



TWA/43/6

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# INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

## TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS

### Forty-Third Session

Mar del Plata, Argentina, November 17 to 21, 2014

#### VARIETY DESCRIPTION DATABASES

*Document prepared by the Office of the Union*

*Disclaimer: this document does not represent UPOV policies or guidance*

1. The purpose of this document is to report on developments 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).

## DEVELOPMENTS IN 2013

### Technical Committee

5. The TC, at its forty-ninth session in Geneva from March 18 to 20, 2013, considered document TC/49/9 "Variety Description Databases" and received a presentation by Mr. François Boulineau (France) (see document TC/49/41 "Report on the Conclusions", paragraphs 100 to 103).
6. The TC noted the developments on variety description databases, as set out in document TC/49/9.
7. The TC noted that the results of the study on Pea would be presented to the TWA and the TWV in order to:
  - (i) select characteristics to be used as grouping characteristics according to their qualities (discriminating power, distortion, use);
  - (ii) develop a procedure to improve the pea database; and
  - (iii) consider making the pea database available to all examination offices.
8. The TC agreed that the results of the study should be presented to other TWPs for their comments on the approach for managing variety collections and noted that the TWF would consider the results of the model study on Apple, as presented in document TC/41/9 "Publication of Variety Descriptions" (see document TC/49/41 "Report on the Conclusions", paragraphs 100 to 103).

### Technical Working Parties

9. The TWO, at its forty-sixth session, held in Melbourne, Australia, from April 22 to 26, 2013, considered document TWO/46/6 "Variety description databases" and document TWO/46/25 "Pea database study". The TWO noted the developments on variety description databases.
10. The TWO agreed that the approach for managing variety collections as used in the Pea database provided a useful tool for the development of Test Guidelines, selection of grouping characteristics and identifying varieties that would be used in the DUS trials. The TWO noted the approach for managing variety collections as presented in the Annex to document TWO/46/25 (see document TWO/46/29 "Report" paragraphs 94 and 95).
11. The TWO requested an expert from Australia to lead an initial study on the viability of the development of a database for a crop of interest to the TWO, in a similar way to the database being developed for Pea, which would be presented at the forty-seventh session of the TWO. The TWO recognized the need to clearly define the scope and objectives in developing such a database. Experts from the European Union and the Netherlands would participate in the initial study (see document TWO/46/29 "Report" paragraph 92).
12. The TWF, at its forty-fourth session, held in Napier, New Zealand, from April 29 to May 3, 2013, considered document TWF/44/6 "Variety description databases" and document TWF/44/25 "Pea database study". The TWF noted the report on the Pea Database study as presented in document TWF/44/25 and the approach for managing variety collections as presented in the Annex to document TWF/44/25.
13. The TWF noted that an expert from the European Union would prepare a document on the development of a database for Peach, in a similar way to the database being developed for Pea, which would be presented at the forty-fifth session of the TWF in 2014. The TWF noted that it would be necessary to clarify in the study the different objectives of creating databases, in order to identify the characteristics for

which information was required, with a view to limiting costs and work load (see document TWF/44/31 "Report" paragraphs 94 to 97).

14. The TWV, at its forty-seventh session, held in Nagasaki, Japan, from May 20 to 24, 2013 considered document TWV/47/6 "Variety description databases" and document TWV/47/25 "Pea database study". The TWV noted the report on the Pea Database study as presented in document TWV/47/25 and the approach for managing variety collections of pea as presented in the Annex to document TWV/47/25.

15. The TWV requested the 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. This software is seen as being adapted for the development of such a common database (see document TWV/47/34 "Report" paragraphs 109 to 112).

16. The TWC, at its thirty-first session, held in Seoul, from June 4 to 7, 2013 considered document TWC/31/6 "Variety description databases" and document TWC/31/25 "Pea database study". The TWC noted the developments on variety description databases and congratulated the experts from France on the study on the Pea Database. The TWC agreed on the possible use of image analysis for reducing distortion in some characteristics, while noting that image analysis had its own sources of distortion (see document TWC/31/32 "Report" paragraph 64).

17. The TWC welcomed the offer from China to make a presentation on variation of variety descriptions over years in different locations, to be presented at the TWC at its thirty-second session (see document TWC/31/32 "Report" paragraph 65).

18. The TWC also considered document TWC/31/2 "Molecular Techniques" and received a presentation from experts from China on the research on the construction of DNA fingerprint database in Maize and suggested that the information be made available to the BMT. A copy of the presentation is provided in document TWC/31/2 Add. (see document TWC/31/32 "Report" paragraph 12).

19. The TWA, at its forty-second session, held in Kyiv, Ukraine, from June 17 to 21, 2013 considered document TWA/42/6 "Variety description databases" and document TWA/42/25 "Pea database study". The TWA noted the report on the Pea Database study as presented in document TWA/42/25 and the approach for managing variety collections of Pea as presented in the Annex to document TWA/42/25.

20. The TWA welcomed the results of the study on the Pea Database and noted that it presented a good method for improvement of Test Guidelines (see document TWA/42/31 "Report" paragraphs 105 to 108).

## DEVELOPMENTS IN 2014

### Technical Committee

#### *Variety description databases*

21. 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).

22. 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", paragraph 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", paragraph 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", paragraph 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", paragraph 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", paragraph 108).

23. In relation to paragraph 22 (e), the expert from Australia has informed the Office that the development of a database does not appear to be relevant for the TWO.

24. *The TWA is invited to:*

(a) *note the developments on variety description databases, as set out in this document; and*

(b) *note the proposal of the expert from Australia, not to develop a database for the TWO.*

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

25. 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).

26. 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.”

27. 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).

28. *The TWA is invited to note the matters raised by the ISF in relation to variety descriptions.*

*Administrative and Legal Committee*

29. 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 Color Chart).

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

*30. The TWA is invited to note the conclusion of the CAJ on matters concerning variety descriptions, as set out in paragraph 29 of this document.*

[End of document]