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TWC/30/2
ORIGINAL: English
DATE: May 22, 2012

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

TECHNICAL WORKING PARTY ON AUTOMATION AND COMPUTER PROGRAMS

Thirtieth Session
Chisinau, Republic of Moldova, June 26 to 29, 2012

MOLECULAR TECHNIQUES

Document prepared by the Office of the Union

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

(a) revision of documents TC/38/14-CAJ/45/5 "*Ad Hoc* Subgroup of Technical and Legal Experts on Biochemical and Molecular Techniques ('The BMT Review Group')" and TC/38/14 Add.-CAJ/45/5 Add "Recommendations of the BMT Review Group and Opinion of the Technical Committee and the Administrative and Legal Committee Concerning Molecular Techniques" (document BMT/DUS and development of document TGP/15);

(b) international guidelines on molecular methodologies;

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

(d) 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. That overview is also attached as the Annex to this document.

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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
BMT Review Group:	*Ad Hoc* Subgroup of Technical and Legal Experts on Biochemical and Molecular Techniques
Crop Subgroup:	*Ad Hoc* Crop Subgroup on Molecular Techniques

REVISION OF DOCUMENTS TC/38/14-CAJ/45/5 AND TC/38/14 ADD.-CAJ/45/5 ADD. (DOCUMENT BMT/DUS AND DEVELOPMENT OF DOCUMENT TGP/15)

4. The purpose of this section is to provide background information in relation to the preparation of document BMT/DUS "Possible Use of Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)", and in relation to the development of document TGP/15 "Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)", as follows:

(a) Document UPOV/INF/18/1 "Possible Use of Molecular Markers in the Examination of Distinctness, Uniformity and Stability"; and

(b) Development of document TGP/15 "Guidance on 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)"

5. Documents TC/38/14-CAJ/45/5 "*Ad Hoc* Subgroup of Technical and Legal Experts on Biochemical and Molecular Techniques ('The BMT Review Group')" and TC/38/14 Add.-CAJ/45/5 Add "Recommendations of the BMT Review Group and Opinion of the Technical Committee and the Administrative and Legal Committee Concerning Molecular Techniques", summarize the consideration of possible application models proposed by the TC, on the basis of the work of the BMT and crop subgroups, for the utilization of biochemical and molecular techniques in the examination of Distinctness, Uniformity and Stability.

6. At its seventy-fourth session, held in Geneva on October 24, 2007, the Consultative Committee made a preliminary examination of document BMT Guidelines (proj.9), proposed for adoption by the Council. One of the recommendations of the Consultative Committee was that "consideration be given to the status of documents TC/38/14-CAJ/45/5 and TC/38/14 Add.-CAJ/45/5 Add. with regard to their reference in the introduction of document BMT Guidelines (proj.9)" .

7. With regard to the status of documents TC/38/14-CAJ/45/5 and TC/38/14 Add.-CAJ/45/5 Add., the Consultative Committee, at its seventy-eighth session, held in Geneva on October 22, 2009, agreed that, unless otherwise agreed by the Council, documents which set out UPOV policies or guidance, once approved by the relevant UPOV Committees, as appropriate, must be adopted by the Council. In cases where a rapid presentation of a UPOV policy or guidance is required, such that adoption could not be achieved by presentation of a document to the Council, approval would be sought by correspondence from the representatives to the Council of the members of the Union (see document C/43/16 "Report", paragraph 14(i)).

8. At its forty-fourth session, held in Geneva from April 7 to 9, 2008, the TC noted the request of the Consultative Committee that consideration be given to the status of documents TC/38/14-CAJ/45/5 and TC/38/14 Add.-CAJ/45/5 Add. with regard to their reference in the introduction of document BMT Guidelines.

The TC noted that documents TC/38/14-CAJ/45/5 and TC/38/14 Add.-CAJ/45/5 Add. would need to be reviewed in conjunction with discussions on the approach presented in documents BMT/10/14 and BMT-TWA/2/11"Possible use of molecular techniques in DUS testing on maize: how to integrate a new tool to serve the effectiveness of protection offered under the UPOV system" (see document TC/44/13 "Report", paragraph 150). On that basis, it agreed that it would be appropriate to submit a revised version of documents TC/38/14-CAJ/45/5 and TC/38/14 Add.-CAJ/45/5 Add. to the Council in conjunction with the BMT Guidelines.

9. At its forty-fifth session, held in Geneva from March 30 to April 1, 2009, the TC recalled that, at its forty-second session, held in Geneva, from April 3 to 5, 2006, it had "reaffirmed its support for the presentation of the situation, set out in documents TC/38/14-CAJ/45/5 and TC/38/14 Add.-CAJ/45/5 Add., which presented the proposals developed in the *Ad hoc* Crop Subgroups, the recommendations of the BMT Review Group concerning those proposals and the opinion of the TC and the CAJ regarding the recommendations of the BMT Review Group. […]". Therefore, it did not consider that it would be appropriate to make major changes to the structure and form of the information provided in documents TC/38/14-CAJ/45/5 and TC/38/14 Add.-CAJ/45/5 Add. However, to assist the Office of the Union in the preparation of the revision of documents TC/38/14-CAJ/45/5 and TC/38/14 Add.-CAJ/45/5 Add., with the aim of developing a document for adoption by the Council, the TC agreed:

(a) to consolidate document TC/38/14-CAJ/45/5, paragraphs 9 and 10 and the Annex, and document TC/38/14 Add.-CAJ/45/5 Add., paragraphs 3 to 7, into a single document;

(b) subject to a positive assessment by the BMT Review Group of the approach presented in documents BMT/10/14 and BMT-TWA/Maize/2/11 and endorsement by the TC and CAJ, to add a section concerning the approach presented in documents BMT/10/14 and BMT-TWA/Maize/2/11; and

(c) to emphasize the importance of the assumptions to be met in each of the options and proposals and to clarify that it is a matter for the relevant authority to consider if the relevant assumptions set out in documents TC/38/14-CAJ/45/5 and TC/38/14 Add.-CAJ/45/5 Add. are met.

10. The TC, at its forty-seventh session, held in Geneva from April 4 to 7, 2011, agreed that document BMT/DUS Draft 5, as amended at that session and subject to agreement by the CAJ at its sixty-third session, to be held in Geneva on April 7, 2011, should be the basis for adoption of document BMT/DUS by the Council at its forty-fifth ordinary session, to be held in Geneva on October 20, 2011 (see document TC/47/26 "Report on the Conclusions", paragraphs 14 and 15).

11. The CAJ, at its sixty-third session, agreed that document BMT/DUS Draft 5, as amended in accordance with the proposals of the TC at its forty-seventh session, should be the basis for adoption of document BMT/DUS by the Council at its forty-fifth ordinary session, to be held in Geneva on October 20, 2011 (see document CAJ/63/9 "Report on the Conclusions", paragraphs 26 and 27).

12. At its forty-fifth session, held on October 20, 2011, the Council adopted document BMT/DUS/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.

13. In accordance with the sequential numbering of information materials, the reference for document "Possible use of Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)" has been changed from "BMT/DUS/1" to "UPOV/INF/18/1".

Document TGP/15 "Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)"

14. The TC, at its forty-eighth session held in Geneva from March 26 to 28, 2012 considered document TGP/15/1 Draft 2 "Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)".

15. The TC, at its forty-eighth session agreed with the recommendation of the TC-EDC, as set out in paragraphs 7 to 9 of document TC/48/5, that document TGP/15/1 Draft 1 should be redrafted (restructured) to provide the following:

- firstly, to present the principles, including the assumptions which provided the basis for the positive assessment of the examples in the approved models; and

- secondly, to provide practical experience in the form of examples in the implementation of the principles.

16. With regard to TGP/15/1 Draft 2, Annex I, paragraph 3(a), the representative of the International Seed Federation (ISF) questioned whether it was necessary for markers to be examined more than once on the same sample. He also suggested that paragraph 3(b) be amended to clarify that, if there was a difference between the information provided in the Technical Questionnaire and the result of the bioassay, the result of the bioassay would prevail.

17. The TC, at its forty-eighth session agreed that, on the basis of the comments above, a new draft should be prepared by the Office of the Union in conjunction with the Chairman of the TC and the Chairman of the BMT, which would be presented to the Enlarged Editorial Committee (TC-EDC) at its meeting in January 2013 and a further draft presented to the TC at its forty-ninth session. The TC noted that the timetable for the development of document TGP/15 would be reported to the TWPs at their sessions in 2012 (see document TC/48/22 "Report on the Conclusions", paragraphs 32 to 35).

18. The CAJ, at its sixty-fifth session held in Geneva on March 29, 2012, agreed with the conclusion of the TC that document TGP/15/1 Draft 1 be redrafted (restructured) as follows (see paragraph 9 of document CAJ/65/3 and paragraph 3 of the Annex to document CAJ/65/11):

- firstly, to present the principles, including the assumptions which provided the basis for the positive assessment of the examples in the approved models; and
- secondly, to provide practical experience in the form of examples in the implementation of the principles.

(see document CAJ/65/12 "Report on the Conclusions", paragraph 26).

INTERNATIONAL GUIDELINES ON MOLECULAR METHODOLOGIES

19. At its tenth session, held in Seoul, Republic of Korea, from November 21 to 23, 2006, the BMT discussed the BMT Guidelines. In relation to Section B: 5.2 "Quality criteria", the BMT was informed that the International Organization for Standardization (ISO) and the Codex Alimentarius Commission were developing guidelines. The BMT agreed that it would be useful to invite relevant experts to make a presentation on those guidelines at the eleventh session of the BMT.

20. At its eleventh session, held in Madrid, from September 16 to 18, 2008, the BMT received a presentation by ISO, based on document BMT/11/25 and a presentation by Ms. Selma Doyran, Senior Food Standard Officer, Food and Agriculture Organization of the United Nations (FAO), based on document BMT/11/26.

21. At its twelfth session, held in Ottawa, Canada, from May 11 to 13, 2010, the BMT received a presentation by Ms. Cheryl Dollard (International Seed Testing Association (ISTA)), based on document BMT/12/16 "Development of an International Seed Testing Association (ISTA) DNA-Based Approach for Testing Variety Identity", a copy of which is provided in document BMT/12/16 Add. (see document BMT/12/24 "Report", paragraphs 60 to 62).

22. Also at its twelfth session, the BMT received a presentation by Mr. Michael Sussman (Chairman of the Subcommittee ISO/TC 34/SC 16 (molecular biomarker analysis)), based on document BMT/12/20 "Horizontal Biomarker Analysis — ISO/TC 34/SC 16", a copy of which is provided in document BMT/12/20 Add. (see document BMT/12/24 "Report", paragraphs 63 and 64). Mr. Sussman explained that ISO collaborated with other standard setting organizations; for example, ISO had provided methods to the Codex Alimentarius Commission and had sought to avoid overlap with ISTA work on seed.

23. At its thirteenth session, held in Brasilia, Brazil, from November 22 to 24, 2011, the BMT noted the information provided in document BMT/13/3 "International Guidelines on Molecular Methodologies". The BMT took note of the report from the Office of the Union that contact had been made between UPOV and International Seed Testing Association (ISTA) to explore the possibility of a coordinated meeting of the BMT and the Working Group on DNA Methods of the Variety Committee of ISTA for the fourteenth session of the BMT to be held in 2013.

24. The TC, at its forty-eighth session noted the development of international guidelines on molecular methodologies, as set out in paragraphs 20 to 24 of this document. The TC noted the importance of avoiding

duplication and promoting harmonization between such international guidelines (see document TC/48/22 “Report on the Conclusions”, paragraph 82).

AD HOC CROP SUBGROUPS ON MOLECULAR TECHNIQUES (CROP SUBGROUPS)

25. The TC, at its forty-seventh session, held in Geneva from April 4 to 6, 2011, noted that there had been no meetings of the Crop Subgroups since its forty-sixth session and noted that Mr. Joost Barendrecht, Chairman of the Crop Subgroup for Rose had retired and that it would be necessary to appoint a new chairman of the Crop Subgroup for Rose if a meeting was planned.

26. There have been no meetings of the Crop Subgroups since the forty-seventh session of the TC.

27. At its thirteenth session, held in Brasilia, Brazil, from November 22 to 24, 2011, the BMT did not make any recommendation on the establishment of new crop specific subgroups. The BMT proposed to the TC to consider the possibility of the discontinuation of the meeting of the *Ad-hoc* Crop Subgroups and to include the individual species discussion within the BMT sessions (see document BMT/13/36 “Report”, paragraph 69).

28. The TC, at its forty-eighth session agreed to discontinue separate meetings of the *Ad-hoc* Crop Subgroups and to include the discussions within the BMT sessions, as set out in paragraph 28 of this document (see document TC/48/22 “Report on the Conclusions”, paragraph 83).

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

29. It is recalled that, in order to encourage the presentation of information in relation to the use of molecular techniques in the consideration of essential derivation and in variety identification, the BMT agreed at its tenth session that it would be appropriate to dedicate a specific day to the agenda items “The use of molecular techniques in the consideration of essential derivation” and “The use of molecular techniques in variety identification”, at the eleventh session of the BMT. In particular, breeders and other experts would be offered the possibility to attend for that specific day (the “Breeders’ Day”). At its eleventh session, the BMT proposed to continue that approach for its twelfth session.

30. The thirteenth session of the BMT was held in Brasilia, Brazil, from November 22 to 24, 2011, with the preparatory workshop on November 21, 2011. The specific day for the agenda items “The use of molecular techniques in the consideration of essential derivation” and “The use of molecular techniques in variety identification” (the “Breeders’ Day”) was November 22, 2011.

31. The papers presented under each of the agenda items of the thirteenth session of the BMT were as follows:

Short presentations on new developments in biochemical and molecular techniques by DUS experts, biochemical and molecular specialists, plant breeders and relevant international organizations*(document BMT/13/30 Annex I (Brazil) and II (European Union))*

Report of work on molecular techniques on a crop-by-crop basis

(a) vegetatively propagated crops

Combining morphological and molecular distance in the management of the reference collection of potato (document BMT/13/10)

Management of peach tree reference collections (document BMT/13/11)

The use of molecular techniques for plant variety protection – Approved position of CIOPORA (document BMT/13/18)

(b) self-pollinated crops

Demonstration of significant progress towards an Option 1 approach in Barley (document BMT/13/5)

A Potential UPOV Option 2 approach for barley using high density SNP genotyping (document BMT/13/6)

The use of molecular markers for the lettuce species (document BMT/13/12)

Microsatellite molecular markers in the evaluation of soybean seeds with variation in hilum color (document BMT/13/15)

Organization of soybean official DUS trials in Brazil based on the use of molecular markers (document BMT/13/26)

Use of DNA as reference samples of protected varieties in Brazil (document BMT/13/28)

(c) cross-pollinated crops

Using SSR markers for authentication of seed stocks in winter oilseed rape (WOSR) (document BMT/13/7)

Evaluation of a germplasm collection of Brachiariahumidicolausing microsatellites, morphological markers, cytogenetics and geographical origin (document BMT/13/16)

Variety Description Databases

GEMMA: A technical web site to share DUS data (document BMT/13/17)

Construction of a molecular database for soybean variety identification in Brazil (document BMT/13/24)

Methods for analysis of molecular data

BioNumerics: a universal platform for databasing and analysis of biological data (document BMT/13/31)

The use of molecular techniques in examining essential derivation[1]

Use of molecular markers for infringement detection in hybrid crops (document BMT/13/19)

An EDV Court Case in Wheat in Germany (document BMT/13/35)

Molecular markers used to distinguish essentially derived varieties obtained by repeated backcrossing (document BMT/13/20)

The use of molecular techniques in variety identification[1]

Development of functional markers associated with phenotypic traits for identification of rice varieties (document BMT/13/8)

Development of functional markers associated with phenotypic traits for varietal identification in soybean (document BMT/13/9)

SSR markers in Brazilian soybean (document BMT/13/13)

SSR markers in Brazilian wheat (document BMT/13/14)

The use of molecular techniques in variety verification of Rosa L. varieties (document BMT/13/21)

An overview of DNA-based methods for variety identification at INRAN-ENSE (Italian Seed Testing Agency) (document BMT/13/22)

[1] These agenda items were discussed on Tuesday, November 22, 2011 (“Breeders’ Day”).

The probability of random identity: a method for molecular data analysis in variety characterization (document BMT/13/23)

Use of molecular markers to identify soybean varieties: the experience of a public soybean breeding program (document BMT/13/25)

Use of molecular marker to identify sugarcane varieties (document BMT/13/27)

Surveillance: three approaches to using SNPs (Single Nucleotide Polymorphism) to identify variety (inbred line) usage (document BMT/13/29)

Developments concerning the variety tracer procedure (document BMT/13/32)

Development of an International Seed Testing Association (ISTA) DNA-based approach for testing variety identity(document BMT/13/33)

Wheat Genome Sequencing Consortium (IWGSC): Building the Foundation for a Paradigm Shift in Wheat Breeding (document BMT/13/34)

32. At its thirteenth session, the BMT took note of the report from the Office of the Union that contact had been made between UPOV and the International Seed Testing Association (ISTA) to explore the possibility of a coordinated meeting of the BMT and the Working Group on DNA Methods of the Variety Committee of ISTA for the fourteenth session of the BMT, to be held in 2013.

33. During its fourteenth session, the BMT planned to discuss the following items:

1. Opening of the session

2. Adoption of the agenda

3. Reports on developments in UPOV concerning biochemical and molecular techniques

4. Reports on the work of the *Ad Hoc* Crop Subgroups on molecular techniques (Crop Subgroups)

5. Short presentations on new developments in biochemical and molecular techniques by DUS experts, biochemical and molecular specialists, plant breeders and relevant international organizations

6. Report of work on molecular techniques on a crop-by-crop basis:
   (a) vegetatively propagated crops
   (b) self-pollinated crops
   (c) cross-pollinated crops

7. International guidelines on molecular methodologies

8. Variety description databases

9. Methods for analysis of molecular data

10. The use of molecular techniques in examining essential derivation

11. The use of molecular techniques in variety identification

12. Recommendations on the establishment of new crop specific subgroups

13. Date and place of next session

14. Future program

15. Report of the session (if time permits)

16. Closing of the session

34. The BMT requested the TC to consider the possibility to arrange the order of the agenda items to reflect the organization of the meeting, in particular, the items for the “Breeder’s Day” to be placed after agenda item 5.

35. The TC, at its forty-eighth session noted the report on developments in the BMT, as set out in paragraphs 29 to 31 of this document.

36. 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 ISTA, for the fourteenth session of the BMT (see document TC/48/22 “Report on the Conclusions”, paragraphs 84 and 85).

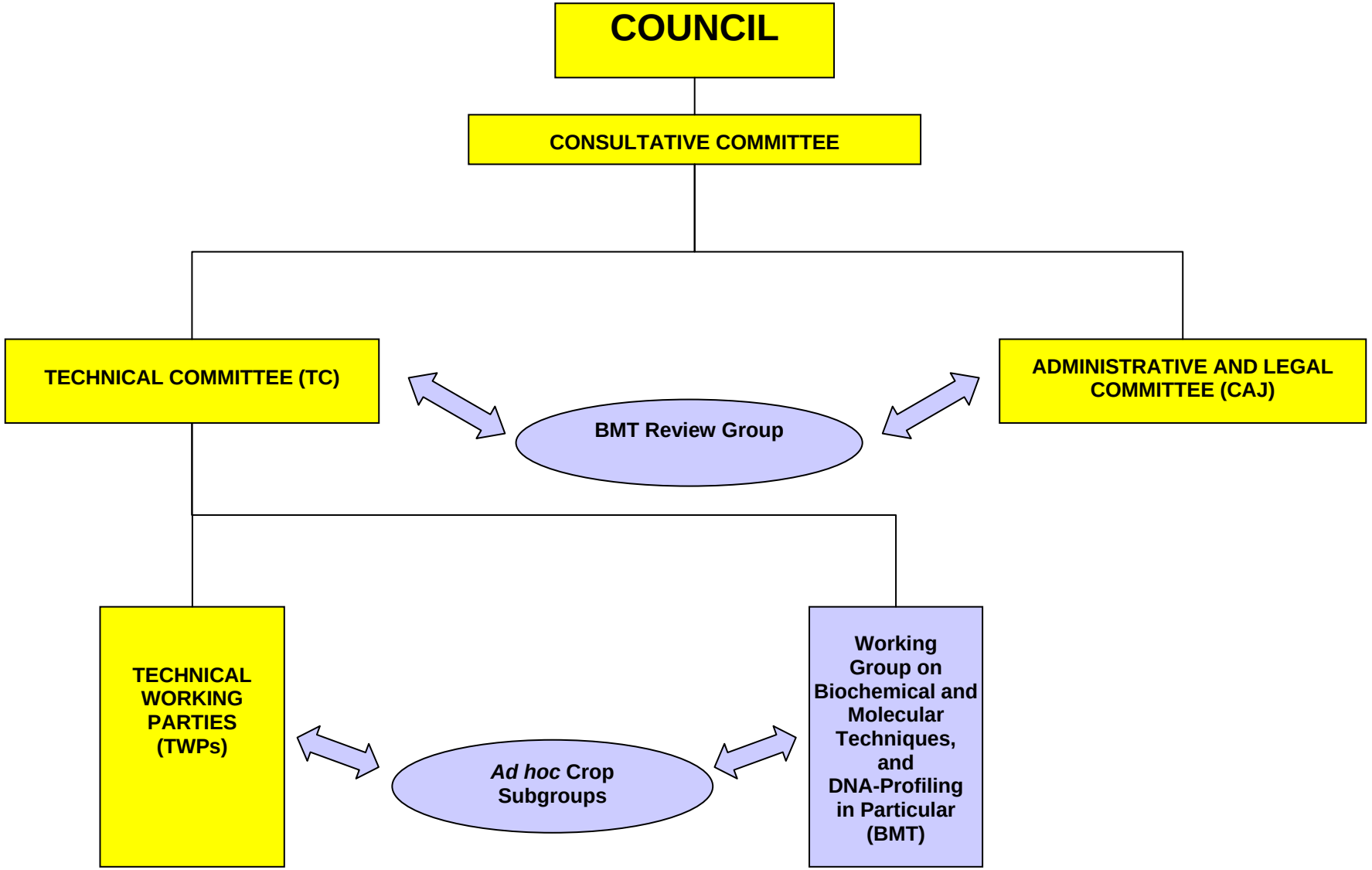
37. The TC approved the program for the fourteenth session of the BMT to be held in 2013, including the dedication of a particular date (“Breeders’ Day”), for the items on the use of molecular techniques in the consideration essential derivation and in variety identification, as set out in paragraphs 33 and 34 of this document.

38. The CAJ, at its sixty-fifth session noted the presentation made by the Office of the Union on matters considered by the BMT, at its thirteenth session, with particular regard to the use of molecular techniques in the consideration of essential derivation and in variety identification, as set out in paragraph 31 of this document (see document CAJ/65/12 “Report on the Conclusions”, paragraph 68).

[Annex follows]

ANNEX

UPOV Structure: Biochemical and Molecular Techniques



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.

TERMS OF REFERENCE OF *AD HOC* SUBGROUP OF TECHNICAL AND LEGAL EXPERTS ON BIOCHEMICAL AND MOLECULAR TECHNIQUES
("BMT REVIEW GROUP")

(as agreed by the Administrative and Legal Committee at its forty-third session, held on April 5, 2001 (see document CAJ/43/8, paragraph 58))

1. The BMT Review Group should assess possible application models proposed by the Technical Committee, on the basis of the work of the BMT and crop subgroups, for the utilization of biochemical and molecular techniques in the examination of Distinctness, Uniformity and Stability in relation to the following:

(a) conformity with the UPOV Convention, and

(b) potential impact on the strength of protection compared to that provided by current examination methods and advise if this could undermine the effectiveness of protection offered under the UPOV system.

2. In conducting its assessment, the BMT Review Group may refer specific aspects to the Administrative and Legal Committee or the Technical Committee for clarification or further information as considered appropriate.

3. The BMT Review Group will report its assessment, as set out in paragraph 1 above, to the Administrative and Legal Committee, but this assessment will not be binding for the position of the Administrative and Legal Committee.

AD HOC CROP SUBGROUPS ON MOLECULAR TECHNIQUES
(CROP SUBGROUPS)

At its thirty-sixth session, held in Geneva, from April 3 to 5, 2000, the Technical Committee agreed to the creation of the *Ad hoc* Crop Subgroups proposed by the BMT at its sixth session, held in Angers, France from March 1 to 3, 2000 (see document TC/36/11, paragraph 123).

Extract from document TC/36/3 Add.

"23. [At its sixth session, held in Angers, France from March 1 to 3, 2000] The BMT agreed that real progress could not be expected without intensive discussion in small groups on specific species. It therefore decided to propose establishing *ad hoc* crop subgroups during the eighteen month interval until the next session to make real progress in discussions on possibilities and consequences of the introduction of molecular techniques in DUS testing, the management of reference collection and the judgement of essential derivation.

"24. The BMT discussed the role of *ad hoc* crop subgroups and its relationship with the Technical Working Parties. It agreed that testing experts in the Technical Working Party should be involved with the discussion in the *ad hoc* crop subgroups. It also agreed that the chairmen of the *ad hoc* crop subgroups should be chosen from experts in the Technical Working Party in question. The role of the *ad hoc* crop subgroups would not be to make any decisions, but to prepare documents that could be a basis of further discussions in the BMT, the Technical Working Parties and the Technical Committee. The BMT confirmed that the Technical Working Parties should be the decision-making bodies for the introduction of new characteristics into DUS testing for each species.

[…]

"26. The BMT discussed the selection of species for the subgroups. A majority of experts supported two criteria, (i) the need for the introduction of molecular techniques in DUS testing (species for which a limited number of characteristics are available and species which urgently need effective methods for the management of reference collection) and (ii) the availability of DNA profiling data and on-going studies."

At its forty-third session, held in Geneva, from March 26 to 28, 2007, the Technical Committee agreed to invite the Crop Subgroups to develop proposals concerning the possible use of molecular tools for variety identification in relation to the enforcement of plant breeders' rights, technical verification and the consideration of essential derivation.

The list of Crop Subgroups established by the Technical Committee (TC) is as follows:

Crop Subgroup for:	*TWP*	*Chairperson*	*TC Session which established*
Maize	TWA	Mrs. Beate Rücker (Germany)	thirty-sixth session (2000)
Oilseed Rape	TWA	Mrs. Laetitia Denecheau (France)	thirty-sixth session (2000)
Potato	TWA	Mrs. Beate Rücker (Germany)	thirty-eighth session (2002)
Rose	TWO	(vacant)	n/a
Ryegrass	TWA	Mr. Michael Camlin (United Kingdom)	forty-second session (2006)
Soybean	TWA	Mr. Marcelo Labarta (Argentina)	thirty-eighth session (2002)
Sugarcane	TWA	Mr. Luis Salaices (Spain)	thirty-eighth session (2002)
Tomato	TWV	Mr. Richard Brand (France)	thirty-sixth session (2000)
Wheat and Barley	TWA	Mr. Michael Camlin (United Kingdom)	thirty-sixth session (2000) / forty-second session (2006)

[End of Annex and of document]