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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

TECHNICAL COMMITTEE

Forty-Ninth Session
Geneva, March 18 to 20, 2013

MOLECULAR TECHNIQUES

Document prepared by the Office of the Union

1. The purpose of this document is to report on developments concerning the:

   (a) use of biochemical and molecular markers in the examination of Distinctness, Uniformity and Stability (DUS);

   (b) *Ad Hoc* Crop Subgroups on Molecular Techniques (Crop Subgroups); and

   (c) Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular (BMT).

2. An overview of the UPOV bodies involved in the consideration of biochemical and molecular techniques is provided on the UPOV website at http://www.upov.int/about/en/pdf/upov_structure_bmt.pdf.

3. The following abbreviations are used in this document:

CAJ:	Administrative and Legal Committee
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
TWV:	Technical Working Party for Vegetables
TWP(s):	Technical Working Party(ies)
BMT:	Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular

USE OF BIOCHEMICAL AND MOLECULAR MARKERS IN THE EXAMINATION OF DISTINCTNESS, UNIFORMITY AND STABILITY (DUS)

Document UPOV/INF/18/1 “Possible Use of Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)”

4. The Council, at its forty-fifth ordinary session, held in Geneva on October 20, 2011, adopted document UPOV/INF/18/1 “Possible Use of Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)” on the basis of document BMT/DUS/1 Draft 6 (see document C/45/18 “Report”, paragraph 23).

Document TGP/15/1 Draft 4: “[~~New Types of Characteristics~~] [Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)]”

5. Document TGP/15/1 Draft 4 “[~~New Types of Characteristics~~] [Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)]” is considered under agenda item 7 “TGP documents” (see document TC/49/5).

6. The TC is invited to note that document TGP/15/1 Draft 4 will be considered under agenda item 7 “TGP documents” (see document TC/49/5).

AD HOC CROP SUBGROUPS ON MOLECULAR TECHNIQUES (CROP SUBGROUPS)

7. The TC, at its forty-eighth session, held in Geneva, from March 26 to 28, 2012, agreed to discontinue separate meetings of the *Ad-hoc* Crop Subgroups on Molecular Techniques (Crop Subgroups) and to include the discussions within the BMT sessions (see document TC/48/22 “Report on the Conclusions”, paragraph 83).

WORKING GROUP ON BIOCHEMICAL AND MOLECULAR TECHNIQUES, AND DNA-PROFILING IN PARTICULAR (BMT)

8. The role of the BMT is reproduced in the Annex to this document.

9. The TC, at its forty-eighth session, approved the program for the fourteenth session of the BMT, including the dedication of a particular date (“Breeders’ Day”), for the items on the use of molecular techniques in the consideration of essential derivation and in variety identification (see document TC/48/22 “Report on the Conclusions”, paragraph 86).

10. The TC, at its forty-eighth session, agreed that it would be appropriate for the Office of the Union to investigate the possibility of a coordinated meeting of the BMT and the Working Group on DNA Methods of the Variety Committee of the International Seed Testing Association (ISTA), for the fourteenth session of the BMT (see document TC/48/22 “Report on the Conclusions”, paragraph 85).

11. The TC, at its forty-eighth session, agreed to include an item in the agenda for its forty-ninth session, to be held in March 2013, for a discussion on molecular techniques. Under that agenda item, the TC planned to consider application of models for the use of molecular techniques in the examination of DUS by members of the Union and would receive presentations of the situation with regard to molecular techniques in other international organizations (see document TC/48/22 “Report on the Conclusions”, paragraphs 161 and 162). The presentations by the other international organizations are intended to provide a basis to consider the possibility of coordinating the fourteenth session of the BMT with meetings of other relevant international organizations, including the Variety Committee of ISTA.

12. The TC is invited to consider the possibility of holding a coordinated meeting of the fourteenth session of the BMT with meetings of other relevant international organizations, including the Variety Committee of ISTA, as set out in paragraphs 9 to 11 of this document.

[Annex follows]

ANNEX

ROLE OF THE WORKING GROUP ON BIOCHEMICAL AND MOLECULAR TECHNIQUES, AND DNA-PROFILING IN PARTICULAR (BMT)

(as agreed by the Technical Committee at its thirty-eighth session, held in Geneva, from April 15 to 17, 2002 (see document TC/38/16, paragraph 204))

The BMT is a group open to DUS experts, biochemical and molecular specialists and plant breeders, whose role is to:

(i) Review general developments in biochemical and molecular techniques;

(ii) Maintain an awareness of relevant applications of biochemical and molecular techniques in plant breeding;

(iii) Consider the possible application of biochemical and molecular techniques in DUS testing and report its considerations to the TC;

(iv) If appropriate, establish guidelines for biochemical and molecular methodologies and their harmonization and, in particular, contribute to the preparation of document TGP/15, “New Types of Characteristics.” These guidelines to be developed in conjunction with the Technical Working Parties;

(v) Consider initiatives from TWPs, for the establishment of crop specific subgroups, taking into account available information and the need for biochemical and molecular methods;

(vi) Develop guidelines regarding the management and harmonization of databases of biochemical and molecular information, in conjunction with the TWC;

(vii) Receive reports from Crop Subgroups and the BMT Review Group;

(viii) Provide a forum for discussion on the use of biochemical and molecular techniques in the consideration of essential derivation and variety identification.

[End of Annex and of document]