrün	
32	126B	grey green		graugrün	
32	126C	grey green		graugrün	
32	127A	grey green		graugrün	
32	133B	grey green		graugrün	
32	133C	grey green		graugrün	
32	133D	grey green		graugrün	
33	124A	green		grün	
33	125A	green		grün	

UPOV Group No.	RHS Reference	English	français	deutsch	español
33	125B	green		grün	
33	127B	green		grün	
33	127C	green		grün	
33	128A	green		grün	
33	129A	green		grün	
33	130A	green		grün	
33	130B	green		grün	
33	131D	green		grün	
33	132C	green		grün	
33	132D	green		grün	
33	134A	green		grün	
33	134B	green		grün	
33	134C	green		grün	
33	N 134C	green		grün	
33	N 134D	green		grün	
33	135C	green		grün	
33	140A	green		grün	
33	140B	green		grün	
33	142A	green		grün	
34	134D	light green		hellgrün	
34	135D	light green		hellgrün	
34	136D	light green		hellgrün	
34	138C	light green		hellgrün	
34	138D	light green		hellgrün	
34	139D	light green		hellgrün	
34	140C	light green		hellgrün	
34	140D	light green		hellgrün	
34	141D	light green		hellgrün	
34	142B	light green		hellgrün	
34	142C	light green		hellgrün	
34	142D	light green		hellgrün	
34	143D	light green		hellgrün	
34	144B	light green		hellgrün	
34	144C	light green		hellgrün	
34	144D	light green		hellgrün	
34	N 144A	light green		hellgrün	
34	N 144B	light green		hellgrün	
34	N 144C	light green		hellgrün	
34	N 144D	light green		hellgrün	
34	145A	light green		hellgrün	
34	145B	light green		hellgrün	
34	145C	light green		hellgrün	
34	145D	light green		hellgrün	
34	149B	light green		hellgrün	
34	149C	light green		hellgrün	
34	149D	light green		hellgrün	
35	136C	brown green		braungrün	
35	137B	brown green		braungrün	
35	137C	brown green		braungrün	
35	137D	brown green		braungrün	

UPOV Group No.	RHS Reference	English	français	deutsch	español
35	138A	brown green		braungrün	
35	138B	brown green		braungrün	
35	N 138B	brown green		braungrün	
35	N 138C	brown green		braungrün	
35	N 138D	brown green		braungrün	
35	139B	brown green		braungrün	
35	139C	brown green		braungrün	
35	146A	brown green		braungrün	
35	146B	brown green		braungrün	
35	146C	brown green		braungrün	
35	146D	brown green		braungrün	
35	147B	brown green		braungrün	
35	147C	brown green		braungrün	
35	147D	brown green		braungrün	
35	148A	brown green		braungrün	
35	148B	brown green		braungrün	
35	148C	brown green		braungrün	
35	148D	brown green		braungrün	
35	189A	brown green		braungrün	
35	191A	brown green		braungrün	
35	191B	brown green		braungrün	
35	193A	brown green		braungrün	
35	193B	brown green		braungrün	
35	194A	brown green		braungrün	
35	194B	brown green		braungrün	
35	194C	brown green		braungrün	
36	151A	green brown		grünbraun	
36	151B	green brown		grünbraun	
36	151C	green brown		grünbraun	
36	151D	green brown		grünbraun	
36	152A	green brown		grünbraun	
36	152B	green brown		grünbraun	
36	152C	green brown		grünbraun	
36	152D	green brown		grünbraun	
36	153A	green brown		grünbraun	
36	153B	green brown		grünbraun	
36	153C	green brown		grünbraun	
36	153D	green brown		grünbraun	
37	131A	dark green		dunkelgrün	
37	131B	dark green		dunkelgrün	
37	131C	dark green		dunkelgrün	
37	132A	dark green		dunkelgrün	
37	132B	dark green		dunkelgrün	
37	133A	dark green		dunkelgrün	
37	N 134A	dark green		dunkelgrün	
37	N 134B	dark green		dunekgrün	
37	135A	dark green		dunkelgrün	
37	135B	dark green		dunkelgrün	
37	136A	dark green		dunkelgrün	
37	136B	dark green		dunkelgrün	

UPOV Group No.	RHS Reference	English	français	deutsch	español
37	137A	dark green		dunkelgrün	
37	N 138A	dark green		dunkelgrün	
37	139A	dark green		dunkelgrün	
37	141A	dark green		dunkelgrün	
37	141B	dark green		dunkelgrün	
37	141C	dark green		dunkelgrün	
37	143A	dark green		dunkelgrün	
37	143B	dark green		dunkelgrün	
37	143C	dark green		dunkelgrün	
37	144A	dark green		dunkelgrün	
37	147A	dark green		dunkelgrün	
<hr/>					
38	199A	grey brown		graubraun	
38	199B	grey brown		graubraun	
38	199C	grey brown		graubraun	
38	199D	grey brown		graubraun	
38	N 199A	grey brown		graubraun	
38	N 199C	grey brown		graubraun	
38	N 199D	grey brown		graubraun	
<hr/>					
39	163A	yellow brown		gelbbraun	
39	N 163C	yellow brown		gelbbraun	
39	N 163D	yellow brown		gelbbraun	
39	164A	yellow brown		gelbbraun	
39	164B	yellow brown		gelbbraun	
39	164C	yellow brown		gelbbraun	
39	165B	yellow brown		gelbbraun	
39	165C	yellow brown		gelbbraun	
39	167A	yellow brown		gelbbraun	
39	167B	yellow brown		gelbbraun	
39	167C	yellow brown		gelbbraun	
39	167D	yellow brown		gelbbraun	
39	N 167A	yellow brown		gelbbraun	
39	N 167B	yellow brown		gelbbraun	
39	N 167C	yellow brown		gelbbraun	
39	N 167D	yellow brown		gelbbraun	
39	168C	yellow brown		gelbbraun	
39	168D	yellow brown		gelbbraun	
39	N 172D	yellow brown		gelbbraun	
<hr/>					
40	031B	orange brown		orangebraun	
40	031C	orange brown		orangebraun	
40	032C	orange brown		orangebraun	
40	033C	orange brown		orangebraun	
40	034B	orange brown		orangebraun	
40	034C	orange brown		orangebraun	
40	034D	orange brown		orangebraun	
40	N 034D	orange brown		orangebraun	
40	035A	orange brown		orangebraun	
40	N 163A	orange brown		orangebraun	
40	N 163B	orange brown		orangebraun	
40	168A	orange brown		orangebraun	
40	168B	orange brown		orangebraun	

UPOV Group No.	RHS Reference	English	français	deutsch	español
40	169A	orange brown		orangebraun	
40	169B	orange brown		orangebraun	
40	169C	orange brown		orangebraun	
40	169D	orange brown		orangebraun	
40	170A	orange brown		orangebraun	
40	170B	orange brown		orangebraun	
40	170C	orange brown		orangebraun	
40	170D	orange brown		orangebraun	
40	N 170D	orange brown		orangebraun	
40	171B	orange brown		orangebraun	
40	171C	orange brown		orangebraun	
40	171D	orange brown		orangebraun	
40	172C	orange brown		orangebraun	
40	172D	orange brown		orangebraun	
40	N 172A	orange brown		orangebraun	
40	N 172B	orange brown		orangebraun	
40	N 172C	orange brown		orangebraun	
40	173B	orange brown		orangebraun	
40	179C	orange brown		orangebraun	
41	166C	light brown		hellbraun	
41	166D	light brown		hellbraun	
41	N 170A	light brown		hellbraun	
41	N 170B	light brown		hellbraun	
41	N 170C	light brown		hellbraun	
41	173C	light brown		hellbraun	
41	173D	light brown		hellbraun	
41	174B	light brown		hellbraun	
41	174C	light brown		hellbraun	
41	174D	light brown		hellbraun	
41	176D	light brown		hellbraun	
41	177C	light brown		hellbraun	
41	177D	light brown		hellbraun	
42	165A	brown		braun	
42	166A	brown		braun	
42	166B	brown		braun	
42	171A	brown		braun	
42	172A	brown		braun	
42	172B	brown		braun	
42	173A	brown		braun	
42	174A	brown		braun	
42	175A	brown		braun	
42	175B	brown		braun	
42	175C	brown		braun	
42	175D	brown		braun	
42	176A	brown		braun	
42	176B	brown		braun	
42	176C	brown		braun	
42	177A	brown		braun	
42	177B	brown		braun	
42	200D	brown		braun	

UPOV Group No.	RHS Reference	English	français	deutsch	español
43	178C	brown red		braunrot	
43	178D	brown red		braunrot	
43	179A	brown red		braunrot	
43	179B	brown red		braunrot	
43	180A	brown red		braunrot	
43	180B	brown red		braunrot	
43	180C	brown red		braunrot	
43	180D	brown red		braunrot	
43	181A	brown red		braunrot	
43	181B	brown red		braunrot	
43	181C	brown red		braunrot	
43	181D	brown red		braunrot	
43	182A	brown red		braunrot	
43	182B	brown red		braunrot	
43	182C	brown red		braunrot	
43	182D	brown red		braunrot	
44	N 077A	brown purple		braunpurpur	
44	178A	brown purple		braunpurpur	
44	178B	brown purple		braunpurpur	
44	183A	brown purple		braunpurpur	
44	183B	brown purple		braunpurpur	
44	183C	brown purple		braunpurpur	
44	183D	brown purple		braunpurpur	
44	184A	brown purple		braunpurpur	
44	184B	brown purple		braunpurpur	
44	184C	brown purple		braunpurpur	
44	184D	brown purple		braunpurpur	
44	185B	brown purple		braunpurpur	
44	185C	brown purple		braunpurpur	
44	185D	brown purple		braunpurpur	
44	186A	brown purple		braunpurpur	
44	186B	brown purple		braunpurpur	
44	187A	brown purple		braunpurpur	
45	N 186C	dark brown		dunkelbraun	
45	N 199B	dark brown		dunkelbraun	
45	200A	dark brown		dunkelbraun	
45	200B	dark brown		dunkelbraun	
45	200C	dark brown		dunkelbraun	
45	N 200A	dark brown		dunkelbraun	
46	158A	light yellow brown		hellgelbbraun	
46	158B	light yellow brown		hellgelbbraun	
46	158C	light yellow brown		hellgelbbraun	
46	158D	light yellow brown		hellgelbbraun	
46	159A	light yellow brown		hellgelbbraun	
46	159B	light yellow brown		hellgelbbraun	
46	159C	light yellow brown		hellgelbbraun	
46	159D	light yellow brown		hellgelbbraun	
46	160A	light yellow brown		hellgelbbraun	
46	160B	light yellow brown		hellgelbbraun	
46	160C	light yellow brown		hellgelbbraun	

UPOV Group No.	RHS Reference	English	français	deutsch	español
46	160D	light yellow brown		hellgelbbraun	
46	161A	light yellow brown		hellgelbbraun	
46	161B	light yellow brown		hellgelbbraun	
46	161C	light yellow brown		hellgelbbraun	
46	161D	light yellow brown		hellgelbbraun	
46	162A	light yellow brown		hellgelbbraun	
46	162B	light yellow brown		hellgelbbraun	
46	162C	light yellow brown		hellgelbbraun	
46	162D	light yellow brown		hellgelbbraun	
46	163B	light yellow brown		hellgelbbraun	
46	163C	light yellow brown		hellgelbbraun	
46	163D	light yellow brown		hellgelbbraun	
46	164D	light yellow brown		hellgelbbraun	
46	165D	light yellow brown		hellgelbbraun	
47	156A	grey		grau	
47	156B	grey		grau	
47	156C	grey		grau	
47	156D	grey		grau	
47	157A	grey		grau	
47	157B	grey		grau	
47	157C	grey		grau	
47	N 187B	grey		grau	
47	N 187C	grey		grau	
47	N 187D	grey		grau	
47	194D	grey		grau	
47	195A	grey		grau	
47	195B	grey		grau	
47	195C	grey		grau	
47	195D	grey		grau	
47	196A	grey		grau	
47	196B	grey		grau	
47	196C	grey		grau	
47	196D	grey		grau	
47	197A	grey		grau	
47	197B	grey		grau	
47	197C	grey		grau	
47	197D	grey		grau	
47	198A	grey		grau	
47	198B	grey		grau	
47	198C	grey		grau	
47	198D	grey		grau	
47	N 200B	grey		grau	
47	N 200C	grey		grau	
47	N 200D	grey		grau	
47	201A	grey		grau	
47	201B	grey		grau	
47	201C	grey		grau	
47	201D	grey		grau	
47	202B	grey		grau	
47	202C	grey		grau	

UPOV Group No.	RHS Reference	English	français	deutsch	español
47	202D	grey		grau	
48	188A	green grey		grüngrau	
48	188B	green grey		grüngrau	
48	188C	green grey		grüngrau	
48	188D	green grey		grüngrau	
48	189B	green grey		grüngrau	
48	189C	green grey		grüngrau	
48	189D	green grey		grüngrau	
48	N 189A	green grey		grüngrau	
48	N 189B	green grey		grüngrau	
48	N 189C	green grey		grüngrau	
48	N 189D	green grey		grüngrau	
48	190A	green grey		grüngrau	
48	190B	green grey		grüngrau	
48	190C	green grey		grüngrau	
48	190D	green grey		grüngrau	
48	191C	green grey		grüngrau	
48	191D	green grey		grüngrau	
48	192A	green grey		grüngrau	
48	192B	green grey		grüngrau	
48	192C	green grey		grüngrau	
48	192D	green grey		grüngrau	
48	193C	green grey		grüngrau	
48	193D	green grey		grüngrau	
49	N 186A	black		schwarz	
49	N 186B	black		schwarz	
49	N 187A	black		schwarz	
49	202A	black		schwarz	
50	155A	white		weiss	
50	155B	white		weiss	
50	155C	white		weiss	
50	155D	white		weiss	
50	N 155A	white		weiss	
50	N 155B	white		weiss	
50	N 155C	white		weiss	
50	N 155D	white		weiss	
50	157D	white		weiss	

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