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# INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

## TECHNICAL COMMITTEE

### Fifty-First Session Geneva, March 23 to 25, 2015

#### VARIETY DESCRIPTION DATABASES

*Document prepared by the Office of the Union*

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1. The purpose of this document is to report on developments since the fiftieth session of the Technical Committee (TC), concerning variety description databases.

2. The following abbreviations are used in this document:

TC:	Technical Committee
TC-EDC:	Enlarged Editorial Committee
TWA:	Technical Working Party for Agricultural Crops
TWC:	Technical Working Party on Automation and Computer Programs
TWF:	Technical Working Party for Fruit Crops
TWO:	Technical Working Party for Ornamental Plants and Forest Trees
TWPs:	Technical Working Parties
TWV:	Technical Working Party for Vegetables

3. The structure of this document is as follows:

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#### BACKGROUND

4. At its forty-fifth session, held in Geneva from March 30 to April 1, 2009, the Technical Committee (TC) noted from the developments reported in document TC/45/9 "Publication of Variety Descriptions" that members of the Union were developing databases containing morphological and/or molecular data and, where considered appropriate, were collaborating in the development of databases for the management of variety collections, particularly on a regional basis. The TC agreed that it could be beneficial to offer the possibility for members of the Union to report on that work in a coherent way to the TC, the Technical Working Parties (TWPs) and the Working Group on Biochemical and Molecular Techniques and DNA Profiling in Particular (BMT). On that basis, the TC agreed to replace the agenda item "Publication of variety

descriptions” with an item for “Variety description databases” on the agendas of the forthcoming sessions of the TC, TWPs and the BMT. In that respect, it recalled the importance of the list of criteria for consideration for the use of descriptions obtained from different locations and sources as set out in document TC/45/9, paragraph 3. The TC also agreed that the information presented would not need to be related to the publication of descriptions (see document TC/45/16 “Report”, paragraph 173).

5. Developments prior to 2014 are presented in document TC/50/7 “Variety description databases”.

#### DEVELOPMENTS IN 2014

##### *Technical Committee*

6. The TC at its fiftieth session, held in Geneva from April 7 to 9, 2014 considered document TC/50/7 “Variety description databases” and noted the developments on variety description databases (see document TC/50/36 “Report on the conclusions”, paragraphs 102 and 103).

7. The TC noted that:

- (a) the TWV had requested an expert from France to make a presentation, at its forty-eighth session, on the GEMMA software being used by the Group for Study and Control of Varieties and Seeds (GEVES) in a Community Plant Variety Office of the European Union (CPVO) Research and Development project. In that regard, it noted the report from France that the presentation would not be possible for 2014 (see document TC/50/36 “Report on the conclusions”, paragraphs 104).
- (b) the TWC had invited an expert from China to make a presentation on variation of variety descriptions over years in different locations, at its thirty-second session. The TC agreed that it would be beneficial to make a presentation to the TWA (see document TC/50/36 “Report on the conclusions”, paragraphs 105).
- (c) the TWC had suggested that the information presented by experts from China, at its thirty-first session, on the research on the construction of DNA fingerprint database in Maize, should be made available to the BMT (see document TC/50/36 “Report on the conclusions”, paragraphs 106).
- (d) the TWF had invited an expert from the European Union to present the development of a database for Peach and noted the report that this presentation would now be made in 2015 (see document TC/50/36 “Report on the conclusions”, paragraphs 107).
- (e) the TWO had requested an expert from Australia to lead an initial study on the viability of the development of a database, in a similar way to the database being developed for Pea, at its forty-seventh session (see document TC/50/36 “Report on the conclusions”, paragraphs 108).

8. In relation to paragraph 7 (e) of this document, the expert from Australia informed the Office that the development of a database did not appear to be relevant for the TWO.

##### *Matters raised by the International Seed Federation (ISF)*

9. The Consultative Committee, at its eighty-sixth session, held in Geneva on October 23 and 24, 2013, discussed the letter of the International Seed Federation (ISF) of January 21, 2013, on the subject “Application, examination and granting aspects of PBR applications” and invited ISF to present its views at the relevant part of that item (see document C/47/15 Rev. “Report by the President on the work of the eighty-sixth session of the Consultative Committee; adoption of recommendations, if any, prepared by that Committee”, paragraphs 62 to 66).

10. The TC invited ISF to consider the relevant UPOV materials and to explain where it considered that further guidance might be developed in relation to the following matters, as set out in document TC/50/10, paragraph 46 (see document TC/50/36 “Report on the Conclusions”, paragraph 12):

- (a) Photographs
- (b) Minimum sample size
- (c) Reference collections
- (d) Length of examination
- (e) Variety description of most similar variety

[Extract from ISF letter]

"Variety description of most similar variety: In some countries the applicant is requested to provide the full variety description of the most similar variety(ies), whereas in the spirit of UPOV only the differences between the candidate variety and the most similar variety need to be provided. ISF members in general feel that providing a full description of the candidate and the comparison varieties is overly burdensome for the applicant. It is time consuming and causes delays in the application process. In most cases a special observational trial has to be set up to make such variety descriptions. In case of a priority claim this can be a big disadvantage for the applicant. Providing a full variety description of the most similar varieties is an even larger problem if these are competitor varieties.

"The applicant should only be requested to provide the differences between the candidate and the most similar varieties. In other words only the TQ as set up by UPOV should have to be filled out.

"Breeding techniques change fast and so do varieties. New characteristics are being added to the current list all the time. So there is a need for timely introduction of new characteristics into TQ's and variety descriptions, to ensure enough distinguishing power between varieties."

*Relevant UPOV Materials:*

- *TGP/7, Section 4 "Development of Individual Authorities' Test Guidelines"*
- *TGP/7 "Development of Test Guidelines", Section 2 "Procedure for the Introduction and Revision of UPOV Test Guidelines"*

(f) Variety description by applicant

[Extract from ISF letter]

"Variety description by applicant: In certain countries varieties are described entirely by the applicant. This means that the same variety as a result of different influential factors (sowing period, growth environment and applicant-examiner) may be described entirely differently. In those cases where the applicant makes the variety description there need to be more harmonized rules and supervision by the PBR authorities. Proper calibration according to UPOV standards is a way to overcome the problems. As a general rule it can be stated that having a central testing office allows for a better and more complete reference collection and provides for a better examination of the candidate varieties.

"Creating a variety description including statistical data is a heavy burden on the applicant which is a reason for seed companies not to apply for PBR in that country. Example: the same corn varieties have been described in so many different ways that a number of characteristics can no longer be used to distinguish the varieties."

*Relevant UPOV Materials:*

- *TGP/6 "Arrangements for DUS Testing", Section 3 "Declaration on the Conditions for the Examination of a Variety Based Upon Trials Carried out by or on Behalf of the Breeder"*

(g) Variety description databases

[Extract from ISF letter]

"Variety description database: A variety description database including the TQ information should be available to all interested parties. This would improve the management of reference collections and would allow for a better basis of selection of the comparison varieties."

11. The TC noted that ISF was invited to express its views to the TC with regard to databases of variety descriptions and the criteria identified by the TC for the publication of variety descriptions, as set out in document TC/45/9 "Publication of Variety Descriptions" (see document TC/50/36 "Report on the Conclusions", paragraph 13).

*Administrative and Legal Committee*

12. The Administrative and Legal Committee (CAJ) at its sixty-ninth session in Geneva on April 10, 2014, in accordance with the proposal by the CAJ-AG, agreed to invite the TC to (see document CAJ/69/12 "Report on the conclusions" paragraphs 17):

- (a) consider the development of guidance on certain matters concerning variety descriptions, as reproduced below:

- i. use of information, documents or material provided by the breeder for verifying the maintenance of the variety, as set out in paragraph 15 of document CAJ-AG/13/8/4 "Matters concerning cancellation of the breeder's right", with an explanation that the information, documents or material could be maintained in a different country; and
  - ii. use of Test Guidelines for verifying the maintenance of the variety that were different from the Test Guidelines used for the examination of Distinctness, Uniformity and Stability ("DUS").
- (b) Consider the following matters in document CAJ-AG/13/8/7, paragraph 4, and reproduced below:

"[...]"

"(b) the status of the original variety description in relation to the verification of the conformity of plant material to a protected variety for the purposes of:

- "(i) verifying the maintenance of the variety (Article 22 of the 1991 Act, Article 10 of the 1978 Act);
- "(ii) the examination of distinctness, uniformity and stability ("DUS") of candidate varieties; and

"[...]"

"(c) the status of a modified variety description in relation to (a) and (b) above produced, for example, as a result of:

- "(i) a recalibration of the scale in the Test Guidelines (particularly for non asterisked characteristics);
- "(ii) variation due to the environmental conditions of the years of testing for characteristics that are influenced by the environment;
- "(iii) variation due to observation by different experts; or
- "(iv) the use of different versions of scales (e.g. different versions of the RHS Colour Chart).

"(d) situations where an error is subsequently discovered in the initial variety description."

13. The TC will address the matter above at its fifty-first session, under agenda item 12 "Matters concerning variety descriptions (document TC/51/38)".

#### *Technical Working Parties*

14. The TWO, TWF, TWC, TWV and TWA considered documents TWO/47/6, TWF/45/6, TWC/32/6, TWV/48/6 and TWA/43/6 "Variety description databases", respectively and noted the developments on variety description databases (see document TWO/47/28 "Report", paragraphs 96 and 97, document TWF/45/32 "Report", paragraphs 109 to 113, document TWC/32/28 "Report", paragraphs 75 to 82, document TWV/48/43 "Report", paragraphs 121 to 126 and document TWA/43/27 "Report", paragraphs 94 to 97).

15. The TWO agreed on the relevance of the database for Pea varieties, and agreed that it would not be appropriate to develop a database for an ornamental species at this time (see document TWO/47/28 "Report", paragraph 97).

16. The TWF and the TWA considered the proposal of the expert from Australia, not to develop a database at the moment (see documents TWF/45/32 "Report", paragraph 111 and TWA/43/27 "Report", paragraph 95).

17. The TWF, TWC, TWV and the TWA noted the matters raised by the ISF in relation to variety descriptions (see documents TWF/45/32 "Report", paragraph 112, TWC/32/28 "Report", paragraph 77, TWV/48/43 "Report", paragraph 124 and TWA/43/27 "Report", paragraph 96).

18. The TWF, TWC, TWV and the TWA noted the comments of the CAJ on matters concerning variety descriptions, as reproduced in paragraph 12 of this document (see documents TWF/45/32 "Report", paragraphs 110, TWC/32/28 "Report", paragraph 78, TWV/48/43 "Report", paragraph 125 and TWA/43/27 "Report", paragraph 97).

19. The TWC and the TWV noted the proposal of the expert from Australia, not to develop a database for the TWO (see and documents TWC/32/28 "Report", paragraph 79 and TWV/48/43 "Report", paragraph 123).
20. The TWC received a presentation from an expert from China on "Variation of variety descriptions over years in different locations", as presented in Annex I to document TWC/32/6. The TWC agreed that the information provided was useful to demonstrate the robustness of some characteristics and for defining grouping characteristics. The TWC agreed that the presentation should be made available to the TWA see and document TWC/32/28 "Report", paragraph 80).
21. The TWC agreed to request the experts from China to present the analysis of variance for the interaction "variety x location" (environment) of the QN characteristics considered in the study using the statistical module of the new software "DUSTC" developed by China for presentation at the thirty-third session of the TWC (see and document TWC/32/28 "Report", paragraph 81).
22. The TWC received a presentation from China on "PVP Database in China", as set out in Annex II to document TWC/32/6. The TWC noted that the new software included modules for the management of applications, variety description database, data analysis and image analysis. The TWC agreed to request that the experts from China to make a presentation on the particular features of the software, including image analysis, at the thirty-third session of the TWC (see and document TWC/32/28 "Report", paragraph 82).
23. The TWV noted the comments by the experts of ISF and ESA that variety descriptions should only be made available in cases of protected varieties, and access to information related to inbred or parental lines should not be made available to the general public (see document TWV/48/43 "Report", paragraph 126).

*24. The TC is invited to note the developments on variety description databases, as set in this document and, in particular, that:*

*(a) the TWO agreed that it would not be appropriate to develop a database for an ornamental species at this time; and*

*(b) the TWC has invited an expert from China to present the analysis of variance for the interaction "variety x location" (environment) of the QN characteristics considered in the study using the statistical module of the new software "DUSTC" developed by China for presentation at its thirty-third session.*

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