



C/32/10

ORIGINAL: English

DATE: August 19, 1998

**INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS**  
GENEVA

**COUNCIL**

**Thirty-Second Ordinary Session**  
**Geneva, October 28, 1998**

PROGRESS REPORT ON THE WORK OF THE TECHNICAL COMMITTEE  
AND THE TECHNICAL WORKING PARTIES

*Document prepared by the Office of the Union*

TECHNICAL COMMITTEE

1. The Technical Committee (hereinafter referred to as the "Committee") held its thirty-fourth session in Geneva from March 30 to April 1, 1998. The detailed report on the Committee's session appears in document TC/34/10.
2. The main results achieved by the Committee during that session are set forth below:
  - (a) It noted the usual reports on the progress of the work of the Technical Working Parties and approved their programs for the coming year.
  - (b) It endeavored to answer the various questions that the individual Technical Working Parties had submitted to it as reproduced in document TC/34/3.
  - (c) During the session, the Committee adopted the following Test Guidelines after having agreed on changes proposed orally by the Editorial Committee:

TG/75/5(proj.):	Cornsalad/Mâche/Feldsalat/Hierba de los canónigos
TG/80/5(proj.):	Soya Bean/Soja/Sojabohne/Soja, Soya
TG/158/2(proj.):	Bouvardia/Bouvardia/Bouvardia/Bouvardia
TG/159/2(proj.):	Loquat/Néflier du Japon/Japanische Mispel, Loquat/Níspero
TG/160/2(proj.):	Mume (Japanese Apricot)/Abricotier japonais/Japanische Aprikose/ Albaricoquero japonés
TG/161/2(proj.):	Welsh Onion, Japanese Bunching Onion/Ciboule/Winterzwiebel/ Cebolleta

(d) It approved a revised version of the document on the testing of uniformity of self-fertilized and vegetatively propagated species as contained in document TC/34/5 which replaces the version included in document TWC/11/16.

(e) It confirmed the broad application of the COYD and COYU analysis as contained in document TC/33/7 to all cross-fertilized species.

(f) It noted the plans presented by the Editorial Committee and the chairmen of the Technical Working Parties on the revision of the General Introduction to Test Guidelines (TG/1/2).

(g) It agreed to the following definition of off-type: “Any plant is to be considered an off-type if it can be clearly distinguished from the variety in the expression of any characteristic of the whole plant or of part of the plant, used in the testing of distinctness, taking into consideration the particular species.” It also agreed that “Plants being very different from those of the variety could be disregarded as long as their number does not interfere with the test.”

(h) It had a long discussion on the right prescreening of varieties before the lay-out of field or glasshouse trials and requested all Technical Working Parties to rediscuss the subject on the basis of concrete examples (e.g. *Poa*, roses, peaches, etc.)

(i) It noted that the chairmanship of the Committee of Mr. Joël Guiard (France) would expire with the closing of the forthcoming ordinary session of the Council in October of this year. It proposed to the Council that it elect Mrs. Elise Buitendag (South Africa) as new chairman and Mr. Raimundo Lavignolle (Argentina) as new vice chairman of the Committee.

(j) It noted that Mr. Aubrey Bould (United Kingdom) would retire at the end of June of this year. As no proposal for a new chairman had been formulated by the TWA yet, it agreed that the TWA would make a proposal for a new chairman directly to the Council.

(k) It noted that in October 1997 the Council had prolonged the chairmanship of Mr. Joël Guiard (France) to cover the next session of the Working Group on Biochemical and Molecular Techniques and DNA Profiling in Particular (BMT). It also noted that during that session debates were planned on whether discussions should continue in the BMT or should take place in the Committee, in which case the BMT would stop holding sessions.

Program for the Thirty-Fifth Session of Committee

3. The thirty-fifth session of the Committee is planned to take place in Geneva in March or April 1999 either in the week immediately before the sessions of the Consultative Committee and/or the Administrative and Legal Committee or in the same week as those sessions. It is planned that the following items be discussed during the session: Progress reports and questions presented by the Technical Working Parties, revision of the General Introduction to Test Guidelines, new methods, techniques and equipment in the examination of varieties. In addition, the Committee will take decisions on the Test Guidelines which will be submitted by the Technical Working Parties for final adoption.

PROGRESS REPORTS ON THE WORK OF THE TECHNICAL WORKING PARTIES, INCLUDING THE BMTProgress Report on the Work of the Technical Working Party for Agricultural Crops (TWA)

4. The Technical Working Party for Agricultural Crops held two sessions since the last ordinary session of the Council, both under the chairmanship of Dr. A. Bould (United Kingdom).

5. The twenty-sixth session was held in Montevideo, Uruguay, from November 10 to 14, 1997. The full report of that session appears in document TWA/26/11. During its session the TWA completed, for presentation to the Committee for adoption, draft Test Guidelines for Soya Bean (Revision). It also completed, for presentation to the professional organizations for comments, draft Test Guidelines for Rye (Revision, Subterranean Clover and Sunflower (Revision). The Test Guidelines for Sunflower will, however, require beforehand some further changes by the Subgroup. The Working Party also discussed, but will have to continue discussing in its next session, draft Test Guidelines for Broad Bean, Field Bean, Bromus, Cotton (Revision), Opium Poppy, Swede and Tobacco. In addition to the discussions on Test Guidelines, the Working Party discussed or rediscussed the following subjects:

(a) It expressed appreciation for the recent developments in the work on the setting up of a UPOV-ROM Centralized Database and its bi-monthly updating. It was given a demonstration by the Office of UPOV, and asked all experts to study that disc and make any comments for improvement of its use in connection with fruit crops.

(b) It proposed again to make UPOV documents available in electronic form. It noted that all Test Guidelines would be available in electronic form towards the end of 1997, but pointed out that other important documents should also be made available on the Internet or on CD-ROM.

(c) It took note of the completion or improvement of the latest documents on COYD (Combined Over-Years Distinctness Analysis) and COYU (Combined Over-Years Uniformity Analysis). It agreed that the COYD and COYU analyses were prepared in principle for cross-fertilized species only, although nothing prevented their application also to self-fertilized crops if all other conditions were fulfilled. Likewise, nothing prevented the application of document TWC/11/16, in principle prepared for self-fertilized crops, to cross-fertilized crops if all other conditions were fulfilled.

(d) It rediscussed the definition of an off-type proposed to the Committee by the Technical Working Parties for Fruit Crops (TWF) and for Ornamental Plants and Forest Trees (TWO), and proposed a different definition complying more closely with the wording of the Convention. It also made it clear that admixtures, although being off-types, would not be counted for the purpose of testing uniformity.

(e) It noted the work done by the expert from South Africa in the preparation of a document on the further harmonization of technical terms in the Test Guidelines and in the description of states of expression of characteristics (TWF/28/7), which made it easier to understand the different situations existing and thereby avoiding unnecessary different wordings for similar situations. It would, however have to study the document in more detail.

(f) It studied the possibility of using characteristics or other information not included in the Test Guidelines for the prescreening for the layout of growing tests. It will continue its discussions during its next session.

(g) It discussed and finally set up a special subgroup to continue discussions on the possible use of electrophoresis for DUS testing in cross-fertilized crops. Many experts, including all experts from the breeders, were entirely opposed to such use.

(h) It discussed and will rediscuss certain problems concerning oil seed rape and will also present the problems to the Technical Committee and Administrative and Legal Committee (problems of testing uniformity, heterogeneity in male sterility, different degrees of male sterility).

(i) It agreed to include in all Technical Questionnaires the standard phrase on "GMO" varieties.

(j) It asked the Technical Working Party for Vegetables (TWV) to split the Test Guidelines for Broad Bean, Field Bean into separate Test Guidelines for broad beans and for field beans and made remarks on several other Test Guidelines prepared by the TWV but also of interest to the TWA.

6. The twenty-seventh session of the TWA was held in Angers, France, from June 23 to 26, 1998. The full report of that session appears in document TWA/27/27. During its session the TWA completed, for presentation to the Committee for adoption, draft Test Guidelines for Rye and, for presentation to the professional organizations for comments, Draft Test Guidelines for Sunflower. It also discussed a few questions which remained open from the Technical Committee on the adopted Test Guidelines for Soya Bean. In addition to the discussions on Test Guidelines, the Working Party discussed or rediscussed the following subjects:

(a) It noted the adoption of document TC/34/5 comprising a revised version of the testing of uniformity in vegetatively propagated and self-fertilized varieties.

(b) It noted the new definition of off-types.

(c) It noted that a Windows version of the freely available DUSTW software for DUS testing would be available at the end of the year which would contribute to the harmonization of testing.

(d) It appreciated the updating on Internet by experts from the United Kingdom of several documents and information on the work of the TWC including a list of e-mail addresses of all technical experts involved in UPOV work.

(e) It discussed and will continue discussing problems connected with different male sterility systems in oil seed rape.

(f) It discussed and will continue discussing and prepare a list of basic principles for the prescreening of varieties for DUS testing.

(g) It discussed and will continue discussing the use of electrophoresis or other supporting evidence in the DUS testing and the whole procedure for granting protection.

7. With agreement from the Technical Committee, it proposed directly to the Council to elect Mrs. Françoise Blouet (France) as chairman of the TWA to replace Mr. Aubrey Bould (United Kingdom) who retired from his national service and therefore also as chairman of the TWA.

8. The twenty-eighth session of the TWA will be held in Ottawa, Canada, from June 22 to 25, 1999. At its twenty-eighth session, the Working Party plans to complete, for presentation to the Committee for adoption, the Test Guidelines for Sunflower (Revision), and to discuss or rediscuss working papers on Test Guidelines for Cotton (Revision), Bromus, Field Bean (Revision), Fodder Radish, Industrial Chicory, Lotus, Rice (Revision), Subterranean Clover, Sugarcane, Tobacco, Turnip, Turnip Rape (Revision), White Mustard, Cocksfoot (Revision) and Tall Fescue, Meadow Fescue (Revision). In addition to Test Guidelines, it is planned that the following items will be discussed: prescreening of varieties; use of electrophoresis or other supporting evidence in DUS testing; uniformity criteria in measured characteristics of different categories of varieties; oil seed rape male sterility systems; proposals for guidance for the preparation of future Test Guidelines.

#### Progress Report on the Work of the Technical Working Party on Automation and Computer Programs (TWC)

9. The Technical Working Party on Automation and Computer Programs had held its sixteenth session in Melle, Belgium, from June 16 to 19, 1998, under the chairmanship of Mr. J. Law (United Kingdom). The full report on that session appears in document TWC/16/14. The main points made by the TWC arising from the session are as described below:

(a) It made proposals for the revision of the General Introduction to the Test Guidelines.

(b) It noted the adoption of document TC/34/5 on the testing of uniformity in vegetatively propagated or self-fertilized varieties.

(c) It noted the progress made in the UPOV-ROM but insisted on the urgent need of the UPOV Code for species and the facility of using the UPOV-ROM in a network.

(d) It noted several reports on studies on the use of image analysis for the observation of characteristics.

(e) It noted a study on a selection of similar varieties comparing morphology, pedigree and molecular methods and proposed the document to be presented to the BMT.

(f) It noted a study on the use of AFLP markers for prescreening of varieties of perennial ryegrass and also proposed its presentation to the BMT.

(g) It noted some studies on the application of COY and will have more results available during its next session; it stressed that the level of 20 degrees of freedom for the use of COY was not a fixed level.

(h) It clarified that the COYD method should also be used for self-fertilized varieties if experts needed a method to handle measurements from more than one year.

(i) It noted the updating by experts from the United Kingdom on Internet under the Web Site: <http://www.bioss.sari.ac.uk/links/upov> of information on database management systems in use in UPOV member States, on exchangeable software, on e-mail addresses of UPOV technical experts and on documents prepared by the TWC.

(j) It noted that the Windows version of the DUST program developed by the United Kingdom experts would be available at the end of the year; it encouraged more States to make use of that freely available software which would facilitate further harmonization among member States.

(k) It noted that a bulletin board for varieties and seed technical matters would be set up by experts from the United Kingdom for the exchange of technical information and for on-line special interest discussions among registered members.

10. The seventeenth session of the TWC will be held in Helsinki, Finland, from June 29 to July 2, 1999. At that session, the TWC plans to discuss or rediscuss the following items: UPOV-ROM Plant Variety Database; revision of the General Introduction to Test Guidelines; a range of analysis for electrophoresis data; image analysis; efficient methods of dealing with reference variety selection; threshold methods; critical assessment of assumptions underlying COYD; handling of visually-assessed characteristics; items resulting from the fifth session of the Working Group on Biochemical and Molecular Techniques and DNA Profiling in Particular (BMT); examination of the number of distinctness of incomplete blocks in DUS; experiences of using incomplete blocks for the testing of French beans; questionnaire on VCU tests and data storage; telecommunications, exchangeable software and contacts; developments in the World Wide Web; experience with the DUSTW computer program for DUS testing; list of statistical documents prepared by the TWC; list of statistical documents containing recommendations or methods of possible interest to the Technical Working Parties.

#### Progress Report on the Work of the Technical Working Party for Fruit Crops (TWF)

11. The Technical Working Party for Fruit Crops (TWF) held its twenty-eighth session in Wageningen, Netherlands, from September 8 to 12, 1997, under the chairmanship of Mr. Chris Barnaby (New Zealand). The full report is reproduced in document TWF/28/10.

At the session, the TWF completed the Test Guidelines for Japanese Apricot and Loquat prior to their submission to the Committee for final adoption. It also completed Test Guidelines for Apple Rootstocks, Grapevine and Pear Rootstocks for submission to the professional organizations for comments, and (re)discussed working papers on Test Guidelines for Citrus (Revision) and Kiwifruit. In addition to the discussions on Test Guidelines, the TWF did the following:

(a) It expressed appreciation for the recent developments in the work on the setting up of a UPOV-ROM Centralized Database and its bi-monthly updating. It was given a demonstration by the Office of UPOV, and asked all experts to study that disc and make any comments for improvement of its use in connection with fruit crops.

(b) It proposed again to make UPOV documents available in electronic form. It noted that all Test Guidelines might be available in electronic form towards the end of 1997, but pointed out that other important documents should also be made available on the Internet or on CD-ROM. Until UPOV had taken a final decision on its policy, documents should be made available in electronic form on request.

(c) It rediscussed the definition of an off-type proposed to the Committee by the Technical Working Party for Ornamental Plants and Forest Trees (TWO), and agreed with that definition apart from the last sentence which it proposed to amend in such a way as to make it clear that admixtures were not off-types in the strict sense but that, for the purpose of testing uniformity, they should be treated as if they were.

(d) It agreed that new methods so far not used for the testing of distinctness should not be used for the screening of varieties for the layout of trials unless there was a strong correlation between certain results (e.g. bands in the case of electrophoresis) and a morphological or physiological characteristic used in the Test Guidelines.

(e) It praised the expert from South Africa for her preparation of a document on the further harmonization of technical terms in the Test Guidelines and in the description of states of expression of characteristics (TWF/28/7), which made it easier to understand the different situations existing and thereby to avoid unnecessarily different wordings for similar situations.

(f) It discussed at length whether it was at all possible to establish separate Test Guidelines for fruit varieties and for rootstocks, and finally agreed to take decisions species by species. It agreed to draw up separate Test Guidelines for Rootstocks for Apple and *Pyrus*.

(g) It discussed several possible solutions to the problems involved in the testing of earliness in apple.

(h) It noted the discussions inside the TWC, TWO and BMT and expressed special interest in the revision of the document on population standards and uniformity. It concluded that image analysis at present offered greater possibilities than the "new" techniques and it will therefore follow the discussions in the TWO on that subject.

(i) It noted with interest a report on instability in vegetatively propagated varieties.

12. The twenty-ninth session of the TWF is scheduled to be held in Coolangatta [now: Caloundra, Queensland], Australia, from November 9 to 14, 1998. At that session, the TWF

plans to complete discussions on Test Guidelines for Apple Rootstocks, Grapevine (Revision), Walnut (Revision) and *Pyrus* rootstocks for presentation to the Committee for final adoption. It plans moreover to discuss or rediscuss working papers on Test Guidelines for Citrus (Revision), European Plum (Revision), Kiwifruit (Revision), Pear (Revision), *Prunus* Rootstocks and Walnut Rootstocks. Like the Technical Working Party for Ornamental Plants and Forest Trees (TWO), it agreed to take planned Test Guidelines to a more advanced stage of preparation before discussing them at the session. For that purpose it developed a special system of "subgroups by correspondence" whereby experts interested in the species were listed and asked to send their comments on the latest draft to a "leading expert," who would ensure that only near-final drafts would be submitted at the session. In addition, the following other items were planned for discussion: updated report from the Technical Working Party on Automation and Computer Programs (TWC) on the testing of uniformity; new methods, techniques and equipment in the examination of varieties; testing of rootstock varieties; standardization of Test Guidelines.

Progress Report on the Work of the Technical Working Party for Ornamental Plants and Forest Trees (TWO)

13. The Technical Working Party for Ornamental Plants and Forest Trees had held its thirtieth session in Svendborg, Denmark, from September 1 to 5, 1997, under the chairmanship of Mr. Joost Barendrecht (Netherlands). The full report is reproduced in document TWO/30/12. During the session, the TWO completed the Test Guidelines for *Bouvardia* prior to their submission to the Committee for final adoption. It also completed Test Guidelines for *Cymbidium*, *Limonium* and Weeping Fig prior to their submission to the professional organizations for comment. It furthermore discussed or rediscussed working papers on Test Guidelines for *Chrysanthemum* and *Zantedeschia*. In addition to the discussions on Test Guidelines, the TWO also discussed the following topics:

(a) It rediscussed in detail the use of image analysis in the DUS testing of ornamental plants. Its main interest lay in the use of image analysis for faster measurement of existing characteristics, for the storage of the data and their use for the selection of similar varieties, and for the storage of photos in digitized form. The special subgroup of experts on image analysis doing the actual research will continue its research on a ring test on roses and will meet again at the end of 1998.

(b) It expressed appreciation for recent developments in the work on the setting up of a UPOV Central Computerized Database and its bi-monthly updating. It saw a demonstration of the database given by the Office of UPOV, and asked all experts to study the disc and make comments for improvement of its use in the ornamental field. It proposed to abandon the exchange of lists of varieties under test, as the information could be extracted from the UPOV-ROM. For that purpose technical experts should be given easier access to the UPOV-ROM at the national level and, if necessary, more copies should be distributed to each member State.

(c) It proposed again to make UPOV documents available in electronic form. It noted that all Test Guidelines might be available in electronic form towards the end of 1997, but pointed out that other important documents should also be made available on the Internet or on CD-ROM. Until UPOV had taken a final decision on its policy, documents should be made available in electronic form on request.



(d) It proposed the following amended definition of an off-type: “Any plant is to be considered an off-type if it differs in the expression of any characteristic, of the whole plant or of part of the plant, from that of the variety, taking into consideration the particular species. An admixture is considered to be an off-type.”

(e) It agreed that new methods so far not used for the testing of distinctness should not be used for the screening of varieties for the layout of trials unless there was a strong correlation between certain results (e.g. bands in the case of electrophoresis) and a morphological or physiological characteristic used in the Test Guidelines.

(f) It praised the expert from South Africa for his preparation of a document on the further harmonization of technical terms in the Test Guidelines and in the description of states of expression of characteristics (TWF/28/7), which had made it easier to understand the different situations existing and thereby to avoid unnecessary different wordings for similar situations.

(g) It looked once again into the question of seed-propagated ornamental varieties, and studied the comparative trials of new varieties set up by breeders in some European countries. At present, however, it saw little possibility of cooperation between the comparative trials of breeders and DUS testing for plant variety protection because of their completely different aims.

(h) It discussed the problems for seed-propagated varieties of species, in which varieties had so far been propagated vegetatively, of judging reasonable uniformity without any seed-propagated varieties being available as a starting point.

(i) It discussed the problem of the first application for a variety in a new species, and the difficulty of obtaining information on other plant material or varieties of that species and their sale as a means of judging whether the variety could be considered new and distinct, and exchanged information on the procedure adopted by various countries in such cases. It was not able to define how much “breeding” was necessary for plant material selected in the wild or in a local market to qualify for protection.

(j) It would prepare a document for the Committee on whether the inclusion of a vector in another variety by grafting would lead to a new variety, illustrated by an old case in *Pelargonium* and a new case in *Euphorbia*.

(k) It agreed that all Technical Questionnaires should include the request for information on whether the candidate variety is a genetically modified variety, using the same broad wording as had been approved for the Test Guidelines for Rape Seed.

14. The thirty-first session of the TWO is scheduled to be held in Christchurch, New Zealand, from November 16 to 21, 1998. At that session, the TWO plans to complete the Test Guidelines for *Cymbidium*, *Limonium* and Weeping Fig for submission to the Committee for final adoption. It will also discuss or rediscuss Test Guidelines for Chrysanthemum (Revision), Cupressus, Giralton Wax Flower, Guzmania, *Hippeastrum*, Iris, Kangaroo Paw, Lavender, *Nerium*, Ornamental Apple (Revision), Pentas, Petunia, Rubber, Tagetes, Thymus, *Osteospermum*, *Poinsettia* (Revision), Gerbera (Revision) and *Eustoma*. In view of the long list of species for which Test Guidelines are planned, it developed a special “subgroup by

correspondence” system whereby experts interested in the species were listed and asked to send their comments on the latest existing draft to a “leading expert,” who would ensure that only near-final drafts would be submitted at the session. Discussion of the following items is also planned: image analysis; testing of seed-propagated varieties of ornamental species; special cases in new species; harmonization of Test Guidelines; new methods, techniques and equipment in the examination of varieties; the Central Computerized Database.

Progress Report on the Work of the Technical Working Party for Vegetables (TWV)

15. The Technical Working Party for Vegetables held two sessions since the last ordinary session of the Council, both under the chairmanship of Mr. B. Bar-Tel (Israel).

16. The thirty-first session was held in Valencia, Spain, from November 24 to 28, 1997. The full report appears in document TWV/30/21. During the session, the TWV discussed and completed for presentation to the Committee for final adoption draft Test Guidelines for Cornsalad (Revision), Garlic, Onion (Revision) and Shallot, Rhubarb (Revision) and Welsh Onion/Bunching Onion. The TWV also discussed (partly in subgroups reporting to the Working Party) and completed for submission to the professional organizations for comments draft Test Guidelines for Black Radish, Radish, Dill, Leek, Okra, Opium Poppy and new draft Test Guidelines for Garlic. In addition to the discussions on Test Guidelines, the TWV discussed or rediscussed the following other subjects:

(a) It expressed appreciation for the recent developments in the work on the setting up of a UPOV-ROM Centralized Database and its bimonthly updating. It was given a demonstration by the Office of UPOV, and asked all experts to study that disc and make any comments for improvement of its use in connection with vegetables.

(b) It proposed again to make UPOV documents available in electronic form. It noted that all Test Guidelines would be available in electronic form towards the end of 1997, but pointed out that other important documents should also be made available on the Internet or on CD-ROM.

(c) It rediscussed the definition of an off-type proposed to the Committee by the Technical Working Party for Agricultural Crops (TWA), the Technical Working Party for Fruit Crops (TWF) and the Technical Working Party for Ornamental Plants and Forest Trees (TWO), and agreed to the definition proposed by the TWA for off-types and that of the TWO for admixtures.

(d) It noted document TWF/28/7 prepared by experts from South Africa on the further harmonization of technical terms in the Test Guidelines and in the description of states of expression of characteristics which made it easier to understand the different situations existing and thereby avoiding unnecessarily different wordings for similar situations.

(e) It noted difficulties in the testing of uniformity in open-pollinated vegetable hybrids and proposed to apply the requirement of relative uniformity in the testing.

(f) It noted the low source of genetic variation in garlic varieties due to the absence of sexual reproduction and will ask the Committee for advice.

17. The thirty-second session of the TWV was held in Slupia Wielka, Poland, from June 29 to July 3, 1998. The full report appears in document TWV/32/9 Prov. During the session, the TWV discussed some points left open with respect to the adopted Test Guidelines for Cornsalad (Revised) and for Welsh Onion/Bunching Onion and completed (partly in subgroups reporting to the Working Party) for presentation to the Committee for final adoption Draft Test Guidelines for Black Radish, Radish, Dill, Leek, Okra, Onion (Revision) and Shallot, Opium Poppy and Rhubarb (Revision). In addition to the discussions on Test Guidelines, the TWV discussed or rediscussed the following other subjects:

(a) It noted the adoption of document TC/34/5 comprising a revised version of the document on the testing of uniformity in vegetatively propagated and self-fertilized varieties.

(b) It noted the new definition of off-types.

(c) It noted that the distribution of lists of varieties under test was discontinued because the information could be obtained from UPOV-ROM.

(d) It agreed to the report on the use of electrophoresis in cross-fertilized varieties and that electrophoretic characteristics could only be used as supportive evidence but not for DUS testing alone.

(e) It collected information on the use of disease resistance tests for DUS testing and will update that information regularly.

(f) It discussed the handling of GMO varieties by the different member States and will prepare a circular for the collection of information on that handling.

(g) It regretted that the Technical Committee had not considered the views of the horticultural Technical Working Parties and had tried to impose the use of COY against the general opinion of the crop experts.

(h) It discussed the meaning of "similar growing period" used in the Test Guidelines and asked the Technical Committee for advice.

(i) It discussed and will continue discussions on the problem of the use of bulk samples (e.g. for sugar or oil content), as that use would preclude the possibility of testing uniformity.

(j) As the last Technical Committee session before the ordinary session of the Council in 1999 will be held in March or April 1999, it already made a proposal to the Technical Committee to recommend to the Council that it elect in 1999 Mrs. Julia Borys (Poland) as new chairman for the TWV.

18. The thirty-third session of the TWV is scheduled to be held in Hanover, Germany, from July 5 to 9, 1999. During that session, the TWV will discuss or rediscuss, as time permits, working papers on Test Guidelines for Basil, Broad Bean and Field Bean (Revision), Celeriac (Revision) and Celery (Revision), Curly Kale (Revision), Fennel, Globe Artichoke, Horse Raddish, Industrial Chicory, Kohlrabi (Revision), Lentil, Rosemary, Swede (Revision), Turnip, Witlof, Tomato (Revision), Lettuce (Revision). In addition to Test Guidelines, it is

planned to discuss Genetically Modified (GM) varieties, offers for the testing of resistance to diseases and matters resulting from the session of the Technical Committee.

New Methods, Techniques and Equipment in the Examination of Varieties, Including the Progress Report on the Work of the Working Group on Biochemical and Molecular Techniques and DNA Profiling in Particular (BMT)

19. The Working Group on Biochemical and Molecular Techniques and DNA Profiling in Particular (BMT) held its fourth session at Cambridge from March 11 to 13, 1997, under the chairmanship of Mr. Joël Guiard. The draft report on the session is reproduced in document BMT/4/21. During its session, the BMT did the following:

(a) It heard short presentations of research results on Azalea, Carnation, Maize, Oilseed Rape, Peach, Potato, Ryegrass, and Tomato.

(b) It heard explanations on the usefulness and limitations of statistical methods and especially on similarity, clustering and dendrograms, together with a review of methods for cluster analysis of marker data and the use of the analysis of molecular variance (AMOVA) for distinctness studies. In this respect, it noted especially the frequent misuse of dendrograms as results of a study.

(c) It heard reports on the correlation and causal linkage between DNA markers and morphological traits and on the relationship between genetic distance and morphological distance between varieties, and noted that a correlation between morphological characteristics and DNA markers existed in a few cases only.

(d) It noted the breeder's reconfirmation of their position on DNA profiling and on the study on the use of DNA profiling methods by expert witnesses in disputes concerning essential derivation, and also on the effect of different plant breeding schemes in the evaluation of parentage between them. The judgment of essential derivation was not considered to be a task for the national authorities, although the courts could approach them for technical advice.

(e) Very contradictory views were expressed on the possible use of DNA profiling for prescreening as a possible tool in DUS testing. There will have to be further discussion before an agreed opinion is reached.

(f) The greatest shortcoming remains the checking and control of uniformity in characteristics obtained with biochemical or molecular markers. The next session will have to concentrate on that topic.

(g) During the discussions on possibilities and consequences of the introduction of DNA profiling methods for DUS testing, the Vice Secretary-General of UPOV reported on definitions prepared by the Administrative and Legal Committee (CAJ) in the context of the interpretation of Articles 1, 7 and 14(5)(b) of the 1991 Act. A detailed study was requested of the records of the Diplomatic Conference of 1991 and its preparation to establish whether the CAJ's interpretations were correct.

20. The fifth session of the BMT is scheduled to take place in Beltsville, United States of America, from September 28 to 30, 1998. At that session, discussions are planned on the following subjects: (a) Short presentation of research results or their follow-up on different species; (b) Assessment of variability within varieties; (c) Assessment of variability between varieties; (d) Statistical methods: Confidence intervals and accuracy of distance estimates; Alternative to dendrograms; Refinement of the analysis of molecular variance (AMOVA) for distinctness studies and as a tool to assess uniformity; Combination of information from diverse data types (AFLP, SSR, morphological data, etc.); (e) Position of the breeders vis-à-vis DNA profiling; (f) Use of DNA profiling methods by expert witnesses in disputes concerning essential derivation; (g) The use of DNA profiling for prescreening as a possible tool in DUS testing; (h) Possibilities and consequences of the introduction of DNA profiling methods for DUS testing; (i) Definition of variety; (j) Future program of the BMT (date and place of the next session if any).

21. *The Council is invited to*

*(i) note and approve the above information and the program of the Technical Committee and the Technical Working Parties;*

*(ii) to take a decision on the proposal of the Technical Committee as contained in paragraph 2(i) and to elect Mrs. Elise Buitendag (South Africa) as new chairman and Mr. Raimundo Lavignolle (Argentina) as new vice-chairman of the Technical Committee;*

*(iii) to take a decision on the proposal of the TWA as contained in paragraph 7 to elect Mrs. Françoise Blouet (France) as new chairman of the TWA for the coming four years.*

*(iv) to take a decision on the proposal of the BMT concerning its continuation of work and possibly its proposal for a new chairman as explained in paragraph 2(k) and to be reported upon orally or in an addendum to this document.*

[End of document]