

TWF/33/22

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## INTERNATIONALUNIONFORTHEPROTECTIONOFNEWVARIETIESOFPLANTS GENEVA

# TECHNICALWORKINGPA RTY FOR FRUITCROPS

Thirty-ThirdSession
SanCarlosdeBariloche,Argentina
November25to 29,2002

#### **REPORT**

adopted by the Technical Working Party for Fruit Crops

## OpeningoftheSession

- \*1. The Technical Working Party for Fruit Crops (hereinafter referred to as "the TWF") held its thirty-third session in San Carlos de Bariloche, Argentina, from November 25 to 29, 2002. The list of participants is reproduced in Annex Ito this report.
- \*2. The TWF was welcomed by Mr. Marcelo Labarta from the *Secretaría de Agricultura*, *Ganadería, Pescay Alimentación* (SAGPyA).
- \*3. ThesessionwasopenedbyMr.JózsefHarsányi(Hungary),ChairmanoftheTWF,who welcomedtheparticipants ,andinparticularnewparticipants ,totheTWF.

<sup>\*</sup>Theasteriskedparagraphsinthisdraftreportarereproduced from d the Conclusions).

## AdoptionoftheAgenda

- 4. The TWF adopted the agenda, as reproduced indocument TWF/33/1 Rev. On the basis of the adopted agenda and the information received from experts, it was agreed to organize two subgroups to allow the experts to participate in discussions of the documents in which they had a particular interest. The composition of the subgroups was as follows:
- (a) Subgroup I: Apricot(TWF/33/13), Quince(TWF/33/7), Raspberry(TWF/33/8), Apple(TWF/33/11);
- (b) Subgroup II: Poncirus (T WF/33/6), Persimmon (TWF/33/14), Prickly Pear (TWF/33/9), Cherimoya (TWF/33/12), Avocado (TWF/33/10) and Mango (TWF/33/16).

## <u>ShortReportsonDevelopmentsinPlantVarietyProtectioninFruitCrops</u>

- (a) Reportsfrommembersandorganizations
- Mr. Marcel oLabarta (Argentina) provided a presentation on plant variety protection in Argentina. Hereported that the Argentinean Seed Protection System was based on the 1973 Law for Seed and Plant Genetic Developments N ° 20247. He indicated that its 1991 RegulatoryDecreewasinaccordancewiththe1978ActoftheUPOVConvention,whichhad beenapproved,in1994,bytheNationalCongress.HeexplainedthattheNationalRegisterof Property of Cultivars (RNPC) had been created in accordance with the Seeds Law. The RNPC was administered by the National Register Department -Seed Area of Secretariat of Agriculture, Livestock, Fisheries and Food. The RNPC covered different areas, dealing with administrative and technical matters, and was managed by e leven people. He reported that the technical areas were: cereals, oil seeds, forage, vegetables, fruits and ornamentals, and statistical and field trials. He also explained that the main objectives of the National Register Departmentwere examination fo rthe purposes of protection (which used specific application forms and tables of characteristics, and included all UPOV asterisked characteristics in the latter), control of denominations and distinctness requirements , management of the reference collection for some species (soybean, wheat, oilseed rape, rye, oats and some forage crops) and supervising the morphological and phenological characteristics in the breeder's field trials.Sofar,Argentinahadgrantedprotectio nto 1571 plant varieties. These were divided asfollows: cereals (32%), oil seeds (27%), forage (21%), vegetables (10%), fruits (5%), ornamentals (3%), and industrial crops (2%). Sixty percent of the titles were granted to nationally bred varieties an dthe rest to foreign bred varieties. Fruit varieties 80 titlesof protection. Hereported that , since 1992, the number of the applications and titles granted had risen substantially and that the increase resulted from the review of their Lawin 1991 to harmonize it with the 1978 Act of the UPOV Convention. He concluded by explaining that new technologies and the current breeding techniques would require a new legalframeworktoprotectplantbreeder'srightsand,therefore,theyhadstarte PlantBreeders' Rights Legislation in order to bring it in line with the 1991 Act of the UPOV Convention.
- 6. The TWF received the following short reports from experts.
- 7. Mrs. Vera Lucia Dos Santos Machado (Brazil) reported that her Office had received more than 400 applications of which 45% had been for soyabean. Only 3 applications had been for fruitcrops.

- 8. Mr. Manuel Toro Ugalde (Chile) reported that ,of more than 500 applications received, around 100 were for ornamental, 200 for a gricultural and 200 for fruit crops, and were mainly from Europeand the United States of America.
- 9. Mr. Richard Brand (France) explained that the Groupe d'études et de contrôle des variétésetse mences (GEVES) was atechnical institute acting on behalf of national and supra national committees in France and the European Union, respectively. It was responsible for: varietal studies for registration, plant breeders' rights and seed standards and certification controls; seed control as a national seed station (International Seed Testing Association education and methodology research in the field of seed and (ISTA) representative); varieties; and coordinator, or partner, of genetic resources management on behalf of French GeneticResourcesOffice.HeexplainedthatDUSandVCUtestswereconductedbyGEVES forfieldcrops, vegetables and ornamental species -fruitandforesttrees were mainly tested by contracts with the National Agronomic Research Institute (INRA) and foreign authorities (as for some ornamental species). DUS studies were conducted by GEVES on apple, pear, cydonia (Angers), apricot, peach (Avignon), Castanea, Prunus genum, cherry (Bordeaux), citrus (Corsica) and grapevine (Montpellier), including rootstocks. He reported that around 150 applications were received each year for these species at the national or European level. It was explained that France was offering facilities for DUS testing multilateral cooperation. The Plant Breeder's Right System had been in existence in France since 1970, a fruit registration system since 1950 and a certification scheme since 1960. Other species (almond, berries, nut, olive, etc.) we re sent to foreign authorities, inside the EuropeanUnion, for DUStesting.
- 10. Mr.ErikSchulte(Germany)reportedonhisworkasTestingStationManagerandHead of the Sector for Fruit Crops in the *Bundessortenamt*. He noted that more than 3,000 plant breeders' rights had been granted, and that 2500 of the varieties were added to the National List. Sixty applications had been received in that year of which 60% were applications for Community Plant Variety Rights. He indicated that the number of applications for plant breeders' rightshaddecreased overthelast 10 years.
- 11. Mr. József Harsányi (Hungary) reported that the Hungarian Government had submitted a draft patent law, in line with the 1991 Act of the UPOV Convention, an dthat his country was, at that moment, bound to the 1978 Act. He explained that the Hungarian Minister for Foreign Affairs had received authorization to sign the 1991 Act of UPOV Convention in the near future. He noted that Hungary, as well as nine othe rEastern European countries, might be members to the European Union as of May 1, 2004. He reported on the existing cooperation with the German Bundessortenamt in the field of harmonization of laws and in the practice of DUS and VCU testing. He indicated that, in 2001, Hungary had received patent applications for 1 apple, 6 cherry, 1 plum, 2 strawberry varieties and that patents had been granted for 1 apple, 1 jostaberry, 1 cherry rootstock and 1 grapevine rootstock variety.
- 12. Mr. Baruch Bar -Tel (Israel) reported that he was working as part of the Plant Breeders' RightsTestingUnit,AgriculturalResearchOrganization,TheVolcaniCenter. ThatUnitwasresponsiblefortestingallspecies.Heindicatedthatfrom1973tothat moment, more than 3 ,500 applications had been received, of which 5% were for fruits crops, mainly, citrus, grapevine, Japanese plum, strawberry, passiflora, avocado, nectarine, mango and pricklypear .Furthermore,hereportedareduction inthenumberofapplications.

- 13. Mr. Kenichi Atsuta (Japan) mentioned that, in 2001, 1 ,057 applications had been received, of which 58 were for fruit crops. He indicated that, at the end of July 2002, there had been 29 applications for fruit crops.
- 14. Mr. Jackson Shuma (Kenya) reported that the Kenya Plant Health Inspectorate Service (KEPHIS) was responsible for plant variety protection. He indicated that, in his country, there were more applications for plant variety protection in orn amental crops than for any other crop. He explained that legislation had been introduced in 1999 but, because of incomplete technical facilities, no tests had been completed and no grants for protection issued.
- 15. Mr. Alejandro Barrientos (Mexic o) reported that many applications had been received from breeders originating in the United States of America. Heanticipated that the recould be up to 30 applications for Opuntia in the current year.
- 16. Mr. Gerard Bolscher (Neth erlands) reported that he was working on the inspection of horticultural crops, but especially fruit crops. He explained that there was a strong cooperation of his country with the United Kingdom and the C PVO in the technical examination of new varieties of plants.
- 17. Mr. Chris Barnaby (New Zealand) reported that the number of applications for protection of fruit varieties in New Zealand had remained relatively constant, at around 10 to 25peran num. Therehadbeen are surgence of interestin Pepino (Solanum muricatum), Feijoa (Accasellowiana) and Rubus species. New types of interestin Pepino (Solanum muricatum) developed in Rubus with mixing of logan berry, blackberry, etc. National test guidelines are being developed for the testing of all Rubus species to include the senewhybrid varieties.
- 18. Mr. Pedro M. Chomé Fuster (Spain) explained that , in his country , all aspects concerning varieties (commercial list, protect ion, seed and seedling certification, etc.) were carried out by the Spanish Plant Variety Office, namely, *Ofcina Española de Variedades (OEVV)*. Hereportedthat, during 2002, the OEVV had received 25 new applications for fruit varieties, of whi ch 14 were for peach and 7 for apple. Currently 215 varieties were under examination, mainly comprising mandarin, apple, peach and strawberry. He expressed an interest in the use of molecular techniques in DUS testing but noted that the OEVV had not yet started to develop this.
- Mrs. Alison Smith Lean (United Kingdom) reported that she was working for the Imperial College at Wye, University of London, under a contract from the United Kingdom al Affairs (DEFRA). Sheexplained Government, Department of Environment, Food and Rur that she was responsible for testing all temperate fruit varieties, except strawberries and raspberries, which the United Kingdomsentto Germany for testing. Tests were conducted at, the DEFRA site for National Fruit Co llections in Brogdale, for UK Plant Breeders' Rights, the CPVO and others countries, such as Belgium and the Netherlands, under bilateral agreements. She indicated that over 4,000 named varieties were grown in the collections of, which over 2,000 were ap ple varieties, 600 pears, 500 cherries, 300 plums and 300 currants and goose berries. The number of applications for fruit remained small, reflecting the present stateoftheindustry. The majority of varieties intesting were apples, just underhalf of w hich were mutation varieties. Also intesting were 2 pear varieties and 2 goose berry varieties. All testingfollowedtheUPOVTestGuidelines ,usingtraditionalmethods.

- 20. Mr. Sergio Semon (Community Plant Variety Office (CPVO)), reported that, in 2001, 2,100 applicationshadbeen received by the CPVO of which more than 100 applications were for fruit crops (i.e. 5%), but noted that the figure may be higher for 2002. He noted that the main fruit species were: apple, strawberry and peach/nect arine, accounting for two thirds of all fruit applications. Draft protocolshadbeen developed in conjunction with national experts from France, Germany, Italy, Portugal, Spain and the United Kingdom for apple, pear, peach/nectarine and strawberry. He reported that testing of apple varieties, according to mutation groups, would probably be centralized in certain examination of fices in 2003. He informed the TWF that the 10,000 the grant of protection was awarded in September 2002.
  - (b) Reportondevelopment swithinUPOV
- \*21. The TWF received an oral report from the Office of the Union on the latest developments on plant variety protection at the Council, the Administrative and Legal Committee (hereinafter referred to as "the CAJ"), the Technic al Committee (hereinafter referred to as "the TC") and the Technical Working Parties (hereinafter referred to as "the TWPs").

## MolecularTechniques

- (a) Developments in UPOV concerning the use of molecular techniques in DUS Testing(documentTC/38/14Add . -CAJ/45/5Add.)
- 22. Based on document TC/38/14 Add. -CAJ/45/5 Add., the TW Freceived an oral report from the Office of the Union on the latest developments at the Subgroups on Molecular Techniques (hereinafter referred to a subgroups of Technical and Legal Experts on Biochemical and Molecular Techniques (hereinafter referred to as 'the BMTReview Group').
- 23. The TWF noted that BMT had held its seventh session in Hanover, Germany, November 21 to 23,2001, under the Chairman ship of Mr. Michael Camlin (United Kingdom). It was reported that much of the meeting had focussed on the reports from the Crop Subgroups, which had been initiated at the previous BMT session and managed threlevant TWPs. The future role of the BMT was also discussed. The TWF noted that the BMT had considered it important for the BMT Review Group to consider models for the use of biochemical and molecular techniques in DUS testing, and make recommendations on the acceptability of the following models, before further consideration of the technical aspects:
  - Option 1: Molecular characteristics as a predictor of traditional characteristics (Proposal 1):
  - (a) use of molecular characteristics which are directly linked to traditional characteristics(genespecificmarkers);
  - (b) use of a set of molecular characteristics which can be used reliably to estimatetraditionalcharacteristics; e.g. quantitative traitloci.
  - <u>Option 2</u>: Calibration of threshold levels for molecular characteristics against the minimum distance intraditional characteristics (Proposals 2 to 4).
  - Option3: Developmentofanewsystem(Proposals5and6).

<u>24.</u> Itwasreportedtothe TWFthatthefollowingrecommendationswe remadebytheBMT ReviewGroup:

Option 1(a) (Proposal 1): For a gene specific marker of a phenotypic characteristic. This proposal was, on the basis of the assumptions in the proposal, acceptable within the terms of the UPOV Convention and would not u ndermine the effectiveness of protection of feredunder the UPOV system;

Option 2 (Proposals 2, 3 and 4) : Calibration of threshold levels for molecular characteristics against the minimum distance in traditional characteristics for Maize, Oilseed Rape and Rose, respectively, where used for the management of reference collections, were, on the basis of the assumptions in the proposals, acceptable within the terms of the UPOV Convention and would not undermine the effectiveness of protection of feredunder the UPOV system; and

Option 3 (Proposals 5 (Rose) and 6 (Wheat) ): It noted there was no consensus on the acceptability of these proposals within the terms of the UPOV Convention and no consensus on whether they would undermine the effectiveness of protect ion offered under the UPOV system. Concerns were raised that, in those proposals, using that approach, it might be possible to use a limit less number of markers to find differences between varieties. The concern was also raised that differences would be found at the geneticle velwhich were not reflected in morphological characteristics.

The TC agreed with the conclusions that proposals 1,2,3 and 4 could be pursued on the basis of the assumptions, whilst recognizing the need for further work to examine these assumptions and, in the case of option 2, to improve the relationship between morphological and molecular distances. The TC had noted the divergence of views expressed regarding proposals 5 and 6. The CAJ agreed with the conclusions of the BMT Rev iew Group and endorsed the opinion of the TC.

\*25. ItwasagreedtoproposethattheOfficeoftheUnionproduceadocumentforinterested parties, and in particular breeders, clearly explaining the current UPOV position on the possible use of molecular characteristics in DUS examination. This should explain the possibleapproachessetoutinoptions 1,2 and 3 and the view within UPOV one achofthese options. It should also explain the current situation regarding developments in the Crop Subgroups and explain how work on other crops could be initiated. It was emphasized that this document should make clear that it did not address the possible use of molecular characteristics in other areas, such as variety identification or judgment of essen tial derivation. The Office of the Union suggested that it could draft such a document in consultation with the Chairperson softhe TC, CAJ and BMT, but nevertheless considered that it might be appropriate to submitthed raft for approval to the TC and CA J before it was more widely circulated.

#### (b) AdhocCropSubgroups

- \*26. Mr. Erik Schulte (Germany) reported on the discussions in the BMT regarding the possible establishment of a Crop Subgroup for Peach and/or Citrus. It had been agreed that, at that time, there was not a clear basis to justify the establishment of a crop subgroup.
- 27. Mr. Schulte presented a review of current work on molecular techniques in peach and citrus (full references are provided in Annex II). Heind icated that model crops were chosen

bythe Technical Working Parties to see which of the models explained above (see paragraph 22, options 1 to 3) could be fulfilled. Here called that the TWF, knowing thatsomeworkon peachhadsofarbeencarriedoutinFranceandalsoinItaly, decided to take this species as a model crop for the BMT. In order to provide the participants of the TWF with certain background knowledge to allow them to judge properly a bout further procedures, a short survey on recent publications dealing with molecular techniques in connection with fruit specieshadbeenrequested. As are sult, Mr. Schultereported that a modified technique of the PCRmethod, using randomly amplified polymorphic DNA markers (RAPD - analysis) to show genetic linkage was used in blueberry (Burgher et al., 2002; Pelashock et al. 2002), melon and pear (Teng et al., 2002). This method was also used for cultivar (Levi et al., 2001) identification in apple (Stark - Urnau, 2002) and olive (Besnard et al., 2001). In Michigan, United States of America, restriction fragment -length polymorphisms (RFLP profiles) were used to identify self -incompatibility alleles in sweet cherry (Haucket al. 2001). In work on Asian pear, in Japan, a modified technique, the simple sequence repeat (SSR) analysis, was used to identify different varieties (Yamamoto et al., 2002). He explained that this method varieties of grapefruit (Corazza - Nunes et al., was also used to show genetic linkage between 2002), apple (Banson et al., 2001), pear (Yamamoto et al., 2002), grapevine (Schütz, 2001) and peach (Quarta, 2001). He indicated that this latter experiment had been presented at the BMT meeting in Novem ber 2001 in Hanover, and that this work had been taken into consideration by the TWF when deciding to propose for peach as a model crop. The author had worked with both RAPD and SSR analysis. The resultant dendrograms allowed an analysis of the pedigree of the accessions tested. In her lecture atthe BMT, Dr. Quarta had pointed out that the methods used might be considered helpful to examine uniformity, but wouldprobablyfailto prove distinctness, as mutant varieties were not properly discriminated by the se methods. Nevertheless, she considered molecular marker techniques to be helpful for the management of reference collections. She explained that SSR, or microsatellite analysis, was considered to be the most precise and reproducible method, but the development time-consuming and expensive. Where it was sufficient, the of SSR markers was expensiveRAPDanalysiswaschosen.Besidesscreeningo fgenotypematerialingenebanks or other collections, these methods were often used in breeding work, in a so -called "marker-assisted selection."

- 28. Mr. Schulte explained that the ma jor problem to be confronted with when testing varieties in growing trials was the decreasing minimum distances resulting from an increasing amount of mutation varieties. None of the techniques mentioned above had so farmanaged to distinguish mutations successfully. For the time being, molecular marker techniques were far from being able to replace the conventional assessment of morphological or phenological characteristics in connection with DUS testing of fruit varieties. However, with increasing sensitivity, the methods would increasingly gain interest as a tool to provide further information ontested varieties, in addition to the results of comparative growing trials.
- \*29. The expert from Franc e reported that the use of molecular characteristics for variety identification was being investigated in apple, apricot, grapevine and peach. However, he noted that there were no plans to extend this work to the examination of DUS, firstly because it was not necessary for the examination of distinctness and secondly, because it was not possible to distinguish varieties resulting from mutation.
- \*30. The expert from the CPVO reported on work being conducted on peach in Spain.
- \*31. The TWF concluded that it would not be appropriate to propose the establishment of a crop subgroup at this time. However, it welcomed the proposal from the expert from France to prepare a summary of work on molecular characteristic infruit crops for eview at the next

TWF meeting. This summary would explain the technical progress, but would also consider whether there were plans for this work to be applied for the examination of DUS and, therefore, provide support for the establishment of acropsubgroup.

## ProjecttoConsiderthePublicationofVarietyDescriptions(DocumentTC/38/10Add.)

- \*32. The TWF proposed that the following species be suggested for consideration by the TC as models for the project on the publication of variety descriptions:
  - (a) Apple

The coordinating member would be the United Kingdom. The other interested parties would be: Argentina, France, Germany, Hungary, Netherlands, New Zealand and CPVO.

(b) Strawberry

The coordinating member would be Isra el. The other interested parties would be: Argentina; France, Germany, Hungary, Kenya, New Zealand, Spain and CPVO.

- \*33. It noted that the Test Guidelines for Apple were currently under revision and that a surveyofthedescriptionsofvarie tiesforthe characteristics inthe Test Guidelines would help in the selection of asterisked and grouping characteristics and might indicate if certain characteristics were not described in a clear way. Furthermore, it noted that it was very difficult to maintain a living collection of all varieties of common knowledge, because of the global nature of the crop. It heard that a survey of variety descriptions had been undertaken within the International Plant Genetic Resources In stitute (IPGRI) and that the is had shown a high degree of variation in variety descriptions. It further noted that it would be necessary to consider the regional distribution of apple varieties.
- \*34. The TWF considered that strawberry would also be a good basis for a model study because there were anumber of varieties which were grown on a global basis and that most members of the Union would have an interest. Furthermore, there would not be a problem of mutation in this crop.
- 35. It was noted that the CP VO was planning to undertake an exchange of variety descriptions for apple and strawberry in order that variety collections within the European Union wereup -to-date.

#### **UPOVD**atabases

\*36. The TWF received an oral report from the Office of the Union on the latest developments in the UPOV databases.

## **TGPDocuments**

(a) TGPdocumentstowhichtheTChasgivenhighest priorityfordiscussion:

## TGP/7.1Draft1"GuidanceforDraftersofTestGuidelines"

- \*37. TheOfficeoftheUnionintroduceddocumentTGP/7.1Draft1.
- \*38. The TWF made the following recommendations:
- ASW3 The TWF agreed with the prop osal from the TWO that additional standard wordingand/orguidancenotesshouldbedevelopedtoexplainthenatureofthe growing cyclein section 3.3, where this was not obvious. For example, in the case of fruit trees it should explain that the growing cycle should relate to the production of fruit. It may also be necessary to indicate that the first fruit cycle should not be counted.
- ASW3(a) It agreed with the TWO proposal that the word "note" should be replaced by "key" to avoid confusion with the u se of the term notes in the Table of Characteristics.
- ASW3(b) The TWF proposed that the title of this section should read "Stage of development for the assessment."
- ASW5(c) Itagreedwiththe TWO that this wording didnot coverall the options possible in Test Guidelines where there were both seed propagated and vegetatively propagated varieties, e.g. where there were self -pollinated varieties. It proposed that this section should be moved to the end of ASW 5 and various options developed to cover all the combinations of (a), (b), (d) and (e) and, furthermore, that these options should not be restricted to ornamental varieties.
- ASW7 It was agreed that the phrase "Variety resulting from" at the beginning of section 4.1.1 also related to sections 4.1.2, 4.1.3 and 4.1.4 and the text should beamen ded accordingly.
- ASW9 It was agreed that the title should be amended by insertion of the words "of seedpropagated" before "hybridvarieties."
- ASW10 The TWF noted the concerns from the International Seed Fede ration (ISF) regarding the requirement for color photographs but, as for the TWO, requestedISFtoexplainitsparticular concerns.
- GN6 The TWF expressed its support of the view of the TWA that option 2, rather option 1, should be presented in GN6.
- GN 10(a)/(b) The TWF expressed its support of the current draft of GN 10.
- GN10(c) The TWF agreed with the TWO proposal that, in addition to availability, the guidancenotes should request that drafters of Test Guideline stake into account the expected life -time of varieties when selecting example varieties. For example, if a variety had proved to be commercially viable over a very long periodit might be expected to have a longer future life expectancy than some newer varieties where experience showed that the commercial viability of such newer varieties was, in general, quite short.

- GN10(d) The TWF proposed that this section should explain where such fluctuations could arise, for example if a variety had a particular interaction with the photoperiod
- GN10(h)(i) The TWF proposed that the first paragraph should be elaborated to explain that if the same example varieties are not used it is not possible to be sure that the range in one territory is the same as that in another territory since the range of varieties and consequently the range of states of expression may be different.

The TWF didnotagree with the proposal from the TWO to remove the list of example varieties to an annex in all Test Guidelines since it considered that it was important to have the example varieties in the place where most convenient for users. It also emphasized that the use of different sets of example varieties should be minimized. Thus, it didnot consider that factors such as phytosanitary requirements were necessarily a basis for developing different sets of example varieties since these could be overcome with reasonable effort.

It proposed that, for a situation where multiple sets of example varieties were unavoidable, the different sets of example varieties should be presented in an annex in the same structure as the Table of Characteristics, such that the appropriate set could be easily copied and pasted into the Table of Characteristics. Furthermore, it proposed that this needs only to be done for selected characteristics if the universally accepted varieties could be accepted for the other characteristics.

- GN10(h)(ii) The TWF agreed with the TWO that the guidance notes should clarify that example varieties from different countries should not be provided for the characteristic unless it was known that they represented the same scale. In cases where this was not the case the sets of example varieties from different countries should be provided as separate lists.
- GN14 The TWF proposed that further measures were not necessary since the asterisked characteristics clearly identified those characteristics which should be examined in all countries. However, it noted that it may not always be necessary to include all those characteristics fulfilling the requireme nts for inclusion in the Table of Characteristics if there was a clear consensus within all interested parties to omit certain of the secharacteristics.
- GN15 The TWF agreed with the TWO that this information should be presented in a table to make it easi i ert of ollow.
- GN19 The TWF agreed with the TWO that the title of this should be "Recommendationsforconductingtheexamination."
- GN21(a) The TWF agreed with the TWO that guidance was needed for the use of the underlined wording to indicate where a ch aracteristic only applied to certain typesofvarieties.
- GN22(c) The expert from IPGRI explained that IPGRI had a different approach to the order of states of expression for growth habit and shapes of the apex. The Technical Director of UPOV agreed that , in the interests of harmonization of

describing characteristics, UPOV could consider changing its approach if there was a technical reason for doing so. Indeed, the process of developing TGP/7 "Development of Test Guidelines" was intended to offer an opportunityforall interested parties to comment in this way and welcomed such comments. The expert from IPGRI also agreed that, in the interests of harmonization of describing characteristics, IPGRI could consider changing its approach if there was a tech nical reason for doing so. With regard to the growth habit characteristic it was agreed that the only fixed state for all versions of this characteristic was "erect", since the other end of the scale might end with "prostrate", "reflexed," etc. according to the individual circumstances. It was forthisreasonthat"erect" was attributed state 1 since it would always be state 1 in all characteristics. With regard to the shape of the apexit was agreed that, at first sight, there did not appear to be any c lear reason for the order going from "pointed" to "rounded" and it was agreed to check if there was a particularreason.

- GN23 The TWF noted that this section would be reviewed in discussions on TGP/7.3.1.
- GN24 TheTWFagreedthatthesecondsentences houldbere -wordedasproposedby the TWA. It further proposed that the final sentence should read as follows: "Wherenecessary, characteristics in the Test Guidelines can be simplified (e.g. color groups can be created rather then requesting an RHS Colo reference) for inclusion in the Technical Questionnaire (TQ), if this would be of assistance for the breeder completing the TQ. Furthermore, the characteristics contained in the Test Guidelines can be combined or formulatedinawaywhichismore easily recognizable to breeders when presented in the TQ. For example, the TQ for peach may request information on whether the variety is a "melting" or "non -melting" type, which although not a characteristic in the Table of Characteristics would provideinformationonthe states of expression of certain characteristics included in the Table of Characteristics.

#### TGP/7.2Draft1"TGTemplate"

- 39. TheOfficeoftheUnionintroduceddocument TGP/7.2Draft1.
- \*40. The TWF made the following recommendations:

#### 3.5 Number of Plants/Parts of Plants to be Examined

It agreed with the TWA and TWO respectively that "on single plants" should be inserted after the word observations and that the following sentence be introduced to clarify that other types of observation, in particular visual observation, were also possible.

"Unless otherwise indicated, all observations determined by means other than measuring or counting should be made on all plants in the test."

#### 6.5 Legend

The TWF strongly supported the retention of an indication of the type of expression (qualitative characteristic (QL), quantitative characteristic (QN), pseudo -qualitative

characteristic (PQ)) in all Test Guidelines and did not consider that this should be optional. It no ted that where the expression of an individual characteristic was unknown, the indication for that characteristic could be omitted, but emphasized the importance of providing information to users of Test Guidelines where at all possible.

## 7. <u>TableofChara cteristics</u>

It agreed with the TWO that the title of GN 19 should be changed to "Recommendationsforconductingtheexamination."

9.	(New)Informationonplantmaterialtobeexamined				
orpes	tedbyf sticide	expression of a characteristic or several characteristics of actors, such as pests and disease, chemical treatment (e.g. growns), effects of tissue culture, different roots tocks, scions taken from the sesofatree, etc.			
	ted by	the best of your knowledge, will the plant material to be the following factors in a way which may affect the expres ticsofthevariety?			
	(a)	Pests	Yes[]No[]		
	(b)	Disease	Yes[]No[]		
	(c)	Micro-organisms(e.g.virus,bacteria,phytoplasma)	Yes[]No[]		
	(d)	Chemicaltreatment(e.g.growthretardantorpesticide)	Yes[]No[]		
	(e)	Otherfactors	Yes[]No[]		
	Plea	aseprovidedetailsofanyfactorswhereyouha veindicated	'yes".		
9.3	Has	theplantmaterialtobeexaminedbeensubjectedto:			
	(a)	Tissueculture	Yes[]No[]		
	(b)	Differentrootstockfromthattobeusedintheexamination (ifappropriate)	Yes[]No[]		
	(c)	Other	Yes[]No[]		
	Plea	Pleaseprovidedetailsofwhereyouhaveindicated"yes".			
	W9.4 erdisea	Has the plant material to be examined be entested for the presense?	enceofvirusor		
	Yes No	[] (pleaseprovidedetails) []]			

## 10. TechnicalQuestionnaire

10.6 Similarvarieties and differences from these varieties

The TWF agreed with the recommendation from the Technical Working Party for Agriculture (TWA), that a suitable example should be provided for the individual Test Guidelin es. It also agreed with the TWO recommendation that a brief explanation should be provided for the applicants to ensure that they would understand how to complete this section.

## 11. AnnextotheTechnicalQuestionnaire

The TWF agreed with the TWO that i t was important for the information requested in this annex to be provided at the time of the application and that this section should be included within the Technical Questionnaire. To improve the clarity for users who might be more familiar with applica tions for the patent systemit proposed that the word "plant" should be inserted before "material." It was undecided whether the heading should be changed to "Information on Material to be Submitted for Examination" and noted that it would be necessary to see if this change would be acceptable to members using a breeder based testing approach. On this basis it proposed that it should read as follows:

## <u>TGP/7.4Draft1"ProceduresfortheIntroductionandRevisionofTestGuidelines"</u>

- 41. TheOf ficeoftheUnionintroduceddocumentTGP/7.4Draft1.
- \*42. The TWF made the following recommendations:
  - 1.2.1 The TWF proposed that this section should explain that the main international non-governmental organizations in the field of plant bre eding and genetic resource management were invited to be observer organizations and would thereby be involved inthedrafting of Test Guidelines.
  - 2.3 The TWF requested that, at each meeting of a TWP, the Office of the Union reportsonproposals from the TWPs for the drafting of Test Guidelines, to allow them to consider if they would wish to be involved in, or perhaps be responsible for, the drafting of particular Test Guidelines.
  - 2.4.2 Itwasagreedthatthissectionshouldbemodifiedtomakeitclea rerthatworkon thedraftingofTestGuidelinescouldstartbeforeformalapprovalbytheTC.
  - 5.3 The TWF agreed with the approach for referencing Test Guidelines as set out in Option 3.

## TGP/7.3.1 Draft 1 "Standardized UPOV Terms and Explanations: Typ es of Expression of Characteristics"

43. TheOfficeoftheUnionintroducedthedocumentTGP/7.3.1Draft1.

- \*44. TheTWFmadethefollowingrecommendations:
  - 2.3.2.2 Further consideration should be given to whether states 1 and 9 shoul continue to be used for absent and present. The TWF noted that there were two reasons to consider changing from the present 1 and 9 states. Firstly, it could lead to harmonization with the IPGRI system of descriptors, where the states 0 and 1 are used for absent and present respectively. Secondly, the current approach could be misleading since it implied that there were states in between 1 and 9. Some participants also thought that the 0 and 1 states were more logical since 0 corresponded to absence. It was noted that a change to a new approach might cause some additional work and that in some systems the figure "0" was used to indicate that no data was available.
  - 3.4.2.2.1(first) Itwasnotedthattheheadingshouldread"Wordingofunevenstates" 3.4.3.2.1(second) Itwasnotedthatthisshouldbeamendedtoread3.4.2.2.2
  - 3.5.1 The TWF agreed with the TWO recommendation that the condensed range should be limited to those characteristics which are visually observed. In the case of characteristics which are measured or counted the normal scale should be used.
  - 3.5.1 CondensedRange2:TheTWFrecommendedthatstate2shouldbetermed "medium"or"moderate."

## TGP/7.3.2 Draft 1 "Standardized UPOV Terms and Explanations: Harmonized States of Expression of Characteristics"

- 45. TheOfficeoftheUnionintroduceddocumentTGP/7.3.2Draft1.
- \*46. The TWF welcomed the development of the document and agreed with the proposed approach.

## <u>TGP/4.1Draft2"GeneralGuidancefortheManageme</u> ntofVarietyCollections"andTGP/9 "ExaminingDistinctness"

\*47. The TWF endorsed the recommendation of the TWO that TGP/4 should be restricted to thepracticalmanagementofvarietycollectionsandshouldnotseektoestablishguidelinesfor deciding which varieties should be included, since this should be addressed in TGP/9. It considered that the elaboration of varieties of common knowledge should be covered by TGP/3. The TWF considered that, within the scope of the management of variety collections, thedocumentshouldaddressthemanagementofcollectionsofbothlivingplantmaterialand the management of information, such as that contained in databases or catalogues. With regard to TGP/9.1 "General Procedures for Examining Distinctnes s"the TWF endorsed the approach proposed by the TWA, namely to provide examples of different approaches to examining distinctness used by UPOV members. It recommended that this should have an introduction to explain the nature of the document and this in troduction should clarify that therewas only one system for examination of distinctness, but that different approaches could bedevelopedwithinthissinglesystem. Italsonoted that the current draft of TGP/4 contained overlapswiththeexaminationof distinctness.

\*48. The expert from New Zealand introduced a preliminary version of a draft for a section of TGP/4.2 on "Variety Collections for Tree and Perennial Species." It was a greed that this covered the important aspects of a ealing with variety collections of such species.

## TGP/9.4.2 Draft1 "ExaminingDistinctnessinDifferentTypesofVariety:Rootstocks"

- \*49. The document was introduced by the expert from Germany.
- \*50. The TWF proposedt hat the word "preferably" should be changed to "often" in the first line of paragraph 3. It also proposed that a new section should be introduced to address seed propagated rootstock varieties.
  - (b) OtherTGPdocuments

## TGP/13 Draft1 "GuidanceforNew TypesandSpecies"

\*51. The document was introduced by the expert from New Zealand . It was a greed that the document should clarify that it was intended to refer to species and types which were new in terms of applications of varieties for protection, rather than new to nature.

## TGP/14.2.1 Draft 1 "Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents: Botanical Terms: Plant Shapes"

- 52. DocumentTGP/14.2wasintroducedbytheexpertfromtheUnite dKingdom.
- \*53. The TWF welcomed the document and agreed that the document would be even more useful if it was re-structured into three sections, in recognition of the fact that the drafters of the Test Guidelines would use the illustrations a sthe first point of reference: the first section should provide the definition of apex, tip and base; the second section should contain the illustrations for the \*shapes; and the final section should contain the detailed gloss ary linked to the illustrations. It was recommended that the illustrations section should contain a sufficient number of illustrations for each type of shape and/or possible states of expression, to be clear to the user. The TWF proposed that as useful and the included on the proposed that is the section should be included on the proposed that is the section should be included on the proposed that is the section should be included on the proposed that is the section should be included on the proposed that is the section should be included on the proposed that is the section should be included on the proposed that is the section should be included on the proposed that is the section should be included on the proposed that is the section should be included on the proposed that is the section should be included on the proposed that is the section should be included on the proposed that is the section should be included by the sec
- \*54. It was agreed that the document should be extended to include leaf ma rgins and leaf divisions.
- \*55. The TWF proposed that a similar document should be prepared on hair types, by the expertfrom New Zealand, for its next session.

## <u>OtherTGPDocuments</u>

\*56. The TWF did not have time to consider the other TGP documents at the meeting and requested that written comments on the following documents be sent to the Office of the Unionby December 6,2002:

TGP/3.2 Draft1	Developments and Explanations Regarding Varieties of Common Knowledge
TGP/6.1.2 Draft1	Examples of Arrangements for DUST esting
TGP/8.4 Draft1	TypesofCharacteristicsandTheirScaleLevels
TGP/8.6 Draft1	ExaminingDUSinBulkSamples
TGP/9.1.1 Draft1	General Procedures for Determining Distinctness: Official Testing
TGP/9.1.2.1 Draft1	GeneralProceduresforDeterminingDistinctness:BreederTesting (Australia)
TGP/9.1.2.2 Draft1	General Procedures for Determining Distinctness: With the ParticipationofBreeders(France)
TGP/9.1.3 Draft1	GeneralProceduresforDeterminingDisti nctness:General
TGP/9.3.1 Draft1	Consideration of All Varieties of Common Knowledge in the Examination of Distinctness
TGP/9.3.2 Draft1	TGP/9.3.2 Draft 1 Consideration of All Varieties of Common Knowledge in the Examination of Distinctness: The Use of 'PhenotypicDistance' for Examining Distinctness
TGP/9.4.1 Draft1	Examining Distinctness in Different Types of Variety: General
TGP/10.2 Draft1	Assessing Uniformity According to the Features of Propagation
TGP/12.1.1 Draft1	CharacteristicsExpre ssedinResponsetoExternalFactors:Disease Resistance

## DiscussiononDraftTestGuidelines(Plenary)

## <u>Citrus</u>

\*57. The expert from Spain introduced the following documents:

GrapefruitandPummelos(Revision)	(TWF/33/2)(TG/GRA-PUM(proj.1))
LemonsandLimes(Revision)	(TWF/33/3)(TG/LEM -LIM(proj.1))
Mandarin(Revision)	(TWF/33/4)(TG/MANDA(proj.1))
Oranges(Revision)	(TWF/33/5)(TG/ORANG(proj.1))

<sup>\*58.</sup> The TWF agreed the following changes:

Titlepage: Spanishcolumn: Toronjotobedeleted and Pampelmusa to be replaced by Pummelo (document TWF/33/2)

Otherassociateddocuments:toread:"...Group3:TG/LEM -LIM(proj.1)-(TWF/33/3)

6.5 [#] tobedeleted

## 7. TableofC haracteristics

Characteristics 33 a nd 34 (document TWF/33/2): Delete Example variety "Oran Red."

8. <u>ExplanationsontheTableofC haracteristics</u>

Missingexplanationstobeprovided

- 10. <u>TechnicalQuestionnaire</u>
  - 10.1 Latinnamestobelinkedtotheappropriatecommonnames
  - 10.5 Characteristics to be updated in line with changes in the Table of Characteristics. In document TWF/33/2 Oran Red to be deleted in Sections 5.1 and 5.2.
  - 10.6 Suitableexamplestobeprovided
  - 10.7 ASW10tobeinserted
- \*59. The expert from Spain introduced the following document:

CitrusL.:OverallTableofC haracteristics (TWF/33/2Add. -TWF/33/3Add. -TWF/33/4Add. -TWF/33/5Add. -TWF/33/6Add.)

\*60. The TWF agreed that the experts from Germany and France would provide corrections for the German and Frenchtranslations, respectively, to the Office of the Union. It agreed the following changes:

Page1,2 Group1:

CommonSpanishnamefor *C.clementina* toread:Clementina CommonEnglishnamefor *C.delicio sa*toread:Mandarinacomun

CommonEnglishnamefor C.reticulattoread:Tangerine

CommonSpanishnamefor *C.reticulatt*oread:MandarinaPonkan

Group2:

CommonSpanishnamefor C.aurantium toread:Naranjoamargooagrio

Group3:

First species to read: C. aurantifolia with Spanish common name: Lima

MexicanaandLimónMexicano

C.latifolia: commonSpanishname:Limaacida C.limettioides: commonSpanishname:Limadulce C.jambhiri: commonSpanishname:Limonrugoso

## Group4:

Spanishtranslationtoread: "PomeloyPummeloysus híbridos"

C.grandis: commonSpanishname:Pummelo

C.paradisi: commonSpanishname:PomelooToronja

#### Group5:

*Poncirusx* Grapefruit; *Poncirusx* Lemons; *Poncirusx* Mandarin; *Poncirus x*Sweeto range: the stated common names for each hybrid to apply for all languages.

#### 7. TableofCharacteristics

Column1(Original\*)tobedeleted.

"del"tobedeletedfromcolumn2

Toinsert" Polyembryonic varieties only :..."

InSpanishtranslation toread"Fruto:partenocárpia"

Char.126

Char.128 Char.134 Char.135

Char.138

 $Columns 3 to 7: ``y" to be replaced by number when Test Guidelines for Group 5 \\complete$ 

Char.2 Toread"ergu ido"inSpanish(state1)and"abierto"(state2) To add abullon adoo ampollado in SpanishChar.20 Char,24 State1toread:absent Char.29 Toread" Varieties with petiolewing spresent only : Petiole:..." State7toread"sinuoso"inSpanish Char.42 Char.49 "transversal" to beamended to "transverse." State 1 to read: circular. To read " Varieties with fruit neck absent only: Fruit: presence of Char.51 depressionatstalkend" Toread" Varieties with fruit neck absent only: Fruit: depth of depression at Char.52 stalkend" Toadd"...elmamelón Char.65 opezón, el..." in Spanish Chars. 69and70 InSpanishtoadd"opezón" Char.82 Toread" Fruit: colorvariegation." In Frenchtranslation "variation" tobe amendedto "panachure" state7toread"Fuerte"inSpanish Char.85 Char.92,94 InSpanishversiontoreplace "laxa" with "dispersa" Char.109 InSpanishtranslation" acritud tobeamendedtoamargor" Toread" Fruit:presenceofrudimentarysegments"andwordingofstatesto Char.112 becheckedtoseeifitshouldbeabsentorfew(1);...many(3) Removeunderliningofword"internally" Char.120 In Spanish translation "desde dentro" Chars. 120and121 to be amended to "internamente" Char.122 Tocheckif"juicecontent"shouldbereplace dby"juiciness" InSpanishtranslation"totales" to be added to end of characteristic title and Char.123 "s"removedfromtheendof"bajo,""mediano,""alto."

InFrenchtranslation toread" ...polyembyoniques" InSpanishtranslation toread" Semilla: colordelacubiertainterna"

Qualitative characteristics: 1,6,26,2 8,30,37,38,40,43,44,51,53,56,61,66,69,71,72,80,82,104,106,107,109,128,131,136,138,139.

Quantitative characteristics: 3,4,5,7,10,11,12,13,14,15,16,17,19,20,21,22,23, 27,29,31,32,33,34,35,36,41,45,46,47 ,48,52,54,55,57,58,59,60,62,63,64,65,67,68,70,73,74,75,78,79,81,84,85,86,87,89,90,92,93,94,95,96,97,98, 99,100,102,103,105,110,111,112,113,114,115,116,117,118,119,121,122,123, 124,125,126,127,129,130,132,137.

Pseudo-qualitative characteristics 2, 8, 9, 24, 25, 39, 42, 49, 50, 76, 77, 83, 88, 91, 101, 108, 120, 133, 134, 135.

## DiscussionsonDraftTestGuidelines(Subgroups):

(a) SubgroupdiscussionsonfinaldraftTestGuidelines

## Cherimoya, TWF/33/12(TG/CHERIM(proj.1))

- \*61. The experts from Japan and Mexico introduced document TWF/33/12 (TG/CHERIM (proj.1)).
- \*62. The Subgroup agreed the following changes:

The Latin name to be amended to Annona cherimola Mill. on title page (twice) and sections 1, 2, 2, 2, 3 and 10, 1, 1, 1.

Titlepage Spanish common name: "Anona del Peru" to be deleted and "Cherimoya" added.

- 2.3 Toread"eight"plantsinsteadof"five"
- 3.3.2(a) To read "One-year-old shoot: Unless otherwise stated, all observations on theone -year-old shootshould be made on the middle third during dormants eason."
- 3.3.2(b) Tobedeleted
- 5.3(b) Toread" Fruit:segmentationofsurface"(tobechecked)
- 5.3(c) Spaceneededbetween "surface" and "(...)"
- 6.5 Toread "(a)to(d)"
- 7. TableofC haracteristics
  - Key(b) Tobedeleted
  - Key(c) Toberenumbered(b)
  - Key(d) Toberenumbered(c)
  - Key(e) Toberenumbered(d)

Oldcharacteristicnumbersshownas"[...]"or"new"tobedeleted

	2,19, Examplevariety toread "FinodeJete"				
Chars. 16,2	22,31,34,35,36,38,39,41,43,44,52 Examplevariety toread				
CI 1	"El Bumpo"				
Char.1	TobeindicatedasQN .Toread"Shoot:lengthofinternode"				
Char.2	TobeindicatedasPQ				
Char.3	TobeindicatedasQL.Toread"pub escence."				
Char.4	TobeindicatedasQN.Examplevarietytoread"AfricanPride"				
Char.5	TobeindicatedasQN				
Char.6	TobeindicatedasQN				
Char.7	TobeindicatedasPQ.State2toread"oblate,"state3toread"broad				
<b>G1</b> 0	lanceolate"andstate4toread" narrowlanceolate"				
Char.8	To be indicated as QN. To read "Leaf blade: green color (upper				
<b>G1</b> 0	side)"withstates:light(1),medium(2),dark(3).				
Char.9	To be indicated as PQ. To read "Leaf blade: green color (lower				
CI 10	side)"				
Char.10	To be indicated as QL . To read "Leaf blade: pubescence (upper				
C1 11	side)"				
Char.11	To be indicated as QL. To read "Leaf blade: pubescence (lower				
CI 10	side)"				
Char.12	TobeindicatedasQN				
Char.13	TobeindicatedasQN				
Char.14	Tobeindicatedas QN. Toread "Leafblade: undulatio nofmargin."				
G1 1.5	State1toread"absentorveryweak."				
Char.15	TobeindicatedasQN.Toread"Shoot:densityofflowers"				
Char.16	TobeindicatedasQN."Outer"tobedeletedfromheading				
Char.17	TobeindicatedasQN."Outer"tobedeletedfromhead ing				
Char.18	TobeindicatedasQN."Outer"tobedeletedfromheading				
Char.19	TobeindicatedasQN."Outer"tobedeletedfromheading				
Char.20	TobeindicatedasPQ."Outer"tobedeletedfromheading				
Char.21	Tobedeleted				
Char.22	Tobeindicated asQN				
Char.23	TobeindicatedasQN				
Char.24	TobeindicatedasQN				
Char.25	Tobedeleted				
Char.26	TobeindicatedasPQ.Insertspacebetween":"and"shape"				
Char.27	TobeindicatedasQN				
Char.28	TobeindicatedasQN				
Char.29	TobeindicatedasQN				
Char.30	TobeindicatedasQN				
Char.31	TobeindicatedasPQ.State5toread"trapezoidal"				
Char.32	TobeindicatedasQL				
Char.33	TobeindicatedasPQ				
Char.34	TobeindicatedasQN				
Char.35	To be indicated as QL. To read "Fruit: segmentation of surfa ce"				
CI C	withstates:reticulate(1);overlappingsegments(2).(Tobechecked)				
Char.36	TobeindicatedasQN.State1toread"absentorverysmall"				
Char.37	TobeindicatedasPQ				
Char.38	TobeindicatedasQN				
Char.39	TobeindicatedasQN				
Char.40	Tob eindicatedasQN				
Char.41	TobeindicatedasQN				
Char.42	TobeindicatedasQN."(sweetness)"tobedeleted				

Char.43	TobeindicatedasQN
Char.44	TobeindicatedasQN.Tohavethestates:weak(3),medium(5),
	strong(7)
Char.45	Tobeindicatedas QN
Char.46	TobeindicatedasQN
Char.47	TobeindicatedasQN
Char.48	TobeindicatedasQN.Toread"Seed:ratiolength/width".Example
	varieties:Oakwood(state3);ElBumpo(state5);BayOff(state7)
Char.49	TobeindicatedasQN
Char.50	To beindicatedasQL
Char.51	TobeindicatedasQN
Char.52	TobeindicatedasQN

## 8. <u>ExplanationsontheTableofCharacteristics</u>

Ad.7	State2toread"oblate,"state3toread"broadlanceolate"andstate4
	toread"narrowlanceolate"
Ad.31	State5 toread"trapezoidal"
Ad.35	To read "Fruit: segmentation of surface" with states: reticulate(1);
	overlappingsegments(2).(Tobechecked)
Ad.36	State1toread"absentorverysmall"

## 9. Literature

Tobeputinalphabeticalorder

## 10. <u>TechnicalQuestionnaire</u>

- 5.1 State5toread"trapezoidal"
- 5.2 To read "Fruit: segmentation of surface" with states: reticulate (1); overlappingsegments(2).(Tobechecked)
- 5.3 State1toread"absentorverysmall"
- 6 Exampletobeprovided
- 7.3 ASW10to beadded

## Persimmon(Revision), TWF/33/14(TG/92/4(proj.1))

- \*63. The expert from Japanint roduced document TWF/33/14(TG/92/4(proj.1)).
- \*64. The Subgroup agreed the following changes:

Titlepage spellingofSpanishcommonname"Caqui"t obechecked

5.3(g) Tobedeleted(characteristic47)

## 7. <u>TableofC haracteristics</u>

Oldcharacteristicnumbersshownas[...]tobedeleted

Characteristics to be renumbered without lettering suffix (e.g. 37.a and 37.b become37and38).

Char.1	Tobei ndicatedasQN
Char.2	TobeindicatedasPQ
Char.3	TobeindicatedasQN
Char.4	TobeindicatedasQN
Char.5	TobeindicatedasQN
Char.6	TobeindicatedasQN
Char.7	TobeindicatedasQN
Char.8	TobeindicatedasPQ
Char.9	TobeindicatedasPQ.
Char.10	TobeindicatedasPQ.State2toread"oblate"
Char.11	TobeindicatedasQN
Char.12	TobeindicatedasQN
Char.13	TobeindicatedasPQ
Char.14	TobeindicatedasPQ
Char.15	TobeindicatedasPQ
Char.16	TobeindicatedasQL
Char.17	TobeindicatedasQN
Char.18	To be indicated as PQ. To read "Female flower: shape of calyx
	viewedfromabove"
Char.19	TobeindicatedasQL
Char.20	TobeindicatedasQN
Char.21	TobeindicatedasPQ
Char.22	TobeindicatedasPQ.State2toread"i rregularrounded"
Char.23	TobeindicatedasPQ
Char.24	TobeindicatedasQN.State2toread"moderate"
Char.25	TobeindicatedasQN.State2toread"moderate"
Char.26	TobeindicatedasQN.State2toread"moderate"
Char.27	Tobeindicatedas QN.Toread"Fruit:longitudinalgrooving"
Char.28	TobeindicatedasQN
Char.29	TobeindicatedasQN.State1toread"level"
Char.30	TobeindicatedasQL
Char.31	TobeindicatedasQN.State2toread"moderate"
Char.32	TobeindicatedasQN
Char.33	TobeindicatedasQN
Char.34	TobeindicatedasQN
Char.35	TobeindicatedasQN
Char.36	TobeindicatedasQN
Char.37.a	TobeindicatedasPQ
Char.37.b	TobeindicatedasPQ
Char.38.a	TobeindicatedasPO
Char.38.b	TobeindicatedasPQ
NewChar.(	
_ , _ , ,	specksinflesh. Tohavethestates: absent(1); present(9). Example
	varieties:Atago,Saijo(state1);Zenjimaru(state9)
Char.39	TobeindicatedasQN.State1to bedeleted
Char.40	TobeindicatedasQN
Char.41	TobeindicatedasPQ.Toread"Seed:shapeinlateralview"
Char.42	TobeindicatedasPQ
	~

Char.43	To be indicated as QN. To read "	Female flower only: Time	of
	floweringoffemaleflower(80% open)"		
Char.44	TobeindicatedasQN		
Char.45.a	TobeindicatedasQN		
Char.45.b	TobeindicatedasQN		
Char.46	TobeindicatedasQL		
Char.47	TobeindicatedasQL		
Explanatio	nsontheTableofCharacteristics		
Ad.18	Toread"Femaleflower:shapeofcal y	xviewedfromabove"	

## 8.

- Ad.22 State2toread"irregularrounded" State2toread"moderate" Ad.24 State2toread"moderate" Ad.25 Ad.26 State2toread"moderate" Toread"Fruit:longitudinalgrooving" Ad.27 State1toread"level" Ad.29
- Ad.41 Tor ead "Seed: shape in lateral view"
- Ad.54 Toread"Ad.47"

#### 9. Literature

Listtobealphabetic.FurtherreferenceforBellinitobeadded.

- 10. **TechnicalQuestionnaire** 
  - 5.7 Tobedeleted
  - 6. Example:Fruit:generalshapeinlateralviewe.g.ellip tic/e.g.circular
  - 7.3 ASW10tobeadded

## *Poncirus,TWF/33/6(TG/PONCIR(proj.1))*

- \*65. The expert from Spain introduced document TWF/33/6(TG/PONCIR(proj.1)).
- \*66. The Subgroup agreed the following changes:

## Onpage1:

Todelete *Poncirus*, under alternative names, everywhere, except under Latin. In other associateddocuments, writeCitrusL.asfollows :" CitrusL."

- TowriteFRUITandALLinsmalllettersasfollows :"fruit"and"all" 1.3
- 4.3.1 Tochange "formanytypes of varieties", on the3 <sup>rd</sup>line.
- 6.5 [#] tobedeleted toredraftthe"Notesforobservingcharacteristics asfollows:

## "a to i: Seesection3.3.3.1"

## 7. <u>TableofCharacteristics</u>

Char.1	toredrafttheexamplevarietyas	follows:	Poncirustrifoliata
	Torepeatthisinthewholedocume	ent	
Char.7	(*)Tobeadded		

Char.8 (\*)Tobeadded

Char.17 Tobedeleted

Char.19 TocorrectonlyinSpanishasfollows: "abullonadoorampollado"

Char.23 Tochange"entire"by "absent". (\*)tobeadded

Char.24 (\*)Tobeadded

Char.27 (\*)Tobeadded

Char.28: Toadd"(Varietieswithpetiolewingspresentonly)"

Char.41 (\*)Tobedeleted

Char.42 (\*)Tobedeleted

Char.43 (\*)Tobedeleted

Char.44 (\*)Tobedeleted

Char.46 (\*)Tobe deleted

Char.47 (\*)Tobedeleted

Char.49 (\*)Tobedeleted

Char.59 (\*)Tobedeleted

Char.60 (\*)Tobedeleted

Char.62 (\*)Tobedeleted

Char.64 (\*)Tobedeleted

Char.71 (\*)Tobedeleted

Char.72 (\*)Tobeadded

Char.73 To receive(\*)

Char.83 (\*)Tobedeleted

Char.84 (\*)Tobedeleted

Char.92 (\*)Tobedeleted

Char.93 Toremove"New"

Char.98 (\*)Tobedeleted

Char.110 (\*)Tobedeleted

It was noted that the overall Citrus Table of C haracteristics would need to be updated according to the changes above.

## 8. Explanationsonthe Table of Characteristics

Ad.45(c49.):Fruit:circumferenceintransversalsection toreplace"round"by"circular"

#### ListofExampleVarietiesfor *Poncirus*:

To redraft the name of varieties under "Variety denomination", in small letters, exceptfor "CPB4475", as follows:

Carrizo

Cunningham,

FornerAlcaide13

#### Poncirustrifoliata

## 10. <u>TechnicalQuestionnaire</u>

TodrafttheLatinnameandthecommonnameasfollows

PoncirusRaf./TrifoliataOrange,Golden Apple – PON

Poncirus x Grapefruit/Citrumelo –CML

PoncirusxLemons/Citremon -CTL

Poncirus xMandarin/Citrandarin -CTI

Poncirus xSweetOrange/Citrange -CTG

TobeindicatedasQN

TobeindicatedasQN TobeindicatedasPQ

Char.19 Char.20

Char.21

7.3 To add "A representative color photograph of the variety should accompany the Technical Questionnaire."

## Quince(Revision),(TWF/33/7(TG/100/4(proj.1))

- \*67. The expert from Germany introduced document TWF/33/7(TG/100/4(proj.1)).
- \*68. The Subgroup agreed the following changes:

## 7. TableofC haracteristics

Allnotesattheendofthe characteristics(e.g.attheendofcharacteristic3)tobe deleted.

Char.1	TobeindicatedasQN			
Char.2	TobeindicatedasPQ ."Upright"tobeputinnormalfont.			
Char.3	To be indicated as PQ . To have the notes 1,2,3 . Example variety			
	Hov.No.2tobedeleted			
Char.4	TobeindicatedasQN			
Char.5	TobeindicatedasQN			
Char.6	TobeindicatedasPQ			
Char.7	TobeindicatedasQN			
Char.8	TobeindicatedasQN .State3 toread" stronglyheldout"			
Char.9	(+) to be added. To be indicated as QN. To read "Leaf blade:			
	attitude"withthestates:upright(1);horizontal(2);downwards(3)			
Char.10	TobeindicatedasQN			
Char.11	TobeindicatedasQN			
Char.12	TobeindicatedasPQ			
Char.13	TobeindicatedasPQ			
Char.14	To be indicated as QN. Example variety for state 2 to read			
	"Mezötúri"			
Char.15	To be indicated as QN. Example variety "Triumph" to be put into			
	correctfontsize			
Char.16	TobeindicatedasPQ			
Char.17	TobeindicatedasQN			
Char.18	TobeindicatedasQN			

Char.22	To be indicated as QN. To check if state 4: "irregular" needed. to	
Cl 22	delete"s"inarrangements	
Char.23	TobeindicatedasPQ	
Char.24	TobeindicatedasQN .Tohavethenotes3,5,7	
Char.25	TobeindicatedasQN.Toread"relativetoanthers"	
Char.26	TobeindicatedasQN	
Char.27	To be indicated as PQ. Example variety "Fruits Ronds" to be put in	
C1 20	normalfont.Notestobecorrectedto1,2,3,4, 5	
Char.28	To be indicated as PQ. State 1 to read "asymmetric" in English and "asymmetrisch" in German	
Char.29	TobeindicatedasPQ.Asterisktobedeleted	
Char.30	(+)tobeadded. Tobeindicated as QL. Toread "Fruit: presence of	
	neck"	
Char.31	(+) to be added. To be indicated as QN. To read "Fruit: length of neck"	
Char.32	Tobedeleted	
Char.33	TobeindicatedasQN	
Char.34	TobeindicatedasQN	
Char.35	Tobedeleted	
Char.36	Tobeindicated as QN. Toread "Fruit: stalk cavity" with the s	tates:
	absent or very small (1), small (3), medium (5), large (7). Example	
	varietyforstate1tobeBereczki	
Char.37	TobeindicatedasQN	
Char.38	TobeindicatedasPQ	
Char.39	To be indicated as QN. Example variety "Champion" to be deleted	
	andnew varietyprovidedforstate7	
Char.40	TobeindicatedasQN.Word"(changed)"tobedeletedfromheading	
Char.41	TobeindicatedasQN	
Explanation	onsontheTableofCharacteristics	
Ad.8	State3 toread" stronglyheldout "	
Ad.9	Explainthatthe characteristicistobeobservedonerectshoots	
	Illustrationtobeprovided	
Ad15	Illustrationtobeimproved	
Ad.21	To read "The color of the flower should be observed on the first day	
	onwhichitopens "	
Ad.22	Tocheckifstate4:"irregular"neede d	
Ad.27	Illustrationstoberotated180degrees	
Ad.30/31	Illustrationtobeprovidedshowingbothcharacteristics	
Ad.32	Tobedeleted	
Literature		

## 9.

8.

Popow reference to read: Popov, E.; "B"Lgarska Pomologiya". D"rzhavno Izdatelstvb za Selskostop anska Literatura, Sofiya. English versiontobedeleted

#### **TechnicalQuestionnaire** 10.

5.3 Notestobecorrectedto1,2,3,4,5

_	•	1 . 1 1	r (1)	1 1		,	1 .
6	Hyamn	letoheri	Leathlac	de:shapee.	o circula	$ar/\rho \sigma$	Obovate
U		101000.1	Laivia	ac.smapcc.	z.cncui	ш/ ∪. ⊵.	ooovaic

#### 7.3 ASW10tobeadded

## Raspberry(Revision), TWF/33 /8(TG/43/7(proj.1))

- \*69. The expert from Germany introduced document TWF/33/8(TG/43/7(proj.1)).
- \*70. The Subgroup agreed towork on the version of the document which presented the <u>keys</u> (a)to(h) in section 3.3.3 . It then agreed the following changes:
  - 3.3.3(f) "shoot"tobereplacedby "cane"
  - 3.3.3(h) Firstsentencetoread"... summerharvestatthefruitinglateralsonlyexcept forvarieties..."
  - 5.3(a) Toread" Veryyoungshoot:anthocyanincolorationofa pexduringrapid growth(characteristic3)"
  - 5.3new(after5.3(b) Characteristic33(Fruit:color)tobeincludedasagrouping characteristic
  - 5.3(d) Toreplaceunderlinedpartofcharacteristicheadingwith" <u>Varietieswhich</u> fruitonpreviousyear'sca neinsummer :..."
  - 5.3(e) Toreplaceunderlinedpartofcharacteristicheadingwith" <u>Varietieswhich</u> fruitoncurrentyear'scaneinautumn :..."

## 7. TableofC haracteristics

Characteristicstoberenumberedwithoutletteringsuffix(e.g.9aand9bbecom and10).

- Char.2 TobeindicatedasQN
- Char.3 To be indicated as QL. To read "Very young shoot: anthocyanin colorationofapexduringrapidgrowth"
- Char.4 To be indicated as QN . To read "Very young shoot: intensity of anthocyanincolorationofapexduringrapidgrowth"
- Char.5 TobeindicatedasQN .Delete"intensityof"fromheading
- Char.6 TobeindicatedasQN .Delete"intensityof" from heading
- Char.7 To be indicated as QN . States 3 and 5 to have the existin gexample varieties deleted and replaced by: Zefa3(3), Zefa2, Rusilva(5)
- $\begin{tabular}{ll} Char. 8 & To be indicated as QN & . Example variety "Malling Admiral" to be replaced by "Veten" \\ \end{tabular}$
- Char.9a,9b,10 To read "Varieties which fruit on previous year's cane in summer:..."
- Char.9a TobeindicatedasQN
- Char.9b TobeindicatedasQN
- Char.10 TobeindicatedasPQ .Examplevariety"MallingOrion"tobeadded for state 2. Example variety "Glen Clova" to replace "Rusilva" for state 3. Example variety "Malling Landmark" to have "," deleted between these two words. Example varieties to be presented in normalfont.Examplevarietyforstate4toread"Festival"

- Char.11 TobeindicatedasQL
- Chars.12to15 Toread" Varieties with spines present only :..."
- Char.12 Tobeindic atedasQN
- Char.13 TobeindicatedasQN
- Char.14 Tobeindicated as QN . Example variety "Rucami" to be replaced by "Gigant"
- Char.15 TobeindicatedasPQ .Examplevariety"RodeRadboud"tobeadded forstate3. Examplevariety"PechtsHerbstfreude"t obereplacedby "Sirius"
- Char.16 TobeindicatedasQN
- Char.17 TobeindicatedasPQ .Spellingof"equally"instate2tobecorrected
- Char.18 TobeindicatedasQN
- Char.19 To be indicated as QN . To read "Leaf: rugosity." Footnote to be deleted
- Char.20 TobeindicatedasQN
- Char.21 TobeindicatedasQN
- NewChar.(after21) To Read "Terminal leaflet: width" with states: narrow (1),medium(3),broad(5). TobeindicatedasQN .Examplevarieties tobeprovided
- Char.22 Tobeindicated as QN . Amend "vew" to be "few" in states 1 and 2. Example variety "Golden Bliss" to be added for state 9
- Char.23 To be indicated as QL. To have "Pedicel" replaced by "Peduncle." Examplevariety "GoldenBliss" to be added for state 1
- Char.24 To be indicated as QN . To read " <u>Varieties with peduncle present</u> only: Peduncle: intensity of anthocyanin." Example variety "Schönemann" tobereplaced by Julia
- Char.25 To be indicated as QN . Example variety "Schönemann" to be replacedbyIsabel
- Char.26 Tobeindicate dasQN .State3toread"horizontaltodrooping"
- Char.27 To be indicated as QN . Example variety "Malling Orion" to be replacedby "Multiraspa"
- Char.28 To be indicated as QN . Example variety "Malling Promise" to be addedforstate3. Example varietie stobe presented innormal format
- Char.29 To be indicated as QN . Example variety "Meeker" to be added for state5. Example varieties to be presented innormal format
- Char.30 To be indicated as QN . Example variety "Rafzeter" to be added for state 5. Example varieties to be presented in normal format. Footnote to be deleted
- Char.31 TobeindicatedasPQ .State2 toread" broadconical"andstate4 to read" trapezoidal."Footnotetobedeleted
- Char.32 TobeindicatedasQN .Spellingof"MallingOr ion"tobecorrected.
- Char.33 TobeindicatedasPQ .Toreceive(\*).State7 toread" darkpurple"
- Char.34 TobeindicatedasON
- Char.35 TobeindicatedasQN
- Char.36 To be indicated as QN . Example variety "Jochems Roem" to be replacedby "MallingL" and mark"
- Char.37 TobeindicatedasPQ .Tohavethestates:onpreviousyear'scanein summer(1); both on previous year's cane in summer and on current year's cane in autumn (2); on current year's cane in autumn (3) Example varieties to be: Malling Pr omise (1); Isabel (2); Autumn Bliss(3)

	Chars.38,40a,41a,42a To replace underlined part of characteristic heading					
	with "Varietieswhichfruitonpreviousyear's caneinsummer :"					
	Chars.39,40b,41b,42b To replace underlined part of characteristich ead					
	with" Varietieswhichfruitoncurrentyear'scaneinautumn :"					
	Char.38					
		state5				
	Char.39					
	Char.40a TobeindicatedasQN					
	Char.40b					
	Char.41a	To be indicated as QN. Example variety "Vene" to be added for state 1				
	Char.41b TobeindicatedasQN					
	Char.42a TobeindicatedasQN					
	Char.42b	2b To be indicated as QN. Example variety "Zefa 3" to be replaced by				
	"Boheme." Example v ariety "Autumn Bliss" to be added for state 5.					
		Examplevariety"Korbfüller"tobereplacedby"Polana"				
8.	<b>Explanatio</b>	onsonthe Table of Characteristics				
		characteristic37	•			
10.	Technical(	Questionnaire				
	To read "Very young shoot: anthocyanin coloration of apex during rapidgrowth."					
	5.3 To replace underlined part of characteristic heading with "Vari					
		whichfruitonpreviousyear'scaneinsummer :"				
	5.5 State2 toread" broadconical"andstate4 toread" trapezoidal."					
	<ul> <li>5.7 State7 toread" darkpurple."</li> <li>5.9 To replace underlined part of characteristic heading with " <u>Vari</u></li> </ul>					
		whichfruitonpreviousyear'scaneinsummer :"				
	5.10	To replace underlined part of characteristic heading with " <u>Varieti</u>	es			
		whichfruitoncurrentyear'scaneinautumn :"				
	6	Exampletobe"Fruit:color"with,e.g.,darkred/purple				

## (b) <u>SubgroupdiscussionsonotherdraftTestGuidelines</u>

## Apricot(Revision),(TWF/33/13(TG/70/4(proj.1))

8.

- \*71. The expert from Hungary introduced document TWF/33/13(TG/70/4(proj.1)).
- \*72. The Subgroup agreed the following changes:

Titlepage "Marille" to be added to German common names

- 2.2 To read "The material is to be supplied in the form of one budsticks ordormantshootsforgrafting." -year old grafts,
- 5.3 Characteristic52tobedeleted.C haracteristic46tobeadded.
- 6.4 Different sets of example varieties to be developed for Mediterranean and Continentaltypesofvarieties and an explanation provided on how the sety beclearly differentiated.

## 7. TableofC haracteristics

Example varieties to be moved to annex and presented in two sets.

Footnoteproposalstobedeleted.

All references to former characteristic numbers in the headings of the characteristics (e.g. (formerly No. 2)) or to a characteristic being "new" to be removed.

Char.1	TobeindicatedasQN		
Char.2	TobeindicatedasPQ.Statestobenumbered1,2,3,4,5		
Char.3	TobeindicatedasQN . Toread"Tree:branching."		
Char.4	· · · · · · · · · · · · · · · · · · ·		
Char.5	TobeindicatedasQN		
Char.6	TobeindicatedasPQ.State3toread:purplebrown		
Char.7	TobeindicatedasQN		
Char.8	TobeindicatedasQN		
Char.9	TobeindicatedasQN		
Char.10	TobeindicatedasQN		
Char.11	TobeindicatedasQN		
Char.12	TobeindicatedasPQ		
Char.13	TobeindicatedasQN		
Char.14	TobeindicatedasQN		
Char.15	TobeindicatedasPQ		
Char.16	TobeindicatedasQN		
Char.17	To be indicated as QN. To have the states: straight or weak	ly	
Char.17	10 be mercured as Q1 10 have the states. Straight of weak	1 y	
Char.17	concave(1),moderatelyconcave(2),stronglyconcave(3)	1 9	
Char.18	· · · · · · · · · · · · · · · · · · ·	1y	
	concave(1),moderatelyconcave(2),stronglyconcave(3)	1y	
Char.18	concave(1),moderatelyconcave(2),stronglyconcave(3) TobeindicatedasQN	ly	
Char.18 Char.19	concave(1),moderatelyconcave(2),stronglyconcave(3) TobeindicatedasQN TobeindicatedasQN	1y	
Char.18 Char.19 Char.20	concave(1),moderatelyconcave(2),stronglyconcave(3) TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN	1y	
Char.18 Char.19 Char.20 Char.21	concave(1),moderatelyconcave(2),stronglyconcave(3) TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN	1 y	
Char.18 Char.19 Char.20 Char.21 Char.22	concave(1),moderatelyconcave(2),stronglyconcave(3) TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasPQ	ly	
Char.18 Char.19 Char.20 Char.21 Char.22 Char.23	concave(1),moderatelyconcave(2),stronglyconcave(3) TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasPQ TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN	ly	
Char.18 Char.19 Char.20 Char.21 Char.22 Char.23 Char.24	concave(1),moderatelyconcave(2),stronglyconcave(3) TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasPQ TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN	ly	
Char.18 Char.19 Char.20 Char.21 Char.22 Char.23 Char.24	concave(1),moderatelyconcave(2),stronglyconcave(3) TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasPQ TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN.Toread"Flower: position of stigmar elative toanthers" TobeindicatedasPQ.State3toread"oblate"	ly	
Char.18 Char.19 Char.20 Char.21 Char.22 Char.23 Char.24 Char.25 Char.25	concave(1),moderatelyconcave(2),stronglyconcave(3) TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasPQ TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN.Toread"Flower: position of stigmar elative toanthers" TobeindicatedasPQ.State3toread"oblate" TobeindicatedasPQ	ly	
Char.18 Char.19 Char.20 Char.21 Char.22 Char.23 Char.24 Char.25 Char.25 Char.26 Char.27 Char.28	concave(1),moderatelyconcave(2),stronglyconcave(3) TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasPQ TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN.Toread"Flower: position of stigmar elative toanthers" TobeindicatedasPQ.State3toread"oblate" TobeindicatedasPQ TobeindicatedasQN.Missingnote3tobe inserted	ly	
Char.18 Char.19 Char.20 Char.21 Char.22 Char.23 Char.24 Char.25 Char.25	concave(1),moderatelyconcave(2),stronglyconcave(3) TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasPQ TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN TobeindicatedasQN.Toread"Flower: position of stigmar elative toanthers" TobeindicatedasPQ.State3toread"oblate" TobeindicatedasPQ	ly	

Char.30 To be indicated as PQ. State 4 to read "oblong." State 8 to be					
		checked.examplevarietytoread"Bergeron."			
Char.3	31	TobeindicatedasPQ.State4to read"oblong."State8tobeadded.			
Char.3	32				
Char.3	33	TobeindicatedasQN			
Char.3					
		withstates 1,2,3			
Char.3	35	TobeindicatedasQN			
Char.3	har.36 Tobeindicatedas QN				
Char.3	Char.37 TobeindicatedasPQ.State4toread"retuse."				
Char.3					
Char.3	Char.39 TobeindicatedasQL				
Char.4					
Char.4					
moderate(2);strong(3)					
Char.4	12	TobeindicatedasPQ			
Char.4		TobeindicatedasQN.Toreceive(*)			
Char.44 Tobeindicatedas PQ					
		TobeindicatedasQN			
•		Tobeindicatedas Q. Example variety "Chinan.1" to be checked.			
		TobeindicatedasQN			
Char.4		TobeindicatedasQN			
Char.4		TobeindicatedasQN			
Char.5					
Char.5		Tobeindicated as QN Tobeindicated as QN			
		Tobeindicatedas PQ Tobeindicatedas QN (*) tobadalated			
Char.5		TobeindicatedasQN.(*)tobedeleted.			
Char.5		TobeindicatedasQN TobeindicatedasQN			
Char.5	)4	Tobeindicat edasQN.			
8. <u>I</u>	Expla	anationsontheTableofCharacteristics			
Ad.13		"Dotmark"signforright -angletobeaddedtostate2			
Ad.15		Illustrationtobeimproved			
Ad.26		State3toread"oblate"			
		Heading to be provided for "lateral view" and "vent ral view."			
<b>Au.</b> 30	1033	Lateralviewtoshowpositionofsuturewithdottedline			
A d 301	to333	andAd.30to31 Introductorytexttobedeletedandfruitshown			
Au.50	10556	withstalkatthebottom			
Ad.54		ExplanationfromEuropeanPlumtobeprovided			
Au.34		ExplanationifolieuropeanFlumtobeprovided			
10. <u>7</u>	Techi	nicalQuestionnaire			
1	10.5	Characteristic52tobedeleted.C haracteristic46tobeadded			
1	10.6	Suitableexampletobeprovided.			
1	10.7.3	3 ASW10tobeadded .			

## Apple(Revision),TWF/33/11(TG/14/9(proj.1))

*73. The (TG/14/9)	expert from the United Kingdom introduced document T WF/33/11 (proj.1)).				
*74. The	Subgroupagreedthe followschanges:				
2.2.1.1.1	Toinsertbetweentreesandbudwood: " <u>onarootstockspecifiedbythecompetent</u> <u>authority</u> "				
3.3.3.1.1	Toinsert: "Informationonexaminingparticularchara cteristics"				
3.3.3.1	To insert: " The Table of Characteristics provides notes which indicate the recommendationsforobservingcharacteristicsasfollows: "				
3.5.1	Toaddaftermadeon5plants" <u>or2partstakenfromeachofthe5plants</u> "				
3.5.2	Todelet eaftermadeon10plants" (2partstakenfromeachof5plants) "				
4.2.1	To change the statement for 4.2.1 and 4.2.2 as follows: "The acceptable number of off-types tolerated in a sample size of 5 plants is none on the basis of a population standard of 1% and an acceptance probability of 95%. The acceptable number of off-types tolerated in a sample size of 10 plants is 1 on the basis of a population standard of 1% and an acceptance probability of 95%."				
7.	<u>TableofCharacteristics</u>				
Char.1	Tobeindicat edasQN Toadd"veryweak"and"verystrong" Toaddexamplevariety Toaddnote9				
Char.2	TobeindicatedasPQ				
Char.3	TobeindicatedasPQ TochangeinSpanish"erecto"to"erguido"and"rastreto"to"avierto" notes1,2,3,4,5				
Char.4					
Char.5	TobeindicatedasQN.Tochangenotesto3,5,7and9 Tocheckthespellingof"Telemon"				
Char.6	nar.6 TobeindicatedasQN.Toaddsomeexamplevarieties:Florina3,Redaphough5				
Char.7	Tobeindic atedas PQ. Toadd "dark brown" after "medium brown" and to add thenote "4"				
Char.8	TobeindicatedasQN				
Char.9	TobeindicatedasQN				
Char.10	Tobedeleted				
Char.11	TobeindicatedasQN.Toread: "Leafblade: attitude" and tochangenotesto 1,2 and 3				
Char.12	TobeindicatedasQN				
Char.13	TobeindicatedasQN				
Char.14	TobeindicatedasQN				
Char.15	Tobedeleted The little of the control of the contro				
Char.16	TobeindicatedasQN.Toread: "Leafblade: greencolor" and delete green from the states of expression				

Char.17	To be indicated as PQ. To have the states: crenate (1), bicrenate (2), bluntly serrate(3), serrate(4) and biserrate(5)			
Char.18	Tobedeleted			
Char.19	TobeindicatedasQN			
Char.20	TobeindicatedasQN			
Char.21	TobeindicatedasQN.Toread"Petiole:antho cyanincoloration"			
Char.22	Tobedeleted			
Char.23	TobeindicatedasPQ.ToincludeNorheyasexamplevarietyfor1			
Char.24	TobeindicatedasQN.Tochange"size"to"diameter"			
Char.25	Tobeindicated as QN or PQ. To amend the heading to "arrangeme nto f petals			
	andtocheckwording			
Char.26	Tobedeleted			
Char.27	Tobedeleted			
Char.28	Tobe indicated as QN. Toread "Flower: position of stigmare lative to anthers"			
C1141.20	below(1),samelevel(2),above(3)			
Char.29	Add"anthocyanin"before"overcolor"			
Char.30	Add"anthocyanin"before "overcolor			
Char.31	TobeindicatedasQN.Toamend"length"to"height"			
Char.32	TobeindicatedasQN.Toread:"Fruit:width"			
Char.52	andtoreplacesmallby"narrow"andlargeby"broad"			
Char.33	TobeindicatedasQN.To read: "ratioheight/width"			
Char.34	TobeindicatedasQN.Toreplacetheexamplevariety"Empire"			
Char.35	TobeindicatedasQN. Foreplacetneexamplevariety Empire TobeindicatedasQN			
Char.36	TobeindicatedasPQ			
Char.37	Tobedeleted			
Char.38	TobeindicatedasQN.Tohavethestates:absentorwea k(1),moderate(2)and			
Char.50	strong(3)			
Char.39	TobeindicatedasQN.Tohavethestates:absentorweak(1),moderate(2)and			
Char.57	strong(3)			
Char.40	TobeindicatedasQN			
Char.41	Tobedeleted			
Char.42	TobeindicatedasQN			
Char.42	Tobedeleted			
Char.44	TobeindicatedasQN. Tohavethestates: absentorweak(1), moderate(2) and			
Char.	strong(3)			
Char.45	TobeindicatedasQN. Tohavethestates: absentorweak(1), moderate(2) and			
Char.+3	strong(3)			
Char.46				
Char.47	TobeindicatedasPQ Tobeindicatedas QN			
Char.48	TobeindicatedasQN TobeindicatedasQN Tobeyothestatas; orangarad(1) pinkrad(2) rad(3)			
Char.40	TobeindicatedasPQ.Tohavethestates:orangered(1),pinkred(2),red(3), purplered(4)andbrownred(5)			
Char.49	1 1 1			
Char.50	TobeindicatedasQN.Todeletetheexamplesvarieties			
	Tobechecked(comments to be sent to the United Kingdom expert)  Tobechecked(comments to be sent to the United Kingdom expert)  United Kingdom expert)			
Char.51	Tobechecked(commentstobesenttothe UnitedKingdom expert)  Tobechecked(commentstobesenttothe UnitedKingdom expert)			
Char.52	TobeindicatedasQN.Todelete(*)			
8.	<u>ExplanationintheTableofCharacteristics</u>			
Ad.23:	To read: "Balloon stage is the phenological stage in the co urse of flower			

Ad.23: To read: "Balloon stage is the phenological stage in the course of flower development when the calyx is fully expanded and the petals are recognizable, having partially expanded and inflated but are closed, covering the internal flower organs. Balloon stage is usually 1 -2 days before the petals unfold."

## Avocado(Revision), TWF/33/10(TG/97/4(proj.1))

\*75. The expert from Mexico discussed document TWF/33/10(TG/97/4(proj.1)) with the otherinterested experts.

## CactusPear(Opuntia)TWF/33/9(TG/C -PEAR(proj.1))

- \*76. The expert from Mexico introduced document TWF/33/9(TG/C -PEAR(proj.1)).
- \*77. The Subgroup agreed the follows changes

Coverpage:Towrite"ssp."innormalfont(notitalics)

- 1. Todeletethenameofauthorandwritespp.innormalfont (notitalics)
- 5. Toreviewthegroupingofvarieties(expertsfromMexicoandIsrael)

## 7. <u>TableofCharacteristics</u>

Char.25

**TobeindicatedasQN** 

Char.1	TobeindicatedasPQ.Toamend"erecto"to"erguido"inSpanish		
Char.2	TobeindicatedasQN.Toredraft"alto"inlowercasei nSpanish		
Char.3	Tobeindicatedas QN		
Char.4	TobeindicatedasQN		
Char.5	TobeindicatedasQN.Toputaspaceafter","andbefore"Montesa"		
Char.6	TobeindicatedasQN.Toamend"Large"to"large"		
Char.7	Tobeindicatedas PQ		
Char.8	Tobeind icatedasQN		
Char.9	TobeindicatedasPQ		
Char.10	To be indicated as QN. To have the states: very weak (1), weak (2) and		
	strong (3)		
Char.11			
	notesto1and2		
Char.12	Tobein dicatedasQL.Tochangenote9to2		
Char.13	TobeindicatedasQN		
Char.14	TobeindicatedasPQ		
Char.15	TobeindicatedasQN		
Char.16	TobeindicatedasPQ		
Char.17	Tobe indicated as QL. Toread "Cladode: number of colors on spine" with the		
	statesone(1)andtwo(2).TochecktheSpanishtranslation		
Char.18	TobeindicatedasQN.Todelete"the"beforelongestspine		
Char.19	Tobeindicated as QN. Toreplace "the center" by "central spine" and to amend		
	"erectas" to "erecta" and "horizontales" to "horizontale"		
Char.20	TobeindicatedasQL.Toamend"grooves"to "grooved"		
Char.22	To be indicated as QL. To replace "straight" by "absent" (1) and "curved" by		
	"present"(9).TochecktheSpanishtranslation		
Char.23	TobeindicatedasQL		
Char. 24	TobeindicatedasPQ		
Char.25	TobeindicatedasPQ		

Char.26	TobeindicatedasPQ
Char.27	TobeindicatedasQN
Char.28	TobeindicatedasQN.Toread"Cladode:numberofcladodes"
Char.29	TobeindicatedasQN
Char.30	TobeindicatedasPQ
Char.31	TobeindicatedasPQ
Char.32	TobeindicatedasQN
Char.33	TobeindicatedasPQ
Char.34	TobeindicatedasQN
Char.35	TobeindicatedasQN.Toamend"width"to"maximumdiameter"
Char.36	TobeindicatedasQN. Toreplace"diameter"by"maximumdiameter"ssp.
Char.37	TobeindicatedasPQandredraftexamplevariety"COPENA17"inuppercase
Char.38	TobeindicatedasQN
Char.39	TobeindicatedasQN
Char.40	TobeindicatedasPQ
Char.41	TobeindicatedasQN
Char.42	TobeindicatedasQN
Char.43	TobeindicatedasQN
Char.44	TobeindicatedasQN
Char.45	TobeindicatedasQN
Char.46	TobeindicatedasQN
Char.47	TobeindicatedasQN
Char.48	TobeindicatedasQL.Toamend"surfaces"to"surface"and note9to2
Char.49	TobeindicatedasPQ
Char.50	TobeindicatedasPQ
Char.51	TobeindicatedasQN
Char.52	TobeindicatedasQN
Char.53	TobeindicatedasQN
Char.54	Tobedeleted
Char.55	TobeindicatedasQN
Char.56	TobeindicatedasQN
Char.57	TobeindicatedasQN
Char.59	TobeindicatedasQN
Char.60	TobeindicatedasQN
Char.61	TobeindicatedasQNanddelete(*)
Char.62	TobeindicatedasQN
Char.63	Tobedeleted
Char.64	Tobedeleted
Ad 7:Clad	lode:shape :Tobeimprove d
Au. / .Clac	iode.snape . 1 obemprove d
Ad.29:Flo	wer:length: Tobedeleted
Ad 42.Em	uit: denression of recenteelesser . To delete the first photograph from each of the
states3,5a	<u>nit:depressionofreceptaclescar</u> :Todeletethefirstphotographfromeachofthe
siaicss,Ja	iiu /
10. Tecl	hnicalQuestionnaire
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- 1.2 "spp." Tobewritteninnormalfont(notitalics)
- 5.1to5.17: ToupdateaccordingtochangestotheTableofCharacteristics

#### 6. Suitableexamplevarietiestobeprovided

## *Mango(Revision)TWF/33/16(TG/112/4(proj.1))*

\*78. Document TWF/33/16(TG/112/4(proj.1)) was not discussed at the meeting due to lack oftime.

## RecommendationsonDraftTestGuidelines(Plenary)

\*79. The TWF agreed that the following draft Test Guidelines would be sent to the professional organizations and then submitted to the TC for approval in April 2003, on the basisofth eamendmentspresentedin"(a)DiscussionondraftTestGuidelines(Plenary)"and  $\hbox{``(b)} Subgroup \, discussions \, on \, final \, draft \, Test \, Guidelines. \hbox{''} \, The \, Office \, of \, the \, Union \, advised \, In the option of the \, Union \, advised \, In the option \, and \, In the option \, advised \, In the option \, In the option$ that the necessary amendments would be introduced by the Office within formation p rovided bytheleadingexpert:

Citrus: GrapefruitandPummelos(Revision)

LemonsandLimes(Revision)

Mandarin(Revision) Oranges(Revision)

**Poncirus** 

Cherimoya

Persimmon(Revision)

Quince(Revision)

Raspberry(Revision)

\*80. The TWF decided to discuss further the following draft Test Guidelines at its next session:

Apple(Revision)

Apricot(Revision)

Avocado(Revision)

CactusPear(Opuntia)

Mango(Revision)

\*81. TheTWFdecidedtodiscussthefollowingnewdraftTestGuidelinesat itsnextsession:

Banana( *Musa* spp.)(Revision)

BlackberryandHybridberries(Revision)

Coffee: The TWF proposed to the TC that it should be the leading Technical Working

PartyfortheTestGuidelines.

Fig

PassionFruit(ediblespecies)

Pecannut( Caryaillinoensis )

Pineapple

\*82. Theleading experts and interested experts for the draft Test Guidelines to be discussed atthenextsessionarepresentedinAnnexIII.

\*83. The TWF proposed to consider a revision to the Test Guidelines for Blackcurrant, to startin 2004.

## FutureProgram, Date and Place of the Next Session

- \*84. At the invitation from Canada, the TWF agreed to hold its thirty -fourth session in Niagara Falls, Canada, from September 29 to October 3, 2003. During the thirty-fourth session,theTWFplanstodiscussorrediscussthefollowingitems:
  - 1. Openingofthesession
  - 2. Adoptionoftheagenda
  - 3. Shortreportsondevelopmentsinplantvarietyprotection
    - (a) reportsfrommembersandobservers(br ieforalreportsbytheparticipants)
    - (b) report on developments within UPOV (oral report by the Office of the Union)
  - 4. Molecular techniques
  - 5. ProjecttoconsiderthePublicationofVarietyDescriptions
  - 6. UPOVDatabases
  - 7. Standardized explanation for "Maturity of Fruit" characteristics
  - 8. TGPdocuments
  - 9. DiscussionsondraftTestGuidelines(Subgroups):
  - 10. RecommendationsondraftTestGuidelines(plenary)
  - 11. Dateandplaceofthenextsession
  - 12. Futureprog ram
  - 13. Reportontheconclusionsofthesession(iftimepermits)
  - 14. Closingofthesession

## **SpecialAwards**

85. Mr. József Harsányi (Hungary) and Mr. Chris Barnaby (New Zealand) were awarded UPOV bronze medals in recognition of their chairma nship of the TWF for the period of 2000 to 2002 and 1997 to 1999, respectively.

## **TechnicalVisit**

86. On Wednesday, November 27,2002, the participants at the TWF made atechnical visit to the regional station of the National A gricultural Research Institute (*Instituto Nacional de Tecnología Agropecuaria (INTA)*). The participants received brief presentations on the researchactivities from the Director of the Experimental Station, INTA, Dr. Fermin Olaechea, and his colleagues. The activities of the Station were focused on three sectors: natural resources management, animal production and forestry. A visit was also made to the agrobiological farm "La Alpina".

<u>87.</u> This report has been adopted by correspondence.

[AnnexIfollows]

## **ANNEXI**

#### LISTOFPARTICIPANTS

## I. MEMBERS

#### **ARGENTINA**

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JózsefHARSÁNYI, Chairman

## TWF/33/22 AnnexI,page 4

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[AnnexIIfollows]

#### TWF/33/22

## ANNEXI I

#### **LITERATURE**

- Benson L.L.; W.L. Lamboy; R.H. Zimmerman; 2001. Molecular identification of *Malus hupehensis* (Tea Crabapple) accessions using simple sequence repeats. HortScience 36 (5): 961-966.
- Besnard, G.; C. Breton; P. Bradat; B. Khadari; A. Bervillé; 2001. Cultivaridentification in olivebase don RAPD markers. J. Amer. Soc. Hort. Soc. 126(6):668 -675.
- Burgher, K.L.; A.R. Jamieson; X.Lu; 2002. Genetic relationships among low bush blueberry genotypes as determined by randomly amplified polymorphic DNA analysis. J. Amer. Soc. Hort. Soc. 127(1):98-103.
- Coazza-Nunes, M.J.; M.A. Machado; W.M.C. Nunes; M. Cristofani; M.L.P.N. Targon; 2002. Assessment of genetic variability in grapefruit ( *Citrus paradisi* Macf.) and pummelos (*C.maxima* (Burm.) Merr.) using RAPD and SSR markers. Euphytica 126:16 9-176.
- Finn, C.E.; 2001. Molecular genetics: application in small and tree fruits: where is it working?Introductiontotheworkshop.HortScience36(5):854 -858.
- Frey, J.E.; E. Bosshard; J. Gafner; W. Heller; M. Hilber; M. Kellerhals; J. Ladner; H.-J. Schärer; R. Theiler; 2002. Molekulare Diagnostik in der Landwirtschaft. Schweiz. Z. Obst-Weinbau137(18):469 -473.
- Hauck, N.R.; A.F. Iezzoni; H. Yamane; R. Tao; 2001. Revisiting the sweetcherry (*Prunusavium*) using RFLP profiles. J. Amer. Soc. Hort. Soc. 126(6), 654 -660. Hokanson, S.C. (2001): SniPs, Chips, BACs, and YACs: are small fruits part of the party mix? Hort Science 36(5):859 -871.
- Herrera, R,; V. Cares; M.J. Wilkinson; P.D.S. Caligari; 2002. Characterization of gen etic variation between *Vitis vinifera* cultivars from central Chile using RAPD and inter simple sequencerepeatmarkers. Euphytica 124:139 -145.
- Huang, H.; L. Zuozhou; L.. Jianqiang; T.L. Kubisiak; D.R. Layne; 2002. Phylogenetic relationships in *Actinidia* as revealed by RAPD analysis. J. Amer. Soc. Hort. Soc. 127(5): 759-766.
- $\label{lem:condition} Kimura, T.; T. Yamamoto; Y. Ban; 2001. Development of SSR markers and identification of pears. UPOV, Geneva -document BMT/7/11:7p.$
- Levi, A.; C.E. Thomas; X. Zhang; T. Joobeur; R.A. Dean; T.C. Wehner; B.R. Carle; 2001. A genetic linkage map for watermelon based on randomly amplified polymorphic DNA markers. J. Amer. Soc. Hort. Soc. 126(6):730 -737.
- Luby, J.J.; Shaw, D.V.; 2001. Does marker -assisted selection make Dollars and sense in a fruitbreeding program? HortScience 36(5):872 -879.

## TWF/33/22 AnnexII,page 2

Mekuria, G.T.; M. Sedgley; Collins, G.; Lavee, S.; 2002. Development of a sequence site for the RAPD marker linked to leaf spot resistance in olive. J. Amer. Soc. Hort. Soc. 127(4): 673-676.

Polashock, J.J.; N. Vorsa; 2002. Development of SCAR markers for DNA finger printing and germplasmanalysis of american cranberry. J. Amer. Soc. Hort. Soc. 127(4):677 -684.

Potter, D.; F. Gao; G. Aiello; C. Leslie; G. McGranahan; 2002. Inters implesequence repeat markers for fingerprinting and determining genetic relationship of walnut ( *Juglans regia*) cultivars. J. Amer. Soc. Hort. Soc. 127(1):75 -81.

Quarta, R.; M.T. Dettori; I. Verde; 2001. Fingerprinting peach varieties using molecular markers.UPOV,Geneva -documentBMT/7/17:4p.

Rout, G.R.; S. Samai; S. Nayak; R.M. Nanda; P.C. Lenka; P. Das; 2002. An alternative method of plant DNA extraction of Cashew (Anacardium occidentale L.) for randomly amplifiedpolymorphicDNA(RAPD)analysi s.Gartenbauwissenschaft67(3):114 -118.

Schütz, M.; 2001. Molekularbiologie in der Weinforschung. Schweiz. Z. Obst -Weinbau 137(4):74 -77.

Stark-Urnau, M.; 2002. RAPD - Markerbei *Malus* x *domestica* (Apfel) und *Pyrus communis* (Birne) als Mittel zur Sor tenidentifizierung – Teil I: *Malus* x *domestica* (Apfel) (Use of RAPD-Markers in *Malus* x *domestica* (apple) und *Pyrus communis* (pear) for cultivar identification – PartI: *Malus* x *domestica* (apple)). Erwerbsobstbau44:139 -144.

Teng, Y; K. Tanabe; F. Tamura; A. Itai; 2002. Genetic relationships of *Pyrus* species and cultivarsnativetoEastAsiarevealedbyRandomlyAmplifiedPolymorphicDNAmarkers. J. Amer. Soc. Hort. Soc. 127(2):262 -270.

Tyrka, M.; P. Dziadczyk; J.A. Hortynski; 2002. Simplified AFLP p rocedure as a tool for identification of strawberry cultivars and advanced breeding lines. Euphytica 125:273 -280.

Yamamoto, T.; T. Kimura; M. Shoda; Y. Ban; T. Hayashi; N. Matsuta; 2002. Development of microsatellite markers in the Japanese pear (

Pyrus pyrifolia Nakai). Molecular Ecology Notes 2:14 -16.

Yamamoto, T.; T. Kimura; Y sawamura; T. Manabe; K. Kotobuki; T. Hayashi; Y. Ban; N. Matsuta; 2002. Simple sequence repeats for genetic analysis in pear. Euphytica 124: 129-137.

Yamamoto, T.; T. Kimur a; Y. Sawamura; K. Kotobuki; Y. Ban; T. Hayashi; N. Matsuta; 2001. SSRs isolated from apple can identify polymorphism and genetic diversity in pear. Theor. Appl. Genet. 102:865 -870.

Zhou, L.; F. Kappel; C. Hampson; P.A. Wiersma; G. Bakkeren; 2002. Gen etic analysis and discrimination of sweet cherry cultivars and selections using amplified fragment length polymorphism fingerprints. J. Amer. Soc. Hort. Soc. 127(5):786 -792.

## TWF/33/22Prov.

## **ANNEXIII**

## LISTOFLEADINGAND INTERESTEDEXPERTS

Species	Basicdocument(s)	Leadingexpert(s)	Interested experts (countries) (forname of experts see List of Participants, Annex I)
Apple(revision)  Malus Mill	TWF/33/11 TG/14/8	Mrs.AlisonLean,GB	AR,AU,CZ,DE,ES,FR,HU, JP,MX,NZ,NL,PO,PT,RO, ZA,CPVO, IPGRI
Apricot(revision) (Prunusarmeniaca L.)	TWF/31/8,TWF/32/15 TWF/33/13,TG/70/3	Mr.Harsányi,HU	AR,AU,ES,FR,IL,IT,NZ,RO, ZA,CPVO,IPGRI
Avocado(revision) (Perseaamericana Mill.)	TWF/30/8,TWF/31/4 TWF/33/10,TG/97/3	Mr.Barrientos -Priego, MX	AU,BR,ES,FR,IL,NZ,ZA, IPGRI
Banana(revision) (Musaspp)	TG/123/3	Mrs.Machado,BR	BR,ES,FR,IL,KE,SD,IPGRI
Blackberryandhybrid berries(revision)	TG/73/6	Mr.Barnaby,NZ Mr.Schulte,DE	HU,UK,IPGRI
CactusPear (Opuntia,ssp)	TWF/31/7,TWF/32/7, TWF/33/9	Mr.Barrientos -Priego, MX	ES,IL,IT,ZA,IPGRI
Coffeeandtheir interspecifichybrids	TWA/31/11	Mrs.Machado,BR	IL,BR,FR,KY,MX,IPGRI
Fig( Ficuscarica)	TWF/30/4	Mr.Bar -Tel,ILand Mr.Bergamini,IT	AR, DE,ES,FR,JP,PT,IPGRI
Mango(revision) (Mangiferaindica L.)	TWF/33/16,TG/112/3	Mrs.Costa,AUand Mrs.Buitendag,ZA	BR,ES,IL,MX,IPGRI
PassionFruit(fruitspecies)	New	Mr.Bar -Tel,ILand Mrs.Buitendag,ZA	BR,KE,ZA,MX,JP,IPGRI
Pecannut	New	Mrs.Montes,AR	IL,BR,MX,IPGRI
Pineapple (Ananascomosus)	New	Mr.Brand,FRand Mr. Salaices,ES	BR,FR,KE,MX,PT,ZA,JP, IPGRI

[EndofAnnexIIIandofdocument ]