



CAJ/68/4

ORIGINAL: English

DATE: October 2, 2013

# INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

## ADMINISTRATIVE AND LEGAL COMMITTEE

**Sixty-Eighth Session  
Geneva, October 21, 2013**

### MOLECULAR TECHNIQUES

*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 the:
  - (a) application of models for the use of molecular techniques in the examination of DUS by members of the Union; and
  - (b) 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](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
TWC:	Technical Working Party on Automation and Computer Programs
TWP(s):	Technical Working Party(ies)
BMT:	Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular

### APPLICATION OF MODELS FOR THE USE OF MOLECULAR TECHNIQUES IN THE EXAMINATION OF DUS BY MEMBERS OF THE UNION

4. The TC, at its forty-ninth session, held in Geneva, from March 18 to 20, 2013, received the following presentations from members of the Union (see document TC/49/41 "Report on the Conclusions", paragraphs 127 to 130), copies of which are posted on the UPOV website at [http://upov.int/meetings/en/details.jsp?meeting\\_id=28343](http://upov.int/meetings/en/details.jsp?meeting_id=28343):

Use of characteristic specific molecular markers to assess seasonal type in Barley	Mr. Andrew Mitchell (United Kingdom)
Applications of molecular data in DUS testing	Mr. Joel Guiard (France)
Use of molecular techniques in the renewal of reference material	Mr. Kees van Ettehoven (Netherlands)
Use of molecular techniques in Brazil	Mr. Fabricio Santana Santos (Brazil)

5. *The CAJ is invited to note that the TC, at its forty-ninth session, received presentations on the application of models for the use of molecular techniques in the examination of DUS by members of the Union, as set out in paragraph 4, above.*

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

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

7. The CAJ, at its sixty-fifth session, held in Geneva on March 29, 2012, noted the following conclusions of the TC at its forty-eighth session, held in Geneva from March 26 to 28, 2012 (see document CAJ/65/13 "Report", paragraph 78):

(a) The TC 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;

(b) The TC 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, as set out in paragraphs 32 and 33 of document TC/48/7.

8. The TC, at its forty-ninth session, received the following presentations from relevant international organizations (see document TC/49/41 "Report on the conclusions", paragraphs 131 to 133), copies of which are posted on the UPOV website at [http://upov.int/meetings/en/details.jsp?meeting\\_id=28343](http://upov.int/meetings/en/details.jsp?meeting_id=28343):

Situation with regard to the use of molecular techniques in relation to seeds in the International Organization for Standardization (ISO)	Presented by Mr. Paul Zankowski (United States of America) (Prepared by Mr. Michael Sussman (ISO))
Situation with regard to the use of molecular techniques in the International Seed Testing Association (ISTA)	Ms. Rita Zecchinelli (ISTA)
Situation with regard to the use of molecular techniques in the Organisation for Economic Co-operation and Development (OECD)	Mr. Michael Ryan (OECD)

9. The TC, at its forty-ninth session, recalled that the BMT is a group open to DUS experts, biochemical and molecular specialists and plant breeders, whose role is as reproduced in the Annex to this document. In that regard, it endorsed the initiative for a joint meeting with ISO, ISTA and OECD and including breeders, as a means of supporting the role of the BMT in relation to (i), (ii), (iv), (vi) and particularly (viii) of the role of the BMT (see document TC/49/41 "Report on the Conclusions", paragraphs 134 and 135, and the Annex to this document).

10. The TC, at its forty-ninth session, also agreed that there was a need to provide suitable information on the situation in UPOV with regard to the use of molecular techniques to a wider audience, including breeders and the public in general. That information should explain the potential advantages and disadvantages of

the techniques, and the relationship between genotype and phenotype, which lay behind the situation in UPOV (see document TC/49/41 "Report on the Conclusions", paragraph 136).

11. The TC, at its forty-ninth session, agreed to propose to hold a coordinated meeting of the fourteenth session of the BMT with meetings of other relevant international organizations in 2014, as set out in document TC/49/7 "Molecular techniques". It also agreed that, if it was not possible to organize a joint meeting with other organizations in 2014, a meeting of the BMT should be organized in the meantime (see document TC/49/41 "Report on the Conclusions", paragraph 126).

12. The CAJ, at its sixty-seventh session, held on March 21, 2013, noted that the TC had agreed to the possibility of holding a coordinated meeting of the fourteenth session of the BMT with meetings of other relevant international organizations, as set out in paragraphs 8 and 9 of document CAJ/67/4. It further noted that the TC had also agreed that, if it was not possible to organize a joint meeting with other organizations in 2014, a meeting of the BMT should be organized in the meantime (see document CAJ/67/14 "Report on the Conclusions", paragraph 42).

13. On May 3, 2013, the Office of the Union issued a letter to Mr. Michael Sussman, Chairperson of TC/34/SC16, ISO, Mr. Heinz Schmid, Secretary General *ad interim*, ISTA, and Mr. Michael Ryan, Head of Unit, Agricultural Codes and Schemes, OECD, respectively, requesting their consideration of the possibility to hold a coordinated meeting in conjunction with the fourteenth session of the BMT. In reply to the letter, the Office of the Union received a positive response from ISTA and OECD. Mr. Michael Sussman (ISO) reported that ISO had formal requirements to establish liaisons and a framework with other international organizations with respect to its work, and that it might not be possible to establish such liaisons and a framework between the ISO TC 34/SC 16 and UPOV before the planned date of the coordinated meeting. Mr. Sussman expressed his willingness to continue the current practice, in which he or his colleagues would attend the BMT upon invitation to provide presentations on their work.

14. After consultation with the Republic of Korea, ISTA and OECD, it is proposed that the fourteenth session of the BMT be held from November 11 to 14, 2014, in Seoul, Republic of Korea, with its preparatory workshop on November 10, 2014. In consultation with ISTA and OECD, and as appropriate, the fourteenth session of the BMT will be coordinated with meetings of those international organizations.

*15. The CAJ is invited to note the proposed date for the fourteenth session of the BMT (see paragraph 14 above), which will be coordinated with meetings of ISTA and OECD, as appropriate.*

[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]