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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS GENEVA

WORKING GROUP ON BIOCHEMICAL AND MOLECULAR TECHNIQUES AND DNA PROFILING IN PARTICULAR

Twelfth Session Ottawa, Canada, May 11 to 13, 2010

VARIETY DESCRIPTION DATABASES

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- 1. This document reports on developments concerning a practical exercise in the development of an exchangeable database in the context of Section 6 "Databases" of the UPOV Guidelines for DNA-profiling: molecular marker selection and database construction (BMT Guidelines).
- 2. At the twenty-third session of the Technical Working Party on Automation and Computer Programs (TWC), held in Ottawa, Canada, from June 13 to 16, 2005, and at the ninth session of the Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular (BMT), held in Washington D.C., United States of America, from June 21 to 23, 2005, Mr. Sylvain Grégoire (France), drafter of Section 6 "Databases" of the BMT Guidelines, suggested that it would be useful to move forward with a practical exercise, involving a small number of crops, in the development of an exchangeable database. He noted that, from an IT perspective, such an exercise would be straightforward, but that it would require all participating partners to identify the markers to be used and to clarify and agree on the status of the information to be included in the database and the accessibility of that data, e.g. to contributing partners or to all interested experts from members of the Union.

- 3. At its forty-second session, held in Geneva from April 3 to 5, 2006, the Technical Committee (TC) agreed to investigate the possibility of a practical exercise, involving a small number of crops, in the development of an exchangeable database. It agreed that it would be necessary to set clear terms of reference for that work and agreed that such terms of reference should be considered at its forty-third session. In the meantime, it agreed to invite the BMT, at its tenth session, to suggest suitable crops where such a practical exercise might be appropriate.
- 4. At its tenth session, held in Seoul, Republic of Korea, from November 21 to 23, 2006, the BMT agreed to suggest oilseed rape, potato and rose as suitable crops where a practical exercise in the development of an exchangeable database might be appropriate. It was agreed that the terms of reference to be established by the TC for that work should clarify what was meant by an exchangeable database and whether it referred to the structure of the database or the quality of the data and whether it would involve a test data set rather than the complete set of data which an authority had for the crop concerned. At its forty-third session, the TC agreed that the *Ad Hoc* Crop Subgroups on Molecular Techniques (Crop Subgroups) for Rose, for Potato and for Oilseed Rape should be invited to consider how to take that matter forward. With respect to the terms of reference for such an exercise, the TC agreed that the exercise should consider both the quality and structure of the data.
- The Crop Subgroup for Potato held its second session in Quimper, France, on April 17, 2007. It agreed that it would be useful for the experts working on the Community Plant Variety Office of the European Community (CPVO) project and at the French Federation of Potato Seed Growers (FNPPPT) to cooperate in order to investigate the compatibility of data obtained using different technologies (see documents BMT-TWA/potato/2/2, BMT-TWA/potato/2/2 BMT-TWA/potato/2/4 Add., BMT-TWA/potato/2/4 Add. at http://www.upov.int/restrict/en/bmt_cropsubgroups/potato_2.htm).
- 6. At the thirty-sixth session of the Technical Working Party for Agricultural Crops (TWA), held in Budapest, Hungary, from May 28 to June 1, 2007, an expert from the United Kingdom reported that NIAB was working on the use of molecular techniques for variety identification in potato. The TWA agreed that it would be useful for that expert to contact the coordinator of the CPVO project who was discussing with the *Institut national de la recherche agronomique* (INRA, France) the possibility to cooperate in order to investigate the compatibility of data obtained using different technologies.
- 7. At its second session, held in Angers, France, on April 18, 2007, the Crop Subgroup for Rose was informed that the TC had invited BMT Crop Subgroup for Rose to consider how to proceed with a practical exercise in the development of an exchangeable database. The Crop Subgroup for Rose did not have any proposals with regard to such an exercise.
- 8. At its eleventh session, held in Madrid, from September 16 to 18, 2008, the BMT agreed that it would be more appropriate to change the title of the agenda item "Practical exercise in the development of an exchangeable database of molecular data of plant varieties" to "Development of common database structure for molecular data" (see document BMT/11/29 "Report", paragraph 112).
- 9. At its forty-fifth session, held in Geneva from March 30 to April 1, 2009, the TC noted from the developments reported in document TC/46/7 "Molecular Techniques" and those 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

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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 BMT. On that basis, the TC agreed to replace the various agenda items concerning such databases 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).

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