

Technical Working Party for Vegetables

Fifty-Fourth Session

Brasilia, Brazil, May 11 to 15, 2020

TWP/4/1

Original: English

Date: April 14, 2020

Technical Working Party for Ornamental Plants and Forest Trees

Fifty-Second Session

Roelofarendsveen, Netherlands, June 8 to 12, 2020

Technical Working Party for Agricultural Crops

Forty-Ninth Session

Saskatoon, Canada, June 22 to 26, 2020

Technical Working Party for Fruit Crops

Fifty-First Session

Nîmes, France, July 6 to 10, 2020

Technical Working Party on Automation and Computer Programs

Thirty-Eighth Session

Alexandria, United States of America, September 21 to 23, 2020

DEVELOPMENT OF TGP AND INFORMATION (INF) DOCUMENTS*Document prepared by the Office of the Union**Disclaimer: this document does not represent UPOV policies or guidance***EXECUTIVE SUMMARY**

1. The purpose of this document is to provide an overview on the development of TGP and information (INF) documents.

Matters for adoption by the Council in 2020

2. The TWPs are invited to note the matters concerning documents TGP/5, TGP/7, TGP/14, TGP/15, UPOV/INF/12, UPOV/INF/16 and UPOV/INF/22 to be proposed for adoption by the Council at its fifty-fourth ordinary session, to be held in Geneva on October 30, 2020, subject to approval by the CAJ, at its seventy seventh session, to be held in Geneva on October 28, 2020.

Possible future revisions of TGP documents and information documents

3. The TWPs are invited to note the matters concerning possible future revision of documents TGP/8 and UPOV/INF/17, which will be considered under documents TWP/4/10, TWP/4/11 and TWP/4/7, respectively.

New proposals for revisions of TGP documents and information documents

4. The TWPs are invited to:

(a) propose relevant guidance in TGP documents that could have links displayed in Test Guidelines; and

(b) note that the CAJ, at its seventy-seventh session, to be held in Geneva on October 28, 2020, will consider draft document UPOV/INF/23 "UPOV Code System".

5. The TWA, TWO and TWV are invited to note discussions on the procedure for partial revision of Test Guidelines.

6. The TWF is invited to consider whether an accelerated procedure for partial revision of Test Guidelines is required.

Program for the development of TGP documents and information documents

7. The TWPs are invited to note the program for the development of TGP documents and information documents, as set out in Annexes V and VI to this document, respectively.

8. The structure of this document is as follows:

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9. The following abbreviations are used in this document:

BMT	Working Group on Biochemical and Molecular Techniques and DNA-Profiling in Particular
TC:	Technical Committee
TC-EDC:	Enlarged Editorial Committee
TWA:	Technical Working Party for Agricultural Crops
TWC:	Technical Working Party on Automation and Computer Programs
TWF:	Technical Working Party for Fruit Crops
TWO:	Technical Working Party for Ornamental Plants and Forest Trees
TWV:	Technical Working Party for Vegetables
TWPs:	Technical Working Parties

BACKGROUND

10. The TC, at its fifty-fifth session, held in Geneva on October 28 and 29, 2019, and the CAJ, at its seventy-sixth session, held in Geneva on October 30, 2019, approved the program for the development of TGP documents, as set out in the Annex to documents TC/55/25 and CAJ/75/9, respectively, subject to the conclusions at their sessions (see document TC/55/25 “Report”, paragraph 176, and document CAJ/76/9 “Report”, paragraph 33).

11. The TC, at its fifty-fifth session, agreed to extend the coverage of document “TGP Documents” to cover all relevant information materials, to be presented in future sessions of the Technical Committee. The Annex VI to this document presents the program for the development of relevant information documents (see document TC/55/25 “Report”, paragraph 177).

12. The approved TGP documents are published on the UPOV website at http://www.upov.int/upov_collection/en/.

MATTERS FOR ADOPTION BY THE COUNCIL IN 2020

13. The following revisions of TGP documents were agreed by the Technical Committee, at its fifty-fifth session, to be proposed for adoption by the Council at its fifty-fourth ordinary session, to be held in Geneva on October 30, 2020, subject to approval by the CAJ, at its seventy-seventh session, to be held in Geneva on October 28, 2020:

TGP/5: Section 6: UPOV Report on Technical Examination and UPOV Variety Description

14. The TC, agreed to propose the revision to document TGP/5, Section 6 “UPOV Report on Technical Examination and UPOV Variety Description”, to include guidance on the purpose of the variety description developed at the time of the grant of the breeder’s right and the status of the original variety description in relation to the verification of the conformity of plant material to a protected variety for enforcement of the breeder’s right. The proposed revision of document TGP/5, Section 6, is reproduced in Annex I to this document (see document TC/55/25 “Report”, paragraphs 231 and 232).

TGP/7: Development of Test Guidelines

Characteristics which only apply to certain varieties

15. The TC, at its fifty-fifth session, agreed to amend the guidance in document TGP/7, Guidance Note 18 (GN 18), to allow the exclusion of a characteristic from observation on the basis of a state of expression of a preceding pseudo-qualitative or quantitative characteristic, as set out in Annex II to this document (see document TC/55/25 “Report”, paragraphs 144 to 147):

Presentation of full scale of notes for quantitative characteristics in Test Guidelines

16. The TC, at its fifty-fifth session, agreed to revise document TGP/7 to present all states of expression for quantitative characteristics in Test Guidelines (see document TC/55/25 “Report”, paragraph 172).

TGP/14: Glossary of Terms Used in UPOV Documents

Color names for the RHS Colour Chart

17. The TC, at its fifty-fifth session, agreed to revise the list of UPOV Color Groups in document TGP/14 “Glossary of Terms used in UPOV Documents” on the basis of the color groups set out in Annex III to this document (see document TC/55/25 “Report”, paragraphs 157 to 160).

18. The TC agreed to revise document TGP/14, Section 2, Subsection 3: “Color”, and Subsection 3: Annex: “Color names for the RHS Colour Chart”, to reflect the introduction of the revised list of UPOV Color Groups, as set out in Annex III to this document.

TGP/15: Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)

New example: Characteristic-specific marker with incomplete information on state of expression

19. The TC, at its fifty-fifth session, agreed to add a new example to document TGP/15 to illustrate a situation where the characteristic-specific marker did not provide complete information on the state of expression of a characteristic, as set out in Annex IV to this document (see document TC/55/25 "Report", paragraphs 161 to 165).

20. The TC noted that the new example "Characteristic-specific marker with incomplete information on state of expression" would become a second example of model "Characteristic-specific molecular markers" in document TGP/15.

21. The TC agreed that model "Genetic selection of similar varieties for the first growing cycle" should be presented in document TGP/15 as a second example of model "Combining phenotypic and molecular distances in the management of variety collections". The TC agreed that the terminology on different "Models" should be reviewed in the document. A revised version of document TGP/15 incorporating the required changes will be considered by the TC, at its fifty-sixth session.

Revision of document UPOV/INF/12 "Explanatory Notes on Variety Denominations under the UPOV Convention"

See document TWP/4/6

Revision of document UPOV/INF/16 "Exchangeable Software"

See document TWP/4/5

Revision of document UPOV/INF/22 "Software and Equipment Used by Members of the Union"

See document TWP/4/5

22. The TWPs are invited to note the matters concerning documents TGP/5, TGP/7, TGP/14, TGP/15, UPOV/INF/12, UPOV/INF/16 and UPOV/INF/22 to be proposed for adoption by the Council at its fifty-fourth ordinary session, to be held in Geneva on October 30, 2020, subject to approval by the CAJ, at its seventy-seventh session, to be held in Geneva on October 28, 2020.

POSSIBLE FUTURE REVISIONS OF TGP DOCUMENTS AND INFORMATION DOCUMENTS

23. The TC, at its fifty-fifth session, held in Geneva on October 28 and 29, 2019, agreed the matters for possible future revision of TGP documents and information documents to be considered by the TWPs at their sessions in 2020, as follows (see document TC/55/25 "Report", paragraphs 141 to 177):

TGP/8: Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability

Data Processing for the Assessment of Distinctness and for Producing Variety Descriptions

See document TWP/4/10

The Combined-Over-Years Uniformity Criterion (COYU)

See document TWP/4/11

Revision of document UPOV/INF/17 "Guidelines for DNA-Profiling: Molecular Marker Selection and Database Construction ('BMT Guidelines')"

See document TWP/4/7

24. The TWPs are invited to note the matters concerning possible future revision of document TGP/8 and information document UPOV/INF/17, which will be considered under documents TWP/4/10, TWP/4/11 and TWP/4/7, respectively.

NEW PROPOSALS FOR REVISIONS OF TGP DOCUMENTS AND INFORMATION DOCUMENTS

TGP/7: Development of Test Guidelines

Links to relevant TGP documents guidance in Test Guidelines

24. The TC, at its fifty-fifth session, noted the proposal by the TWC, at its thirty-seventh session, to indicate relevant guidance in TGP documents that could have links displayed in Test Guidelines, and agreed to invite the TWPs, at their sessions in 2020, to propose links that might be indicated (see document TC/55/25 “Report”, paragraphs 173 and 174).

25. The TC agreed that relevant UPOV guidance identified by the TWPs should be reported to the TC, at its fifty-sixth session, for possible inclusion in the Template for Test Guidelines in a future revision of document TGP/7.

26. The TWPs are invited to propose relevant guidance in TGP documents that could have links displayed in Test Guidelines.

Procedure for partial revision of UPOV Test Guidelines

27. The TC, at its fifty-fifth session, considered whether to revise the procedure for partial revisions of Test Guidelines, on the basis of the information provided by the TWF (see document TC/55/25 “Report”, paragraphs 166 and 171).

28. The TC noted the following circumstances proposed by the TWF for allowing experts to make new proposals for partial revisions of Test Guidelines in the course of the year:

- For proposals to delete a characteristic
- For proposals to add a new state of expression and/or add a new illustration
- For proposals to add new example varieties

29. The TC noted the following circumstances proposed by the TWF when an accelerated procedure should not be applied:

- For proposals for grouping characteristics
- For proposals to add new characteristics

30. The TC recalled that, if an accelerated procedure were to be accepted, proposals for partial revisions of Test Guidelines would need to be published at least two months before the session to allow sufficient time for consideration by members. The TC noted that additional time would also be required by the Office of the Union to prepare documents before posting online.

31. The TC recalled that partial revisions of Test Guidelines could be proposed at the TWPs or at the TC sessions, providing at least two opportunities per year for proposing partial revisions.

32. The TC noted that frequent updates of Test Guidelines could be detrimental for international harmonization and requested the TWF to reconsider whether a new procedure was necessary. The TC agreed that, in case the TWF established that an accelerated procedure would be justified, it should only be used in exceptional cases.

33. The TWA, TWO and TWV are invited to note discussions on the procedure for partial revision of Test Guidelines.

34. The TWF is invited to consider whether an accelerated procedure for partial revision of Test Guidelines is required.

Development of document UPOV/INF/23 “UPOV Code System”

35. The CAJ, at its seventy-seventh session, to be held in Geneva on October 28, 2020, will consider draft document UPOV/INF/23 “UPOV Code System”.

36. *The TWPs are invited to note that the CAJ, at its seventy-seventh session, to be held in Geneva on October 28, 2020, will consider draft document UPOV/INF/23 “UPOV Code System”.*

PROGRAM FOR THE DEVELOPMENT OF TGP DOCUMENTS AND INFORMATION DOCUMENTS

37. The TC, at its fifty-fifth session, and the CAJ, at its seventy-sixth session, agreed the program for the development of TGP documents, as set out in Annex V to this document (see document TC/55/25 “Report”, paragraph 176, and document CAJ/76/9 “Report”, paragraph 33).

38. The TC, at its fifty-fifth session, agreed to extend the coverage of document “TGP Documents” to cover all relevant information materials, to be presented in future sessions of the Technical Committee. The Annex VI to this document presents the program for the development of relevant INF series documents (see document TC/55/25 “Report”, paragraph 177).

39. *The TWPs are invited to note the program for the development of TGP documents and information documents, as set out in Annexes V and VI to this document, respectively.*

[Annexes follow]

MATTERS FOR ADOPTION BY THE COUNCIL IN 2020: DOCUMENT TGP/5

DOCUMENT TGP/5, SECTION 6 “UPOV REPORT ON TECHNICAL EXAMINATION AND UPOV VARIETY DESCRIPTION”

Note for revisions: changes indicated by ~~strike through~~ (highlighted) for deletions and underlining (highlighted) for additions

Note for Draft version: **Endnotes** provide background information when considering the draft version, not to be retained in the approved version of the document. **Footnotes** to be retained in the published version of the document.

UPOV REPORT ON TECHNICAL EXAMINATION

1. Reference number of Reporting Authority
 2. Requesting Authority
 3. Reference number of Requesting Authority
 4. Breeder's reference
 5. Date of application in requesting member of the Union
 6. Applicant (name and address)
 7. Agent (name and address) (if applicable)
-
8. (a) Botanical name of taxon
 - (b) UPOV code
 9. Common name of taxon
 10. Variety denomination
 11. Person who bred, or discovered
 - and developed, the variety (name and address)
 - (if different from applicant)
 12. Reporting Authority
 13. Testing station(s) and place(s)
 14. Period of testing
 15. Date and place of issue of document

16. RESULTS OF THE TECHNICAL EXAMINATION

(a) Report on Distinctness

The variety

- is distinct []
 - is not distinct []
- according to the UPOV Convention

Variety(ies) from which it is not distinct (if applicable)

.....

(b) Report on Uniformity

The variety

- is uniform []
 - is not uniform []
- according to the UPOV Convention

Characteristic(s) for which the variety is not uniform and explanation of the lack of uniformity (if applicable) are provided in an annex to this report.

(c) Report on Stability

The variety

- is stable []
 - is not stable []
- according to the UPOV Convention

Characteristic(s) for which the variety is not stable and explanation of the lack of stability (if applicable) are provided in an annex to this report.

(d) A description of the variety is provided in an annex to this report []

(if the variety is distinct, uniform and stable).

(If the variety is not distinct, a description can be provided on request.)

17. Remarks

.....

18. Signature

UPOV VARIETY DESCRIPTION

1. Reference number of Reporting Authority
 2. Reference number of Requesting Authority
 3. Breeder's reference
 4. Applicant (name and address)
-
5. (a) Botanical name of taxon
 - (b) UPOV code
 6. Common name of taxon
 7. Variety denomination
 8. Date and document number of UPOV Test Guidelines
 9. Date and/or document number of Reporting Authority's test guidelines
 10. Reporting Authority
 11. Testing station(s) and place(s)
 12. Period of testing
 13. Date and place of issue of document
 14. Group: (if characteristics of number 15 are used for grouping, they are marked with a G in that number)

UPOV No.	Reporting Authority No.	Characteristics	States of Expression	Note	Remarks
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Reference number of Reporting Authority

15. Characteristics Included in the UPOV Test Guidelines or Reporting Authority's Test Guidelines

UPOV No.	Reporting Authority No.	Characteristics	States of Expression	Note	Remarks
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16. Similar Varieties and Differences from These Varieties

Denomination(s) of variety(ies) similar to the candidate variety	Characteristic(s) in which the candidate variety differs from the similar variety(ies) ¹⁾	State of expression of the characteristic(s) for the similar variety(ies) ²⁾	State of expression of the characteristic(s) for the candidate variety ²⁾
------------------------------------------------------------------	------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------

1) In the case of identical states of expression of both varieties, please indicate the size of the difference.

2) The state of expression of the candidate variety and similar variety(ies) relate to the DUS examination conducted at the testing station, place and period of testing indicated in 11 and 12.

17. Additional Information

- (a) Additional Data
- (b) Photograph (if appropriate)
- (c) RHS Colour Chart version used (if appropriate)
- (d) Remarks

18. Explanatory Notes to the Annex: UPOV VARIETY DESCRIPTION

(a) General (Annex: UPOV Variety Description)

(i) Purpose of the original variety description

The purpose of the variety description developed at the time of the grant of the breeder's right (original variety description) can be summarized as follows:

- (a) to describe the characteristics of the variety; and
- (b) to identify and list similar varieties and differences from these varieties;
combined with the information on the basis for (a) and (b), namely:
 - Date and document number of UPOV Test Guidelines;
 - Date and/or document number of Reporting Authority's test guidelines;
 - Reporting Authority;
 - Testing station(s) and place(s);
 - Period of testing;
 - Date and place of issue of document;
 - Group: (Table: Characteristics; States of Expression; Note; Remarks);
 - Additional Information:
 - (a) Additional Data
 - (b) Photograph (if appropriate)
 - (c) RHS Colour Chart version used (if appropriate)
 - (d) Remarks."

(ii) Status of the original variety description in relation to the enforcement of the breeder's rights

Document UPOV/EXN/ENF/1 "Explanatory notes on the enforcement of breeders' rights under the UPOV Convention" explains as follows:

"SECTION II: Some possible measures for the enforcement of breeders' rights

"While the UPOV Convention requires members of the Union to provide for appropriate legal remedies for the effective enforcement of breeders' rights, it is a matter for breeders to enforce their rights."

In relation to the verification of plant material of a protected variety for the purposes of enforcement of the breeder's right, it should be recalled that the description of the variety characteristics in the original variety description and the basis for distinctness from the most similar variety are linked to the circumstances of the DUS examination, namely:

- Date and document number of UPOV Test Guidelines;
- Date and/or document number of Reporting Authority's test guidelines;
- Reporting Authority;
- Testing station(s) and place(s);
- Period of testing;
- Date and place of issue of document;
- Group: (Table: Characteristics; States of Expression; Note; Remarks).
- Additional Information:
 - (a) Additional Data
 - (b) Photograph (if appropriate)
 - (c) RHS Colour Chart version used (if appropriate)
 - (d) Remarks

(iii) Amendment to the original variety description

Document TGP/4 “Constitution and Maintenance of Variety Collections” explains in section 3.1.1:

“With regard to descriptions based on the relevant UPOV Test Guidelines, it is important to note that UPOV Test Guidelines may be revised (see document TGP/7), possibly leading to the introduction of some new characteristics and the deletion of some others from the table of characteristics. Furthermore, the states of expression of a characteristic may be amended. Therefore, descriptions which have been prepared using different versions of the UPOV Test Guidelines for the same species or group of species may not be fully compatible. In these cases, the descriptions should be aligned as far as possible.”

In some members of the Union the original variety description may be amended to adapt the description to render it comparable with descriptions of other varieties, produced under different circumstances. In such cases, all stakeholders should be informed.

Examination offices may update their variety data to reflect the evolution of Test Guidelines. Such updates are made for working purposes and do not affect the original variety description.

(iv) Reference Number of the Reporting Authority

The reference number of the Reporting Authority should be repeated on each page of the report.

(b) Ad Number 14 (Annex: UPOV Variety Description)

Only information on the group to which the variety belonged should be given or information on groupings other than by characteristics listed in Number 15. Grouping by characteristics mentioned in Number 15 should be indicated simply by marking the respective characteristic in Number 15 with the letter “G” before the number of the characteristic.

(c) Ad Number 15 (Annex: UPOV Variety Description)

(i) All characteristics of the UPOV Test Guidelines should be reproduced, including those which are not applicable and those which have not been recorded. Those not applicable should be marked “not applicable,” those not recorded, “not recorded.”

(ii) The asterisks from the UPOV Test Guidelines should be repeated on the form.

(iii) Additional characteristics from the Reporting Authority’s test guidelines should not be placed after the UPOV Test Guidelines characteristics, but in their sequence according to the UPOV principles, as the main purpose of the form is still for the authority’s use. They do not need to be specially marked as they are sufficiently identified by the Reporting Authority’s number.

(iv) The list contains only a small column for brief remarks or for a reference to lengthier remarks which should be reproduced in a footnote.

(d) Ad Number 16 (Annex: UPOV Variety Description)

Only those characteristics that show sufficient differences to establish distinctness should be given. Information on differences between two varieties should always contain the states of expression with their notes for both varieties; if possible, in columns if more varieties are mentioned.

[Annex II follows]

MATTERS FOR ADOPTION BY THE COUNCIL IN 2020: DOCUMENT TGP/7 “DEVELOPMENT OF TEST GUIDELINES”

Characteristics which only apply to certain varieties

The TC, at its fifty-fifth session, agreed to amend the guidance in document TGP/7, Guidance Note 18 (GN 18), to allow the exclusion of a characteristic from observation on the basis of a state of expression of a preceding pseudo-qualitative or quantitative characteristic, to read as follows (see document TC/55/25 “Report”, paragraphs 144 to 147):

“3. Characteristics which only apply to certain varieties

“In some cases, the state of expression of a preceding characteristic determines that a subsequent characteristic is not applicable e.g. it would not be possible to describe the shape of leaf lobes for a variety which did not have leaf lobes.

“In cases where this is not obvious, or where the characteristics are separated in the Table of Characteristics, the heading of the subsequent characteristic is preceded by an underlined reference to the types of varieties to which it applies, on the basis of the preceding characteristic.

“The following examples demonstrate how the proposed approach might be used for QL, PQ and QN characteristics:

(QL) Flower: type: single (1); double (2)

(PQ) Only varieties with: Flower: type: single: Flower: shape

(PQ) Flower head: type: single (1); semi-double (2); daisy-eyed double (3); double (4)

(QN) Only varieties with: Flower head: type: daisy-eyed double or double: Flower head: height: short (3); medium (5); tall (7)

(PQ) Plant: head formation: absent (1); open (2); closed (3)

(QN) Only varieties with: Plant: head formation: open or closed: Time of head formation: very early (1); early (3); medium (5); late (7); very late (9)”

(QN) Presence of hairs: absent or very weak (1).

(PQ) Only varieties with: Presence of hairs: Other than “absent or very weak” (1): Hair: color

“The exclusion of characteristics from observation on the basis of a preceding pseudo-qualitative (PQ) or quantitative (QN) characteristic should be used with caution, taking into account the consequences for the examination of distinctness.”

[Annex III follows]

ANNEX III

MATTERS FOR ADOPTION BY THE COUNCIL IN 2020: DOCUMENT TGP/14

NEW UPOV COLOR GROUPS

UPOV Group No.	English	français	deutsch	español
1	white	blanc	weiß	blanco
2	light green	vert clair	hellgrün	verde claro
3	medium green	vert moyen	mittelgrün	verde medio
4	dark green	vert foncé	dunkelgrün	verde oscuro
5	light yellow green	vert-jaune clair	hellgelbgrün	verde amarillento claro
6	medium yellow green	vert-jaune moyen	mittelgelbgrün	verde amarillento medio
7	light grey green	vert-gris clair	hellgraugrün	verde grisáceo claro
8	medium grey green	vert-gris moyen	mittelgraugrün	verde grisáceo medio
9	dark grey green	vert-gris foncé	dunkelgraugrün	verde grisáceo oscuro
10	light blue green	vert-bleu clair	hellblaugrün	verde azulado claro
11	medium blue green	vert-bleu moyen	mittelblaugrün	verde azulado medio
12	dark blue green	vert-bleu foncé	dunkelblaugrün	verde azulado oscuro
13	light brown green	vert-brun clair	hellbraungrün	verde amarronado claro
14	medium brown green	vert-brun moyen	mittelbraungrün	verde amarronado medio
15	dark brown green	vert-brun foncé	dunkelbraungrün	verde amarronado oscuro
16	light yellow	jaune clair	hellgelb	amarillo claro
17	medium yellow	jaune moyen	mittelgelb	amarillo medio
18	dark yellow	jaune foncé	dunkelgelb	amarillo oscuro
19	light yellow orange	orange-jaune clair	hellgelborange	naranja amarillento claro
20	medium yellow orange	orange-jaune moyen	mittelgelborange	naranja amarillento medio
21	dark yellow orange	orange-jaune foncé	dunkelgelorange	naranja amarillento oscuro
22	light orange	orange clair	hellorange	naranja claro
23	medium orange	orange moyen	mittelorange	naranja medio
24	dark orange	orange foncé	dunkelorange	naranja oscuro
25	light orange pink	rose orangé clair	hellorangerosa	rosa anaranjado claro
26	medium orange pink	rose orangé moyen	mittelorangerosa	rosa anaranjado medio
27	light red pink	rose-rouge clair	hellrotrosa	rosa rojizo claro
28	medium red pink	rose-rouge moyen	mittelrotosa	rosa rojizo medio
29	pink	rose	rosa	rosa
30	light blue pink	rose-bleu clair	hellblaurosa	rosa azulado claro
31	medium blue pink	rose-bleu moyen	mittelblaurosa	rosa azulado medio
32	dark blue pink	rose-bleu foncé	dunkelblaurosa	rosa azulado oscuro
33	orange red	rouge orangé	orangerot	rojo anaranjado
34	light red	rouge clair	hellrot	rojo claro
35	medium red	rouge moyen	mittelrot	rojo medio
36	dark red	rouge foncé	dunkelrot	rojo oscuro
37	medium purple red	rouge-pourpre moyen	mittelpurpurrot	rojo púrpura medio
38	dark purple red	rouge-pourpre foncé	dunkelpurpurrot	rojo púrpura oscuro
39	brown red	rouge-brun	braunrot	rojo amarronado
40	medium brown purple	pourpre-brun moyen	mittelbraunpurpurn	púrpura amarronado medio
41	dark brown purple	pourpre-brun foncé	dunkelbraunpurpurn	púrpura amarronado oscuro
42	medium purple	pourpre moyen	mittelpurpurn	púrpura medio
43	dark purple	pourpre foncé	dunkelpurpurn	púrpura oscuro
44	light violet	violet clair	hellviolett	violeta claro
45	medium violet	violet moyen	mittelviolett	violeta medio
46	dark violet	violet foncé	dunkelviolett	violeta oscuro
47	light blue violet	violet-bleu clair	hellblauviolett	violeta azulado claro
48	medium blue violet	violet-bleu moyen	mittelblauviolett	violeta azulado medio
49	dark blue violet	violet-bleu foncé	dunkelblauviolett	violeta azulado oscuro
50	light violet blue	bleu-violet clair	hellviolettblau	azul violáceo claro
51	medium violet blue	bleu-violet moyen	mittelviolettblau	azul violáceo medio
52	dark violet blue	bleu-violet foncé	dunkelviolettblau	azul violáceo oscuro
53	light blue	bleu clair	hellblau	azul claro
54	medium blue	bleu moyen	mittelblau	azul medio
55	dark blue	bleu foncé	dunkelblau	azul oscuro
56	light green blue	bleu-vert clair	hellgrünblau	azul verdoso claro
57	medium green blue	bleu-vert moyen	mittelgrünblau	azul verdoso medio
58	dark green blue	bleu-vert foncé	dunkelgrünblau	azul verdoso oscuro
59	light brown	brun clair	hellbraun	marrón claro
60	medium brown	brun moyen	mittelbraun	marrón medio
61	dark brown	brun foncé	dunkelbraun	marrón oscuro
62	light yellow brown	brun-jaune clair	hellgelbbraun	marrón amarillento claro
63	medium yellow brown	brun-jaune moyen	mittelgelbbraun	marrón amarillento medio

UPOV Group No.	English	français	deutsch	español
64	orange brown	brun orangé	orangebraun	marrón anaranjado
65	grey brown	brun-gris	graubraun	marrón grisáceo
66	light green brown	brun-vert clair	hellgrünbraun	marrón verdoso claro
67	medium green brown	brun-vert moyen	mittelgrünbraun	marrón verdoso medio
68	dark green brown	brun-vert foncé	dunkelgrünbraun	marrón verdoso oscuro
69	yellow grey	gris-jaune	gelbgrau	gris amarillento
70	brown grey	gris-brun	braungrau	gris amarronado
71	purple grey	gris-pourpre	purpurgrau	gris púrpura
72	grey	gris	grau	gris
73	black	noir	schwarz	negro

The list of “UPOV color groups according to RHS Colour Chart Reference (2015 Edition)” and “RHS Colors contained in each UPOV color group” are reproduced in document TC/55/14 “Color names for the RHS Colour Chart” (available at: https://www.upov.int/meetings/en/doc_details.jsp?meeting_id=50795&doc_id=452567).

EDITORIAL CHANGES TO DOCUMENT TGP/14 TO REFLECT THE INTRODUCTION OF THE REVISED LIST OF UPOV COLOR GROUPS

Document prepared by an expert from Germany

Note for revisions: changes indicated by ~~strikethrough~~ (highlighted) for deletions and underlining (highlighted) for additions

Extract from document TGP/14, Section 2, Subsection 3: Color

“2.2.4 Color Chart

“If it is necessary to describe a color with a color chart, UPOV uses the color chart from the Royal Horticultural Society (RHS), the “RHS Colour Chart” because of its worldwide availability. There are ~~5~~ 6 editions of this color chart, dating from 1966, 1986, 1995, 2001, ~~and~~ 2007 and 2015. Since 2005, the “RHS Mini Colour Chart” has been published by the Flower Council Holland and is also frequently used by breeders. Other color charts might also be appropriate.

[...]

“When using the RHS Colour Chart, the reference number of the RHS color, the UPOV color name and the edition of the chart should be mentioned in the variety description. ~~A proposal for naming the colors has been made~~ Information on UPOV color names can be found in the ANNEX of this document.”

Extract from document TGP/14, Section 2, Subsection 3: Color: Annex

“ANNEX

“COLOR NAMES FOR THE RHS COLOUR CHART

“1. Introduction

“1.1 When using the RHS Colour Chart, the variety description should contain both the RHS Colour Chart reference number and a name for the color. The purpose of this document is to harmonize color names for variety descriptions.

1.2 The following table gives an overview of the existing "groups" for the sixth edition of the RHS Color Chart:

		<u>Number of entries or groups</u>	<u>Example</u>	<u>Use</u>
level of precision high low	<u>RHS Colour Chart Number</u>	<u>920</u>	<u>49A</u>	<u>Used for precise description of colors of plant parts.</u>
	<u>RHS Colour Name</u>	<u>190</u>	<u>Strong Pink</u>	<u>not used for UPOV purposes</u>
	<u>UPOV Color Name</u>	<u>73</u>	<u>Pink (group 29)</u>	<u>Used in the variety description to translate the RHS Colour Chart number into a color name.</u>
	<u>RHS Color Group (heading on each sheet)</u>	<u>29</u>	<u>Red Group</u>	<u>not used for UPOV purposes</u>

~~1.23~~ In the editions one to five (1966 until 2007) the RHS Colour Chart contained up to 896 colors, which are were divided into 23 "groups" to name the colors. However, for UPOV purposes, this initial grouping seemed unable to name the colors in variety descriptions in a sufficiently precise way. Therefore, UPOV has identified 50 its own color name "groups" which are presented in this document.

1.4 In the sixth edition (2015) of the RHS Colour Chart for the first time each patch has a color name. However, these color names do not always reflect the color similarity of the patches and therefore it seemed not appropriate to use these names for UPOV purposes.

1.5 On the basis of the sixth edition of the RHS Colour Chart UPOV has identified 73 color "groups" which are presented in this document. For naming of the RHS Colour Charts in the editions one to five (1966 to 2007), see document TGP/14/3 [cross ref.]. "It is important to note that these color "groups" were not created for the purpose of grouping varieties for DUS trials and should not be used for that purpose. Information on the grouping of varieties for DUS trials can be found in document TGP/9/4 "Examining Distinctness" [cross ref.].

1.63 The names used for the 50 73 UPOV Color Groups consist of either the [pure color] / [color hue] (e.g. yellow, orange, red), a combination of two [pure colors] / [color hues] (e.g. yellow orange, orange pink, purple red), or a combination of the [pure color(s)] / [color hue(s)] with "light" or "dark" (e.g. light yellow, dark pink red).

~~1.4 The color names in this document can be used with different editions of the RHS Colour Chart. The 1986 version of the RHS Colour Chart was used for the initial grouping and naming. In the 1995 edition no new charts were added. The additional charts in the 2001 edition (marked with "N") and in the 2007 edition (marked with "NN") have been integrated into the existing groups."~~

2. Example for the use of the UPOV Color Names in a variety description

[...]

2.2 For the variety description, it is useful to translate the RHS colour chart number into a color name and to fill this name into the column "state of expression". The color name can be found in the appendix to this document, in which the RHS Colors are listed according to the UPOV Color Group to which they belong: e.g. RHS 46C belongs to group 24 35 "medium red", RHS N 74B belongs to group 27 42 "medium purple" and RHS N 57A belongs to group 23 37 "medium purple red".

[...]

MATTERS FOR ADOPTION BY THE COUNCIL IN 2019: DOCUMENT TGP/15

The TC, at its fifty-fifth session, agreed that the following example should be included in document TGP/15:

“EXAMPLE 2: GENE SPECIFIC MARKER WITH INCOMPLETE INFORMATION ON STATE OF EXPRESSION FOR DISEASE RESISTANCE IN TOMATO

prepared by experts from The Netherlands

“Example

- “1. Resistance to Tomato mosaic virus (ToMV) Strain 0 in Tomato is conferred by the presence of allele *Tm1* from gene *Tm1* or alleles *Tm2* or *Tm2²* from gene *Tm2*.
- “2. A single marker identifies the presence of resistance alleles *Tm2* and *Tm2²* and the susceptible allele *tm2*. Marker *Tm2/2²* is positioned in the protein coding sequence.
- “3. A variety will be resistant to ToMV Strain 0 if resistance allele *Tm2* or resistance allele *Tm2²* is present.
- “4. A variety with homozygous allele *tm2* will be susceptible to ToMV Strain 0 unless resistance is coded by resistance allele *Tm1*. In this case, resistance to ToMV Strain 0 cannot be assessed by a DNA marker test because there is no reliable marker for gene *Tm1*.

“Table 1: Schematic overview of resistance to Tomato mosaic virus and resistance alleles:

Genetic background	<i>tm2/tm2</i> and <i>tm1/tm1</i>	<i>Tm2/Tm2</i> or <i>Tm2²/Tm2²</i> or <i>Tm2²/Tm2</i> or <i>Tm2/tm2</i> or <i>Tm2²/tm2</i> and <i>Tm1/Tm1</i> or <i>Tm1/tm1</i> or <i>tm1/tm1</i>	<i>tm2/tm2</i> and <i>Tm1/Tm1</i> or <i>Tm1/tm1</i>
Marker <i>Tm2/2²</i>	susceptible allele	resistant allele	susceptible allele
Resistance to ToMV - Strain 0	absent	present	present

“5. If a variety is claimed to be resistant to ToMV Strain 0, the DNA marker test may be performed. In cases where the resistance is based on the presence of the allele *Tm2* or *Tm2²*, the DNA marker test could replace the traditional bioassay.

“6. If the DNA marker test does not confirm the resistance claim or if the variety is claimed to be susceptible, a bioassay must be performed.”

[Annex V follows]

TWP/4/1

ANNEX V

PROGRAM FOR THE DEVELOPMENT OF TGP DOCUMENTS

	Title of document	Current approved documents	2019					2020					2021				
			TC-EDC	TWPs	TC/55	CAJ/76	C/53	TC-EDC	TWPs	TC/56	CAJ/77	C/54	TC-EDC	TWPs	TC/57	CAJ/78	C/55
TGP/0	List of TGP Documents and Latest Issue Dates	TGP/0/10 ADOPTED															TGP/0/13 Adopt
TGP/1	General Introduction with Explanations	-															
TGP/2	List of Test Guidelines Adopted by UPOV	TGP/2/2 ADOPTED															
TGP/3	Varieties of Common Knowledge	C(Extr.)19/2 Rev.															
TGP/4	Constitution and Maintenance of Variety Collections	TGP/4/1 ADOPTED															
TGP/5	Experience and Cooperation in DUS Testing	ADOPTED															
	Section 6 "UPOV Report on Technical Examination and UPOV Variety Description"	TGP/5: Sec. 6/2 ADOPTED						X		X	X		TGP/5: S.6/3 ADOPTED				
TGP/6	Arrangements for DUS Testing	ADOPTED															
TGP/7	Development of Test Guidelines	TGP/7/6 ADOPTED															
	Presentation of full scale of notes for quantitative characteristics (Drafter: Office of the Union)							X		X	X		TGP/7/8 Adopt				
	Duration of tests (Drafter: Office of the Union)					CAJ/76/5											
	Characteristics which only apply to certain varieties (Drafter: Office of the Union)		TC-EDC/Mar19/9	TWP/3/9	TC/55/12						X		TGP/7/8 Adopt				
	Procedure for the adoption of Test Guidelines by correspondence (Drafter: Office of the Union)					CAJ/76/5											
TGP/8	Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability	TGP/8/3 ADOPTED															
	Method of Calculation of COYU (Drafter: Adrian Roberts (GB))			TWC	TC/55/4					X	X			X		X	TGP/8/5 Adopt
	Examining DUS in Bulk Samples (Drafter: Office of the Union)					CAJ/76/5											
	Data Processing for the Assessment of Distinctness and for Producing Variety Descriptions (Drafter: Office of the Union)		TC-EDC/Mar19/9	TWP/3/10	TC/55/13				X	X			X		X		TGP/8/5 Adopt
	Uniformity assessment on the basis of off-types: Method for more than one single test (year) (Drafter: Office of the Union)					CAJ/76/5											
TGP/9	Examining Distinctness	TGP/9/2 ADOPTED															
TGP/10	Examining Uniformity	TGP/10/1 ADOPTED															
	Assessing Uniformity by Off-types on the Basis of More than One Growing Cycle or on the Basis of Sub-Samples (Drafter: Office of the Union)					CAJ/76/5											
TGP/11	Examining Stability	TGP/11/1 ADOPTED															
TGP/12	Guidance on Certain Physiological Characteristics	TGP/12/2 ADOPTED															
TGP/13	Guidance for New Types and Species	TGP/13/1 ADOPTED															
TGP/14	Glossary of Terms Used in UPOV Documents	TGP/14/3 ADOPTED															
	Illustrations for shape and ratio characteristics (Drafter: Office of the Union)					CAJ/76/5											
	Color names for the RHS Colour Chart (Drafter: Andrea Menne (DE))		TC-EDC/Mar19/9	TWP/3/11	TC/55/14						X		TGP/14/5 Adopt				
TGP/15	Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)	TGP/15/1 ADOPTED															
	Genetic selection of similar varieties for the first growing cycle (Drafter: Amanda van Dijk (NL))					CAJ/76/5							TGP/15/2 Adopt				
	New example: Characteristic-specific marker with incomplete information on state of expression (Drafter: Amanda van Dijk (NL))		TC-EDC/Mar19/9	TWP/3/12	TC/55/15				x	x			TGP/15/3 Adopt				

TWP/4/1

ANNEX VI

PROGRAM FOR THE DEVELOPMENT INFORMATION DOCUMENTS

	Title of document	Current approved documents	2019					2020					2021				
			TC-EDC	TWPs	TC/55	CAJ/76	C/53	TC-EDC	TWPs	TC/56	CAJ/77	C/54	TC-EDC	TWPs	TC/57	CAJ/78	C/55
C(Extr.)/19/2 Rev.	The Notion of Breeder and Common Knowledge	C(Extr.)/19/2 Rev. ADOPTED															
INF/5	UPOV Model Plant Breeders' Rights Publication	INF/5/2 ADOPTED					INF/5/2 ADOPTED										
INF/12	Explanatory Notes on Variety Denominations under the UPOV Convention	INF/12/5 ADOPTED				CAJ/76/6					X	EXN/DEN ADOPTED					
INF/16	Exchangeable Software	INF/16/8 ADOPTED								X	X	INF/16/9 ADOPTED					
INF/17	Guidelines for DNA-Profiling: Molecular Marker Selection and Database Construction ("BMT Guidelines")	INF/17/1 ADOPTED							X	X				X	X	X	INF/17/2 ADOPTED
INF/18	Possible use of Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)	INF/18/1 ADOPTED															
INF/22	Software and equipment used by members of the Union	INF/22/6 ADOPTED					INF/22/6 ADOPTED		X	X	X	INF/22/7 ADOPTED		X	X	X	INF/22/8 ADOPTED
INF/23	UPOV Code System	New									X			X	X	X	INF/23/1 ADOPTED

[End of Annex VI and of document]