

Council

C/54/3 Rev.

Fifty-Fourth Ordinary Session
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to be considered by correspondence

ADOPTION OF DOCUMENTS*Document prepared by the Office of the Union**Disclaimer: this document does not represent UPOV policies or guidance*

1. The purpose of this document is to provide information concerning the following documents, which the Council will be invited to adopt in 2020¹:

Information documents:

- | | |
|--------------|---|
| UPOV/INF/16 | Exchangeable Software (Revision) (document UPOV/INF/16/9 Draft 42) ^a |
| UPOV/INF/22 | Software and Equipment Used by Members of the Union (Revision) (document UPOV/INF/22/7 Draft 1) |
| UPOV/INF-EXN | List of UPOV/INF-EXN Documents and Latest Issue Dates (Revision) (document UPOV/INF-EXN/14 Draft 1) ^b |

Explanatory Notes

- | | |
|-------------------------|---|
| UPOV/EXN/DEN | Explanatory Notes on Variety Denominations under the UPOV Convention (document UPOV/EXN/DEN/1 Draft 4)^c |
|-------------------------|---|

TGP documents:

- | | |
|--------|--|
| TGP/5 | Experience and Cooperation in DUS Testing Section 6: UPOV Report on Technical Examination and UPOV Variety Description (Revision) (document TGP/5: Section 6/3 Draft 1) |
| TGP/7 | Development of Test Guidelines (Revision) (document TGP/7/8 Draft 1) |
| TGP/14 | Glossary of Terms Used in UPOV Documents (Revision) (document TGP/14/5 Draft 1) |
| TGP/15 | Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS) (Revision) (document TGP/15/3 Draft 1) |
| TGP/0 | List of TGP documents and latest issue dates (Revision) (document TGP/0/12 Draft 1) |

¹ The procedure for consideration of documents by correspondence is provided in Circular E-20/094 of July 23, 2020 (available at the TC/56, CAJ/77 and C/54 webpages).

2. The following abbreviations are used in this document:

CAJ: Administrative and Legal Committee
TC: Technical Committee

INFORMATION DOCUMENTS

UPOV/INF/16: Exchangeable Software (Revision) (document UPOV/INF/16/9 Draft 42)

3. The TC and the CAJ will be invited to agree the proposals to revise document UPOV/INF/16/8 “Exchangeable Software”.

4. Subject to agreement of a draft of document UPOV/INF/16/9 by the TC and the CAJ, on the basis of document UPOV/INF/16/9 Draft 42, an agreed draft of document UPOV/INF/16/9 “Exchangeable Software” will be presented for adoption by the Council in 2020.

5. The Council is invited to adopt a revision of document UPOV/INF/16/8 “Exchangeable Software”, on the basis of an agreed draft of document UPOV/INF/16/9 by the TC and the CAJ.

UPOV/INF/22: Software and Equipment Used by Members of the Union (Revision) (document UPOV/INF/22/7 Draft 1)

6. The TC and the CAJ will be invited to agree the proposals to revise document UPOV/INF/22/6 “Software and equipment used by members of the Union”.

7. Subject to agreement of a draft of document UPOV/INF/22/7 by the TC and the CAJ, on the basis of document UPOV/INF/22/7 Draft 1, an agreed draft of document UPOV/INF/22/7 “Software and equipment used by members of the Union” will be presented for adoption by the Council in 2020.

8. The Council is invited to adopt a revision of document UPOV/INF/22/6 “Software and equipment used by members of the Union”, on the basis of an agreed draft of document UPOV/INF/22/7, by the TC and the CAJ.

UPOV/INF-EXN: List of UPOV/INF-EXN Documents and Latest Issue Dates (Revision) (document UPOV/INF-EXN/14 Draft 42)

9. In conjunction with the information documents that the Council will be invited to adopt in 2020, it is proposed to adopt a revision of document UPOV/INF-EXN/13 “List of UPOV/INF-EXN Documents and Latest Issue Dates” on the basis of document UPOV/INF-EXN/14 Draft 42.

10. The Council is invited to adopt document UPOV/INF-EXN/14, on the basis of document UPOV/INF-EXN/14 Draft 42.

EXPLANATORY NOTES

UPOV/EXN/DEN: Explanatory Notes on Variety Denominations under the UPOV Convention (document UPOV/EXN/DEN/1 Draft 4)

11. The CAJ will be invited to agree the proposals to revise document UPOV/EXN/DEN/1 “Explanatory Notes on Variety Denominations under the UPOV Convention”.

~~12. Subject to agreement of a draft of document UPOV/EXN/DEN/1 by the CAJ, on the basis of document UPOV/EXN/DEN/1 Draft 4, an agreed draft of document UPOV/EXN/DEN/1 “Explanatory Notes on Variety Denominations under the UPOV Convention” will be presented for adoption by the Council in 2020.~~

~~13. The Council is invited to adopt a revision of document UPOV/EXN/DEN “Explanatory Notes on Variety Denominations under the UPOV Convention”, on the basis of an agreed draft of document UPOV/EXN/DEN/1 by the CAJ.~~

TGP DOCUMENTS

TGP/5: Experience and Cooperation in DUS Testing
Section 6: UPOV Report on Technical Examination and UPOV Variety Description (Revision)
(document TGP/5: Section 6/3 Draft 1)

14. The TC, at its fifty-fifth session, agreed to propose a revision to document TGP/5 “Experience and Cooperation in DUS Testing”, 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.

15. The French, German and Spanish translations of the original English text have been checked by the relevant members of the Editorial Committee prior to submission of the draft of document TGP/5: Section 6 to the Council. Document TGP/5: Section 6/3 Draft 1 incorporates the amendments agreed by the TC, as presented in Annex I to this document (in revision mode), and the linguistic changes made by the relevant members of the Editorial Committee.

16. Subject to agreement of a draft of document TGP/5: Section 6/3 by the TC and the CAJ, on the basis of document TGP/5: Section 6/3 Draft 1, an agreed draft of document TGP/5: Section 6/3 “TGP/5 “Experience and Cooperation in DUS Testing, Section 6 UPOV Report on Technical Examination and UPOV Variety Description” will be presented for adoption by the Council in 2020.

17. The Council is invited to adopt a revision of document TGP/5 “Experience and Cooperation in DUS Testing”, Section 6: “UPOV Report on Technical Examination and UPOV Variety Description”, on the basis of an agreed draft of document TGP/5: Section 6/3 by the TC and the CAJ.

TGP/7: Development of Test Guidelines (Revision) (document TGP/7/8 Draft 1)

18. 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.

19. The TC agreed to revise document TGP/7 to present all states of expression for quantitative characteristics in Test Guidelines.

20. The French, German and Spanish translations of the original English text have been checked by the relevant members of the Editorial Committee prior to submission of the draft of document TGP/7/8 to the Council. Document TGP/7/8 Draft 1 incorporates the amendments agreed by the TC, as presented in Annex II to this document (in revision mode), and the linguistic changes made by the relevant members of the Editorial Committee.

21. Subject to agreement of a draft of document TGP/7/8 by the TC and the CAJ, on the basis of document TGP/7/8 Draft 1, an agreed draft of document TGP/7/8 “Development of Test Guidelines” will be presented for adoption by the Council in 2020.

22. *The Council is invited to adopt a revision of document TGP/7/7“Development of Test Guidelines”, on the basis of an agreed draft of document TGP/7/8 by the TC and the CAJ.*

TGP/14: Glossary of Terms Used in UPOV Documents (Revision) (document TGP/14/5 Draft 1)

23. 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.

24. 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.

25. The French, German and Spanish translations of the original English text have been checked by the relevant members of the Editorial Committee prior to submission of the draft of document TGP/14/5 to the Council. Document TGP/14/5 Draft 1 incorporates the amendments agreed by the TC, as presented in Annex III to this document, and the linguistic changes made by the relevant members of the Editorial Committee.

26. Subject to agreement of a draft of document TGP/14/5 by the TC and the CAJ, on the basis of document TGP/14/5 Draft 1, an agreed draft of document TGP/14/5 “Glossary of Terms Used in UPOV Documents” will be presented for adoption by the Council in 2020.

27. *The Council is invited to adopt a revision of document TGP/14/4 “Glossary of Terms Used in UPOV Documents”, on the basis of an agreed draft of document TGP/14/5 by the TC and the CAJ.*

TGP/15: Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS) (Revision) (document TGP/15/3 Draft 1)

28. 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.

29. 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.

30. 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.

31. The French, German and Spanish translations of the original English text have been checked by the relevant members of the Editorial Committee prior to submission of the draft of document TGP/15/3 to the Council. Document TGP/15/3 Draft 1 incorporates the amendments agreed by the TC, as presented in Annex IV to this document, and the linguistic changes made by the relevant members of the Editorial Committee.

32. Subject to agreement of a draft of document TGP/15/3 by the TC and the CAJ, on the basis of document TGP/15/3 Draft 1, an agreed draft of document TGP/15/3 Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)” will be presented for adoption by the Council in 2020.

33. *The Council is invited to adopt a revision of document TGP/15/2 “Guidance on the use of Biochemical and Molecular Markers in the examination of Distinctness, Uniformity and Stability (DUS)”, on the basis of an agreed draft of document TGP/15/3 by the TC and the CAJ.*

TGP/0: List of TGP documents and latest issue dates (Revision) (document TGP/0/12 Draft 1)

34. In conjunction with the adoption of the revised TGP documents by the Council in 2020, it is proposed to adopt a revision of document TGP/0 "List of TGP documents and latest issue dates" (document TGP/0/11) on the basis of document TGP/0/12 Draft 1.

35. The Council is invited to adopt document TGP/0/12 Draft 1 "List of TGP documents and latest issue dates".

[Annexes follow]

ANNEX I

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

The TC, at its fifty-fifth session, considered document TC/55/11 (see document TC/55/25 Corr. “Report”, paragraphs 231 and 232).

The following revision of document TGP/5 “Experience and Cooperation in DUS Testing”, Section 6 “UPOV Report on Technical Examination and UPOV Variety Description” was agreed by the Technical Committee 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 (~~highlighting and strikethrough~~ for deletions and highlighting and underline for addition):

[...]

UPOV VARIETY DESCRIPTION

[...]

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]

ANNEX II

REVISIONS TO DOCUMENT TGP/7
“DEVELOPMENT OF TEST GUIDELINES”

The following revisions of document TGP/7 “Development of Test Guidelines” were agreed by the Technical Committee 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 (~~highlighting and strikethrough~~ for deletions and highlighting and underline for addition):

Characteristics which only apply to certain varieties

The TC agreed to amend the guidance in document TGP/7, Guidance Note 18 (GN 18) to read as follows:

3. *Characteristics which only apply to certain varieties*

In some cases, the state of expression of a preceding ~~qualitative~~ 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 qualitative (QL), pseudo-qualitative (PQ) and quantitative (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.

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

The TC, at its fifty-fifth session, considered documents TC/55/4 and TC/55/4 Add. and agreed to revise document TGP/7 to present all states of expression for quantitative characteristics in Test Guidelines (see document TC/55/25 Corr. “Report”, paragraph 172).

Extract of ANNEX 1: TG STRUCTURE AND UNIVERSAL STANDARD WORDING6.2 *States of Expression and Corresponding Notes*

6.2.1 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.

6.2.2 ~~In the case of qualitative and pseudo-qualitative characteristics (see Chapter 6.3), all~~ All relevant states of expression are presented in the characteristic. ~~However, in the case of quantitative characteristics with 5 or more states, an abbreviated scale may be used to minimize the size of the~~

Table of Characteristics. For example, in the case of a quantitative characteristic with 9 states, the presentation of states of expression in the Test Guidelines may be abbreviated as follows:

| State | Note |
|--------|------|
| small | 3 |
| medium | 5 |
| large | 7 |

However, it should be noted that all of the following 9 states of expression exist to describe varieties and should be used as appropriate:

| State | Note |
|---------------------|------|
| very small | 1 |
| very small to small | 2 |
| small | 3 |
| small to medium | 4 |
| medium | 5 |
| medium to large | 6 |
| large | 7 |
| large to very large | 8 |
| very large | 9 |

6.2.3 Further explanation of the presentation of states of expression and notes is provided in document TGP/7 "Development of Test Guidelines".

Extract of ANNEX 3: GUIDANCE NOTES (GN)

GN 20 (Chapter 7) – Presentation of characteristics: States of expression according to type of expression of a characteristic

[...]

3.3 *The "1-9" scale*

3.3.1 Introduction

[...]

3.3.1.3 However, it is not necessary to present all the 9 states in the Table of Characteristics and the following abbreviated versions are, in general, more appropriate:

| Standard Range Version 1 | Standard Range Version 2 | Standard Range Version 3 | Standard Range Version 4 |
|--|--|--------------------------|--------------------------|
| 1 very weak (or: absent or very weak) | 1 very weak (or: absent or very weak) | - | - |
| 3 weak | 3 weak | 3 weak | 3 weak |
| 5 medium | 5 medium | 5 medium | 5 medium |
| 7 strong | 7 strong | 7 strong | 7 strong |
| 9 very strong | - | 9 very strong | - |

3.3.1.4 3.3.1.3 [xxx]

3.3.2 Wording of States

[...]

3.3.2.2.1 [xxx]

| State | Example 1 Size relative to: | Example 2 Angle: | Example 3 Position: | Example 4 Length in relation to: | Example 5 Profile: |
|----------|---|---|---|---|---|
| 1 | much smaller | very acute | at base | equal | strongly concave |
| <u>2</u> | <u>much smaller to moderately smaller</u> | <u>very acute to moderately acute</u> | <u>at base to one quarter from base</u> | <u>equal to slightly shorter</u> | <u>strongly concave to moderately concave</u> |
| 3 | moderately smaller | moderately acute | one quarter from base | slightly shorter | moderately concave |
| <u>4</u> | <u>moderately smaller to same size</u> | <u>moderately acute to right angle</u> | <u>one quarter from base to in middle</u> | <u>slightly shorter to moderately shorter</u> | <u>moderately concave to flat</u> |
| 5 | same size | right angle | in middle | moderately shorter | flat |
| <u>6</u> | <u>same size to moderately larger</u> | <u>right angle to moderately obtuse</u> | <u>in middle to one quarter from apex end</u> | <u>moderately shorter to much shorter</u> | <u>flat to moderately convex</u> |
| 7 | moderately larger | moderately obtuse | one quarter from apex end | much shorter | moderately convex |
| <u>8</u> | <u>moderately larger to much larger</u> | <u>moderately obtuse to very obtuse</u> | <u>one quarter from apex end to at apex</u> | <u>much shorter to very much shorter</u> | <u>moderately convex to strongly convex</u> |
| 9 | much larger | very obtuse | at apex | very much shorter | strongly convex |

3.4 "Limited" range 1-5 scale

The 1-5 scale is often used where the range of expression of a characteristic is physically limited at both ends and it is not appropriate to divide the expression into more than three intermediate states. For example:

| State | Example 1 Stem: attitude |
|----------|------------------------------------|
| 1 | erect |
| <u>2</u> | <u>erect to semi-erect</u> |
| 3 | semi-erect |
| <u>4</u> | <u>semi-erect to prostrate</u> |
| 5 | prostrate |

The wording for states 2 and 4 is formulated in the same way as for the even states in the 1-9 scale (see Section 3.3.2.1.2).

GN 25 (Chapter 7) – Recommendations for conducting the examination

[...]

2. The following examples are intended to illustrate the ways of considering the method of observation for characteristics such as time of flowering and counts.

(a) Time of Flowering

| Time of flowering | | |
|--------------------------|----------------------------|----------|
| | <u>very early</u> | <u>1</u> |
| | <u>very early to early</u> | <u>2</u> |
| QN | early | 3 |
| | <u>early to medium</u> | <u>4</u> |
| | medium | 5 |
| | <u>medium to late</u> | <u>6</u> |
| | late | 7 |
| | <u>late to very late</u> | <u>8</u> |
| | <u>very late</u> | <u>9</u> |

[Annex III follows]

ANNEX III

REVISIONS TO DOCUMENT TGP/14
“GLOSSARY OF TERMS USED IN UPOV DOCUMENTS”

The following revisions of document TGP/14 “Glossary of terms used in UPOV documents” were agreed by the Technical Committee 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 (~~highlighting and strikethrough~~ for deletions and highlighting and underline for addition):

Extract from document TGP/14, Section 2, Subsection 3: Color: 2. 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 Annexes I and II to Subsection 3 of this document.”

Extract from document TGP/14, Section 2, Subsection 3: Color: 5. Literature

5. LITERATURE

RHS Colour Chart, ~~2007~~ 2015, Royal Horticultural Society, London, UK (www.rhs.org.uk)

Extract from document TGP/14, Section 2, Subsection 3: Color: ANNEXES I AND II

ANNEX I

COLOR NAMES FOR THE SIXTH EDITION (2015) OF 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.

Example:

2.3 Part of a variety description for New Guinea Impatiens (TG/196/2 Rev.)

| No. | Characteristic | State of expression | | Note |
|-----|---|-----------------------|-----------|------|
| 20 | Flower: main color of upper side | medium red | RHS 46C | |
| 21 | Varieties with bi- or multicolored flowers only: Flower: secondary color of upper side | medium purple | RHS N 74B | |
| 22 | Varieties with bi- or multicolored flowers only: Flower: distribution of secondary color | mainly on upper petal | | 1 |
| 23 | Flower: eye zone | present | | 9 |
| 24 | Flower: size of eye zone | large | | 7 |
| 25 | Flower: main color of eye zone | medium purple red | RHS N 57A | |

3. UPOV Color Groups (Sixth edition (2015) of the RHS Colour Chart)

3.1 The 50 73 UPOV Color Groups are as follows:

| 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 | dunkelgelborange | naranja amarillento oscuro |
| 22 | light orange | orange clair | hellorange | naranja claro |
| 23 | medium orange | orange moyen | mittlorange | 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 | mittlorangerosa | rosa anaranjado medio |
| 27 | light red pink | rose-rouge clair | hellrotrosa | rosa rojizo claro |
| 28 | medium red pink | rose-rouge moyen | mittelrotrosa | 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 |

| UPOV Group No. | English | français | deutsch | español |
|----------------|---------------------|-------------------|-------------------|--------------------------|
| 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 |
| 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 |

3.2 The appendices to ~~this document~~ Annex I allocate the colors in the sixth edition (2015) of the RHS Colour Chart to the appropriate UPOV Color Groups as follows:

Appendix I: ~~Allocation of UPOV Color Groups for each RHS Color in RHS Reference order~~
UPOV Color Groups According to RHS Colour Chart Reference (2015 Edition)

Appendix II: RHS Colors Contained in each UPOV Color Group (Sixth Edition (2015) of the RHS Colour Chart)

3.3 Annex II presents the UPOV Color Groups allocated to the previous editions of the RHS Colour Chart (1986, 1995, 2001 and 2007). The appendices to Annex II allocate the colors in the previous editions of the RHS Colour Chart to the appropriate UPOV Color Groups as follows:

Appendix I: UPOV Color Groups According to Previous Editions of the RHS Colour Chart Reference (1986, 1995, 2001 and 2007 Editions)

Appendix II: RHS Colors Contained in each UPOV Color Group (1986, 1995, 2001 and 2007 Editions of the RHS Colour Chart)

[Annex IV follows]

ANNEX IV

REVISIONS TO DOCUMENT TGP/15 "GUIDANCE ON THE USE OF BIOCHEMICAL AND MOLECULAR MARKERS IN THE EXAMINATION OF DISTINCTNESS, UNIFORMITY AND STABILITY (DUS)"

The TC, at its fifty-fifth session, agreed that a new example "Characteristic-specific marker with incomplete information on state of expression" should be included in document TGP/15, as amended by the TC-EDC, and noted that the new example would become a second example of model "Characteristic-specific molecular markers" in document TGP/15.

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 (see document TC/55/25 Corr. "Report", paragraphs 163 to 165).

On the above basis, the following revision of document TGP/15 "Guidance on the use of biochemical and molecular markers in the examination of distinctness, uniformity and stability (DUS)" is 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 (~~highlighting and strikethrough~~ for deletions and highlighting and underline for addition):

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| | EXAMPLE: FRENCH BEAN | |

Extract of: 2. APPLICATION MODELS

2.1.1 [...]

(e) markers linked to different regulatory elements for the same gene conferring expression of the same characteristic are different methods for examining the same characteristic.

~~2.1.2~~ Annex I to this document "~~Gene Specific Marker for Herbicide Tolerance~~" provides ~~an~~ examples of the use of characteristic-specific molecular markers.

~~2.1.3~~ It is a matter for the relevant authority to consider if the assumptions are met when applying the model and examples, as presented in Annex I of this document.

~~2.1.4~~ In order to include a method based on the model in Annex I of this document in Test Guidelines the relevant Technical Working Party and the TC would need to agree that the requirement for reliability of the link between the gene and the expression of the characteristic was satisfied.

2.2 Combining Phenotypic and Molecular Distances in the Management of Variety Collections (see Annex II)

Example 1: Parent lines in Maize (see Annex II, example 1)

2.2.1 [xxx]

~~2.3~~ ~~Example 2:~~ Genetic Selection of Similar Varieties for the First Growing Cycle (see ~~Annex III~~ Annex II, example 2)

~~2.3.1~~ ~~2.2.4~~ This approach involves a step to check for genetic similarity before the first growing cycle.

~~2.3.2~~ ~~2.2.5~~ In cases where the minimum duration of tests is normally two growing cycles, a selection of similar varieties in the variety collection for comparison with candidate varieties in the first growing cycle is made according to genetic similarity. As a next step, the information provided by the applicant in the Technical Questionnaire (TQ) is used to see if some of the genetically similar varieties do not have to be compared in a growing trial because of differences in DUS characteristics.

~~2.3.3~~ ~~2.2.6~~ On the basis of the variety description of DUS characteristics produced in the first growing cycle, a further search is made of varieties in the variety collection to identify any similar varieties that were not compared in the first growing cycle and which should be compared with the candidate variety in the second growing cycle.

~~2.3.4~~ ~~2.2.7~~ ~~Annex III~~ ~~Example 2 in Annex II~~ to this document "~~Genetic Selection of Similar Varieties for the First Growing Cycle~~" provides an example of the genetic selection of similar varieties for the first growing cycle.

MODEL: CHARACTERISTIC-SPECIFIC MOLECULAR MARKERS

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.

[End of Annex IV and of document]

^a On September 1, 2020, France requested to change "christophe.chevalier@geves.fr" by "christelle.lavaud@geves.fr". Document UPOV/INF/16/9 Draft 2 reflects the requested change.

^b Document UPOV/INF-EXN/14 Draft 2, reflects changes resulting from the procedure of consideration of documents by correspondence (see Circular E-20/094 of July 23, 2020).

^c Comments received on Document UPOV/EXN/DEN/1 Draft 4, in reply to Circular E-20/122 of August 21, 2020, were not of straightforward nature and, therefore, this document would not be proposed for adoption by the Council in 2020.