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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**

Document 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
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:	Examination of 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-third session in Geneva from March 26 to 28, 2007.

Participation

4. The meeting was attended by 91 participants from 44 members of the Union, 3 observer States and 5 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-third and fifty-fourth sessions of the Administrative and Legal Committee (CAJ), the seventy-first and the seventy-second sessions of the Consultative Committee and the twenty-third extraordinary session and the fortieth ordinary session of the Council.

Progress Reports on the Work of the Technical Working Parties, Including the Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular

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), the Technical Working Party for Vegetables (TWV) and the Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular (BMT).

Matters Arising from the Technical Working Parties

7. The TC considered document TC/43/3.

Drafting Test Guidelines

8. The TC noted the plans for the Office of the Union (the Office) to improve the user-friendliness of the electronic template for drafters of Test Guidelines, as set out in document TC/43/3, paragraph 11. The TC also agreed with the proposal of the Office to develop two versions of the electronic template: Version 1, with no Additional Standard Wording (ASW); and Version 2, with all ASW included and with the proposal of the Office to develop a practical guide for drafters of Test Guidelines.

Development of COY

9. The TC agreed to the TWC proposal that new versions of documents TWC/24/10 “Influence of number of plants per plot on the assessment of uniformity and distinctness for quantitative characteristics in rape seed and yellow mustard” and document TWC/24/12 “The

possibility of reducing the number of assessed plants for quantitative characteristics for reference varieties”, be presented to all Technical Working Parties (TWPs) at their sessions in 2007.

Exchangeable Software and TWC Documents

10. The TC noted the TWC proposal for a prototype of a database to search for TWC documents to be presented to other TWPs for comments. However, the TC agreed that the TWC should be invited to note the concerns expressed at the TC, in particular the need for care with regard to the use of TWP session documents, which it was noted did not represent an agreed UPOV position and did not contain comments made on those documents by the relevant UPOV bodies. The Technical Director noted that the introduction of a new database would imply additional resources from the Office and he wondered if there would be concrete benefits to justify the diversion of resources from other UPOV activities.

TGP documents

11. The TC discussed the development of the TGP documents on the basis of document TC/43/5.

(a) *TGP documents to which the Technical Committee has given highest priority*

TGP/4: Constitution and Management of Variety Collections

12. The TC agreed on amendments to document TGP/4/1 Draft 9 (see document TC/43/12 Report on the Conclusions, paragraph 11). The TC agreed that document TGP/4/1 Draft 9, as amended, should be the basis for adoption of document TGP/4/1 by the Council, as set out in document TC/43/5, paragraph 8.

TGP/9: Examining Distinctness

13. The TC agreed on amendments to document TGP/9/1 Draft 9 (see document TC/43/12 Report on the Conclusions, paragraph 13). The TC agreed that document TGP/9/1 Draft 9, as amended, should be the basis for adoption of document TGP/9/1 by the Council, as set out in document TC/43/5, paragraph 11.

TGP/10: Examining Uniformity

14. The TC agreed on amendments to document TGP/10/1 Draft 6 (see document TC/43/12 Report on the Conclusions, paragraph 15). The TC agreed that a new draft of TGP/10 should be considered by the TWPs at their sessions in 2007.

(b) *Revision of TGP documents*

TGP/5: Experience and Cooperation in DUS Testing (Examination of Distinctness, Uniformity and Stability)

15. The TC agreed on amendments to Sections 1 to 7 of document TGP/5 (see document TC/43/12 Report on the Conclusions, paragraph 17).

16. The TC thanked the International Seed Federation (ISF) for its presentation on a proposal for the development of an electronic application form and technical questionnaire and noted that a copy of the presentation would be posted on the ISF website (www.worldseed.org). The TC noted that any developments should take into account the initiatives by a number of the members of the Union to develop on-line application facilities. The Vice Secretary-General welcomed the initiative of ISF and looked forward to investigating ways in which this matter could be taken forward in the most appropriate and beneficial way, within UPOV's resources. In that respect, the Vice Secretary-General informed the TC that, at its fifty-fifth session, to be held in Geneva on March 29, 2007, the CAJ would be considering the possibility to invite ISF to make a similar presentation to the CAJ in October 2007.

17. With regard to TGP/5 Section 10/1 "Notification of Additional Characteristics", the TC noted that no additional characteristics had been notified to the Office of the Union, but considered that the system was very useful and agreed to retain Section 10 in document TGP/5.

18. The TC noted the invitation in document TC/43/5, paragraph 31, for members of the Union to provide examples of contracts / agreements between authorities and breeders for inclusion in a new section of TGP/5. The Delegation of the European Community indicated that it had agreements on the transfer of material between authorities, which it would be willing to provide, if those agreements were considered to be relevant. A representative of ISF offered to provide examples of contracts/agreements between breeders and authorities if that information could be included in TGP/5. The Office observed that such examples should have the consent of the relevant authorities. ISF acknowledged that requirement and noted that the consent of the breeders would also be required in the case of an example agreement concerning a particular breeder.

TGP/7: Development of Test Guidelines

19. The TC noted the proposals previously made with regard to the revision of document TGP/7/1, as set out in Annex I to document TC/43/5.

20. The Chairperson recalled that, during its discussions on the drafts of document TGP/7, the TC had agreed that a new section should be developed to provide guidance on the development of individual authority Test Guidelines from UPOV Test Guidelines.

21. With regard to Technical Questionnaire characteristics which did not have an asterisk in the Table of Characteristics, as set out in document TC/43/5, paragraph 35, the TC agreed that where information on such characteristics was to be requested in the Technical Questionnaire, that information should be requested in Section 7 of the Technical Questionnaire (Additional information which may help in the examination of the variety), rather than in Section 5

(Characteristics of the variety to be indicated). In that respect, it noted that the information in Section 7 was provided at the discretion of the breeder/applicant. The TC agreed that that approach should be applied to the draft Test Guidelines for Spinach, document TG/55/7(proj.3), characteristics 18 (Resistance to *Peronospora farinosa* f. *spinaciae*) and 19 (Resistance to Cucumber mosaic virus (CMV)) and should also be considered in respect of the revision of TGP/7.

22. In addition, the TC agreed that the following matters should also be considered in the revision of TGP/7:

- (a) elaboration of the two uses of the grouping characteristics, i.e.

TGP/7/1, Annex I: TG Template: Chapter 5.2

“(a) to select, either individually or in combination with other such characteristics, varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness”; and

“(b) to organize the growing trial so that similar varieties are grouped together”.

[underlining added for emphasis];

and to consider indicating in Chapter 5.3 of the Test Guidelines for which of those purposes the grouping characteristics were intended;

(b) the development of a simple, generalized growth stage key for use in Test Guidelines covering crops and species for which a suitable growth stage key had not been published; and

(c) in relation to the indications used in UPOV Test Guidelines for the method of observation and the type of record for the examination of distinctness (VG, VS, MG, MS), to consider revising document TGP/7/1 in line with the text adopted in document TGP/9/1 (see document TGP/9/1 Draft 9, Section 4.4).

23. In relation to Section 6 “Combining observations for all characteristics” in document TGP/10, the TC agreed that it would be necessary to consider the possible inclusion of that matter in the revision of document TGP/7/1 at its next session, when the development of that section of document TGP/10 would be more advanced.

- (c) *Other TGP documents*

TGP/8: Use of Statistical Procedures in DUS Testing

24. The TC considered the proposed structure and content of document TGP/8, as set out in document TC/43/5, Annex II, and agreed in Part II to add a new section for multiple range tests, subject to models and assumptions being provided to the TWC for consideration.

TGP/12: Special Characteristics

25. The TC did not consider document TGP/12/1 Draft 1 in detail, but agreed for Section 2 to add an explanation (as found in Section 3) that “UPOV has also considered the possibility of using gene-specific molecular markers as a predictor of traditional characteristics in order to avoid the need for examination in a growing trial of characteristics which may be difficult and/or expensive to observe in a growing trial. The situation in UPOV concerning the use of such an approach, known as an ‘Option 1(a)’ approach, is set out in documents TC/38/14 -CAJ/45/5 and TC/38/14 Add.-CAJ/45/5 Add.. Those documents clarify that a number of assumptions would need to be checked before the use of such an approach, including the need to establish that there was a reliable linkage between any gene-specific marker and the expression of the disease resistance concerned [and that different genes lead to different genotypic expressions]”.

TGP/13: Guidance for New Types and Species

26. The TC did not consider document TGP/13/1 Draft 8 in detail and made no proposals concerning the text.

TGP/14: Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents

27. The TC considered the proposed structure and content of document TGP/14, as set out in document TC/43/5, Annex III and agreed to review the title of the section if the content extends beyond technical terms, as was the case in the terms currently included.

(d) Program for the development of TGP documents

28. The TC agreed the program for the development of TGP documents as set out in document TC/43/5, Annex IV.

UPOV information databases

GENIE database

29. The TC noted the plans to launch the GENIE database on the freely accessible area of the UPOV website, as reported to the TC at its forty-third session.

UPOV Code System

30. The TC considered document TC/43/6.

31. The TC agreed to the amendment to Section 3.3 (d) of the Annex to document TC/43/6, as set out in paragraph 7 of that document. It also agreed with respect to the Annex to document TC/43/6, that “Triticale” should be amended to read “×*Triticosecale*” in Section 2.2.2 and that “draft” should be amended to “create” in Section 3.3 (a).

32. The TC requested the TWPs to consider the possibility of allowing flexibility in the species element of the UPOV code in order to cover a classification into, for example, subgenera and/or sections, between the genus and species level of classification, taking into account the example in document TC/43/6, paragraphs 8 and the grouping classification for *Brassica* and *Beta*, set out in document TC/43/6, Annex, Section 2.3.

33. The TC noted the plans for the checking of UPOV codes by the TWPs, as set out in document TC/43/6, paragraph 10.

34. The TC agreed to the posting of the Annex to document TC/43/6 on the freely accessible area of the UPOV website as set out in document TC/43/6, paragraph 11, subject to the amendments agreed by the TC at its forty-third session.

UPOV-ROM Plant Variety Database (UPOV-ROM)

35. The TC noted the plans concerning the Plant Variety Database as set out in document TC/43/6. The TC heard that, with regard to the inclusion of UPOV codes in the data submitted for the UPOV-ROM, around 64% of the entries contained in the UPOV-ROM had been supplied with UPOV codes. Almost all of the data provided to UPOV via the Community Plant Variety Office (CPVO) had been UPOV coded, in particular the data from the European Community, most of the member States of the European Community, Norway and Switzerland. In addition, Canada, the Russian Federation and South Africa were already providing UPOV codes for all their entries.

36. The representative of the OECD explained the interest of the OECD in the UPOV-ROM Plant Variety Database and invited the UPOV Office to make a presentation on the UPOV-ROM and the GENIE database at the annual meeting of the OECD Seed Schemes in July 2007.

Molecular techniques (documents TC/43/7 and BMT Guidelines (proj.8))

37. The TC considered document TC/43/7.

Guidelines for Molecular Marker Selection and Database Construction (BMT Guidelines)

38. The TC agreed the following amendments to document BMT Guidelines (proj.8):

<i>Section</i>	<i>Comment</i>
6.3.1 (c)	to change “locus” to “allele”, subject to confirmation by Mr. Sylvain Grégoire (France), the drafter of that section.

39. The TC agreed that, subject to the amendment above, document BMT Guidelines (proj.8) should be put forward for adoption by the Council at its forty-first ordinary session, to be held in Geneva on October 25, 2007;

40. The TC agreed that relevant experts be invited to make a presentation concerning ISO and Codex guidelines, in relation to quality criteria in molecular techniques, at the eleventh session of the BMT.

41. With regard to a practical exercise in the development of an exchangeable database, as set out in document TC/43/7, paragraphs 6 and 7, the TC agreed that the BMT Crop Subgroups for Rose, for Potato and for Oilseed Rape should be invited to consider how to take that matter forward. With respect to the terms of reference for such an exercise, the TC agreed that the exercise should consider both the quality and structure of the data.

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

42. The TC noted the conclusion of the Consultative Committee that the role of the BMT enabled it to provide a forum for discussion on the use of biochemical and molecular techniques in the consideration of variety identification without a need for a change to the existing terms of reference and also noted that an overview of the UPOV bodies involved in the consideration of biochemical and molecular techniques has been provided on the first restricted area of the UPOV website. The TC noted the importance of the BMT Crop Subgroups as a forum for DUS experts and molecular specialists to consider matters at a crop specific level. The TC noted the importance of the TWPs in the consideration of biochemical and molecular techniques and the contact between other UPOV bodies dealing with those matters. It noted the importance of communication between the TWPs, BMT, TC, CAJ and the Council within the existing UPOV structure.

43. The Chairperson noted that there was a mistake in the French version of document TC/43/7, where the word "caractérisation" should be replaced by "identification" in the title and in paragraphs 9, 10, 12 and 16.

Proposals Concerning the BMT and the Ad Hoc Crop Subgroups on Molecular Techniques (Crop Subgroups)

44. The TC noted the intention to provide information at the forty-first session of the TWV on work in relation to the use of molecular markers, in particular in relation to disease resistance. The Delegation of Spain noted, with respect to document TC/43/7, paragraph 18, that the experts from Spain would provide information on both pepper and tomato at the forty-first session of the TWV.

45. The TC agreed that specific sessions should be organized at the BMT for vegetatively propagated, self-pollinated and cross-pollinated crops and, on that basis, agreed to discontinue the Vegetatively Propagated Crop Subgroup. The TC noted the intention, at the eleventh session of the BMT, to dedicate a specific day to the items concerning "The use of molecular techniques in the consideration of essential derivation" and "The use of molecular techniques in variety identification".

46. The TC noted the support of the TWA for the work of the Crop Subgroups and noted that the TWA would be invited to propose a new Chairperson for the Crop Subgroup for Wheat and Barley at its thirty-sixth session. The TC noted the planned program for meetings of the Crop Subgroups for Potato, Rose and Maize.

47. The TC 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.

Variety denominations

48. The TC noted the developments reported in document TC/43/8.

Publication of variety descriptions

49. The TC considered document TC/43/9.

50. The TC noted the report on developments in the *Ad hoc* Working Group on the Publication of Variety Descriptions (WG-PVD), CAJ and TWPs, as presented in document TC/43/9 and the list of criteria for the use of descriptions obtained from different locations and sources, as set out in the Annex to document TC/43/9 and agreed to the amendments proposed in paragraphs 17 and 18 of document TC/43/9.

51. The TC noted that the work in the TWV would be reported at the forty-fourth session of the TC and agreed that no further meeting of the WG-PVD should be arranged unless or until specific proposals were developed for the consideration of the WG-PVD by the TC or by a TWP.

Preparatory workshops

52. The TC noted the report of the preparatory workshops held in 2006 and the proposals for the proposed program for 2007 as set out in document TC/43/10.

53. The TC noted that there would be a full day event held in conjunction with the thirty-eighth session of the TWF, to be held in Jeju, Republic of Korea, from July 9 to 13, 2007, comprising a preparatory workshop for the TWF session and a technical workshop on the examination of Distinctness, Uniformity and Stability ("DUS"). The technical workshop would take the form of presentations by experts from the members of the Union on their procedures for DUS testing of fruit varieties.

54. The Delegations of Kenya, Republic of Korea and Romania invited the TC participants to take part in the preparatory workshops for the sessions of the TWV, the TWF and the TWC, respectively and the associated activities to those preparatory workshops.

Applications covering a combination of lines

55. The TC considered document TC/43/11.

56. The TC agreed that examples of specific cases concerning a single application for a plant breeder's right for a combination of different lines should be raised with the relevant TWP, where appropriate in relation to the relevant Test Guidelines. Given the importance of the matter, which related to the definition of variety in the 1991 Act of the UPOV Convention, the TC agreed that it should be clarified that the TWPs should investigate the

specific cases from a technical perspective in order to facilitate consideration of the principles by the TC and the CAJ.

Test Guidelines

57. The TC considered document TC/43/2.

58. With regard to Annex I of document TC/43/2, the TC heard that following the TWV session there had been a further consultation by correspondence within the TWV concerning characteristic 26 (Earliness) of the draft Test Guidelines for Cauliflower (see document TG/45/7(proj.3)). As a result of that consultation, the Leading Expert in conjunction with the Chairman of the TWV agreed that the revised Test Guidelines for Cauliflower should be discussed again by the TWV at its forty-first session, in 2007, in order to resolve that characteristic. The TC also noted that the relevant reference of the Test Guidelines for Sutera and Jamesbrittania to be considered by the TC for adoption was TG/SUTERA (proj.4 Rev.).

59. 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/43/12 Report on the Conclusions, which was circulated in advance, and the linguistic changes recommended by the Enlarged Editorial Committee (TC-EDC):

Document No. N ^o . du document Dokument-Nr. No del documento	English	Français	Deutsch	Español	Botanical name Nom botanique Botanischer Name Nombre botánico
TG/18/5(proj.4)	Elatior Begonia, Winter-flowering begonia	Bégonia elatior	Elatior-Begonie	Begonia elatior	Begonia ×hiemalis Fotsch, Begonia ×elatior hort.
TG/49/8(proj.3)	Carrot	Carotte	Möhre	Zanahoria	Daucus carota L.
TG/55/7(proj.3)	Spinach	Épinard	Spinat	Espinaca	Spinacia oleracea L.
TG/61/7(proj.4)	Cucumber, Gherkin	Concombre, Cornichon	Gurken	Pepino, Pepinillo	Cucumis sativus L.
TG/70/4 Rev.(proj.2)	Apricot	Abricotier	Aprikose, Marille	Albaricoquero, Chabacano, Damasco	Prunus armeniaca L., Armeniaca vulgaris Lam.
TG/137/4(proj.4)	Blueberry	Myrtille	Kulturheidelbeere	Arándano	Vaccinium angustifolium Aiton; V. corymbosum L.; V. formosum Andrews; V. myrtilloides Michx.; V. myrtillus L.; V. virgatum Aiton; V. simulatum Small
TG/140/4(proj.4)	Pot Azalea	Azalée en pot	Topfazalee	Azalea	Rhododendron simsii Planch.
TG/155/4(proj.3)	Pumpkin	Giraumon, Potiron	Riesenkürbis	Calabaza, Zapallo	Cucurbita maxima Duch.
TG/215/1 Rev.(proj.2)	Clematis	Clématite	Clematis, Waldrebe	Clemátide	Clematis L.
TG/ANGLN(proj.3)	-	-	-	-	Angelonia angustifolia Benth. and its hybrids

Document No. N°. du document Dokument-Nr. No del documento	English	Français	Deutsch	Español	Botanical name Nom botanique Botanischer Name Nombre botánico
TG/COM_MIL(proj.6)	Common Millet	Millet commun, Panic millet, Panic faux millet	Rispenhirse	Mijo común	Panicum miliaceum L.
TG/CUC_MOS(proj.4)	Butternut, Butternut Squash, Cheese Pumpkin, China Squash, Cushaw, Golden Cushaw, Musky Gourd, Pumpkin, Winter Crookneck Squash	Citrouille, Courge musquée, Courge noix de beurre	Bisamkürbis, Moschuskürbis	Ayote, Calabaza de Castilla, Calabaza moscada, Calabaza pellejo, Chicamita, Lacayote, Sequaloa, Zapallo	Cucurbita moschata Duch.
TG/DIASC(proj.3)	Diascia, Twinspur	Diascia, Diascie	Diascie	Diascia	Diascia Link & Otto
TG/HUSK(proj.5) ²	Husk Tomato	Alkékenge du Mexique, Coqueret, Physalis, Tomatillo, Tomate fraise	Mexikanische Blasenkirsche, Tomatillo	Miltomate, Tomatillo, Tomate de cáscara, Tomate de hoja, Tomate verde	Physalis ixocarpa Brot., Physalis philadelphica Lam
TG/HYPER_PER(proj.3)	St. John's Wort, Common St. John's Wort, Goat weed, Klamath weed, Tipton weed	Millepertuis	Johanniskraut	Hipericón, Hipérico, Hierba de San Juan, Corazoncillo	Hypericum perforatum L.
TG/MOM(proj.3)	Balsam apple, Balsam pear, Bitter cucumber, Bitter gourd, Bitter melon, Cassila gourd,	Concombre africain Margose, Momordique	Balsambarne, Bittergurke	Balsamito, Cundeamor, Momordica	Momordica charantia L.
TG/SUTERA(proj.4 Rev.)	Sutera; Jamesbrittenia	Sutera; Jamesbrittenia	Sutera; Jamesbrittenia	Sutera; Jamesbrittenia	Sutera Roth; Jamesbrittenia O. Kuntze
TG/TAGETE(proj.6)	Marigold	Tagète, Oeillet d'Inde, Rose d'Inde	Studentenblume	Clavel de las indias, Clavelon, Cempoalxóchitl	Tagetes L.

60. With regard to the draft Test Guidelines for Grain Amaranth, document TG/AMARAN(proj.6), the TC noted the changes proposed by the TC-EDC, which were specified in Annex II to document TC/43/12, and the report of the TC-EDC that there were technical issues to be resolved with the Test Guidelines, which it had not been possible to resolve. In accordance with the recommendation of the TC-EDC, the TC referred the Test Guidelines back to the TWA for further consideration.

61. With regard to the draft Test Guidelines for Onion, Shallot, document TG/46/7(proj.3), the TC noted the changes proposed by the TC-EDC, which were specified in Annex II to document TC/43/12, and the report of the TC-EDC that there were technical issues to be resolved with the Test Guidelines, which it had not been possible to resolve. In accordance with the recommendation of the TC-EDC, the TC referred the Test Guidelines back to the TWV for further consideration.

62. The TC noted the report from the TC-EDC that it had encountered problems in its work because some of the Test Guidelines submitted for adoption had not fulfilled the requirements for “final” draft Test Guidelines as set out in document TGP/7/1, Chapter 2.2.5.3 and were missing important information. The TC agreed that the Technical Working Parties should ensure that the requirements for Test Guidelines to be submitted to the Technical Committee were fulfilled and agreed that Test Guidelines which did not fulfill those requirements should be referred back to the relevant Technical Working Party. It was also agreed that, in order to establish a realistic workload, the TWPs should take into account the factors for prioritizing the commissioning of Test Guidelines, as set out in document TGP/7/1, Section 2.2.2.2.

63. The TC noted that, in document TC/43/2, Annex II, the drafters for the Test Guidelines for Bougainvillea (TG/BOUGA) should read “AU/DK”. It also noted that in Annexes II and III, the Test Guidelines to be revised by the TWO should be the Test Guidelines for Zonal Pelargonium (TG/28/8) rather than the Test Guidelines for Regal Pelargonium (TG/109/3) and that in Annex III, the UPOV code for the Test Guidelines for Curly Kale (TG/90/6) should read “BRASS_OLE_GAS”.

64. The TC agreed the plans for the development of new Test Guidelines and the revision of existing ones, as shown in document TC/43/2, Annex II. The TC noted, in particular, those Test Guidelines which were considered by the relevant TWPs to be at a final draft stage.

65. The TC noted the status of the existing Test Guidelines as listed in document TC/43/2, Annex III.

66. The TC noted the corrections to be made to the Test Guidelines for Vegetable Marrow, Squash (*Cucurbita pepo* L.), document TG/119/4, as set out in document TC/43/2, paragraphs 6 and 7. It also noted that a correction needed to be made to the Test Guidelines for TG/230/1 Sour Cherry (*Prunus cerasus* L.) and Duke Cherry (*Prunus ×gondouinii* (Poit. & Turpin) Rehder), where the UPOV Code for Sour Cherry (*Prunus cerasus* L.) should be changed from “PRUNU_CSD” to “PRUNU_CSS”.

List of genera and species for which authorities have practical experience in the examination of Distinctness, Uniformity and Stability

67. The TC noted the information provided in document TC/43/4 and heard that the number of genera and species for which members of the Union had practical experience had increased from 1,906 in 2006 to 2,010 in 2007. It also heard that information had been provided for the first time by Albania, Republic of Moldova, Tunisia and the United States of America. The TC agreed that the document should be updated for the forty-fourth session of the TC.

Program for the forty-fourth session

68. The following draft agenda was agreed for the forty-fourth session of the TC to be held in Geneva in 2008:

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 Crop Subgroups
5. Matters arising from the Technical Working Parties
6. TGP documents
7. UPOV information databases
8. Molecular techniques
9. Variety denominations
10. Publication of variety descriptions
11. Preparatory workshops
12. Applications covering a combination of lines
13. Test Guidelines
14. List of genera and species for which authorities have practical experience in the examination of Distinctness, Uniformity and Stability
15. Program for the forty-fifth session
16. Adoption of the report on the conclusions reached in the session (if time permits)
17. Closing of the session

Chairperson and Vice-Chairperson

69. The TC noted that the chairmanship of Ms. Julia Borys (Poland) would expire with the closing of the forthcoming ordinary session of the Council in October of the current year. It proposed to the Council that it elect Mrs. Françoise Blouet (France) as new Chairperson and Mr. Chris Barnaby (New Zealand) as new Vice-Chairperson of the TC for the forthcoming three-year term.

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

70. The following reports were made by the Chairpersons on the work of the TWA, the TWC, the TWF, the TWO, the TWV and the BMT, at the forty-third session of the TC.

Technical Working Party for Agricultural Crops (TWA)

71. Mrs. Beate Rücker (Germany), Chairperson of the TWA, reported as follows:

72. The TWA held its thirty-fifth session in Beijing, China, from July 3 to 7, 2006. The Chairperson was Mrs. Beate Rücker (Germany). The report of the meeting is contained in document TWA/35/12.

73. The session was attended by 66 participants from 21 members of the Union and one observer organization. The preparatory workshop, held during the afternoon of Sunday, July 2, was attended by 23 participants.

74. On the first morning, the TWA received a welcome address by Mr. Yang Xiongnian, Deputy Director General of the Department of Science, Technology and Education of the Ministry of Agriculture, who reported on the development of Plant Variety Protection in China since 1999, when China had become a member of UPOV. The TWA received short reports on developments in plant variety protection by the participants.

75. The TWA considered developments on molecular techniques and discussed the importance of the Crop Subgroups which had held only very few meetings at that time. The TWA reaffirmed its support for the work of the Crop Subgroups. In addition, it noted that there could be some benefit in organizing sessions at the BMT according to vegetatively propagated, self-pollinated and cross-pollinated crops, in order to facilitate discussions on horizontal matters. The TWA agreed to propose to the TC to consider inviting 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 deviation.

76. The TWA discussed a number of draft TGP documents according to the program agreed by the TC. It agreed with the program set out in document TC/42/5 Annex II with the exception that it proposed that document TGP/10 should be reconsidered by the Technical Working Parties in 2007. As a part of its discussion of TGP/9, the TWA considered a document on "SELECT: A method for identification of varieties to be excluded from the growing trial". With the modifications it proposed for Section 2.6 of TGP/9 Draft 7, it was clarified that a characteristic-by-characteristic approach was applied for both the GAIA and SELECT methods. Subject to modifications proposed for Section 5 of TGP/8 "Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability" Draft 4, it was concluded that SELECT was covered by the GAIA methodology.

77. The TWA discussed developments concerning UPOV information databases and agreed to provide comments on the UPOV codes by the middle of September 2006. It noted the information on the revision of the UPOV recommendations on variety denominations and it noted that the UPOV GENIE database would be amended accordingly.

78. The TWA discussed the project to consider the publications of variety descriptions. It concluded that published variety descriptions could have some potential benefit for the management of reference collections but that there was a risk that the incorrect use of data could lead to incorrect decisions. The TWA recognized that the work would have a significant cost. There were no proposals for work within the TWA crops.

79. The TWA noted the information on COY and off-type standards and agreed to suggest that the TWC investigate the variation within, and between, varieties for selected crops, in order to determine whether harmonized standards would be appropriate.

80. The TWA agreed to submit to the TC the draft Test Guidelines for Common Millet and Grain Amaranth, both of which were new Test Guidelines. As agreed during the session, the Test Guidelines for Grain Amaranth were modified after the meeting by correspondence. The TWA planned to continue discussions on 14 Test Guidelines in 2007, three of which were revisions and 11 of which were new. Eight of those Test Guidelines were expected to be at the final stage in 2007.

81. On the afternoon of July 5, 2006, the TWA visited the DUS Testing Center of the Ministry of Agriculture, where it received a report on DUS testing for plant variety protection in China. The TWA also visited the Storage Center of Propagating Material in the Chinese Academy of Agricultural Science.

82. At the invitation of the experts from Hungary, the TWA agreed to hold its thirty-sixth session in Budapest, Hungary, from May 28 to June 1, 2007, with a preparatory workshop on May 27. The TWA proposed to discuss 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; UPOV Information Databases; Variety denominations; Project to consider the publication of variety descriptions; Project for exchanging seed of selected varieties between interested countries; Development of regional sets of example varieties for the Test Guidelines for Rice; Discussion on draft Test Guidelines; Recommendations on draft Test Guidelines; Date and place of the next session and Future program.

Technical Working Party on Automation and Computer Programs (TWC)

83. Mrs. Sally Watson (United Kingdom), Chairperson of the TWC, reported as follows:

84. The TWC held its twenty-fourth session in Nairobi, Kenya, from June 19 to 22, 2006. The report of the meeting is contained in document TWC/24/17. The session was attended by 44 participants from 15 members of the Union and one observer State. The TWC was welcomed by Dr. John Kedera, Managing Director of the Kenya Plant Health Inspectorate Service (KEPHIS). The session was chaired by Mrs. Sally Watson (United Kingdom). A preparatory workshop was held on the afternoon of June 18 and was attended by 11 participants.

85. Dr. Evans Sikinyi made a presentation on plant breeder's rights in Kenya.

86. The TWC received a short report from the Office on new developments in the Council, the CAJ, the TC, and the other TWPs. Discussions followed an update on the consideration of molecular techniques in UPOV. It was recognized that the TWC might have a part to play if molecular techniques were to be used for variety identification in the enforcement of plant breeder's rights, technical verification and the consideration of essential derivation. The draft Guidelines for Molecular Marker Selection and Database Construction (BMT guidelines) were considered and, in particular, the section on database construction. The TWC noted that collaborative projects between Denmark, France, Germany and the United Kingdom on oilseed rape, and between Germany and Spain on maize, would provide an opportunity to assess the harmonization of the methodology and the compatibility of the databases.

87. Discussion of TGP documents formed an important part of the meeting. Those included: TGP4, TGP/9, TGP/10, TGP/8, and TGP/14: Section 3 "Statistical Terms".

88. The TWC had no major comments on TGP/4 or TGP/10. However, there were lengthy discussions on TGP/9 with respect to the sections on phenotypic distance methods. On the use of the method to select varieties for inclusion in the growing trial, the TWC agreed that the description was too specific to GAIA and not general enough for other methods, such as Mahalanobis distance. The TWC recommended that combinations of characteristics, such as those produced by phenotypic distance methods, should not be included as an approach for determining distinctness. It reasoned that it had little experience of such an approach, though it welcomed evidence of its efficacy or otherwise. The TWC also welcomed the opportunity to investigate the use of combinations of characteristics, both for distinctness and for uniformity testing.

89. The TWC discussed at length TGP/8, for which it had responsibility in drafting.

90. In addition to its work on TGP documents, the TWC considered other important contributions concerning developments in statistical methods used in DUS testing. The TWC discussed a number of approaches to the question of whether the number of reference variety plants on which characteristics were recorded could be reduced. It was shown that the number of measurements on reference varieties could be reduced markedly in many characteristics without markedly reducing the precision of the distinctness tests. That work was to be pursued and documents on the subject would be circulated to other TWPs. Another study looked into a possible alternative approach to COYU for testing uniformity when characteristics have a positive linear relationship between the means and the standard deviations. That approach would be studied further. The TWC was presented with a proposed Bayesian approach for reducing the size of DUS trials by producing a threshold on a characteristic-by-characteristic basis for exclusion of reference varieties from the trial. That would be done at the start of the second growing trial using information from the first growing trial. There was much interest in the method because it was felt that it could also be used to provide interim results of known reliability to the breeder after the first growing cycle. The results of a study comparing methods for analyzing segregation ratios were presented to the TWC. The method using a generalized linear mixed model was preferred, although it had some difficulties (e.g. with zero counts). There was also a study of the impact of reducing the numbers of plants observed in a Chi-squared test of segregation ratios.

91. The TWC discussed the SELECT method used to identify varieties for exclusion from the growing trial. It was agreed that the method had much in common with GAIA, and that both could be viewed as “decision tools” for collating information and making cautious decisions.

92. The TWC was presented with the results of studies on the use of data from multiple locations in DUS testing, and image analysis of ornamentals.

93. The TWC discussed the development of a questionnaire on population standards used to assess uniformity by the method of off-types. The questionnaire was to be developed by correspondence by the TWC, issued by the Office, with the results being discussed by the TWPs in 2007.

94. The TWC saw a demonstration of an Access database of TWC papers and papers of interest to the TWC. The meeting suggested that the TC might consider whether the database should also be demonstrated to other TWPs.

95. At the invitation of Romania, the TWC agreed to hold its twenty-fifth session in Sibiu, Romania, from September 3 to 6, 2007, with a preparatory workshop on September 2. During that session, the TWC planned to discuss the items mentioned above plus an examination of statistical procedures for checking uniformity in variety trials, an adjustment to COY for grouping characteristics, image analysis in parsnip and a review of test design: checking levels of quality.

Technical Working Party for Fruit Crops (TWF)

96. Mr. Alejandro F. Barrientos-Priego (Mexico), Chairman of the TWF, reported as follows:

97. The TWF held its thirty-seventh session in Salvador, Bahia State, Brazil, from August 21 to 25, 2006, with a preparatory workshop on the afternoon of August 20. The report on the conclusions of the meeting is contained in document TWF/37/14, with the detailed report to be provided as document TWF/37/15. The session was opened by Mr. Alejandro F. Barrientos-Priego (Mexico), Chairman of the TWF, and the TWF was welcomed by Mrs. Maria Delia Gómez, Representative of the Ministry of Agriculture, Livestock and Food Supply.

98. The session was attended by 42 participants from 17 members of the Union and one observer organization. The preparatory workshop was attended by 12 participants.

99. The TWF received a presentation on DUS Testing in Brazil from Mrs. Vera Lucia Santos do Machado, Head, División de Normalización y Registro, Servicio Nacional de Protección de Cultivares (SNPC), and received oral reports from participants on developments in plant variety protection and from the Office on the latest developments within UPOV.

100. The TWF received an oral presentation on developments concerning the Crop Subgroups as part of document TWF/37/2. It noted the establishment of a Crop Subgroup for Vegetatively Propagated Crops which, in conjunction with all interested parties and breeders

in particular, could formulate proposals for consideration by the TC and the BMT Review Group.

101. The TWF discussed a number of draft TGP documents. The TWF discussed document TGP/4/1 Draft 4 “Constitution and [Management] / [Maintenance] of Variety Collections” and agreed to propose that, before taking the decision of including candidate varieties in a reference collection, it was necessary to complete the examination first. In addition, the TWF considered that the term “Management” was more appropriate for the title of Section 3 “Management of Variety Collections” because it reflected more accurately the content of the section. It also discussed and recommended possible amendments, mainly in the wording, to other TGP documents. For TGP/9/1 Draft 7 “Examining Distinctness”, it was considered to be important to clarify that, for the DUS examination, the grouping characteristics should be the basis for grouping. For TGP/10/1 Draft 4 “Examining Uniformity”, it was agreed to propose that section 4 “Uniformity Assessment on the Basis of Off-Types” should be restructured into only two sections, on the basis of those plants which should not be considered as off-types and those plants which should be considered as off-types. With regard to TGP/8/1 Draft 1 “Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability”, the TWF requested that the drafters take into account the comments which the TWF had made at its thirty-sixth session. TGP/12 Section 1 Draft 3 “Special Characteristics: Section 1: Development of Characteristics based on a Response to an External Factor” was discussed. For TGP/13/1 Draft 6 “Guidance for New Types and Species”, the TWF proposed that, even in the case of a description of a candidate variety of a new species, it was necessary to follow the UPOV format as far as possible. In respect of TGP/14.2.1(&2) Draft 5 “Botanical Terms: Plant Shapes” including “Botanical Terms: Hair Types” the TWF was more in favor of the use of “ratio length/width” because it was the normal practice; however, it considered that that should not be a fixed rule, and the use of “ratio width/length” should be accepted in particular situations.

102. The TWF did not have time to discuss document TGP/14.2.3.1 Draft 2 “Botanical Terms: Color: Color Characteristics” and TGP/14.2.3.2 Draft 4 “Botanical Terms: Color: Color Groups”.

103. The TWF considered documents TWF/37/4 “UPOV Information Databases”, TWF/37/5 “Variety Denominations”, TWF/37/6 “Project to Consider the Publication of Variety Descriptions”, TWF/37/6 “Criteria for Determining Off-Type Plants” and TWF/37/7 “Drafters’ Kit for Test Guidelines”, where it agreed on the usefulness of the TG template and of TGP/7, whilst it considered that its structure might be regarded as rather complicated, in particular for those experts using it for the first time. The TWF also considered documents TWF/37/10 “Information on Probability Levels used in COY and Population Standards used in the Assessment of Uniformity by Off-types” and TWF/37/8 “Additional Characteristics”.

104. The TWF agreed to submit to the TC the draft revised Test Guidelines for Apricot, Blueberry and Blackcurrant. In the case of the Test Guidelines for Blackcurrant, following the TWF session, the Leading Expert identified certain characteristics for which further discussion was required. In conjunction with the Chairman of the TWF, it was agreed that the revised Test Guidelines for Blackcurrant should be discussed again by the TWF at its thirty-eighth session, in 2007. The new draft Test Guidelines for Hawthorn were agreed for submission to the TC; however, at its thirty-ninth session, held in Fortaleza, Ceará State, Brazil, from August 28 to September 1, 2006, the TWO recommended that those

Test Guidelines should be reconsidered in 2007 in order to allow the relevant experts to make more detailed proposals on characteristics for ornamental varieties.

105. At its thirty-ninth session the TWF planned to continue discussions on a total of 19 Test Guidelines: 5 of which were revisions and 14 were new Test Guidelines, with 7 of the Test Guidelines at the “final” draft stage. It also decided to consider at that session whether to start developing draft Test Guidelines for Cacao and Pitaya.

106. At the invitation of the expert from the Republic of Korea, the TWF agreed to hold its thirty-eighth session in the Republic of Korea, from July 9 to 13, 2007, with a preparatory workshop on July 8. During its thirty-eighth 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; UPOV information databases; Variety denominations; Project to consider the publication of variety descriptions; and Discussions and Recommendations on draft Test Guidelines.

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

107. Mrs. Sandy Marshall (Canada), Chairperson of the TWO reported as follows:

108. The TWO held its thirty-ninth session in Fortaleza, Ceará State, Brazil, from August 28 to September 1, 2006, with Mrs. Sandy Marshall (Canada) as the Chairperson. The TWO was welcomed by Mr. Helinton José Rocha, Director, Intellectual Property Department and Agricultural Technology, Ministry of Agriculture, Livestock and Supply of the Federative Republic of Brazil. The report on the conclusions of the meeting is contained in document TWO/39/11, with the detailed report to be provided as document TWO/39/12.

109. The meeting was attended by 45 participants from 18 members of the Union, and one observer organization. The TWO noted that the preparatory workshop, held during the afternoon of August 27, prior to the TWO meeting, was attended by 16 participants. The TWO also heard that, on August 26 and the morning of August 27, the Brazil National Plant Variety Protection Service hosted a workshop, in cooperation with UPOV, on the use of molecular techniques in plant variety protection for vegetatively propagated perennial crops. This workshop was attended by a number of TWO participants as well as many Brazilian experts.

110. The TWO received a presentation from Mrs. Daniela de Moraes Aviani on plant breeders' rights in Brazil. The TWO also received short oral reports on developments in variety protection from participants and from the Office on the latest developments within UPOV.

111. The TWO considered document TWO/39/2, concerning the use of molecular techniques in DUS Testing and received an oral report on developments concerning the Crop Subgroups. It noted the extension of the Crop Subgroup for Wheat to cover both wheat and barley and the establishment of a Crop Subgroup for Vegetatively Propagated Crops, which would incorporate the Crop Subgroup for Rose.

112. The TWO discussed document TGP/4/1 Draft 7, “Constitution and [Management] / [Maintenance] of Variety Collections”, and made several proposals, including the proposal to keep the word “Management” in the title. The TWO also discussed document TGP/9/1 Draft 7, “Examining Distinctness”, and made a number of proposals for clarification of wording which took into account the particular features of DUS testing of ornamental varieties.

113. A discussion of document TGP/10/1 Draft 4 focused on Section 4, which concerned uniformity assessment on the basis of off-type plants. The TWO proposals included the restructuring of some sections of the document, particularly those regarding atypical plants which should not be considered to be off-types. The TWO also recommended that clarification should be provided in several other sections of the document. Experts from the Netherlands made a presentation to the TWO on a particular situation for the assessment of uniformity for varieties of *Phalaenopsis* within which there were variations in the color and the pattern of spots on the flowers. Concerns were raised on the scope of protection of the first variety for a given type within a species, because a very broad description might limit the possibility for future applications for the same species.

114. A number of other draft TGP documents were also discussed. The TWO had particular interest in TGP/8 Draft 4, TGP/12 Section 1 Draft 3, TGP/13 Draft 6, TGP/14.2.1 Draft 5 – Plant Shapes and TGP/14.2.3.1 Draft 2 – Color Characteristics.

115. The TWO discussed TWO/39/5 “Variety Denominations”. It considered that the recommendations for variety denominations should include a possibility for regular updating of the Annex containing the classes, taking into account changes in botanical classification and new species which were constantly arising in the ornamental plant sector.

116. Document TWO/39/6 provided the basis for discussion on the project to consider the publication of variety descriptions. The TWO concluded that the development of this project would involve a large effort for ornamental plants because many varieties were distributed all over the world. Furthermore, sufficient information was available on the internet and in commercial catalogues for identifying relevant varieties to be included in DUS trials; therefore, the TWO concluded that, for ornamental plants, there was no particular justification for the development of this project.

117. The TWO considered document TWO/39/7 “Drafters’ Kit for Test Guidelines” and concluded that it was not necessary to develop customized electronic templates for ornamental species. However, it considered that it would be useful to develop a more user-friendly kit with a more streamlined template to facilitate use by all crop experts.

118. The TWO agreed to submit seven Test Guidelines to the TC. Of those, three were revisions of the existing Test Guidelines for *Elatior Begonia*, *Pot Azalea*, and *Clematis*; and four were new Test Guidelines for *Angelonia*, *Diascia*, *Sutera/Jamesbrittenia* and *Tagetes*. At its fortieth session in 2007, the TWO planned to discuss 28 Test Guidelines, consisting of eight revisions and 20 new Test Guidelines.

119. At the invitation of China, the TWO agreed to hold its fortieth session in Kunming, China, from July 2 to 6, 2007, with a preparatory workshop to be held on July 1. During its fortieth session, the TWO 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; molecular techniques; the project to consider the publication of variety descriptions; UPOV information databases; TGP documents and discussion of, and recommendations for, draft Test Guidelines.

Technical Working Party for Vegetables (TWV)

120. Mr. Niall Green (United Kingdom), Chairman of the TWV reported as follows:

121. The Technical Working Party for Vegetables (TWV) held its fortieth session in Guanajuato, Guanajuato State, Mexico from June 12 to 16, 2006, with a preparatory workshop held on June 11. The Chairperson was Mr. Niall Green (United Kingdom). The report of the meeting is available in document TWV/40/11.

122. The TWV session was attended by 58 participants from 16 members of the Union and one observer organization. The Preparatory Workshop, which was attended by 48 participants, was extended to a whole day and was used to provide more information concerning characteristics and the organization of DUS Testing.

123. There were oral reports from the participants on developments in plant variety protection in their countries. In particular, the TWV received a presentation on Plant Breeders' Rights testing in Mexico which included information on seed inspection and certification, and plant genetic resources.

124. During the session, drafts of documents TGP/4 "Constitution and [Management] / [Maintenance] of Variety Collections", TGP/9 "Examining Distinctness", TGP/10 "Examining Uniformity", TGP/11/1 "Examining Stability", TGP/12: Section 1 "Special Characteristics: Characteristics expressed in response to external factors", TGP/13 "Guidance for New Types and Species" and TGP/14: Section 2 "Plant Shapes", were discussed.

125. As no meetings of Crop Subgroups concerning vegetable crops had taken place, experts from France, the Netherlands, Spain, the European Community and the International Seed Federation agreed to prepare documents for discussion at the forty-first session on the current use of molecular markers in relation to essentially derived varieties and for testing disease resistance.

126. Further discussions were held on the Project to Consider the Publication of Variety Descriptions. The TWV proposed to investigate the value, both globally and regionally, of grouping, asterisked and other characteristics in two crops. The experts from France and the European Community agreed to coordinate work on Pea and Tomato respectively. The TWV also agreed to discuss, at its forty-first session, the possibilities of ring tests prior to the revision of Test Guidelines.

127. The TWV agreed to submit six revised Test Guidelines (Carrot, Cauliflower, Cucumber and Gherkin, Onion and Shallot, Pumpkin and Spinach) and four new Test Guidelines (Bitter Gourd, *Cucurbita moschata* Duch., Husk Tomato and St. John's Wort) for consideration by the Technical Committee. The draft guidelines for Cauliflower and Husk Tomato were modified by correspondence after the meeting.

128. The TWV agreed to discuss a total of 18 Test Guidelines at its forty-first session, eight of which were final drafts. Of the others, two were revisions and seven were new drafts: *Agaricus*, Cardon, Chayote, Coriander, Cowpea, Taro and Yam. Joint TWA/TWV subgroup meetings on Pea and on Maize would be held during the thirty-sixth session of the Technical Working Party for Agricultural Crops, to be held in Budapest, Hungary, from May 28 to June 1, 2007.

129. At the invitation of the expert from Kenya, the TWV agreed to hold its forty-first session in Nairobi, Kenya from June 11 to 15, 2007, with a preparatory workshop on June 10.

130. During the forty-first session, the TWV planned to discuss or re-discuss: Short reports on developments in plant variety protection, Molecular Techniques, TGP Documents, UPOV Information Databases, Variety denominations, Project to consider the Publication of Variety Descriptions, draft Test Guidelines, Date and place of next session, Future program and the Report on the conclusions of the session.

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

131. Mr. Henk Bonthuis (Netherlands), Chairperson of the BMT reported as follows:

132. The BMT held its tenth session in Seoul, Republic of Korea, from November 21 to 23, 2006. The Preparatory Workshop, held on November 20, was extended to a whole day in conjunction with a Technical Workshop with presentations by experts from UPOV members on experiences and outlooks on the use of molecular techniques in plant variety protection. The Chairperson for the BMT session was Mr. Henk Bonthuis (Netherlands). The report of the meeting is contained in document BMT/10/19.

133. On the day following the BMT, a “Symposium on the Application of Molecular Techniques for Plant Breeding and in Plant Variety Protection” was organized jointly by the Korean Society for Seed Science and Industry (KOSID) and the National Seed Management Office (NSMO), Republic of Korea, in cooperation with UPOV.

134. The session of the BMT was attended by a total of 51 participants from 15 members of the Union and 5 observer organizations. The Preparatory Workshop was attended by 28 participants.

135. The BMT session was hosted by the NSMO of the Ministry of Agriculture and Forestry. Dr. Keun-Jin Choi (NSMO) provided an overview of the plant variety protection situation in the Republic of Korea.

136. The BMT heard that there had been no Crop Subgroup meetings. However it was noted that several on-going projects (e.g. in oilseed rape, potato and rose) would be presented under the agenda item “Report of work on molecular techniques on a crop-by-crop basis”. Matters concerning the Crop Subgroups of Rose and Potato were also to be considered by the Crop Subgroup for Vegetatively Propagated Crops which was to meet in conjunction with the tenth session of the BMT.

137. The BMT received short reports on new developments in biochemical and molecular techniques. An expert from Spain reported on work which was taking place on the sequencing of the genome of grapevine which might be useful for approaches under “Option 1” or for studying essential derivation. A representative of the European Community, Community Plant Variety Office (CPVO) reported that CPVO had held seminars on enforcement in Brussels and in Warsaw and that a further seminar was planned to be held in Madrid in February 2007. The representative of the International Community of Breeders of Asexually Reproduced Ornamental and Fruit-Tree Varieties (CIOPORA) reported that CIOPORA was working on a position paper on essentially derived varieties to be adopted at its board meeting in April 2007. The representative of the International Seed Federation (ISF) reported that ISF had reaffirmed its position with regard to the possible use of molecular techniques in DUS testing and in variety identification. A position paper had been posted on the ISF website.

138. The BMT received reports on molecular techniques in vegetatively propagated crops, such as potato, rose and carnation. An expert from Spain presented a microsatellite-based system for the identification and legal protection of grapevine varieties.

139. The BMT received reports on “Option 1” approaches in self-pollinated crops such as barley and pepper. Experts from France provided interesting perspectives for “Option 2” approaches in maize, where molecular and morphological distances could be combined for the selection of reference varieties. More results on “Option 2” approaches from on-going projects in maize and oilseed rape would be presented at the eleventh session of the BMT.

140. The BMT agreed that the BMT Guidelines, on the basis of the recommendations discussed at the tenth session of the BMT, could be proposed for agreement by the TC.

141. The BMT agreed to suggest oilseed rape, potato and rose as suitable crops for a practical exercise in the development of an exchangeable database. It noted that the appropriate terms of reference needed to be set by the TC.

142. The BMT heard that the Crop Subgroup for Vegetatively Propagated Crops, at its meeting on November 22, had agreed to propose to the BMT and to the TC that it organize specific sessions at the BMT for vegetatively propagated, self-pollinated and cross-pollinated crops, in order to facilitate discussions on horizontal matters and, subject to such an approach, had agreed to propose to discontinue the Crop Subgroup for Vegetatively Propagated Crops. The BMT agreed with that approach.

143. The BMT agreed that the Crop Subgroups should, in particular, provide a forum for focused discussion on proposals with stakeholders. In that respect, it noted that it might not be most appropriate to hold the meetings of the Crop Subgroups in conjunction with the sessions of the TWPs. On that basis, it agreed that the meetings of the following Crop Subgroups might be appropriate:

Crop Subgroup for Rose: to meet early 2007.
(the meeting had since been set for April 18, in Angers)

Crop Subgroup for Potato: to meet in Spring 2007.
(the meeting had since been set for April 17, in Quimper)

Crop Subgroup for Maize: to meet around the end of 2007 or early 2008.

144. In response to the invitation received from the Government of Spain, the BMT agreed to hold its eleventh session in Spain in May 2008.

145. During the eleventh session, the BMT planned to discuss: Reports on developments in UPOV concerning biochemical and molecular techniques; Reports on the work of the Crop Subgroups; Short presentations on new developments in biochemical and molecular techniques by DUS experts, biochemical and molecular specialists, plant breeders and relevant international organizations; Reports of work on molecular techniques on a crop-by-crop basis, organized in sessions for (a) vegetatively propagated crops, (b) self-pollinated crops, (c) cross-pollinated crops; BMT Guidelines; International guidelines on molecular methodologies; Practical exercise in the development of an exchangeable database of molecular data of plant varieties; Statistical methods for data produced by biochemical and molecular techniques; The use of molecular techniques in examining essential derivation; The use of molecular techniques in variety identification; Recommendations on the establishment of new crop specific subgroups.

146. The BMT agreed that, in order to encourage the presentation of information in relation to the use of molecular techniques in examining essential derivation and in variety identification, it would be appropriate to dedicate a specific day to those items at the eleventh session of the BMT. In particular, breeders and other experts would be offered the possibility to attend for that specific day.

147. The BMT made technical visits to the National Agriculture Science Museum of the Rural Development Institute, the Rice Breeding Center of the National Institute of Crop Science and the genebank facilities of the National Institute of Agricultural Biotechnology, all in Suwon.

148. The Council is invited:

(a) to note the work of the TC and that of the TWPs and the 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 TWPs and the BMT reported to the TC, as provided in this document.

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