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PROGRESS REPORT OF THE WORK OF THE TECHNICAL COMMITTEE,  
THE TECHNICAL WORKING PARTIES AND THE WORKING GROUP  
ON BIOCHEMICAL AND MOLECULAR TECHNIQUES,  
AND DNA-PROFILING IN PARTICULAR

*prepared by the Office of the Union*

1. This document presents a progress report of the work of the Technical Committee (TC) and its Technical Working Parties (TWPs), including the Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular (BMT).
2. The following abbreviations are used in this document:

CAJ:	Administrative and Legal Committee
TC:	Technical Committee
TC-EDC:	Enlarged Editorial Committee
TWPs:	Technical Working Parties
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
BMT:	Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular
BMT Review Group:	<i>Ad hoc</i> Subgroup of Technical and Legal Experts of Biochemical and Molecular Techniques
WG-PVD:	<i>Ad hoc</i> Working Group on the Publication of Variety Descriptions
Crop Subgroups:	<i>Ad hoc</i> Crop Subgroups for Molecular Techniques
DUS:	Distinctness, Uniformity and Stability
Office:	Office of the Union

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## I. PROGRESS REPORT OF THE WORK OF THE TECHNICAL COMMITTEE

3. The Technical Committee (TC) held its forty-sixth session in Geneva from March 22 to 24, 2010, chaired by Mr. Chris Barnaby (New Zealand), Chairperson of the TC. The report on the conclusions of the session is contained in document TC/46/15. The detailed report will be provided in document TC/46/16.

4. The meeting was attended by 98 participants from 40 members of the Union, 10 observer States and two observer organizations.

### Report on developments in UPOV including relevant matters discussed in the last sessions of the Administrative and Legal Committee, the Consultative Committee and the Council

5. The Vice Secretary-General provided an oral report on the fifty-ninth and sixtieth sessions of the Administrative and Legal Committee (CAJ), the seventy-seventh and the seventy-eighth sessions of the Consultative Committee and the twenty-sixth extraordinary session and the forty-third ordinary session of the Council. The Vice Secretary-General also made an oral report on the Seminar on DUS Testing, held in Geneva, from March 18 to 20, 2010. He reported that the following conclusions had been drawn by the Chairman of the TC in conjunction with the Office of the Union:

- “UPOV members have used a range of approaches for DUS testing, as envisaged within the UPOV Convention, in order to provide an efficient and effective system for breeders according to their circumstances.
- “Cooperation is crucial for all UPOV members and will need to intensify in future to meet the expansion of the UPOV system. There is a need to:
  - continue to work on guidance documents (TGP documents, Test Guidelines) and exchangeable software (COY, GAIA etc.) to promote harmonization;
  - enhance efficiency of cooperation, through
    - maintaining standard forms, agreed fee for DUS reports, etc.;
    - the use and further development of tools, such as the GENIE database;
    - increasing exchange of information between UPOV members on their newly acquired experience;
    - exchanging variety descriptions; and
    - coordinating resources offered by members of the Union (e.g. training, helpdesks, *ad hoc* expert advice).
- “The Technical Committee and Technical Working Parties are an important means of training and exchanging information in an expert forum, and additional benefits can be achieved through preparatory workshops and associated training events.
- “It is important to continue to explore methods to address the management of variety collections, e.g. the potential role for molecular techniques.
- “The organization of such seminars, from time-to-time, provides a valuable means of sharing broad overviews and new developments and also of indentifying areas for possible future guidance (e.g. treatment of data for distinctness and descriptions, understanding of “similar varieties”, status of the variety descriptions).
- “UPOV encourages breeders’ organizations to contribute to UPOV’s technical work and encourages a constructive dialogue on relevant issues at an early stage.

- “Participation by experts of potential future members of the Union in the Technical Committee and Technical Working Parties, as observers, was encouraged as a principal means of achieving harmonization with the UPOV system and facilitation of future cooperation on becoming UPOV members.”

Progress reports on the work of the Technical Working Parties, including the Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular (BMT), and the Ad Hoc Crop Subgroups on Molecular Techniques

6. The TC received oral reports from the Chairpersons, on the work of the Technical Working Party for Agricultural Crops (TWA), the Technical Working Party on Automation and Computer Programs (TWC), the Technical Working Party for Fruit Crops (TWF), the Technical Working Party for Ornamental Plants and Forest Trees (TWO) and the Technical Working Party for Vegetables (TWV). The TC noted that no session of the Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular (BMT) had been held since the forty-fifth session of the TC (see Part II of this document).

Matters arising from the Technical Working Parties

7. The TC considered document TC/46/3.

*Matters arising after the grant of a breeder's right*

8. The TC noted the developments in the CAJ with regard to a document concerning matters arising after the grant of a breeder's right.

*Matters raised by CIOPORA in relation to distinctness*

9. The TC noted the comments made by the International Community of Breeders of Asexually Reproduced Ornamental and Fruit-Tree Varieties (CIOPORA) in relation to the use of characteristics in the examination of distinctness, as reported in document TC/46/3, paragraphs 7 to 13. The TC endorsed the clarification that had been provided to CIOPORA by the Office of the Union, as set out in document TC/46/3, paragraph 14, and recalled that CIOPORA were invited to attend the TWPs and the TC where they could receive further explanation of the basis for the selection of characteristics for inclusion of test guidelines. It was agreed that the adoption of the Test Guidelines for Mandarin should not be delayed on the basis of the comments by CIOPORA.

10. The TC noted that, with regard to the partial revision of the Test Guidelines for Mandarin (Citrus Group 1), as set out in Circular E-1143, dated November 30, 2009, in addition to the comments of CIOPORA, substantial comments had been received from Australia and Morocco. On the basis of those substantial comments, the Leading Expert, Mr. Chomé Fuster (Spain), had concluded that it would be appropriate for the partial revision of the Test Guidelines for Mandarin to be considered further by the TWF at its forty-first session, to be held in Cuernavaca, Morelos State, Mexico, from September 27 to October 1, 2010.

*Experiences with new types and species*

11. The TC noted the information provided at the TWO and TWF sessions in 2009 and noted that the proposal to invite members of the Union to indicate practical experience when requesting a new UPOV code, as set out in document TC/46/3, paragraph 22, would be considered under agenda item 9 “UPOV information databases”.

12. The TC agreed that an item for “Experiences with new types and species (oral reports by participants)” should be included in the agenda of the TWF, TWO and TWV sessions in 2010.

*Biodiversity / Germplasm Information on Germplasm Accessions (GIGA) project*

13. The TC noted the involvement of UPOV experts in the GIGA (Germplasm Information on Germplasm Accessions) project of Biodiversity.

*Statistical methods for visually observed characteristics*

14. The TC agreed that statistical methods for visually observed characteristics should be investigated by the TWC and should be considered for possible inclusion in the revision of document TGP/8/1.

*Searching documents on the UPOV website*

15. The TC noted the plans for the development of a search tool for documents placed in the restricted areas of the UPOV website.

TGP documents

16. The TC considered document TC/46/5.

(a) *New TGP documents*

*TGP/8 Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability*

17. The TC considered document TGP/8/1 Draft 15 and agreed certain modifications. The TC noted that those modifications to the text of document TGP/8/1 Draft 15 would be reported to the CAJ at its sixty-first session, to be held in Geneva on March 25, 2010. The TC agreed that, subject to agreement by the CAJ, document TGP/8/1 Draft 15, as amended above, should be put forward for adoption by the Council at its forty-fourth ordinary session, to be held in Geneva on October 21, 2010. The TC noted that the French, German and Spanish translations of the original English text would be checked by the relevant members of the TC-EDC prior to submission of the draft of document TGP/8/1 to the Council.

18. The TC approved the approach for the future revision of document TGP/8/1 (document TGP/8/2).

*TGP/14 “Glossary of [Technical, Botanical and Statistical] Terms Used in UPOV Documents”*

19. The TC agreed that document TGP/14/1 Draft 11 should be amended as indicated in the document, but agreed that no further modifications were required.

20. The TC agreed that, subject to agreement by the CAJ, document TGP/14/1 Draft 11 should be put forward for adoption by the Council at its forty-fourth ordinary session, to be held in Geneva on October 21, 2010. The TC noted that the French, German and Spanish translations of the original English text would be checked by the relevant members of the TC-EDC prior to submission of the draft of document TGP/14/1 to the Council.

21. The TC approved the consideration of certain items in the future revision of document TGP/14/1 (document TGP/14/2).

*TGP/11 Examination of Stability*

22. The TC agreed the procedure and schedule for the development of document TGP/11 “Examining Stability”.

*(b) Revision of TGP Documents*

*TGP/7 Development of Test Guidelines*

23. The TC considered document TGP/7/2 Draft 5 and agreed certain amendments.

24. With regard to the possibility of the Technical Questionnaire providing an opportunity to indicate that an application concerned a parent line, the TC agreed that such a possibility existed within Section 4 “Information on the breeding scheme and propagation of the variety”, as far as that information was relevant for the DUS examination. The TC clarified that, in the particular case of parent lines submitted as a part of the examination of a candidate hybrid variety, document TGP/5: Section 11/1 “Examples of Policies and Contracts for Material Submitted by the Breeder” explained that living plant material should only be made available to other variety collectors in such a way that the legitimate interests of the breeder would be safeguarded.

25. The TC noted that the agreed changes to the text of document TGP/7/2 Draft 5 would be reported to the CAJ at its sixty-first session. The TC agreed that, subject to agreement by the CAJ, document TGP/7/2 Draft 5, as amended above, should be put forward for adoption by the Council at its forty-fourth ordinary session, to be held in Geneva on October 21, 2010. The TC noted that the French, German and Spanish translations of the original English text would be checked by the relevant members of the TC-EDC prior to submission of the draft of document TGP/7/2 to the Council.

26. The TC noted that, on the basis of feedback at the TWP sessions in 2009 and the experience with draft Test Guidelines, the Office of the Union had concluded that the Collection of Approved Characteristics was not, in general, used by Leading Experts in the drafting of Test Guidelines on a regular basis. The TC agreed that it would not be a good use of resources to invest a substantial effort in integrating the Collection of Approved Characteristics into the TG Template for the time-being.

27. With regard to a future revision of TGP/7 (document TGP/7/3), the TC agreed on certain items to which consideration should be given.

*TGP/5 Experience and Cooperation in DUS Testing*

*Section 2 “UPOV Model Form for the Application for Plant Breeders’ Rights”*

28. The TC noted that the CAJ, at its sixty-first session, would be invited to consider a proposal for text to be added to document TGP/5: Section 2 “UPOV Model Form for the Application for Plant Breeders’ Rights”, in order to explain the standard references in the UPOV Model Application Form. It further noted that the development of standard references for the UPOV Model TQ and for Test Guidelines, as set out in Annexes III and IV of document TC/46/13, would be considered under agenda item 12 “Electronic Application Systems”.

*Section 10 “Notification of Additional Characteristics”*

29. The TC noted that the proposal in document TGP/7/2 Draft 5 for the reporting of modifications to characteristics in the Test Guidelines by means of document TGP/5 (see document TC/46/5, paragraphs 61 to 63) would require a corresponding revision of document TGP/5, Section 10/1. It further noted that the TC, in document TC/46/2, paragraphs 22 to 24, was invited to consider whether new characteristics and new states of expression notified by means of document TGP/5, Section 10 “Notification of Additional Characteristics”, should be presented for consideration at the session of the relevant TWP(s) and the TC before they are presented on the password-restricted area of the UPOV website.

30. The TC agreed that the TWPs should be invited to consider those proposals at their sessions in 2010, on the basis of a draft text to be prepared by the Office of the Union, with a view to a revision of document TGP/5, Section 10/1 being considered by the TC and CAJ in 2011, for proposal to the Council in October 2011.

*TGP/12 Guidance on Certain Physiological Characteristics*

31. The TC agreed that the TWV should develop a proposal for a revision of document TGP/12/1 in order to provide guidance on the nomenclature and use of disease resistance characteristics.

*TGP/0 List of TGP Documents and Latest Issue Dates*

32. The TC agreed to propose the adoption of document TGP/0/3 in conjunction with the adoption and revision of TGP documents, as appropriate.

*(c) Program for the development of TGP documents*

33. The TC agreed the program for the development of TGP documents, as set out in the Annex to document TC/46/5.

Molecular techniques

34. The TC considered documents TC/46/7, BMT Guidelines (proj.16) and BMT/DUS Draft 2.

*UPOV Guidelines for DNA-profiling: molecular marker selection and database construction (BMT Guidelines)*

35. The TC agreed that document BMT Guidelines (proj.16) should be amended as indicated in the document, but agreed that no further modifications were required.

36. The TC agreed that, subject to agreement by the CAJ, document BMT Guidelines (proj.16) should be put forward for adoption by the Council at its forty-fourth ordinary session. The TC noted that the French, German and Spanish translations of the original English text would be checked by the relevant members of the TC-EDC prior to submission of the draft of document BMT Guidelines to the Council.

*Proposals for the utilization of biochemical and molecular techniques in the examination of DUS to be considered by the BMT Review Group*

37. The TC noted that the CAJ, at its sixtieth session, held in Geneva on October 19, 2009, had endorsed the recommendations of the BMT Review Group in relation to the approach “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”, prepared by experts from France.

38. The TC endorsed the recommendations of the BMT Review Group.

*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”*

39. The TC agreed certain amendments to document BMT/DUS Draft 2 “Possible use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)”.

40. The TC noted that the CAJ, at its sixtieth session, had agreed that a document could be presented for adoption by the Council in October 2010, in conjunction with the document BMT Guidelines. However, the TC agreed that a new draft of the document BMT/DUS should be prepared by the Office of the Union, in conjunction with the TC Chairman and the BMT Chairman, for consideration by the BMT and the TWPs at their sessions in 2010 and a further draft prepared on the basis of the comments of the BMT, TWPs and CAJ for consideration by the TC at its forty-seventh session.

41. The TC agreed that the possibility of document BMT/DUS Draft 2 becoming document TGP/15 [“New Types of Characteristics”], with an appropriate change of title for TGP/15, should be considered at a later stage.

*International guidelines on molecular methodologies*

42. The TC noted that the International Seed Testing Association (ISTA) had been approached to investigate how the work of UPOV and ISTA might, where appropriate, be coordinated with UPOV in relation to molecular techniques.

*Statistical methods for data produced by biochemical and molecular techniques*

43. The TC noted that the item on the BMT/11 agenda for “statistical methods for data produced by biochemical and molecular techniques” had been replaced by an item “methods for analysis of molecular data” in the agenda for the twelfth session of the BMT, to be held in Ottawa, Canada, from May 11 to 13, 2010.

*Ad hoc crop subgroups on molecular techniques (Crop Subgroups)*

44. The TC approved Mrs. Laetitia Denecheau (France) as new Chairperson of the Crop Subgroup for Oilseed Rape.

45. The TC noted the developments concerning Crop Subgroups as set out in document TC/46/7, paragraphs 46 to 50 and agreed the following plans for meetings of Crop Subgroups:

Crop Subgroup for Maize: no subgroup meeting planned. The TC noted that the Office of the Union had contacted the American Seed Trade Association (ASTA) to see if it would be interested in receiving a report on the outcome of the consideration within UPOV on the approach presented in documents BMT/10/14 and BMT-TWA/Maize/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” at the meeting of the maize and sorghum breeders’ meeting in the United States of America in 2010;

Crop Subgroup for Oilseed Rape: no subgroup meeting planned;

Crop Subgroup for Potato: no subgroup meeting planned. To consider a future meeting according to developments in on-going projects reported at the eleventh session of the BMT;

Crop Subgroup for Soybean: to consider a meeting to include a report on the work of Argentina and Brazil in the context of a possible Option 2 approach in due course; and

Crop Subgroup for Wheat and Barley: no subgroup meeting planned. Any on-going work, such as the work in France on barley in the context of a similar approach to that presented for maize in document BMT/10/14, would be reported at the twelfth session of the BMT.

*Working group on biochemical and molecular techniques, and DNA-profiling in particular (BMT)*

46. The TC noted that, at the twelfth session of the BMT, to be held in Ottawa, Canada, from May 11 to 13, 2010, 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”) would be May 11, 2010.

Variety denominations

47. The TC considered document TC/46/8.

*Document UPOV/INF/12, Annex I, Part I: Class 4.1 Solanum tuberosum L. / Class 4.2 Solanum other than Class 4.1*

48. The TC noted that there might be advantages in retaining Tomato rootstock species in the same variety denomination class as Tomato, but agreed that the TWV should be invited to consider that matter. Therefore, the TC agreed to request the TWV, at its forty-fourth session, to be held in Veliko Tarnovo, Bulgaria, from July 5 to 9, 2010, to consider two alternatives for an amendment to document UPOV/INF/12/2 Annex I, Part I “Classes within a genus”, Class 4.

49. The TC agreed to invite the CAJ at its sixty-first session to consider those alternatives and, if appropriate, agree that the alternative endorsed by the TWV be put forward as a revision of document UPOV/INF/12/2 for adoption by the Council at its forty-fourth ordinary session, to be held in Geneva on October 21, 2010.

50. The TC further agreed to amend the UPOV codes for relevant taxa, simultaneously with any revision of the “Explanatory Notes on Variety Denominations under the UPOV Convention”, document UPOV/INF/12/2.

*Document UPOV/INF/12, Annex I, Part II “Classes encompassing more than one genus”: new class for Verbena and Glandularia*

51. The TC agreed to propose to amend document UPOV/INF/12/2 Annex I, Part II “Classes encompassing more than one genus” in order to include a new class (Class 212) for *Verbena* L. and *Glandularia* J. F. Gmel..

52. The TC further agreed, subject to approval by the CAJ and the TWPs at their sessions in 2010, to propose to the Council to amend document UPOV/INF/12/2 Annex I, Part II “Classes encompassing more than one genus” accordingly.

UPOV information databases

53. The TC considered document TC/46/6.

### *GENIE database*

54. The TC noted that the GENIE database had been launched on the freely available area of the UPOV website on March 15, 2010.

### *UPOV code system*

55. The TC noted that 148 new UPOV codes had been created in 2009 and amendments were made to 17 UPOV codes, bringing the total number of UPOV codes in the GENIE database at the end of 2009 to 6,582.

56. In accordance with the reclassification of *Panicum* in GRIN, and the revision of Class 202 in document UPOV/INF/12/1, Annex I, Part II “Classes encompassing more than one genus”, to cover *Megathyrsus*, *Panicum*, *Setaria* and *Steinchisma*, the TC agreed that the UPOV codes for the relevant species be amended.

57. The TC requested the TWV to consider whether the principal botanical name for the UPOV code “LENTI\_ELO” should be amended to *Lentinula edodes* (Berk.) Sing., with the botanical names *Lentinus edodes* (Berk.) Sing. and *Lentinus elodes* (Berk.) Sing. being added as other botanical names, and the UPOV code amended to “LENTI\_EDO”.

58. In accordance with the procedure set out in Section 3.3 of the Guide to the UPOV Code System (see [http://www.upov.int/genie/en/upov\\_code.html](http://www.upov.int/genie/en/upov_code.html)), the TC agreed that the Office of the Union should prepare tables of UPOV code additions and amendments, for checking by the relevant authorities, for each of the TWP sessions in 2010.

59. With regard to the proposal of the TWO that the Office of the Union should invite members of the Union to indicate practical experience when requesting a new UPOV code, the TC agreed that such an invitation would not be appropriate and agreed that information on genera and species for which new applications had been received could be obtained from the UPOV-ROM Plant Variety Database.

### *Plant Variety Database*

60. The TC noted that, in accordance with the UPOV-WIPO arrangement, Mr. José Appave, Senior Data Administration Clerk, WIPO, had taken up responsibility for collating data for the UPOV-ROM Plant Variety Database (UPOV-ROM) (see circular E-1190). The TC further noted the clarification that the current arrangements for providing data for the UPOV-ROM, as set out in the UPOV-CPVO MoU (see documents CAJ/57/6, paragraph 6 and TC/44/6, paragraph 15), would not be affected by that development.

61. The TC heard that, also in accordance with the UPOV-WIPO arrangement, a software developer had been recruited by WIPO to work on the program of improvements concerning the UPOV-ROM and would take up her duties in May 2010.

62. The TC noted the proposal for the TWC to conduct the analysis of the inclusion of data in fields in the UPOV-ROM Plant Variety Database, as set out in paragraphs 31 to 33 of document TC/46/6, and agreed that the Office of the Union should consider that offer in conjunction with the work under the UPOV-WIPO arrangement.

63. The TC noted the report on matters concerning the development of common search platforms, as set out in document TC/46/6, paragraphs 36 to 39.

64. The Delegation of the European Union informed the TC that a new functionality would be added to the Community Plant Variety Office of the European Union (CPVO) database on applications and titles granted, which was available to the public through its official webpage. The aim of that new development was to provide direct access to some of the documents included in the CPVO register.

#### Variety description databases

65. The TC considered document TC/46/9.

66. The TC noted the information provided on variety description databases at the sessions of the TWV and TWF.

67. The TC agreed that the common search platform / portal, to be developed under the UPOV-WIPO arrangement concerning the UPOV-ROM, should be extended to cover variety description databases. The Delegation of Australia indicated its willingness to provide a link to its variety description information through such a facility.

#### Exchangeable software

68. The TC considered documents TC/46/12 and UPOV/INF/Software Draft 3.

69. The TC agreed that, subject to agreement by the CAJ, document UPOV/INF/Software Draft 3 should be put forward for adoption by the Council at its forty-fourth ordinary session, to be held in Geneva on October 21, 2010. The TC noted that the French, German and Spanish translations of the original English text would be checked by the relevant members of the TC-EDC prior to submission of the draft of document UPOV/INF/Software to the Council.

70. The TC approved the translation into English of the user guide for the SIRIUS system for data capture by the Office of the Union, on the basis that the experts from France would check, and also be responsible for, the English version.

71. The TC noted that, at its twenty-eighth session, to be held in Angers, France, from June 29 to July 2, 2010, the TWC would receive a presentation by an expert from the European Union on software for assessing similarity of denominations, developed by the CPVO. The Delegation of the European Union explained that it would also like to offer access to its complete variety denomination database, including the variety denomination similarity tool, to members of the Union. The log-in and password would be provided on request to the CPVO by e-mail ([cpvo@cpvo.europa.eu](mailto:cpvo@cpvo.europa.eu)).

### Electronic application systems

72. The TC considered document TC/46/13.

73. The TC agreed to propose to the CAJ that inclusion of an explanation of the standard references for the UPOV Model TQ and for Test Guidelines, as set out in Annexes III and IV of document TC/46/13, would benefit from discussion in the TWPs and TC and should not be included in document TGP/7/2, but should be considered for a future revision of document TGP/7 (document TGP/7/3).

74. The Delegation of the European Union recalled that, in principle, it had supported the Proposal 2 approach, but explained that it had already developed an electronic application system that would preclude such an approach without starting a new system from the beginning. It was explained that the CPVO had launched an online application system and was encouraging the individual member States of the European Union to adopt that system for plant breeder's right and national list purposes. The CPVO had developed its own software and use of the system was not restricted by other parties. It planned to make that system available in French, German and Dutch. In response to a question from the Vice Secretary-General, the Delegation of the European Union explained that the system would be made available to the member States of the European Union in the first instance, but as a second step, consideration could be given to making that system available to members of the Union.

### Method of Calculation of COYU

75. The TC considered document TC/46/11.

76. The TC noted the developments concerning the method of calculation of COYU and requested the TWC to make proposals to address the bias in the present method of calculation of COYU. The TC noted the observation at the twenty-seventh session of the TWC, that the way COYU made the calculations at the moment was acceptable, but it was nevertheless desirable to find a solution.

### Assessing uniformity by off-types on the basis of more than one sample or sub-samples

77. The TC considered document TC/46/14.

78. The TC agreed that the TWV, at its forty-fourth session, to be held in Veliko Tarnovo, Bulgaria, from July 5 to 9, 2010, should be invited to agree a vegetable crop for inclusion in the questionnaire. The Office of the Union would complete and issue the questionnaire after a vegetable crop had been selected by the TWV. The TC agreed that the translation of the questionnaire should be checked by the relevant language experts of the TC-EDC and also agreed that paragraph 1.4 should be elaborated to explain that the process and the way in which the data was obtained and used in the decision-making process should be reflected in the responses to the questionnaire.

79. The TC requested the Office of the Union to send the questionnaire to the TC representatives of the members of the Union for completion, and to provide a document compiling the replies for consideration at the forty-seventh session of the TC. The TC also

requested that the document identify any matters that might be considered in relation to the revision of document TGP/8.

### Preparatory workshops

80. The TC noted the report of the preparatory workshops held in 2009 and agreed the proposals for the programs for the preparatory workshops to be held in 2010, as set out in document TC/46/10.

### List of genera and species for which authorities have practical experience in the examination of distinctness, uniformity and stability

81. The TC noted the information provided in document TC/46/4 and heard that the number of genera and species for which members of the Union had practical experience had increased from 2,209 in 2009 to 2,254 in 2010.

82. The TC agreed that document TC/46/4 should be updated for the forty-seventh session of the TC.

### Test Guidelines

83. The TC considered document TC/46/2.

84. The TC noted that the Council, at its forty-third ordinary session, held in Geneva on October 22, 2009, had endorsed the practice whereby Test Guidelines were adopted by the TC on behalf of the Council on the basis of the program of work approved by the Council, without the individual Test Guidelines being submitted to the Council for review (see document C/43/16 “Report on the decisions”, paragraphs 34 and 35).

85. The TC agreed, on the basis of the recommendation of the TC-EDC, that the Test Guidelines for *Vriesea* should be referred back to the TWO, for completion of the missing information.

86. The TC adopted the Test Guidelines listed in the table below on the basis of the amendments, as specified in Annex II to document TC/46/15, which was circulated in advance, and the linguistic changes recommended by the TC-EDC:

Document No. N° du document Dokument-Nr. No del documento	English	Français	Deutsch	Español	Botanical name Nom botanique Botanischer Name Nombre botánico
<b><u>NEW TEST GUIDELINES</u></b>					
TG/AGARIC(proj.5)	Agaricus Mushroom, Button Mushroom	Agaric, Champignon de Paris	Champignon	Champiñón	Agaricus bisporus L.; Agaricus bitorquis L.; Agaricus arvensis L.
TG/BUDDL(proj.7)	Buddleia, Butterfly-bush	Buddleia, Arbre aux papillons	Buddleie, Schmetterlings- strauch	Budleya, Mariposa	Buddleja L.
TG/FIG(proj.6)	Fig	Figuier	Echte Feige, Feige	Higuera	Ficus carica L.
TG/GAURA(proj.4)	Gaura	Gaura	Prachtkerze	Gaura	Gaura L.

Document No. N° du document Dokument-Nr. No del documento	English	Français	Deutsch	Español	Botanical name Nom botanique Botanischer Name Nombre botánico
TG/GYPSO(proj.7)	Baby's Breath, Gyp, Gypsophila	Gypsophile	Gipskraut, Schleierkraut	Gipsófila	Gypsophila L.
TG/PAPAY(proj.6)	Papaya, Papaw	Papayer	Melonenbaum, Papaya	Papayo, Lechosa	Carica papaya L.
TG/PRL_MIL(proj.8)	Pearl Millet	Pénicillaire, Mil à chandelle, Mil Pénicillaire	Federborstengras	Panizo de Daimiel, Panizo mamozo, Mijo Perla	Pennisetum glaucum (L.) R. Br., Pennisetum americanum (L.) Leeke, Pennisetum typhoides (Burm.f.) Stapf C.E. Hubb.
TG/SWEETPOT(proj.6)	Sweet Potato	Patate douce	Batate, Süßkartoffel	Camote, Batata	Ipomoea batatas (L.) Lam.
<b><u>REVISIONS OF TEST GUIDELINES</u></b>					
TG/53/7(proj.2)	Peach	Pêcher	Pfirsich	Durazno, Melocotonero	Prunus persica (L.) Batsch, Persica vulgaris Mill., Prunus L. subg. Persica
TG/59/7(proj.6)	Lily	Lys	Lilie	Lily, azucena, lirio	Lilium L.
TG/116/4(proj.3)	Black Salsify, Scorzonera	Salsifis noir, Scorsonère	Schwarzwurzel	Escorzonera, Salsifí negro	Scorzonera hispanica L.
TG/123/4(proj.8)	Banana, Cavendish banana, Chinese banana, Dwarf banana; Plantain, Pomme banana, Silk banana, Banana sucrier	Bananier, Bananier nain; -	Banane, Zwergbanane; -	Bananera, Banano, Platanera, Plátano; -	Musa acuminata Colla; Musa ×paradisiaca L. (M. acuminata Colla × M. balbisiana Colla)
TG/130/4(proj.3)	Asparagus	Asperge	Spargel	Espárrago	Asparagus officinalis L.
TG/133/4(proj.4)	Hydrangea	Hortensia	Hortensie	Hortensia, Hidranea	Hydrangea L.
<b><u>PARTIAL REVISIONS OF TEST GUIDELINES</u></b>					
TG/11/8 Rev.(TC/46/2)	Rose	Rosier	Rose	Rosal	Rosa L.
TG/176/4 Rev. (TC/46/2)	Osteospermum; -	Ostéospermum; -	Osteospermum; -	Osteospermum; -	Osteospermum L.; hybrids with Dimorphothea Vaill.

87. The TC agreed that the Test Guidelines for Banana be adopted subject to the amendments to the example varieties, proposed by the Leading Expert, being approved by the TWF by correspondence.

88. The TC agreed that the Test Guidelines for Fig be adopted subject to the amendments to the example varieties, proposed by the Leading Expert, being approved by the TWF by correspondence.

89. The TC agreed that the Test Guidelines for Asparagus be adopted subject to characteristic 9 "Spear: opening of bracts", being completed and approved by the TWV by correspondence.

90. The TC agreed that the Test Guidelines for Papaya should be adopted on the basis that they would apply to vegetatively propagated varieties. It agreed that the TWPs should be invited to consider how to address the DUS examination of seed-propagated varieties of Papaya on the basis of a document to be prepared by the Leading Expert, Mr. Alejandro Barrientos-Priego (Mexico), and the Office of the Union with a view to revising the Test Guidelines for Papaya to include seed-propagated varieties at the earliest opportunity. It also agreed that the CAJ should be invited to consider that matter.

91. The TC noted the corrections made to the Test Guidelines for Chrysanthemum (document TG/26/5 Corr.2) and the Test Guidelines for Zonal Pelargonium, Ivy-Leaved Pelargonium (document TG/28/9 Corr.), as set out in document TC/46/2, paragraphs 12 to 15.

92. The TC agreed the program for the development of new Test Guidelines and for the revision of Test Guidelines, as shown in document TC/46/2, Annex II, subject to:

(a) reconsideration of the Test Guidelines for Vriesea by the TWO; and

(b) withdrawal of draft Test Guidelines for Rhodes grass (*Chloris gayana* Kunth), Groundnut (*Arachis* L.) and Common Vetch, which the Leading Experts had indicated would not be available for consideration at the thirty-ninth session of the TWA and the draft Test Guidelines for Tomato Rootstock (*Lycopersicon* (excluding *Lycopersicon esculentum* Mill.)), which the Leading Expert had indicated would not be available for consideration at the forty-fourth session, of the TWV.

93. The TC noted the status of the existing Test Guidelines as listed in Annex III to document TC/46/2.

94. The TC noted the list of adopted Test Guidelines that have since been replaced, as presented in Annex IV to document TC/46/2, and the plans of the Office of the Union to make copies of all previous adopted versions of Test Guidelines available on the first restricted area of the UPOV website in due course.

95. The TC noted that it had agreed the consideration of whether and how new characteristics and new states of expression notified by means of document TGP/5, Section 10 “Notification of Additional Characteristics”, should be presented for consideration at the session of the relevant TWP(s) and the TC before they were presented on the password-restricted area of the UPOV website under agenda item 6 “TGP documents”.

#### Chairperson and Vice-Chairperson

96. The TC noted that the chairmanship of Mr. Chris Barnaby (New Zealand) would expire with the closing of the forthcoming ordinary session of the Council in October. It proposed to the Council that it elect Mr. Joël Guiard (France) as new Chairperson and Mr. Alejandro Barrientos-Priego (Mexico) as new Vice-Chairperson of the TC for the forthcoming three-year term.

#### Program for the forty-seventh session

97. The following draft agenda was agreed for the forty-seventh session of the TC, to be held in Geneva in 2011:

1. Opening of the session
2. Adoption of the agenda
3. Report on developments in UPOV including relevant matters discussed in the last sessions of the Administrative and Legal Committee, the Consultative Committee and the Council (oral report by the Vice Secretary-General)
4. Progress reports on the work of the Technical Working Parties, including the Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular (BMT), and the *Ad Hoc* Crop Subgroups on Molecular Techniques
5. Matters arising from the Technical Working Parties
6. TGP documents
7. Molecular techniques
8. Variety denominations
9. UPOV information databases
10. Variety description databases
11. Exchangeable software
12. Electronic application systems
13. Method of calculation of COYU
14. Assessing uniformity by off-types on the basis of more than one sample or sub-samples
15. Preparatory workshops
16. Test Guidelines
17. List of genera and species for which authorities have practical experience in the examination of distinctness, uniformity and stability
18. Program for the forty-eighth session
19. Adoption of the report on the conclusions (if time permits)
20. Closing of the session

## II. PROGRESS REPORT OF THE WORK OF THE TECHNICAL WORKING PARTIES AND THE WORKING GROUP ON BIOCHEMICAL AND MOLECULAR TECHNIQUES, AND DNA-PROFILING IN PARTICULAR IN 2009

98. The following reports were made by the Chairpersons on the work of the TWA, TWC, TWF, TWO and the TWV, at the forty-sixth session of the TC. No session of the BMT was held between the forty-fifth and forty-sixth session of the TC.

### Technical Working Party for Agricultural Crops (TWA)

99. The TWA held its thirty-eighth session in Seoul, Republic of Korea, from August 31 to September 4, 2009, under the joint chairmanship of Mrs. Beate Rücker (Germany) and Mr. Joel Guiard (France), in the absence of Mr. Dirk Theobald, Chairperson of the TWA. The report of the meeting is contained in document TWA/38/17.

100. The session was attended by 45 participants from 20 members of the Union, and four observer organizations. The preparatory workshop, held during the afternoon of Sunday, August 30, was attended by 34 participants.

101. The TWA was welcomed by Mr. Cho Il-Ho, Director, Plant Variety Protection Division, Korean Seed & Variety Service (KSVS) Ministry of Food, Agriculture Forestry & Fisheries (MIFAFF). The TWA received short reports on developments in plant variety protection by the participants.

102. The TWA noted the report on developments in UPOV on molecular techniques and agreed that the Office of the Union should contact the International Seed Testing Association (ISTA) in order to investigate how the work of ISTA and UPOV might be coordinated in the field of molecular techniques. In response to the invitation of the TC, the TWA agreed to propose Mrs. Laetitia Denecheau (France) as new chairperson of the Crop Subgroup for Oilseed Rape.

103. The TWA considered a number of draft TGP documents according to the program agreed by the TC and commented in particular in relation to TGP/8 Draft 13 “Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability”, TGP/11 Draft 5 “Examining Stability” and TGP/14 Draft 9 “Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents”.

104. In the framework of the revision of TGP/7 “Development of Test Guidelines”, the TWA considered document TGP/7/2 Draft 3 and made proposals concerning Section 1 “Introduction”, with regard to individual authorities’ test guidelines, Annex 2 “Additional Standard Wordings (ASW) for the TG Template” and Annex 3 “Guidance Notes (GN) for the TG Template”.

105. With regard to variety denominations, the TWA endorsed the proposal of the TC that Class 202 in document UPOV/INF/12/1 should be extended to cover *Megathyrsus*, *Panicum*, *Setaria* and *Steinchisma*.

106. The TWA noted the developments concerning electronic application systems reported by a number of members of the Union.

107. The TWA considered document TWA/38/12 in respect of the assessment of uniformity by off-types on the basis of more than one sample or sub-sample and made proposals in order to improve the draft questionnaire presented in that document. It agreed that TWA experts should be invited to complete the questionnaire with information on potato and wheat.

108. The TWA received an initial report from Mr. Edilberto Redona, International Rice Research Institute (IRRI), concerning the development of a set of example varieties for the Test Guidelines for rice for South-East Asia and invited him to present the full results of the project at the thirty-ninth session of the TWA.

109. The TWA considered a proposal for a partial revision of the Test guidelines for Wheat and agreed to schedule a full revision of the test guidelines for Wheat and for Durum Wheat. In that context, the TWA agreed that, in order to minimize the number of revisions required for the Test Guidelines, changes to the states of expression of a single characteristic should be reported according to TGP/5 “Experience and Cooperation in DUS Testing”, Section 10

“Notification of Additional Characteristics”. Such changes could be accumulated and incorporated in a single revision.

110. The TWA noted the decision of the TC to replace the agenda item “publication of variety descriptions” with an item “variety description databases” on the agendas of the TWPs. It noted reports in respect of “Combination of lines or varieties” as well as a report on UPOV information databases.

111. The TWA discussed 11 draft Test Guidelines and agreed to submit to the TC the draft Test Guidelines for Pearl Millet and Sweet Potato. The TWA planned to continue discussions on 11 Test Guidelines in 2010, four of which were revisions and seven of which were new.

112. At the invitation of the experts from Croatia, the TWA agreed to hold its thirty-ninth session in Ossiijek, Croatia, from May 24 to 28, 2010. The TWA proposed to consider the following items at its next session:

- Short reports on developments in plant variety protection from members and observers;
- Reports on developments within UPOV;
- Developments on molecular techniques;
- TGP documents;
- Variety denominations
- Information databases
- Uniformity assessment
- Example varieties
- Development of regional sets of example varieties for the Test Guidelines for Rice;
- Proposals for partial revisions/corrections of Test guidelines (if appropriate)
- Discussion on draft Test Guidelines;
- Recommendations on draft Test Guidelines;
- Date and place of the next session; and
- Future program.

113. On the afternoon of September 3, the TWA visited the Variety Testing Division, Korea Seed & Variety Service (KSVS). Later the TWA visited the National Agrobiodiversity Center, National Academy of Agricultural Science, Rural Development Administration and finally the TWA visited the National Institute of Crop Science.

#### Technical Working Party on Automation and Computer Programs (TWC)

114. The Technical Working Party on Automation and Computer Programs (TWC) held its twenty-seventh session in Alexandria, Virginia, United States of America, from June 16 to 19, 2009, under the chairmanship of Mr. Gerie van der Heijden (the Netherlands), Chairman of the TWC.

115. The TWC session was attended by 31 participants from 16 members of the Union and two observer organizations. The preparatory workshop was held during the afternoon of Monday, June 15 and was attended by 12 participants.

116. The TWC was welcomed by Mr. John Doll, Acting Undersecretary of Commerce for Intellectual Property and Acting Director of the United States Patent and Trademark Office (USPTO).

117. Presentations on plant variety protection in the United States of America were made by Mrs. Anne Marie Grünberg, Supervisory Patent Examiner, USPTO and Mr. Paul M. Zankowski, Commissioner, Plant Variety Protection Office, United States Department of Agriculture (USDA).

118. The TWC received a report from the Office of the Union on developments in UPOV regarding the use of molecular techniques. Several participants considered that the TWC could provide assistance to the BMT in the development of statistical tools as well as databases of molecular markers and encouraged cooperation between the TWC and BMT.

119. Discussion and revision of document TGP 8/1 draft 13 took a considerable part of the meeting. A number of issues arose concerning the content of TGP/8. In particular:

(a) substantial parts of a previous draft of document TGP/8/1 had been removed from document TGP/8/1 draft 13 and were presented in TWC/27/11. Those parts had been removed to allow faster adoption of TGP/8/1;

(b) in TGP/8/1 draft 13 the Match Method had been re-drafted to be more in line with the description of the other methods;

(c) a flow diagram had been added to help experts in understanding which methods are useful in particular situations;

(d) the Chi-square method for the analysis of contingency tables had been re-drafted; and

(e) numerous corrections and changes to the text had been made;

120. The TWC agreed that TGP/8/1 could be submitted to the TC and discussed document TWC/27/11, consisting of text taken out of previous drafts of TGP/8/1. The TWC agreed to consider TWC/27/11 as the basis for inclusion in future revisions of TGP/8.

121. Documents TGP/7/2, TGP/11/1, and TGP/14/1 were also discussed.

122. In document UPOV/INF/Software<sup>1</sup> Draft 2, information on the existence and availability of exchangeable software was presented. The document included DUSTNT and GAIA and would be reviewed annually by the TWC.

123. In document TWC/27/9, the various modules in DUSTNT were presented and information was provided to distinguish between the modules for implementing COY and the other modules included in the DUSTNT. The TWC considered that the document provided a good basis for an introduction to the DUSTNT software.

124. The TWC received a report on datalogger software SIRIUS from France in document TWC/27/17. The expert from Germany reported that the SIRIUS system had been tested in Germany with positive results. The TWC agreed to propose the inclusion of the SIRIUS system for data capture in document UPOV/INF/Software under the section “(e) Data recording and transfer”.

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<sup>1</sup> See document UPOV/INF/18/1 “Exchangeable software”.

125. The TWC noted that the Community Plant Variety Office of the European Union (CPVO) had developed software for assessing similarity of variety denominations. The software would be presented at the twenty-eighth session of the TWC with a view to possible inclusion of the software in document UPOV/INF/Software.

126. The TWC noted that the CAJ had agreed that there should be a further review of the fields of UPOV-ROM. The TWC agreed to propose to the TC and the CAJ to invite the TWC to conduct an analysis of the fields in the UPOV-ROM.

127. The TWC received a presentation on the development of a system for electronic applications from Japan and Brazil, as well as a presentation on the development of an online application system by the CPVO. The TWC encouraged inclusion of exchangeable software for on-line application systems in document UPOV/INF/software, Section (b) "On-line application systems".

128. The TWC discussed a study on potential approaches to account for the bias found in the current COYU method. It compared linear regression and smoothing splines as alternatives to moving averages. Further research was considered important to evaluate the range of circumstances that needed to be accommodated. Bennet's test was also presented as an alternative to the COYU method.

129. The use of grouping with COYD was demonstrated for both cross-pollinated (tall fescue) and self-pollinated (pea) species. The method would be implemented in the DUSTNT software and a new paper presented at the twenty-eighth session of the TWC.

130. Statistical methods for visually observed characteristics were presented in document TWC/27/14. The TWC agreed that it would be useful to provide an overview of possible characteristics and crops where the methods might be appropriate.

131. The expert from Germany provided the participants with a CD containing the latest database of TWC working documents.

132. At the invitation of the European Union, the TWC agreed to hold its twenty-eighth session in Angers, France, from June 29 to July 2, 2010, with a preparatory workshop on June 28.

133. At its twenty-eighth session, the TWC planned to discuss TGP documents, molecular techniques, UPOV information databases, exchangeable software, similarity of variety denominations, on-line application systems, dataloggers, uniformity by off-types, alternatives and improvements of COYU, grouping with COYD, statistical methods for visually observed characteristics and an update of the TWC documents database.

#### Technical Working Party for Fruit Crops (TWF)

134. The TWF held its fortieth session in Angers, France, from September 21 to 25, 2009, with a preparatory workshop on the afternoon of September 20. The session was chaired by Mrs. Bronislava Bátorová (Slovakia), Chairperson of the TWF.

135. The TWF was welcomed by Mrs. Sylvie Dutartre, Directrice of the *Groupe d'Étude et de contrôle des Variétés et des Semences* (GEVES), Mr. Jean-François Thibault, President of

the *Institut National de la Recherche Agronomique* (INRA), and Mr. Laurent Peron, *Administrateur* of Vegepolys. The TWF received presentations on INRA by Mr. Jean-François Thibault (INRA) and on Vegepolys, by Mr. Laurent Peron.

136. The session was attended by 44 participants, from 15 members of the Union and two observer organizations, including two invited fruit breeding experts. The preparatory workshop, held during the afternoon of Sunday, September 20, was attended by 9 participants.

137. The TWF received oral reports from participants on developments in plant variety protection and from the Office of the Union on the latest developments within UPOV.

138. The TWF noted the report of developments in document TWF/39/2, concerning molecular techniques.

139. The TWF discussed a number of draft TGP documents.

140. The TWF made no comments on documents TGP/8/1 Draft 13 and TWF/40/10.

141. The TWF noted the developments concerning document TGP/11/1 Draft 5, as set out in document TWF/40/3. Mr. Sergio Semon (European Union), drafter of document TGP/11, reported that he had already discussed the examination of stability with an expert from Australia at the Technical Working Party for Vegetables (TWV) and would also take the opportunity to discuss the matter with the expert from Australia attending the TWF session. He invited other experts to provide practical examples of how stability was examined for vegetatively propagated varieties. It was recalled that an expert from the United Kingdom had previously offered to provide examples.

142. Concerning document Glossary of [Technical, Botanical and Statistical] Terms Used in UPOV Documents, the TWF considered documents TWF/40/3, TWF/40/3 Add.Rev., TWF/40/3 Add.2, TGP/14/1 Draft 9, TGP/14/1 Draft 9 Supp. and TWF/40/11. The TWF noted the conclusions of the TWO on the “Exercise on Color”, as set out in document TWF/40/3 Add.2, and noted that those conclusions would be incorporated in a new document that would be drafted in the form of a section to be introduced in document TGP/14, which would be presented to all Technical Working Parties in 2010.

143. The TWF considered documents TGP/7/2 Draft 3 and TWF/40/14, and the report on developments in the TC, CAJ and TWPs concerning document TGP/7/2 Draft 3 in document TWF/40/3. With regard to document TWF/40/14 “Guidance for Applicants on Providing Suitable Photographs of the Candidate Variety as an Accompaniment to the Technical Questionnaire”, the TWF agreed with the conclusions of the TWO, as reported by the Technical Director, that “the document provided a good basis to develop Additional Standard Wording (ASW) for inclusion in a future revision of document TGP/7, but agreed that the text was too prescriptive and would need to be edited to be more suitable for applicants completing the Technical Questionnaire. In addition, it was agreed that it would be useful to explain that the photograph(s), if provided in an appropriate format, ‘may help the examination authority to conduct its examination of distinctness in a more efficient way’”. The TWF also agreed that the text should be of a suitable length for applicants, although it should be explained that it would be possible for authorities to make the full explanation available by means of a link, rather than including all the text in the Technical Questionnaire.

144. The TWF considered document TWF/40/11 “Document TGP/14: Sections for Separate Development” and agreed to consider including an indication of grouping characteristics in the Table of Characteristics, whilst avoiding any confusion with the use of the letter “G” as used in document TGP/5: Section 6 “UPOV Report on Technical Examination and UPOV Variety Description”, Annex, Item 14.

145. The TWF discussed the Drafts Test Guidelines for Almond (revision), Acerola, Actinidia (revision), Banana (*Musa L.*) (revision), Cacao (*Theobroma cacao L.*), Dragon-fruit (*Hylocereus undatus* (Haw.) Britton et Rose), Gooseberry (revision), Japanese Plum (revision), Olive (revision), Papaya, Pecan nut, Red and White Currant (revision), Fig and Peach.

146. The TWF considered a proposal for a partial revision of the Test Guidelines for Mandarin (Citrus Group 1) on the basis of document TWF/40/15 and a presentation provided by Mr. Guillermo Soler Fayos to the subgroup of interested experts.

147. The TWF received the final report on the possible development of a regional set of example varieties for North and East Asia for the Test Guidelines for Strawberry from Mr. Kiyofumi Nakamura (Japan). Mr. Nakamura confirmed the conclusion, reported at the thirty-ninth session of the TWF, that it would not be possible to develop a regional set of example varieties for the time being.

148. The TWF received a presentation from Mr. Nik Hulse (Australia) on experiences with new types and species in Australia.

149. The TWF considered documents TWF/40/4 “UPOV Information Databases”, TWF/40/5 “Variety Denominations” and TWF/40/6 “Variety description databases”.

150. The TWF noted the report on discussions concerning combinations of lines or varieties, as set out in document TWF/40/7.

151. Regarding the exchangeable software the TWF welcomed the proposal presented in documents TWF/40/8 and UPOV/INF/Software Draft 2.

152. The TWF noted the developments reported in document TWF/40/9, concerning proposals under consideration in the context of electronic application systems.

153. The TWF considered document TWF/40/12 “Assessing uniformity by off-types on the basis of more than one sample or sub-samples” and agreed that TWF experts should be invited to supply information on apple by means of the questionnaire.

154. The TWF noted the report on method of calculation of COYU provided in document TWF/40/16.

155. The TWF received a presentation of the latest version of the “Practical guide for drafters (Leading Experts) of UPOV Test Guidelines”, and noted that the guide would be attached to the e-mail reminder sent to Leading Experts. The TWF agreed that a similar presentation should be made at each session, if time allowed.

156. The TWF agreed to submit to the TC for adoption the draft Test Guidelines for Banana, Fig, Papaya, Peach and Mandarins.

157. The TWF planned to continue discussions on Test Guidelines for a total of 12 species: 9 of them at “possible final” draft stage. The TWF agreed that it should start to establish or revise Test Guidelines for one species at its forty-first session.

158. At the invitation of the expert from Mexico, the TWF agreed to hold its forty-first session in Cuernavaca, Morelos State, Mexico, from September 27 to October 1, 2010, with preparatory workshop on September 26. During its fortieth session, the TWF planned to discuss or re-discuss the following items: Short reports on developments in plant variety protection from members and observers; as well as within UPOV; Developments on molecular techniques; TGP documents; Variety denominations; Information and databases; Uniformity assessment; Experiences with new types and species; Proposals for Partial Revisions of Test Guidelines; Matters to be resolved concerning Test Guidelines adopted by the Technical Committee; Discussions and Recommendations on draft Test Guidelines and Guidance for drafters of Test Guidelines.

#### Technical Working Party for Ornamental Plants and Forest Trees (TWO)

159. The Technical Working Party for Ornamental Plants and Forest Trees (TWO) held its forty-second session in Angers, France, from September 14 to 18, 2009 and was chaired by Ms. Andrea Menne (Germany), Chairperson of the TWO. The report of the TWO is reproduced in document TWO 42/18.

160. The TWO was attended by 44 participants, from 17 members of the Union and 1 observer organization. The TWO noted that the preparatory workshop was held during the afternoon of September 13 and had been attended by 26 participants.

161. The TWO was welcomed by Mr. Bart Kiewiet, President of the Community Plant Variety Office of the European Union (CPVO). He provided information on the CPVO and the PVP system in the European Union. The TWO also received short oral reports on developments in variety protection from participants and from the Office of the Union on the latest developments within UPOV.

162. A number of draft TGP documents were discussed. The TWO made recommendations on TGP/8 Draft 13 and on TGP/14/1 Draft 9.

163. The TWO also considered and commented on the revision of TGP/7, “Development of Test Guidelines”. It agreed that the method of observation should be included in the TG Template. An explanation should be added that visual observation or measurement would be appropriate according to the particular circumstances.

164. The TWO discussed document TWO/42/16 “Guidance for Applicants on Providing Suitable Photographs of the Candidate Variety as an Accompaniment to the Technical Questionnaire”. It agreed that the European Union, in collaboration with experts from Australia, Canada, Germany, New Zealand and the United Kingdom should draft a new text in form of an Additional Standard Wording (ASW) for consideration by the Technical Working Parties at their sessions in 2010.

165. The TWO had a special interest in document TWO/42/13 “Exercise on Color”. It had a detailed discussion about the results of the exercise and agreed that the conclusions of the

discussion should be incorporated in a revision of document TWO/42/11, which should be drafted in the form of a section to be introduced in document TGP/14.

166. The TWO received a presentation from Mr. Nik Hulse (Australia), on experiences with new types and species. It agreed that members of the Union should be encouraged to indicate practical experience for a new type or species at an early stage, because it would be helpful for other members of the Union to have an indication that another member of the Union had already started work.

167. The TWO noted the developments reported in document TWO/42/4 “UPOV Information Databases” on UPOV information databases. It noted the report on developments in document TWO/42/5 “Variety Denomination”.

168. The TWO considered document TWO/42/12 and agreed that it would not be relevant to request information on assessing uniformity by off-types on the basis of more than one sample or sub-samples for ornamental plants or forest trees.

169. With regard to the Test Guidelines for Cassava and the Test Guidelines for Rosemary being developed by the Technical Working Party for Agricultural Crops (TWA) and/or by the Technical Working Party for Vegetables (TWV), the TWO proposed that the following sentence should be provided in Chapter 1 of the Test Guidelines: “In the case of ornamental varieties, it may, in particular, be necessary to use additional characteristics to those included in the Table of Characteristics in order to examine Distinctness, Uniformity and Stability.” On that basis, the TWO agreed that it would not be necessary for the TWO to consider the draft Test Guidelines currently under development.

170. The TWO agreed the proposal for a partial revision or correction for the following adopted Test Guidelines: Chrysanthemum (document TG/26/5 Corr.), Osteospermum (TG/176/4 Corr.) and Rose (document TG/11/8).

171. The TWO agreed to submit six test guidelines to the TC. Of those: two were revisions of existing guidelines, for Lily and Hydrangea; and four were new guidelines, for Buddlea, *Gaura* L., Gypsophila and Vriesea. At the forty-third session the TWO planned to discuss 22 Test Guidelines, consisting of three revisions and 19 new Test Guidelines.

172. At the invitation of the expert from Mexico, the TWO agreed to hold its forty-third session in Cuernavaca, Morelos State, Mexico, from September 20 to 24, 2010, with the preparatory workshop to be held on September 19. During the forty-third session, the TWO planned to discuss or re-discuss the following items: short reports on developments in plant variety protection from members, observers and within UPOV; molecular techniques; TGP documents, UPOV information databases, experiences with new types and species and discussion of and recommendations for draft test guidelines.

#### Technical Working Party for Vegetables (TWV)

173. The Technical Working Party for Vegetables (TWV) held its forty-third session in Beijing, China, from April 20 to 24 2009, with a preparatory workshop held on April 19. The session was chaired by Ms. Radmila Šafaříková (Czech Republic), Chairperson of the TWV. The full report of the meeting is available in document TWV/43/17.

174. The session was attended by 44 participants from 17 members of the Union and one observer organization. The preparatory workshop was attended by 17 participants.

175. During the session, draft of documents TGP/8 “Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability”, with associated document TWV/43/11, TGP/11 “Examination of Stability”, TGP/14 “Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents”, with associated document TWV/43/12, were discussed. In addition, the revision of TGP/7 “Development of Test Guidelines” was also discussed.

176. With regard to those documents, the TWV proposals included the following:

- to develop a new section in TGP/8 to provide guidance on the predictability and consistency of segregation and characteristics examined in bulk sample (document TWV/43/11);
- in document TGP/14, to introduce the possibility to provide a different definition for the terms “base” and “apex” and retain the states “small” and “large” for ratio, but to add a clarification in brackets;
- to develop guidance on quantity of plant material to be provide for Test Guidelines in document TGP/7;
- in document TGP/7, to add the possibility to indicate that the variety is a parent line, with a reference to document TGP/5 “Experience and Cooperation in DUS Testing”, Section 11/1 “Examples of Policies and Contracts for Material Submitted by the Breeder”, which explains in paragraph 1.1 that “[...] in the particular case of parent lines submitted as a part of the examination of a candidate hybrid variety, living plant material should only be made available to other variety collectors in such a way that the legitimate interests of the breeder would be safeguarded.”

177. The TWV considered document TWV/43/14 “Assessing Uniformity by Off-Types on the Basis of More Than One Sample or Sub-Samples” and agreed that the questionnaire should provide a further example to illustrate options where uniformity was assessed in a plant sample of 40 plants in each of two independent growing cycles, in two separate plantings. In the first option, the uniformity would be assessed in 80 plants over the two growing cycles. In the second option, the uniformity would be assessed in 40 plants in each of the two years, with a decision rule that failure in one year would lead to a third year of examination., with the final decision being based on two years out of three.

178. The TWV received an oral report from the Netherlands on its plans to prepare a document on applications for varieties with low germination, focused on parent lines, for consideration by the TWV at its forty-fourth session. The TWV agreed that proposals should be developed on the basis of that document for consideration by the other TWPs and the TC, as considered appropriate by the TC, with a view to their possible incorporation in a future revision of document TGP/7.

179. An expert from the Netherlands reported that the Netherlands intended to publish its variety descriptions on its website. The TWV agreed that consideration should be given to how a link to that information could be provided on the UPOV website. In response to a question from the International Seed Federation (ISF), the expert from the Netherlands explained that particular consideration would be given to the publication of variety

descriptions of parent lines. It was explained that descriptions of parent lines only submitted as a part of an application for a hybrid variety would not be published.

180. The TWV discussed seven test guidelines during its forty-third session. The TWV agreed to put forward for adoption by the TC three revised test guidelines (Asparagus, Black Salsify, Lettuce) and three new test guidelines (Agaricus, Dock and Sweet Potato)

181. The TWV agreed to discuss a total of 14 test guidelines at its forty-fourth session; of which, 10 were final drafts of revisions or partial revisions (French bean, Globe Artichoke, Lettuce, Onion, Pea, Radish, Rosemary, Spinach, Tomato and Watermelon), one was a second draft (Shiitake) and 3 were first drafts (Echinacea, Lycopersicon and Pleurotus).

182. At the invitation of the expert from Bulgaria, the TWV agreed to hold its forty-fourth session in Veliko Tarnovo, Bulgaria, from July 5 to 9, 2010, with a preparatory workshop on July 4.

183. During the forty-fourth session, the TWV planned to discuss: Short reports on developments in plant variety protection; molecular techniques; TGP documents; variety denominations; UPOV information databases; variety description databases; exchangeable software; electronic application systems; applications for varieties with low germination; nomenclature of pathogens; guidance on the quantity of plant material to be provided for test guidelines; a review of grouping, Technical Questionnaire and asterisked characteristics in the Test Guidelines for Pea; proposals for partial revisions / corrections of Test Guidelines; matters to be resolved concerning Test Guidelines adopted by the Technical Committee; discussion and recommendations on draft Test Guidelines; the date and place of the next session; the future program; and the report on the conclusions of the session.

184. On Thursday, April 23, 2009, the TWV was invited to participate in the ceremony to celebrate the 10<sup>th</sup> anniversary of the UPOV membership of China.

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

185. No session of the BMT was held between the forty-fifth and forty-sixth sessions of the TC.

*186. The Council is invited:*

*(a) to note the work of the TC and that of the TWVs and BMT reported to the TC, as provided in this document; and*

*(b) to approve the work program of the TC and the work programs of the TWVs and BMT reported to the TC, as provided in this document.*

[End of document]