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| Administrative and Legal Committee  Seventy-Seventh Session Geneva, October 28, 2020 | CAJ/77/3  Original: English  Date: August 8, 2020 |
| ***to be considered by correspondence*** |  |

Development of guidance and information materials

Document prepared by the Office of the Union

Disclaimer: this document does not represent UPOV policies or guidance

# EXECUTIVE SUMMARY

The purpose of this document is to provide background information to assist the Administrative and Legal Committee (CAJ) in its consideration[[1]](#footnote-2) of relevant matters concerning the development of guidance and information materials.

The CAJ is invited to:

(a) consider the proposed revision of document UPOV/INF/16/8 “Exchangeable Software”, on the basis of document UPOV/INF/16/9 Draft 1;

(b) note that, subject to agreement by the TC and CAJ, an agreed draft of document UPOV/INF/16/9 will be presented for adoption by the Council in 2020;

(c) consider the proposed revision of document UPOV/INF/22/6 “Software and equipment used by members of the Union”, on the basis of document UPOV/INF/22/7 Draft 1;

(d) note that, subject to agreement by the TC and the CAJ, an agreed draft of document UPOV/INF/22/7 will be presented for adoption by the Council in 2020;

(e) note the replies received from members of the Union in response to Circular E 20/017, reproduced in Annex I to this document;

(f) consider the request by the TWV, at its fifty-fourth session, not to introduce Class 205B in document UPOV/EXN/DEN/1 (see paragraph 25);

(g) consider the proposed revision of document UPOV/EXN/DEN “Explanatory Notes on Variety Denominations under the UPOV Convention”, on the basis of document UPOV/EXN/DEN/1 Draft 4;

(h) note that, subject to agreement by the CAJ, an agreed draft of document UPOV/EXN/DEN/1 will be presented for adoption by the Council in 2020;

(i) consider 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”, on the basis of document TGP/5:  Section 6/3 Draft 1;

(j) note that, subject to agreement by the CAJ, an agreed draft of document TGP/5:  Section 6/3 will be presented for adoption by the Council in 2020;

(k) consider document TGP/7/8 “Development of Test Guidelines”, on the basis of document TGP/7/8 Draft 1;

(l) note that, subject to agreement by the CAJ, an agreed draft of document TGP/7/8 will be presented for adoption by the Council in 2020;

(m) consider document TGP/14/5 “Glossary of Terms Used in UPOV Documents”, on the basis of document TGP/14/5 Draft 1;

(n) note that, subject to agreement by the CAJ, an agreed draft of document TGP/14/5 will be presented for adoption by the Council in 2020.

(o) consider document TGP/15/3 “Guidance on the use of Biochemical and Molecular Markers in the examination of Distinctness, Uniformity and Stability (DUS)”, on the basis of document TGP/15/3 Draft 1;

(p) note that, subject to agreement by the CAJ, an agreed draft of document TGP/15/3 will be presented for adoption by the Council in 2020.

(q) consider the “Guide to the UPOV Code System”, on the basis of document UPOV/INF/23/1 Draft 1;

(r) propose that the TC consider a new draft of document UPOV/INF/23/1 “Guide to the UPOV Code System” in 2021;

(s) consider the proposals for revision of documents UPOV/INF/6 and TGP/5 Section 2, as proposed in paragraphs 58 and 59 to this document, for adoption by the Council at its session in 2021;

(t) note that matters concerning essentially derived varieties are considered in document CAJ/77/4;

(u) note that matters concerning harvested material are considered in document CAJ/77/5;

(v) note that matters concerning novelty of parent lines with regard to the exploitation of the hybrid variety are considered in document CAJ/77/6;

(w) to consider the program for the development of information materials, as proposed in Annex VI to this document, subject to its conclusions on the matters above; and

(x) consider the program for the development of TGP documents, as set out in Annex VII of this document, taking into account the conclusions of the TC.

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ANNEX II: Revisions to document TGP/5, Section 6

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ANNEX VI: Overview of the development of information materials

ANNEX VII: Program for the development of TGP documents

The following abbreviations are used in this document:

CAJ: Administrative and Legal Committee

CAJ‑AG: Administrative and Legal Committee Advisory Group

WG-DEN: Working Group on Variety Denominations

TC: Technical Committee

TC-EDC: Enlarged Editorial Committee

TWPs: Technical Working Parties

TWC: Technical Working Party on Automation and Computer Programs

# BACKGROUND

The TC, at its fifty-fifth session[[2]](#footnote-3), and the CAJ, at its seventy‑sixth session[[3]](#footnote-4), approved the program for the development of TGP documents, as set out in the Annex to documents TC/55/4 and CAJ/76/2, respectively, subject to the conclusions at their sessions (see document TC/55/25 Corr. “Report”, paragraph 176, and document CAJ/76/9 “Report”, paragraph 33).

In accordance with the draft agenda for CAJ/77, this document includes matters concerning “TGP Documents” to cover all relevant information materials under “Development of Guidance and Information Materials”, to be presented in future sessions of the CAJ.

The approved guidance and information materials are published on the UPOV website at <http://www.upov.int/upov_collection/en/>.

# Matters proposed for adoption by the Council in 2020

## Information Materials

### Revision of document UPOV/INF/16 “Exchangeable Software” (document UPOV/INF/16/9 Draft 1)

#### Inclusion of new software in document UPOV/INF/16

Section 2 of document UPOV/INF/16 “Exchangeable Software” provides the following:

“2. Procedure for inclusion of software

“Software proposed for inclusion in document UPOV/INF/16 by members of the Union is, in the first instance, presented for review by the Technical Working Party on Automation and Computer Programs (TWC). On the basis of such presentations and the experience of members of the Union, the TWC makes a recommendation to the Technical Committee (TC) on whether to include that software in document UPOV/INF/16. In the case of a positive recommendation by the TC and by the Administrative and Legal Committee (CAJ), the software will be listed in a draft of document UPOV/INF/16, to be considered for adoption by the Council. Document UPOV/INF/16 is adopted by the Council.”

Following the recommendation by the TWC, at its thirty-seventh session, the software “Off-type Calculator” is proposed for inclusion in document UPOV/INF/16, as presented in document UPOV/INF/16/9 Draft 1:

#### Invitation to provide information on the use of the software included in document UPOV/INF/16

Section 4 of document UPOV/INF/16 “Exchangeable Software” provides the following:

“4. Information on use by members of the Union

“4.1 A circular is issued to members of the Union on an annual basis, inviting them to provide information on their use of the software included in document UPOV/INF/16.

“4.2 The information on software use by members of the Union is indicated in the columns ‘Member(s) of the Union using the software’ and ‘Application by user(s)’. With regard to the indication of ‘Application by user(s)’, members of the Union can indicate, for example, crops or types of crop for which the software is used.”

On April 14, 2020, the Office of the Union issued Circular E-20/031 to the designated persons of the members of the Union in the TC, inviting them to provide or update information regarding the use of the software included in document UPOV/INF/16.

No new information was received from members of the Union in response to Circular E-20/031.

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 1, which contains the proposal for the inclusion of the software “Off-type Calculator”, an agreed draft of document UPOV/INF/16/9 “Exchangeable Software” will be presented for adoption by the Council in 2020.

The CAJ is invited to:

(a) consider the proposed revision of document UPOV/INF/16/8 “Exchangeable Software”, on the basis of document UPOV/INF/16/9 Draft 1; and

(b) note that, subject to agreement by the TC and CAJ, an agreed draft of document UPOV/INF/16/9 will be presented for adoption by the Council in 2020.

### Revision of document UPOV/INF/22 “Software and equipment used by members of the Union” (document UPOV/INF/22/7 Draft 1)

On April 14, 2020, the Office of the Union issued Circular E-20/031 to the designated persons of the members of the Union in the TC, inviting them to provide or update information for document UPOV/INF/22.

The information received from Lithuania and Uruguay in response to circular E-20/031 is included in document UPOV/INF/22/7 Draft 1.

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.

The CAJ is invited to:

(a) consider the proposed revision of document UPOV/INF/22/6 “Software and equipment used by members of the Union”, on the basis of document UPOV/INF/22/7 Draft 1; and

(b) note that, subject to agreement by the TC and the CAJ, an agreed draft of document UPOV/INF/22/7 will be presented for adoption by the Council in 2020.

## Explanatory Notes

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

The CAJ, at its seventy-sixth session3 noted the revisions of document UPOV/INF/12/5, as presented in document UPOV/EXN/DEN/1 Draft 2[[4]](#footnote-5) with the amendments proposed by the WG-DEN at its sixth meeting[[5]](#footnote-6).

The CAJ noted that the WG-DEN had requested the Office of the Union to clarify the following wording:

“Section 5.3 (a):

“it does not conform to the provisions in paragraphs (2) (for example, the proposed denomination is not different from the denomination of an existing variety of the same plant species or of a closely related species in its territory) and (4) (for example, the proposed denomination is identical to a trademark registered for identical goods);”

The CAJ noted the request of the Delegation of the European Union to consider a change in Section 2.3.3.(a) (i) of the “visual and phonetic” to “visual or phonetic” and to introduce an additional component for “concept”. The Office of the Union reported that those proposals had been considered by the WG-DEN and had not been retained and that the proposals would result in inconsistencies without other amendments.

The CAJ agreed that the Office of the Union should invite members and observers to make written comments by correspondence on document UPOV/EXN/DEN “Explanatory Notes on Variety Denominations under the UPOV Convention” (document UPOV/EXN/DEN/1 Draft 3) concerning the matters in paragraphs 20 and 21. The Office of the Union, based on the written comments received by correspondence, would prepare a draft of document UPOV/EXN/DEN “Explanatory Notes on Variety Denominations under the UPOV Convention” (document UPOV/EXN/DEN/1 Draft 4) for consideration by the CAJ. The CAJ noted that the CAJ and the Council would be invited in 2020 to consider a revision of document UPOV/EXN/DEN/1 “Explanatory Notes on Variety Denominations under the UPOV Convention”.

On April 3, 2020, the Office of the Union issued Circular E-20/017 to the designated persons of the members and observers in the CAJ, inviting them to consider and submit comments on document UPOV/EXN/DEN/1 Draft 3, which included the changes to document UPOV/INF/12/5 that were agreed by the WG-DEN, and the proposals of the Community Plant Variety Office (CPVO) of the European Union to amend section 2.3.3 of document UPOV/EXN/DEN/1 Draft 3, as contained in the Annex to Circular E‑20/017.

In reply to Circular E-20/017, comments were received from Argentina, Canada, European Union, France and New Zealand. Those comments are reproduced as Annex I to this document.

In relation to the proposal to split the current denomination class 205 (Cichorium and Lactuca) into two classes, as agreed by the TC, at its fifty-fifth session2, the Technical Working Party on Vegetables (TWV), at its fifty-fourth session, held from May 11 to 15, 2020, noted that approximately 1200 varieties with UPOV code CICHO\_INT in the PLUTO database could not be allocated with certainty to either one of the Classes (Class 205 or Class 205B) and agreed not to support the proposal to split denomination Class 205 at this stage. On that basis, it is proposed not to revise Class 205 at this time, pending further consideration by the TC and the CAJ.

In accordance with the request from the CAJ, at its seventy-sixth session3, document UPOV/EXN/DEN “Explanatory Notes on Variety Denominations under the UPOV Convention” (document UPOV/EXN/DEN/1 Draft 4) reflecting the changes to text of document UPOV/INF/12/5 that were considered by the CAJ by correspondence (Circular E-20/017) and proposals in response to the comments received in reply to Circular E-20/017 and the developments relevant for Draft Class 205B.

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 (see document CAJ/76/9 “Report”, paragraphs 34 to 39).

The CAJ is invited to:

(a) note the replies received from members of the Union in response to Circular E‑20/017, reproduced in Annex I to this document;

(b) consider the request by the TWV, at its fifty-fourth session, not to introduce Class 205B in document UPOV/EXN/DEN/1 (see paragraph 25);

(c) consider the proposed revision of document UPOV/EXN/DEN “Explanatory Notes on Variety Denominations under the UPOV Convention”, on the basis of document UPOV/EXN/DEN/1 Draft 4; and

(d) note that, subject to agreement by the CAJ, an agreed draft of document UPOV/EXN/DEN/1 will be presented for adoption by the Council in 2020.

## TGP Documents

The following revisions of TGP documents were agreed by the TC, at its fifty-fifth session2, to be proposed for adoption by the Council in 2020, subject to approval by the CAJ.

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

The TC, at its fifty-fifth session2, 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 II to this document.

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 II to this document (in revision mode), and the linguistic changes made by the relevant members of the Editorial Committee.

Subject to agreement of a draft of document TGP/5:  Section 6/3 by 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.

The CAJ is invited to:

(a) consider 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”, on the basis of document TGP/5:  Section 6/3 Draft 1; and

(b) note that, subject to agreement by the CAJ, an agreed draft of document TGP/5:  Section 6/3 will be presented for adoption by the Council in 2020.

### Revision of document TGP/7 “Development of Test Guidelines” (document TGP/7/8 Draft 1)

The TC, at its fifty-fifth session2, 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 III to this document.

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

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 III to this document (in revision mode), and the linguistic changes made by the relevant members of the Editorial Committee.

Subject to agreement of a draft of document TGP/7/8 by 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.

The CAJ is invited to:

(a) consider document TGP/7/8 “Development of Test Guidelines”, on the basis of document TGP/7/8 Draft 1; and

(b) note that, subject to agreement by the CAJ, an agreed draft of document TGP/7/8 will be presented for adoption by the Council in 2020.

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

The TC, at its fifty-fifth session2, 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 IV to this document.

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 IV to this document.

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 IV to this document, and the linguistic changes made by the relevant members of the Editorial Committee.

Subject to agreement of a draft of document TGP/14/5 by 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.

The CAJ is invited to:

(a) consider document TGP/14/5 “Glossary of Terms Used in UPOV Documents”, on the basis of document TGP/14/5 Draft 1; and

(b) note that, subject to agreement by the CAJ, an agreed draft of document TGP/14/5 will be presented for adoption by the Council in 2020.

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

The TC, at its fifty-fifth session2, 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 V to this document.

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.

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.

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 V to this document, and the linguistic changes made by the relevant members of the Editorial Committee.

Subject to agreement of a draft of document TGP/15/3 by 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.

The CAJ is invited to:

(a) consider document TGP/15/3  “Guidance on the use of Biochemical and Molecular Markers in the examination of Distinctness, Uniformity and Stability (DUS)”, on the basis of document TGP/15/3 Draft 1; and

(b) note that, subject to agreement by the CAJ, an agreed draft of document TGP/15/3 will be presented for adoption by the Council in 2020.

# Other matters for consideration by the CAJ

## Document UPOV/INF/23: Guide to the UPOV Code System (document UPOV/INF/23/1 Draft 1)

The “Guide to the UPOV Code System”, as amended by the TC, at its forty‑eighth session[[6]](#footnote-7), and the CAJ, at its sixty-fifth session[[7]](#footnote-8), is reproduced in Annex I to documents TC/49/6 and CAJ/67/6 and is available on the UPOV website (see <https://www.upov.int/genie/resources/pdfs/upov_code_system_en.pdf>).

The TC, at its fifty-fifth session2, considered the proposed amendments to the “Guide to the UPOV Code System” to reflect the creation of exceptions for the UPOV Codes for popcorn, sweet corn and *Brassica oleracea*. The TC recalled that the main purpose of the UPOV Code System was to overcome the problem of synonyms for plant taxa and should be based on taxonomic criteria, also bearing in mind that the UPOV Code System was used by other international organizations, such as ISTA. The TC agreed that the exceptions proposed to the “Guide to the UPOV Code System” diverged from the Germplasm Resources Information Network (GRIN). The TC agreed that UPOV Codes should continue following GRIN taxonomy as far as possible.

The TC agreed to postpone the amendment to the “Guide to the UPOV Code System” and to explore alternative solutions to enable UPOV Codes to provide useful information on variety groups or types for DUS testing purposes. The TC agreed to invite the Office of the Union to prepare a document with proposals, for consideration at its fifty-sixth session (document TC/55/25 “Report”, paragraphs 208 to 210).

The Consultative Committee, at its ninety-sixth session, held in Geneva on October 31, 2019, noted that, at the appropriate time, the Council would be invited to adopt the “Program for improvements to the PLUTO database” and the “Guide to the UPOV Code System”, which would be made accessible via the UPOV Collection UPOV/INF document series (document CC/96/14, “Report”, paragraph 85).

The CAJ will be invited to consider document UPOV/INF/23/1, on the basis of document UPOV/INF/23/1 Draft 1 “Guide to the UPOV Code System”.

The CAJ, subject to its conclusions at its session in 2020, may invite the TC in 2021 to consider a new draft of document UPOV/INF/23/1.

The CAJ is invited to:

(a) consider the “Guide to the UPOV Code System”, on the basis of document UPOV/INF/23/1 Draft 1; and

(b) propose that the TC consider a new draft of document UPOV/INF/23/1 “Guide to the UPOV Code System” in 2021.

## Reference to UPOV PRISMA in UPOV guidance and information materials

At its seventy-sixth session3, the CAJ agreed that the Office of the Union should identify UPOV information material where references to UPOV PRISMA would be relevant (e.g. document TGP/5 Section 2 “UPOV Model Form for the Application for Plant Breeders' Rights” and corresponding update of document UPOV/INF/6 “Guidance for the Preparation of Laws Based on the 1991 Act of the UPOV Convention”) and make proposals for revision accordingly (see document CAJ/76/9 “Report”, paragraph 56).

In relation to document UPOV/INF/6 “Guidance for the Preparation of Laws Based on the 1991 Act of the UPOV Convention”, it is proposed to add a reference to UPOV PRISMA in the Notes of Article 10 “Filing of applications”. The proposal is to use the wording recently adopted by the Council in 2019, for document UPOV/INF/5, Part II “Example of Plant Breeders’ Rights publication”, paragraph 11 and to add a new paragraph as reproduced below (see new text highlighted in grey):

Notes on Article 10   Filing of Applications

**(1) [*Place of first application*] The breeder may choose the Contracting Party with whose authority he wishes to file his first application for a breeder’s right.**

**(2) [*Time of subsequent applications*] The breeder may apply to the authorities of other Contracting Parties for the grant of breeders’ rights without waiting for the grant to him of a breeder’s right by the authority of the Contracting Party with which the first application was filed.**

**(3) [*Independence of protection*] No Contracting Party shall refuse to grant a breeder’s right or limit its duration on the ground that protection for the same variety has not been applied for, has been refused or has expired in any other State or intergovernmental organization.**

1.1 The UPOV Model Form for the Application for Plant Breeders’ Rights (document [TGP/5](http://www.upov.int/tgp/en/list.jsp) “Experience and Cooperation in DUS Testing” [Section 2](http://www.upov.int/tgp/en/list.jsp)), provides guidance for the development of application forms for breeders’ rights.

1.2 For the UPOV Technical Questionnaire to be Completed in Connection with an Application for Plant Breeders’ Rights see document [TGP/5](http://www.upov.int/tgp/en/list.jsp) “Experience and Cooperation in DUS Testing” [Section 3](http://www.upov.int/tgp/en/list.jsp).

1.3 To facilitate the filing of applications, UPOV has developed the UPOV PRISMA PBR application tool which enables applicants to transmit their application data to participating members of the Union via the UPOV website (available at <http://www.upov.int/upovprisma>).

In relation to document TGP/5 Section 2 “UPOV Model Form for the Application for Plant Breeders' Rights”, it is proposed to add in Annex I “Instructions for converting the UPOV Model Form for the application for Plant Breeders’ Rights into an authority’s own form” under chapter (A) General Instructions, the following paragraph (see new text highlighted in grey):

A. General Instructions

0.1 When converting the UPOV Model Form into an Authority’s own form and when drafting explanations for completing that form (“explanations”), the contents and the terminology of the applicable law have to be taken into particular account. Subsequently, reference is made to some particularities. To ensure that the Model Form fulfills its function, it is important that the general structure, the contents and the numbering of the individual parts be maintained in the Authority’s own forms.

0.2 The right-hand margin is reserved for official use; it may also be used for references to instructions in the explanations.

0.3 In the explanations, instructions should be given on how dates are to be written and how members of the Union are to be referred to. The following instructions are proposed:

- “The format of dates should be specified and should include a requirement for the year to be provided in 4-digit format (e.g.: 2007);”

- “members of the Union are to be designated by the two-letter ISO codes applicable to States and Intergovernmental Organizations (e.g. AL (Albania), QZ (European Community (Community Plant Variety Office (CPVO)).”

0.4 A standard UPOV reference has been provided for each field in the UPOV Model Form. For example,

for item 1.(a) Applicant(s) Name(s),

the standard UPOV reference is UPOV A1: 1(a)(i)

To facilitate harmonization and to assist applicants, an Authority may include that standard UPOV reference in the corresponding field of the Authority’s own form. It is a matter for each Authority to decide if the field in the Authority’s own form corresponds sufficiently precisely to the field in the UPOV Model Application Form for the standard UPOV reference to be included.

0.5 To facilitate the filing of applications, UPOV has developed the UPOV PRISMA PBR application tool which enables applicants to transmit their application data to participating members of the Union via the UPOV website (available at <http://www.upov.int/upovprisma>). In order to facilitate harmonization, it is recommended that participating members of the Union in UPOV PRISMA use the UPOV Model Form.

The CAJ is invited to consider the proposals for revision of documents UPOV/INF/6 and TGP/5 Section 2, as proposed in paragraphs 58 and 59 to this document, for adoption by the Council at its session in 2021.

## Essentially Derived Varieties

Matters concerning essentially derived varieties are considered in document CAJ/77/4 “Essentially Derived Varieties”.

The CAJ is invited to note that matters concerning essentially derived varieties are considered in document CAJ/77/4.

## Harvested Material

Matters concerning harvested material are considered in document CAJ/77/5 “Harvested Material”.

The CAJ is invited to note that matters concerning harvested material are considered in document CAJ/77/5.

## Novelty of parent lines with regard to the exploitation of the hybrid variety

Matters concerning novelty of parent lines with regard to the exploitation of the hybrid variety are considered in document CAJ/77/6 “Novelty of parent lines with regard to the exploitation of the hybrid variety”.

The CAJ is invited to note that matters concerning novelty of parent lines with regard to the exploitation of the hybrid variety are considered in document CAJ/77/6.

# TENTATIVE PROGRAM FOR THE DEVELOPMENT OF guidance and INFORMATION MATERIALS

An overview of information materials is provided in Annex VI to this document.

The CAJ is invited to consider the program for the development of information materials, as proposed in Annex VI to this document, subject to its conclusions on the matters above.

Annex VII to this document presents the program for the development of TGP documents, as agreed by the TC and the CAJ.

A report on the conclusions of the TC will be presented in document CAJ/77/2 “Report on developments in the Technical Committee”.

*The CAJ is invited to consider the program for the development of TGP documents, as set out in Annex VII of this document, taking into account the conclusions of the TC.*

[Annexes follow]

REPLIES TO UPOV CIRCULAR E-20/017 CONCERNING THE CAJ CONSIDERATION OF DOCUMENT UPOV/EXN/DEN/1 DRAFT 3 BY CORRESPONDENCE

On April 3, 2020, the Office of the Union issued Circular E-20/017 to the designated persons of the members and observers in the CAJ, inviting them to consider and submit comments on document UPOV/EXN/DEN/1 Draft 3, which included the changes to document UPOV/INF/12/5 that were agreed by the WG-DEN, and the proposals of the Community Plant Variety Office (CPVO) of the European Union to amend section 2.3.3 of document UPOV/EXN/DEN/1 Draft 3, as contained in the Annex to Circular E 20/017.

In reply to Circular E-20/017, comments were received from Argentina, Canada, European Union, France and New Zealand.

Replies to Circular E-20/017 are reproduced in Annex I as follows:

* Appendix I: Argentina
* Appendix II: Canada
* Appendix III: European Union
* Appendix IV: France
* Appendix V: New Zealand

[Appendix I follows]

Reply to Circular E-20/017 from Argentina

[Original: Spanish]

Republic of Argentina

– National Executive Power 2020 –

Year of General Manuel Belgrano

**Note**

**Number:** NO-2020-31293107-APN-INASE#MAGYP

BUENOS AIRES

Monday, May 11, 2020

**Reference:** Response to Circular E-20/017

**To:** Peter Button (UPOV),

**Cc:** María Laura Villamayor (INASE#MAGYP), Hernando Pecci (DRV#INASE),

Peter Button,

Vice Secretary-General

THE INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Dear Mr. Button,

I am writing to you in response to Circular E-20/017, which requests comments on document UPOV/EXN/DEN/1 Draft 3 and the proposals of the Community Plant Variety Office (CPVO) of the European Union to amend Section 2.3.3 of document UPOV/EXN/DEN/1 Draft 3.

Accordingly, I have the honor of transmitting herewith Argentina’s response to the circular.

**Paragraph 1.3**

“*Si tiene conocimiento*” [If [an authority] is aware] is repeated in this paragraph. It appears at the beginning and again in the middle. As it is redundant, it would be appropriate to delete one of two such instances.

**Proposals for examples in Spanish:**

* 1. “*Susceptibles de inducir en error o de prestarse a confusión*” [Liable to mislead or to cause confusion]

2.3.1 “*Características de la variedad*” [Characteristics of the variety]

(c) “*Ejemplos*”[Examples]:

Suitable denominations: “A 5409” and “A 5409 RG”

Explanation: They concern denominations of varieties of the Soybean species, where the former corresponds to a variety that is not modified by recombinant DNA and the latter corresponds to the mentioned variety, into which the glyphosate resistance gene was introduced.

*Denominaciones inadecuadas* [Unsuitable denominations]: “DELTA II”, if the Swiss Chard variety “DELTA” has not been used to breed “DELTA II”.

**Paragraph 2.3.3**

Modify the text by adding *“que no resultan taxativos”* [that are not exhaustive], in order to clarify that there may be other cases and to read as follows:

*“2.3.3 Identidad de la variedad* [Identity of the variety]

* + 1. *Una diferencia de solo una letra o un número podrá considerarse susceptible de inducir en error o prestarse a confusión en relación con la identidad de la variedad. Sin embargo, los casos [ejemplos] siguientes, que no resultan taxativos, en los que la diferencia es de solo una letra o un número, podrán considerarse no susceptibles de inducir en error o prestarse a confusión: ….”*

[A difference of only one letter or one number may be considered to be liable to mislead or cause confusion concerning the identity of the variety. However, the following cases, that are not exhaustive, are examples of only one letter or one number difference that may be considered not to be liable to mislead or cause confusion: ….]

**Proposals for examples in Spanish:**

2.3.3 *Identidad de la variedad* [Identity of the variety]

1. *Ejemplos* [Examples]:
2. *Denominaciones inadecuadas* [Unsuitable denominations]: “Tacuara” and “Thacuara”; “Selva” and “Selba”.

*Denominaciones adecuadas* [Suitable denominations]: “Marina” and “Martina”.

1. *Denominaciones adecuadas* [Suitable denominations]: “Plato” and “Plata”.

Comment: Under Item 2.3.3.i, modify the text to be read as follows: *“ …la diferencia de una letra indica una diferencia fonética y visual clara..”* […the difference of one letter provides for a clear phonetic and visual difference…]since we consider phonetic and visual analysis to be independent from the location of the difference of that one letter in the word.

**Paragraph 2.6**

The following text in the second sentence might evoke the idea that the use of the UPOV search tool is obligatory, *“…Se hace hincapié en que la utilización del instrumento de la UPOV para la búsqueda de denominaciones similares constituye un paso previo en el proceso...”* [It is emphasized that the use of the UPOV denomination similarity search tool would constitute a preliminary step in the process […]]

Perhaps you could modify the text by saying, “could constitute” instead of “would constitute”.

**Paragraphs 4 (a) and 6.8**

Replace the verb “*instar*” [encourage] with “*invitar*” [ask]. In Spanish, “*instar*” is almost an obligation.

**Proposals of the CPVO of the European Union to amend Section 2.3.3 of document UPOV/EXN/DEN/1 Draft 3**

We agree with the proposal for Item 2.3.3 (ii) and propose two alternatives: the first is to replace the text of the UPOV document with that proposed by CPVO; and the second alternative is to combine Items (i) and (ii), because we believe that the phonetic and visual differences should be evaluated independently from where the letters make a difference.

As for our response to point (b) of the circular, we approve of “Alternative 2 of Section 2.3.3 (b)”. We agree that if there is no clear phonetic difference, but there is a clearly noticeable difference in meaning, the analyzed denomination should be accepted.

Digitally signed by GESTION DOCUMENTAL ELECTRONICA - GDE

Date: 2020.05.11 19:03:02 -03:00

Mr. Raimundo Lavignolle

President of the Argentine Seed Institute (Instituto Nacional de Semillas)

Digitally signed by GESTION DOCUMENTAL ELECTRONICA - GDE

Date: 2020.05.11 19:03:59 -03:00

[Appendix II follows]

Reply to Circular E-20/017 from Canada

Canada has several comments related to Draft 3 of the Explanatory Notes on Variety Denominations.   
They are as follows:

1. Under 2.3.3(a) Canada would like to keep the opening comment or statement “As a general recommendation”. Canada understands the need to provide more prescriptive guidance to ensure greater harmonization, however some degree of national autonomy and discretion should remain with respect to each authorities Variety Naming Guidelines.

2. The concept and assessment of phonetic differences can be complicated and imposing phonetic restrictions in 2.3.3(a)(i) across Union members becomes more difficult considering different languages. This is why Canada recommends to keep the wording “As a general recommendation” in 2.3.3(a).

3. Regarding the CPVO’s proposed additions, Canada has concerns with the insertion of either of the alternative 2.3.3(b) sections. Again, assessing phonetic differences can be difficult within a language and is further complicated across languages. Alternatively, Canada can agree to the insertion as long as the wording “As a general recommendation” in 2.3.3(a) remains.

4. Regarding 5.2(b) the insertion of

“In cases where different denominations have been accepted for the same variety by different members of the Union, authorities should accept the denomination that was submitted and registered with the first application, unless that denomination is unsuitable in their territory”

Canada can support the insertion with the understanding that “unsuitable” is and can be broadly interpreted.

Anthony Parker

[Appendix III follows]

Reply to Circular E-20/017 from the European Union

Thank you for consulting us on the proposed changes to the Explanatory Note on variety denominations that will be submitted  to the CAJ and Council in October this year for their consideration.

The UPOV Circular is a follow-up on  the comments of the European Union raised in the CAJ. The UPOV Working Group on the revision of the Explanatory Note ended its mandate and unfortunately there was no agreement on the issue of conceptual similarity.

CPVO has been in contact with you on possible options to be presented to the CAJ in order to amend paragraph 2.3.3. of the Explanatory Note.

In order not to risk to jeopardize the adoption of the Explanatory Note, two alternatives have been proposed.

The European Union would like to support the adoption of alternative no 2 in which there is an additional reference to the conceptual criterion referred to as “widely-recognizable difference in meaning”. This element is proposed as alternative to the phonetic criterion alone and takes into consideration the meaning of words that are widely known in several languages.

Please find enclosed [below] the draft text of the explanatory note with our more detailed comments.

Päivi Mannerkorpi

Proposals of the Community Plant Variety Office (CPVO) of the European Union   
to amend section 2.3.3 of document UPOV/EXN/DEN/1 Draft 3  
(the proposals by the CPVO appear with yellow highlight)

[reproduced from the Annex to Circular E-20/017]

*Proposals of the European Union to amend section 2.3.3 of document UPOV/EXN/DEN/1 Draft 3 (the proposals appear with yellow highlight)*

|  |
| --- |
| *2.3.3 Identity of the variety*  (a) ~~As a general recommendation, a~~ A difference of only one letter or one number may be considered to be liable to mislead or cause confusion concerning the identity of the variety~~,~~. ~~except where the~~ However, the following cases are examples of only one letter or one number difference that may be considered not to be liable to mislead or cause confusion:  (i) difference of one letter provides for a clear visual ~~or~~ and phonetic difference, e.g. if it concerns a letter at the beginning of a word:  *Example ~~1~~s of suitable denominations:* ~~in the English language,~~ ‘Harry’ and ‘Larry’; ‘Meagan’ and ‘Reagan’; ‘Kinky’ and ‘Binky’; and ‘Hagar’ and ‘Magar’ ~~would not cause confusion~~; ~~However, ‘Bough’~~  ~~and ‘Bow’ might cause confusion (in phonetic terms);~~  *Example ~~2~~s of unsuitable denominations:*  ~~in the Japanese and Korean languages there is no difference between “L” and “R” sounds, thus “Lion” and “Raion” are exactly the same although these are distinguishable for English mother tongue speakers~~ ‘Helena’ and ‘Elena’; ‘Paqou’, ‘Pacou’ and ‘Pakou’; ‘Poge’ and ‘Poje’, and ‘Zophia’ and ‘Sophia’. ~~could cause confusion phonetically, although not visually;~~  (ii) difference of one letter, not at the beginning of a word, provides for a clear visual and phonetic difference:  *Examples of suitable denominations*: ‘Pict’ and ‘Picto’; ‘Tetral’ and ‘Tetrax’; ‘Dora’ and ‘Dorka’; ‘Agasi’ and ‘Agapi’; ‘Alexandra’ and ‘Alexandru’; ‘Goran’ and ‘Gran’; and ‘Lila’ and ‘Leila’;  (iii) difference of one letter provides a widely-recognizable difference in meaning  *Examples of suitable denominations*: ‘Power’ and ‘Poker’; ‘Angle’ and ‘Ankle’;  (iv) denominations consisting solely of letters not in the form of words    *Examples of suitable denominations*: ‘ABCD’ and ‘ABCE’;  ~~(ii)~~(v) denominations consisting of a combination of letters and figures    *Examples of suitable denominations*: ‘ABC678’ and ‘ABC688’; and ‘PremP009’ and ‘PremP109’;  ~~(iii)~~(vi) denominations consisting “solely of figures”    *Examples of suitable denominations*: ‘411’ and ‘412’.  **[Alternative 1 of Section 2.3.3 (b)]**  (b) A difference of two or more than two letters may be considered to be liable to mislead or cause confusion concerning the identity of the variety if the difference does not provide a clear phonetic difference:  *Examples of unsuitable denominations*: ‘Antelope’ and ‘Antilop’; ‘Sharlene’ and ‘Charleen’; ‘Kapricio’ and ‘Capricho’; and ‘Sophie’ and ‘Sofie’.  **[Alternative 2 of Section 2.3.3 (b)]** (b)   A difference of two or more than two letters may be considered to be liable to mislead or cause confusion concerning the identity of the variety if the difference does not provide a clear phonetic difference or a widely-recognizable difference in meaning:  *Examples of unsuitable denominations*: ‘Antelope’ and ‘Antilop’; ‘Sharlene’ and ‘Charleen’; ‘Kapricio’ and ‘Capricho’; and ‘Sophie’ and ‘Sofie’.  ~~(b)~~(c) The use of a denomination which is similar to that used for a variety of another species or genera in the same denomination class (see section 2.5) may cause confusion.  ~~(c)~~(d) In order to provide clarity and certainty in relation to variety denominations, the re-use of denominations is, in general, discouraged, since the re-use of a denomination, even where that relates to a variety which no longer exists (see section 2.4.2) may, nevertheless, cause confusion. In some limited cases an exception may be acceptable, for example a variety which was never commercialized, or was only commercialized in a limited way for a very short time. In those cases, a suitable period of time after discontinued commercialization of the variety would be required before the re-use of the denomination in order to avoid causing confusion in relation to the identity and/or the characteristics of the variety. |

[Appendix IV follows]

Reply to Circular E-20/017 from France

[Original: French]

In response to Circular E-20/017, we prefer **Alternative 2** ofSection 2.3.3 (b) proposed by the CPVO because it takes into account all three dimensions (i.e., visual, phonetic and conceptual).

Yvane Meresse

[Appendix V follows]

Reply to Circular E-20/017 from New Zealand

**UPOV/EXN/DEN/1 Draft 3**

The following comments are provided from New Zealand.

**Page 6 2.3.2**  “ the denomination should not consist of, or contain, comparative…..”

Propose to delete the words or contain because the mere presence of a word is not necessarily sole justification for rejection. Interpretation as to the potential for confusion of misleading must be of the denomination as a whole, including word combination and the word position/emphasis in the denomination. If presence alone was rigidly applied then the examples of acceptable denomination stated may not be acceptable because they do contain superlatives, Superior and Best

**Annex 1, page 3** *Neotyphodium* is a botanical synonym for *Epichloe*. The UPOV code EPICH includes NEOTY.

Propose to delete *Neotyphodium* and NEOTY

**b) The CPVO proposal**

There is similarity in the objective of new ii) and existing iii), both provide exemptions to the general principle. Improvement could be made by combining, covering all words that have difference due to meaning, usage, pronunciation.

For iii) suggest “difference of one letter provides a clear visual or phonetic difference or a clearly or widely recognizable difference in meaning”

There can many permutations of difference including combinations and it is easier to lump all together in a more general sentence rather than attempting to separate them out. As an example, meaning may well be dependent on pronunciation/phonetics.

**2.3.3 (b)** Support the inclusion of Alternative 2 with the additional proposal to delete `Antelope’ and `Antilop’ as an example. There is a clear difference in meaning.

[Annex II follows]

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.](https://www.upov.int/meetings/en/doc_details.jsp?meeting_id=48107&doc_id=419311) “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 TC 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 variety2) |

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 III follows]

REVISIONS TO Document TGP/7  
“Development of Test Guidelines”

The following revisions of document TGP/7 “Development of Test Guidelines” were agreed by the TC 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.](https://www.upov.int/meetings/en/doc_details.jsp?meeting_id=48107&doc_id=419311) “Report”, paragraph 172).

Extract of ANNEX 1: TG STRUCTURE AND UNIVERSAL STANDARD WORDING

*6.2 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 |
| 2 | much smaller to moderately smaller | very acute to moderately acute | at base to one quarter from base | equal to slightly shorter | strongly concave to moderately concave |
| 3 | moderately smaller | moderately acute | one quarter from base | slightly shorter | moderately concave |
| 4 | moderately smaller to same size | moderately acute to right angle | one quarter from base to in middle | slightly shorter to moderately shorter | moderately concave to flat |
| 5 | same size | right angle | in middle | moderately shorter | flat |
| 6 | same size to moderately larger | right angle to moderately obtuse | in middle to one quarter from apex end | moderately shorter to much shorter | flat to moderately convex |
| 7 | moderately larger | moderately obtuse | one quarter from apex end | much shorter | moderately convex |
| 8 | moderately larger to much larger | moderately obtuse to very obtuse | one quarter from apex end to at apex | much shorter to very much shorter | moderately convex to strongly convex |
| 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 |
| 2 | erect to semi-erect |
| 3 | semi-erect |
| 4 | semi-erect to prostrate |
| 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 |  |
|  |  | very early | 1 |
|  |  | very early to early | 2 |
| **QN** |  | early | 3 |
|  |  | early to medium | 4 |
|  |  | medium | 5 |
|  |  | medium to late | 6 |
|  |  | late | 7 |
|  |  | late to very late | 8 |
|  |  | very late | 9 |

[Annex IV follows]

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 TC 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](http://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.

1.2 The following table gives an overview of the existing “groups” for the sixth edition of the RHS Colour Chart:

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

1.~~2~~ 3 In the editions one to five (1966 until 2007) ~~T~~the RHS Colour Chart contained~~s~~ 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 Annex II to Subsection 3 to this document. 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](https://www.upov.int/edocs/tgpdocs/en/tgp_9.pdf)~~/1~~ "Examining Distinctness".

1.~~3~~ 6 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

* 1. If in Test Guidelines a characteristic is described by using the RHS colour chart, it is not obvious which color the plant part has, because it is only asked to indicate the RHS colour chart reference number, e.g.

*Flower: main color of upper side  
RHS colour chart (indicate reference number)*

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~~ appendix I to Annex I, in which the RHS Colors are listed according to the UPOV Color Group to which they belong: e.g. RHS 46C belongs to group ~~21~~ 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” (Sixth edition (2015) of the RHS Colour Chart).

*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 | 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 | 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 |
| 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]

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.](https://www.upov.int/meetings/en/doc_details.jsp?meeting_id=48107&doc_id=419311) “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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*~~2.3~~ Example 2: Genetic Selection of Similar Varieties for the First Growing Cycle (see ~~Annex III~~ Annex II, example 2) 4*

ANNEX I MODEL: CHARACTERISTIC-SPECIFIC MOLECULAR MARKERS

EXAMPLE 1: GENE SPECIFIC MARKER FOR HERBICIDE TOLERANCE

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

ANNEX II MODEL: COMBINING PHENOTYPIC AND MOLECULAR DISTANCES IN THE MANAGEMENT OF VARIETY COLLECTIONS

EXAMPLE 1: PARENT LINES IN MAIZE

EXAMPLE 2: GENETIC SELECTION OF SIMILAR VARIETIES FOR THE FIRST GROWING CYCLE: FRENCH BEAN

~~ANNEX III MODEL: GENETIC SELECTION OF SIMILAR VARIETIES FOR THE FIRST GROWING CYCLE~~

~~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 Tm1or 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 | *tm2/tm2*  and  *tm1/tm1* | *Tm2/Tm2 or Tm22/Tm22* or *Tm22/Tm2* or  *Tm2/tm2 or Tm22/tm2*  and  *Tm1/Tm1* or *Tm1/tm1* or *tm1/tm1* | *tm2/tm2*  and  *Tm1/Tm1* or *Tm1/tm1* |
| Marker *Tm2/22* | 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,* theDNA 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]

EXPLANATORY NOTES

|  |  |  |
| --- | --- | --- |
| Reference | Explanatory Notes on: | Status |
| UPOV/EXN/BRD | Definition of Breeder under the 1991 Act of the UPOV Convention | UPOV/EXN/BRD/1 adopted in October 2013 |
| UPOV/EXN/CAL | Conditions and Limitations Concerning the Breeder’s Authorization in Respect of Propagating Material under the UPOV Convention | UPOV/EXN/CAL/1 adopted in October 2010 |
| UPOV/EXN/CAN | Cancellation of the Breeder’s Right under the UPOV Convention | UPOV/EXN/CAN/2 adopted in October 2015 |
| UPOV/EXN/EDV | Essentially Derived Varieties under the 1991 Act of the UPOV Convention | UPOV/EXN/EDV/2 adopted in April 2017  *Revision in progress* |
| UPOV/EXN/ENF | Enforcement of Breeders’ Rights under the UPOV Convention | UPOV/EXN/ENF/1 adopted in October 2009 |
| UPOV/EXN/EXC | Exceptions to the Breeder’s Right under the 1991 Act of the UPOV Convention | UPOV/EXN/EXC/1 adopted in October 2009 |
| UPOV/EXN/GEN | Genera and Species to be Protected under the 1991 Act of the UPOV Convention | UPOV/EXN/GEN/1 adopted in October 2009 |
| UPOV/EXN/HRV | Acts in Respect of Harvested Material under the 1991 Act of the UPOV Convention | UPOV/EXN/HRV/1 adopted in October 2013  *The need for a revision will be considered by the CAJ in 2020* |
| UPOV/EXN/NAT | National Treatment under the 1991 Act of the UPOV Convention | UPOV/EXN/NAT/1 adopted in October 2009 |
| UPOV/EXN/NOV | Novelty under the UPOV Convention | UPOV/EXN/NOV/1 adopted in October 2009  *The need for a revision will be considered by the CAJ in 2020* |
| UPOV/EXN/NUL | Nullity of the Breeder’s Right under the UPOV Convention | UPOV/EXN/NUL/2 adopted in October 2015 |
| UPOV/EXN/PPM | Propagating Material under the 1991 Act of the UPOV Convention | UPOV/EXN/PPM/1 adopted in April 2017 |
| UPOV/EXN/PRI | Right of Priority under the UPOV Convention | UPOV/EXN/PRI/1 adopted in October 2009 |
| UPOV/EXN/PRP | Provisional Protection under the UPOV Convention | UPOV/EXN/PRP/2 adopted in October 2015 |
| UPOV/EXN/VAR | Definition of Variety under the 1991 Act of the UPOV Convention | UPOV/EXN/VAR/1 adopted in October 2010 |

INFORMATION DOCUMENTS

|  |  |  |
| --- | --- | --- |
| Latest reference | INF documents | Status |
| UPOV/INF-EXN | List of UPOV/INF-EXN Documents and Latest Issue Dates | UPOV/INF-EXN/13 adopted in November 2019  *UPOV/INF-EXN/14 Draft 1* *to be considered by the Council in October 2020* |
| UPOV/INF/4 | Financial Regulations and Rules of UPOV | UPOV/INF/4/5 adopted in November 2018 |
| UPOV/INF/5 | UPOV model plant breeders' rights gazette | UPOV/INF/5/2 adopted in November 2019 |
| UPOV/INF/6 | Guidance for the preparation of laws based on the 1991 Act of the UPOV Convention | UPOV/INF/6/5 adopted in April 2017 |
| UPOV/INF/7 | Rules of Procedure of the Council | UPOV/INF/7 adopted in October 1982 |
| UPOV/INF/8 | Agreement between the World Intellectual Property Organization and the International Union for the Protection of New Varieties of Plants | UPOV/INF/8 signed in November 1982 |
| UPOV/INF/9 | Agreement between the International Union for the Protection of New Varieties of Plants and the Swiss Federal Council to Determine the Legal Status in Switzerland of that Union (Headquarters Agreement) | UPOV/INF/9 signed in November 1983 |
| UPOV/INF/10 | Internal Audit | UPOV/INF/10/1 adopted in October 2010 |
| UPOV/INF/12 | Explanatory Notes on Variety Denominations under the UPOV Convention | UPOV/INF/12/5 adopted in October 2015  *UPOV/EXN/DEN/1 Draft 4 to be considered by the CAJ and the Council in 2020* |
| UPOV/INF/13 | Guidance on how to become a member of UPOV | UPOV/INF/13/2 adopted in October 2017 |
| UPOV/INF/14 | Guidance for members of UPOV on how to ratify, or accede to, the 1991 Act of the UPOV Convention | UPOV/INF/14/1 adopted in October 2009 |
| UPOV/INF/15 | Guidance for Members of UPOV | UPOV/INF/15/3 adopted in March 2015 |
| UPOV/INF/16 | Exchangeable Software | UPOV/INF/16/8 adopted in November 2018  *UPOV/INF/16/9 Draft 1 to be considered by the CAJ and the Council in 2020* |
| UPOV/INF/17 | Guidelines for DNA-Profiling: Molecular Marker Selection and Database Construction (“BMT Guidelines”) | UPOV/INF/17/1 adopted in October 2010 |
| UPOV/INF/18 | Possible use of Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS) | UPOV/INF/18/1 adopted in October 2011 |
| UPOV/INF/19 | Rules governing the granting of observer status to States, intergovernmental organizations and international non-governmental organizations in UPOV bodies | UPOV/INF/19/1 adopted in November 2012 |
| UPOV/INF/20 | Rules governing access to UPOV documents | UPOV/INF/20/1 adopted in November 2012 |
| UPOV/INF/21 | Alternative Dispute Settlement Mechanisms | UPOV/INF/21/1 adopted in November 2012 |
| UPOV/INF/22 | Software and Equipment Used by Members of the Union | UPOV/INF/22/6 adopted in November 2019  *UPOV/INF/22/7 Draft 1 to be considered by the CAJ and the Council in 2020* |
| UPOV/INF/23 | Guide to the UPOV Code System | *UPOV/INF/23/1 Draft 1 to be considered by the CAJ in 2020* |

[Annex VII follows]



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). [↑](#footnote-ref-2)
2. Held in Geneva on October 28 and 29, 2019. [↑](#footnote-ref-3)
3. Held in Geneva on October 30, 2019. [↑](#footnote-ref-4)
4. At its fourth meeting, held in Geneva on October 27, 2017, the WG-DEN agreed to change the reference of the document from the “INF” series to the “EXN” series in accordance with the title and contents of the document “Explanatory Notes on Variety Denominations under the UPOV Convention” (see paragraph 6 of document UPOV/WG-DEN/4/3 “Report”). [↑](#footnote-ref-5)
5. Held in Geneva, on October 29, 2019. [↑](#footnote-ref-6)
6. Held in Geneva from March 26 to 28, 2012. [↑](#footnote-ref-7)
7. Held in Geneva on March 29, 2012. [↑](#footnote-ref-8)