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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

TECHNICAL WORKING PARTY FOR FRUIT CROPS

Forty-Fifth Session
Marrakesh, Morocco, May 26 to 30, 2014

REPORT

adopted by the Technical Working Party for Fruit Crops

1. The Technical Working Party for Fruit Crops (TWF) held its forty-fifth session in Marrakesh, Morocco, from May 26 to 30, 2014. The list of participants is reproduced in Annex I to this report.

2. The session was opened by Mrs. Carensa Petzer (South Africa), Chairperson of the TWF, who welcomed the participants and thanked Morocco for hosting the TWF session.

3. The TWF was welcomed by Mr. Mohammed Sadiki, Secretary General, Ministry of Agriculture and Marine Fisheries of Morocco. A copy of the welcome address of Mr. Sadiki is provided in Annex II to this report.

4. The TWF was welcomed by Mr. Amar Tahiri, Chief, Division of Seeds and Plant Control, National Office of Sanitary Food Safety (ONSSA), who made a presentation on plant variety protection in Morocco. A copy of the presentation made by Mr. Tahiri is provided in Annex III to this report.

5. The TWF expressed its condolences for the sad loss of Mr. François Boulineau, Chairman of the Technical Working Party for Vegetables (TWV), who had died on December 23, 2013. It was recalled that, in addition to being Chairman of the TWV, Mr. Boulineau had brought great experience and expert knowledge to UPOV's technical work and was a leading expert for a number of important UPOV Test Guidelines.

Adoption of the Agenda

6. The TWF adopted the agenda as reproduced in document TWF/45/1.

Short Reports on Developments in Plant Variety Protection

(a) Reports on developments in plant variety protection from members and observers

7. The TWF noted the information on developments in plant variety protection from members and observers provided in document TWF/45/25 Prov. The TWF noted that reports submitted to the Office of the Union after May 23, 2014, would be included in the final version of document TWF/45/25.

(b) Reports on developments within UPOV

8. The TWF received a presentation from the Office of the Union on the latest developments within UPOV, a copy of which is provided in document TWF/45/24. The TWF noted that the designated contact person to the Technical Committee had been copied in the Circular requesting information for document C/48/5 "Cooperation in examination".

Improving the effectiveness of the Technical Committee, Technical Working Parties and Preparatory Workshops

9. The TWF considered the proposals concerning possible means of improving the effectiveness of the TWPs and the Preparatory Workshops, and made the following comments:

Proposal		**Comment**
Technical Working Parties		
General		
(a)	conduct a survey of TWP participants in 2014 in order to identify further areas for improvement and to obtain feedback on the effectiveness of measures already taken	• To make the survey available during the meeting • To encourage a higher response rate • To add a question on "How to encourage participants to be prepared for the meeting"
(b)	review the TWP invitations in order to ensure that information is disseminated to all appropriate persons	• To be sent by email at least 3 months before the meeting • To post the invitation on the UPOV website • To mention in the invitation the participants at the previous session • To improve distribution of the invitation but it must go through the UPOV representatives as it is a matter for the UPOV member and the relevant national authority to disseminate to the appropriate persons • The list of designated persons for the relevant TWP should be checked on a frequent basis
(c)	in order to encourage greater participation by all participants in the TWP sessions, to request participants at the beginning of the session to introduce themselves and to briefly (in 30 seconds) report the most important issue they faced at that time. Matters of broad interest could then be considered for further discussion at an appropriate time	• Agreed with the 2 proposals • Need to allocate time in the agenda • Should be voluntary not mandatory • Should be just before coffee break to allow time for further discussion during the break
(d)	organize presentations by experts of members of the Union on topical and relevant matters	• The matters need to be identified and seen as relevant for the TWP • Should be in the agenda • Was already implemented in 2014 and brought some interesting technical discussions • Useful to share experiences
(e)	request hosts to provide: • name badges for all participants (including local participants), • a large poster board with the participant names and photographs and a space for each participant to indicate their area of particular interest (specifically including local participants), • a notice board for host announcements (e.g. visits), • 2 projector screens in large rooms (at opposite ends of room)	• Name badges are already implemented • To elaborate the list of participants, including areas of expertise • Announcement board would be welcomed • Additional changes should not have additional costs for the host • Guidance should not be too prescriptive on the requirements for the host

Proposal		Comment
TWP documents		
(f)	provide a summary of the purpose and proposed decisions at the beginning of TWP documents	• Agreed with the idea of an executive summary • Would be a great improvement
(g)	post documents sufficiently in advance of the meetings	• To define sufficient time (e.g. 2 weeks to 1 month) • Constitute a key for proper preparation of participants
(h)	continue to include decision paragraphs in TWP documents	• Considered to be very helpful
(i)	minimize the time for presentation of documents, particularly where presented for information only	• Documents need sufficient time to allow discussion • Need to find a good balance under the governance of the Chairperson
Test guidelines		
(j)	request TWP designated persons to make proposals for new or revised Test Guidelines in advance of the TWP session	• Should be complementary to proposals made during the course of the meeting • Could be interesting to share first proposals before the session in order to consult experts in authorities
(k)	circulate the proposed schedule of TG to be discussed during the session to TWP participants one week before the TWP session	• Good proposal in order to avoid conflict and allow experts to join the relevant subgroup • Should be circulated at least one week before the meeting
(l)	improve preparation of Test Guidelines and presentation of Test Guidelines at TWPs by the Leading expert by: • training (e.g. electronic training workshops, including the use of the Web-based TG template, and guidance on the presentation of Test Guidelines at the sessions), • providing UPOV comments in advance	• Support needed on the web-based TG template training which would improve the preparation and probably the presentation of Test Guidelines • Document TGP/7 contains also Guidance Notes which could be useful in the training of the LE and should be included in the training • As soon as possible (e.g. 2 weeks before the session) in order to collect the proposal and study the proposal • The discussion at the TWP should be just to agree on the draft and not to have new proposals
TGP documents		
(m)	request participants to provide their comments on TGP documents in advance of the TWP session, according to a specified date	• This should not avoid discussion during the session • Should not be mandatory • Should be complementary with comments during the session
(n)	organize a separate, annual meeting of a working group to discuss TGP documents in the week before the TC sessions in Geneva. The meetings would be open to all TC and TWP designated persons and consideration would be given to the possibility to view the meeting electronically	• Would have a big impact on cost • Could disconnect the experts with technical matters contained in TGP documents and disconnect TGP documents from the reality in the fields • Could be appropriate in a particular case on relevant matters (e.g. special working group)
(o)	in conjunction with this approach, to report on significant developments at TWPs, without detailed discussion of individual TGP documents	• Not supported
Technical visit		
(p)	conduct a survey of TWP participants of their requirements for technical visits	• The technical visit should o be largely determined by the host, with some guidance provided o focus on DUS examination trial if possible o include practical exercises for examination of varieties to share experience and knowledge o be relevant for the interest of the TWPs and participants

Proposal		Comment
Preparatory Workshops		
(a)	if the length of time spent on TGP and information documents is reduced, to hold the preparatory workshops on Monday in order to encourage all TWP participants to attend the Preparatory Workshop	• Approach not supported • Would have a negative impact of the time left in the week as it would reduce time for discussion on other technical matters
(b)	to use more, shorter presentations and use experts from members of the Union as presenters	• Agreed • Would need participation from the expert during the Preparatory Workshop
(c)	to continually renew exercises for existing topics	• Agreed with examples relevant for the TWP
(d)	to organize small groups of participants with different levels of experience for the group exercises	• Agreed

Molecular Techniques

10. The TWF considered document TWF/45/2.

11. The TWF noted the report on developments concerning the use of biochemical and molecular markers in the examination of Distinctness, Uniformity and Stability (DUS).

12. The TWF noted the report on developments concerning the Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular (BMT).

13. The TWF noted the report on developments concerning the presentation of information on the situation in UPOV with regard to the use of molecular techniques to a wider audience, including breeders and the public in general.

14. The TWF agreed that it would be useful to receive more information on the use of molecular techniques in DUS examination and, in that regard, invited the experts from Spain to provide information on the use of such tools by the *Oficina Española de Variedades Vegetales* (OEVV). The TWF also invited other participants to present their experience on the use of biochemical and molecular techniques in fruit crops at the TWF session in 2015.

15. The TWF received a presentation by the expert from France on the study concerning molecular techniques and DUS testing made by the Group for Study and Control of Varieties and Seeds (GEVES), explaining how those techniques are being used in France and especially in relation to the detection of resistance genes, as well as the use of molecular tools on fruit trees. A copy of the presentation made by the expert from France is provided in document TWF/45/2 Add.

TGP documents

16. The TWF considered document TWF/45/3.

Matters for adoption by the Council in 2014

17. The TWF noted the revisions to documents TGP/0, TGP/2, TGP/5, TGP/7 and TGP/8 to be put forward for adoption by the Council at its forty-eighth ordinary session, as set out in document TWF/45/3, paragraphs 5 to 21.

Program for the development of TGP documents

18. The TWF noted the program for the development of TGP documents, as set out in Annex II to document TWF/45/3.

Future revision of TGP documents

19. The TWF noted that the proposals for future revisions of TGP documents to be discussed by the Technical Working Parties (TWPs) at their sessions in 2014, and considered the TGP documents below on the basis of document TWF/47/3 "TGP documents" and other documents, as indicated.

Revision of document TGP/7: Plant Material Submitted for Examination

20. The TWF considered document TWF/45/12.

21. The TWF considered the examples presented by the experts from the European Union and Germany, on their experiences with regard to plant material submitted for examination, and the solutions that had been developed to address problems. The TWF noted in case of the examination of fruit species, the "cyclophysis" effect, which means the effect of the place where the scion is taken from within the mother plant, due to different degrees of maturity, that may have a specific impact on the expression of a particular characteristic. If for example, graftwood material is taken from older trees of one authority's reference collection, in order to produce young trees for comparing them with the plants of a new candidate variety at same age, the fresh grafting, the scion of which represents generative but not vegetative material, subsequently needs removing their immediately occurring inflorescences. This needs to be done during the establishment period, in order to produce a proper tree, with a central leader and sufficient side shoots attached to it.

22. The TWF noted the actions taken to avoid the influence of the method of propagation on the outcome of the DUS examination in certain crops. It was also noted that, in the case of blueberry and grapevine, plant material resulting from meristematic tissue could not be accepted for examination due to the risk of somaclonal variation.

23. The TWF agreed that authorities in charge of receiving plant material for examination should provide guidance on the requirements of material submitted such as quality and age.

Revision of document TGP/7: Coverage of the Test Guidelines

24. The TWF considered document TWF/45/13 and agreed that Approach 3 "Specify existing type of propagation and anticipate future developments" was the most appropriate guidance for Test Guidelines that are developed on the basis of varieties with one type of propagation when varieties may be developed in the future with other types of propagation. The TWF, therefore, agreed that ASW 8 should be amended to read as follows:

"ASW 8 (TG Template: Chapter 4.2) – Uniformity assessment

(a) "Cross-pollinated varieties

(i) "Test Guidelines covering only cross-pollinated varieties

"'The assessment of uniformity should be according to the recommendations for cross-pollinated varieties in the General Introduction.'

"These Test Guidelines have been developed for the examination of cross-pollinated varieties. For varieties with other types of propagation the recommendations in the General Introduction and document TGP/13 "Guidance for new types and species", Section 4.5: "Testing Uniformity" should be followed."

[…]

"(c) Uniformity assessment by off-types (all characteristics observed on the same sample size)

~~*(i) Test Guidelines covering only varieties with uniformity assessed by off-types*~~

~~"For the assessment of uniformity, a population standard of { x }% and an acceptance probability of at least { y } % should be applied. In the case of a sample size of { a } plants, [{ b } off-types are] / [1 off-type is] allowed."~~

~~*(ii) Test Guidelines covering varieties with uniformity assessed by off-types and other types of varieties*~~

"'For the assessment of uniformity of [self-pollinated] [vegetatively propagated] [seed-propagated] varieties, a population standard of { x }% and an acceptance probability of at least { y } % should be applied. In the case of a sample size of { a } plants, [{ b } off-types are] / [1 off-type is] allowed.'

"These Test Guidelines have been developed for the examination of [*type of propagation*] varieties. For varieties with other types of propagation the recommendations in the General Introduction and document TGP/13 "Guidance for new types and species", Section 4.5: "Testing Uniformity" should be followed."

Revision of document TGP/7: Drafter's Kit for Test Guidelines

25. The TWF considered document TWF/45/14, and noted the plans for a revision of document TGP/7 and the TG Drafter's webpage for consistency with the introduction of the web-based TG Template in 2014, as set out in document TWF/45/14, paragraphs 6 to 8.

Revision of document TGP/8: Part I: DUS Trial Design and Data Analysis, New Section: Minimizing the Variation due to Different Observers

26. The TWF considered document TWF/45/15.

27. The TWF agreed that the draft guidance in the Annex to document TWF/45/15, should continue to be developed for inclusion in a future revision of document TGP/8 on minimizing the variation due to different observers, including guidance on PQ and QN/MG characteristics, taking into account the points raised by the expert from Australia in document TWF/45/15, paragraph 21.

28. The TWF received a presentation from the experts from Germany and New Zealand on the previous work done on harmonized variety descriptions for apple for an agreed set of varieties, as reproduced in document TWF/45/28.

29. The TWF received information from an expert from the European Union on a ring test project on Apple for the management of variety description to be launched in 2015. The aim of the project will be to identify the reason for differences in variety description between offices in Europe, when using similar varieties and the same rootstock. The TWF requested an expert from the European Union to report on progress with this project at its forty-sixth session.

30. The TWF agreed on the importance on minimizing the variation between different observers and also between authorities and therefore suggested to consider a study on the possibility to start a new project on harmonized variety description for an agreed set of varieties. The expert from Germany proposed to present to the TWF, at its forty-sixth session, a protocol for the project with an agreed list of varieties to be examined, in order to consider if it could be relevant to further develop the study.

31. The TWF also noted the importance of the quality of the Test Guidelines in providing clear guidance for DUS examiners and in ensuring the consistency of observations, and the importance of the continuous training of examiners.

32. The TWF invited the expert from Australia to report at its forty-sixth session, on the effect of location, observer and year on the conformity of a characteristic for a specific crop.

Revision of document TGP/8: Part II: Selected Techniques Used in DUS Examination, Section 3: Method of Calculation of COYU

33. The TWF considered document TWF/45/16 and noted the developments concerning the method of calculation of COYU, including the development of a demonstration module in DUST and the practical exercise that would be conducted using real data to compare decisions made using the current and the proposed improved method.

Revision of document TGP/8: Part II: Selected Techniques used in DUS Examination, New Section: Examining DUS in Bulk Samples

34. The TWF considered document TWF/45/17.

35. The TWF considered the example of a bulk characteristic from the Netherlands and agreed with the TWO at its forty-seventh session that the scale used should have non-overlapping notes (0-5; ~~5~~6-10; ~~10~~11-15; …).

36. The TWF agreed on the development of guidance on the development of characteristics examined on the basis of bulk samples.

Revision of document TGP/8: Part II: Selected Techniques Used in DUS Examination, New Section: Data Processing for the Assessment of Distinctness and for Producing Variety Descriptions

37. The TWF considered document TWF/45/18.

38. The TWF received a presentation from an expert from New Zealand on the project for “apple reference varieties”, as reproduced in Annex II to document TWF/45/18. The TWF noted the importance of the quality of the Test Guidelines in providing good consistent characteristics, and a complete set of example varieties ensuring harmonized variety descriptions.

39. The TWF noted the explanation of the different forms that variety descriptions could take and the relevance of scale levels in that regard, as presented in Annex III to document TWF/45/18.

40. The TWF noted the guidance for producing variety description in Italy, as presented in Annex IV to document TWF/45/18.

41. The TWF noted that the results of the practical exercise with a common data set would be presented to the TWC at its thirty-second session.

Revision of document TGP/8: Part II: Selected Techniques Used in DUS Examination, New Section: Guidance of Data Analysis for Blind Randomized Trials

42. The TWF considered document TWF/45/19.

43. The TWF noted the information provided by the TWO at its forty-seventh session on the use of blind randomized trials in Brazil, New Zealand and in the United Kingdom, including the circumstances under which blind randomized trials are used.

44. The TWF noted that the expert of the International Community of Breeders of Asexually Reproduced Ornamental and Fruit Varieties (CIOPORA) was not in favor of the use of Blind Randomized Trials.

45. The TWF noted the proposal from the expert from France to continue to work on a new draft incorporating comments from other experts, for consideration by the Technical Committee (TC) and the TWPs at their sessions in 2015.

Revision of document TGP/8: Part II: Selected Techniques Used in DUS Examination, New Section: Examining Characteristics using Image Analysis

46. The TWF considered document TWF/45/20 and noted the proposal from the expert from the European Union to prepare a new draft for consideration by the TC and the TWPs at their sessions in 2015.

Revision of document TGP/8: Part II: New Section: Statistical Methods for Visually Observed Characteristics

47. The TWF considered document TWF/45/21.

48. The TWF noted the developments concerning a possible New Section: "Statistical Methods for Visually Observed Characteristics" to be introduced in document TGP/8: Part II: Techniques Used in DUS Examination, in a future revision of document TGP/8.

49. The TWF agreed with the comment made by the TWO at its forty-seventh session that it should be clarified that the new proposed method was used for the visual observation of individual plants or parts of plants (VS).

Revision of document TGP/9: Schematic Overview of TGP Documents Concerning Distinctness

50. The TWF considered document TWF/45/22 and agreed with the revision of the flow diagram in TGP/9, Section 1.6 "Schematic overview of TGP documents concerning distinctness", as set out in Annex I to document TWF/45/22. With regard to the Annex II to document TWF/45/22, the TWF proposed to extend the box for TGP/5 to supplementary procedures.

Revision of document TGP/9: Section 2.5: Photographs

51. The TWF considered document TWF/45/22 and agreed with the proposed guidance on photographs for inclusion in document TGP/9, Section 2.5 "Photographs", as follows:

> "2.5.3 The suitability of photographs for the identification of similar varieties is strongly influenced by the quality of the photographs taken by the authority for the varieties in the reference collection and the photograph of the candidate variety provided by the applicant with the Technical Questionnaire. Comprehensive guidance for taking suitable photographs is provided in TGP/7, GN 35 (new). The guidance was developed in particular for the applicants to provide suitable photographs of the candidate variety. The same instructions are important and useful for the authorities to take photographs of the varieties in the variety collection under standardized conditions."

Revision of document TGP/9: Method of Observation (Single Measurement – MG)

52. The TWF considered document TWF/45/22 and proposed example of a single record for a group of plants (MG) taken on plant parts for inclusion in a future revision of document TGP/9, Subsections 4.3.2 "Single record for a group of plants or part of plants (G)" and 4.3.4 "Schematic summary", as set out in document TWF/45/22, paragraphs 16 and 17.

53. The TWF agreed with the comment made by the TWO at its forty-seventh session, that the example of a single record for a group of plants (MG) taken on plant parts for inclusion in a future revision of document TGP/9, Section 4.3.2 "Single record for a group of plants or parts of plants (G)" and Section 4.3.4 "Schematic Summary" should read as follows:

> "Example (MG)
>
> "Measurement (MG): "Leaf blade: width" in Hosta (vegetatively propagated): a representative measurement in the plot."

54. The TWF also agreed with the comment made by TWO at its forty-seventh session that a suitable illustration should be provided for inclusion in document TGP/7, Subsection 4.3.4.

55. The TWF noted the comment from the expert from Germany in relation to the method of observation MG in current adopted Test Guidelines for fruit species, where all morphological characteristics are indicated as VG/MS, while phenological characteristics indicated as MG. In the case of assessments made on organs taken from all over the plot without noting the individual plants, (e.g. taking a representative fruit sample after harvest), the method of observation should be indicated as MG. In a number of existing Test Guidelines for fruit crops, the method of observation should therefore be reconsidered.

56. The TWF agreed that the comment made by the TWO at its forty-seventh session, to declare a single plant as representative for the entire plot, as soon as uniformity aspects has been found sufficiently fulfilled, is not so applicable in the fruit sector.

57. The TWF agreed that MS should only be considered where each individual plant is measured. In case of several measurements taken for a group of plants or a few groups of plants within the same sample, it should be considered as MG.

Revision of document TGP/14: Section 2.4: Apex/Tip Characteristics

58. The TWF considered document TWF/45/23.

59. The TWF considered the proposal to develop an explanation on the inclusion of a state of expression based on a differentiated tip in shape of apex characteristics, and agreed with the proposal made by the TWO at its forty-seventh session, to amend document TGP/14, section 2.4 as follows:

> "2.4.1 The apex of an organ or plant part is the end furthest from the point of attachment. In some cases, the distal extremity of the apex may be differentiated into a "TIP".
>
> "2.4.2 In considering the approach to describe the apex, the size of the organ and the number of apex shapes should be taken into account. Apex characteristics can be described in simple terms and if a differentiated tip is present it could be further described as a separate characteristic. Generally, it is not necessary to separate the apex shape characteristic.
>
> "2.4.3 In cases where it is appropriate to separate into differentiated tip and apex characteristics, the shape of the apex is taken as the general shape, excluding any differentiated tip. For example: […]"

60. The TWF also agreed with the comment made by TWO at its forty-seventh session that the approach in document TGP/14 for shape of apex and tip characteristics was most suitable for leaves or larger structures and should be used in particular cases only.

Variety denominations

61. The TWF considered document TWF/45/4.

Possible revision of document UPOV/INF/12 "Explanatory Notes on Variety Denominations under the UPOV Convention"

62. The TWF noted the plans to revise document UPOV/INF/12 "Explanatory Notes on Variety Denominations under the UPOV Convention".

Possible development of a UPOV similarity search tool for variety denomination purposes

63. The TWF noted the report concerning the possible development of a UPOV similarity search tool for variety denomination purposes and that the first meeting of the working group would be arranged for June/July, 2014.

Developments concerning potential areas for cooperation with the IUBS Commission and the ISHS Commission

64. The TWF noted the developments concerning potential areas for cooperation between the International Commission for the Nomenclature of Cultivated Plants of the International Union for Biological Sciences (IUBS Commission), the International Society for Horticultural Science Commission for Nomenclature and Cultivar Registration (ISHS Commission) and UPOV, as set out in document TWF/45/4.

Management of variety collections for DUS examination

65. The TWF received a presentation by the expert from the European Union on "Management of variety collection for DUS examination" as reproduced in document TWF/45/26.

Uniformity assessment

66. The TWF considered document TWF/45/9 and the situations described in the Annexes I to IV as a basis to develop guidance in document TGP/10.

67. The TWF agreed with the comment made by the TWO at its forty-seventh session that clarification should be provided on the decision to be taken in Situation B, Alternative (a) “the trial is repeated at both locations for a second year”, in case after repeating a trial for the second year a variety is within the uniformity standard in one growing location or year but is not within the uniformity standard in the other growing location or year.

68. The TWF, agreed that the approaches were not relevant for the fruit sector, because vegetatively propagated varieties did not appear to be in the scope of the document.

Experience with new Types and Species

69. The TWF was informed by the expert from Spain about testing of *Diospyros kaki* (common name: Persimmon), *Punica granatum* (common name: Pomegranate) and *Eriobotrya japonica* (common name: Loquat). The expert from Spain agreed to make a presentation about those species at the TWF session in 2015.

70. The TWF was informed by the expert from Germany about testing of *Lycium barbarum* (common name: Chinese Wolfberry, Goji berry). The expert from Germany agreed to make a presentation about that species at the TWF session in 2015.

71. The TWF was informed by the expert from the European Union about testing of blueberry medium chilling type. The expert from the European Union agreed to make a presentation about that type at the TWF session in 2015.

72. The TWF was informed by the expert from Mexico about testing of *Jatropha curcas* L. The expert from Mexico agreed to make a presentation about that species at the TWF session in 2015.

73. The TWF received a presentation on date palm (*Phoenix dactylifera*) from an expert from Oman, as reproduced in Annex IV of this document.

Duration of DUS tests in the fruit sector

74. The TWF considered document TWF/45/27 presented by an expert from the European Union in relation to the duration of DUS test in the fruit sector.

75. The TWF received a presentation from an expert from the European Union on a CPVO project on “Reducing the number of obligatory observation periods in DUS testing for candidate varieties in the fruit sector”. A copy of the presentation is reproduced in document TWF/45/27 Ad.

76. The TWF agreed that the standard wording currently used in some fruit Test Guidelines with regard to minimum duration period and the number of growing cycles, might be improved in some cases. It therefore requested the leading experts to propose suitable wording for their draft Test Guidelines in 2015 and requested the expert from the European Union to collate the options developed by the leading experts and to seek to develop possible new standard wording options.

Matters to be resolved concerning Test Guidelines adopted by the Technical Committee

77. The TWF considered document TWF/45/29 “Partial Revision of the Test Guidelines for Peach (Document TG/53/7)” presented by the Leading expert Mr. Richard Brand (France).

78. The TWF agreed to the proposals for revision of the Test Guidelines for Peach, as requested by the TC at its fiftieth session, and as reproduced in the Annex to document TWF/45/29, subject to the following amendment for Chapter 5.3 “Grouping Characteristics”:

(a) Tree: size (characteristic 1)
(b) Flower: type (characteristic 9)
(c) Leaf blade: red mid-vein on the lower side (characteristic 28)
(d) Petiole: nectaries (characteristic 30)
(e) Petiole: shape of nectaries (characteristic 31)
(f) Fruit: shape (in ventral view) (characteristic 33)
(g) Fruit: pubescence of skin (characteristic 44)
(h) Fruit: carotenoid coloration of flesh (characteristic 51)
(i) Fruit: acidity (characteristic 57) with the following groups:
- low
- medium
- high
(j) Fruit: flesh type (TQ characteristic), with the following groups:
- melting
- non-melting
- stony hard
(k) Time of beginning of flowering (characteristic 67)
(l) Time of maturity (characteristic 68)

Discussion on draft Test Guidelines (Subgroups)

**Acca (*Acca sellowiana *(Berg) Burret)*

79. The subgroup discussed document TG/ACCA(proj.3), presented by Mr. Chris Barnaby (New Zealand), and agreed the following:

Alternative names	to read “Feijoa” in FR, DE, ES and to provide other Spanish name(s)
2.2	to read: “The material is to be supplied in the form of one-year-old trees. The trees can be propagated by cuttings or grafted on a rootstock as specified by the testing authority”
3.1.3	to read: “In particular, it is essential that the trees produce a satisfactory crop of fruit in each of the two growing cycles.”
3.3.1	to delete last sentence of paragraph
4.2.2	to read “…, no off-types are allowed.”
T.o.C.	example variety “Alcantara” to become “SCS411 Alcantara” example variety “Helena” to become “SCS412 Helena” example variety “Mattos” to become “SCS4114 Mattos example variety “Nonante” to become “SCS415 Nonante”
Char. 1	to be indicated as QN to read: “semi-upright”
Char. 6	to read (1) “very low”, (2) “low”, (3) “medium”, (4) “high”
Char. 8	to read state (1) “below middle” to read state (3) “above middle”
Char. 10	to check name of state (1)
Char. 18	to be indicated as VG
Char. 22	to read: “Style: color of upper half”
Char. 23	to read: “Stigma: position in relation to anthers” to read state (1) “slightly above”
Char. 24	to delete (+)
Char. 25	to add state (1) “very short”
Char. 28	to read: “Fruit: shape”
Char. 31	to have states (1), (2), (3)
Char. 32	to read state (2) “semi-erect” to delete (+)

Char. 34	to read: “Fruit: rugosity of skin” to read states (1) “absent or very slight”, (2) “slight”, (3) “moderate”, (4) “strong”
Char. 36	to have states (1), (2), (3) to add (+) and to add to existing Ad. 37 and Ad. 39 to check whether to provide example varieties
Char. 37	to check whether to provide example varieties to have states (1), (2), (3)
Char. 40	to read state (1) “transparent” to provide example varieties for state (1)
Char. 41	to be indicated as VG to delete (+) and explanation
Char. 42	to replace example variety “Kakariki” with “Waitui”
8.1	to read “(b) Observations on the flower should be made when approximately 50% of flowers on a tree are open.” “(c) Observations on the fruit should be made when harvested.”
Ad. 2	to read: “Observation should be made during active vegetative growth. The vigor of the tree should be considered as the overall abundance of vegetative growth.”
Ad. 6, 7, 8	to read: “low ← width (ratio length/width) → high”
Ad. 10	to improve illustration for state (1) (see TGP/14, 3.2)
Ad. 25, 26	to delete “(diameter)” from the illustration
Ad. 27, 28	to read “low ← width (ratio length/width) → high”
Ad. 29	to add dotted line indicating symmetry
Ad. 31	to improve illustration
Ad. 37, 39	to add “Ad. 36: Fruit: thickness of skin” to read “individual locule” in the legend to read: “The thickness of the pericarp is the broadest width of flesh from the edge of the locule to the skin.” to indicate where to observe the skin
TQ 1.2	to add common name “Pineapple Guava”

Apple Rootstock (Partial revision: example varieties)

80. The subgroup discussed document TG/163/4(proj.5), presented by Mrs. Carensa Petzer on behalf of the leading expert Mr. Hennie Venter (South Africa), and agreed the following:

4.2.2	to read “…, no off-types are allowed.”
6.4	to specify that example varieties in the Table of characteristics are from the South African’s set
T.o.C.	to check example varieties to read example varieties CG 934 and CG 202 throughout
Char. 5	to read: “Plant: number of spines”
Char. 23, 25, 42	to add (+) and illustration
Char. 36	to read state (1) “none or few”
Ad. 34	to delete “amount of”
11. Annex	to check and review example varieties

*Avocado rootstock (*Persea *Mill.)*

81. The subgroup discussed document TG/PERSE(proj.1), presented by Mr. Alejandro F. Barrientos-Priego (Mexico), and agreed the following:

Cover page Name box	to specify species (*Persea americana* Mill. and *P. schiedeana* Nees)
Associated documents	to add Avocado TGs TG/97/4 as associated document
2.3	to read: “5 trees.”
4.1.4	to read “varieties” instead of “trees”
T.o.C.	to review example varieties
Char. 2	to be indicated as PQ
Char. 6	to read: “Shoot: pubescence on internodes”
Char. 8	to be indicated as PQ
Char. 9	to read: “Vegetative lateral bud: position in relation to shoot”
Char. 10	to read: “Vegetative lateral bud: size” to have states (1), (2), (3)
Char. 11	to read: “Vegetative lateral bud: shape”
Char. 12	to read: “Shoot: size of terminal bud”
Char. 13	to read: “Shoot: shape of terminal bud”
Char. 14	to read: “Shoot: pubescence of terminal bud” to add state (2) “weak” and state (4) “strong”
Char. 15	to add (+)
Char. 16	to move char. 16 after char. 3 to add state (2) “weak” and state (4) “strong”
Char. 17	to read: “Young leaf: coloration of pubescence on petiole”
Char. 22	to be indicated as VG/MG
Char. 24	to read: “Leaf blade: shape of apex (excluding tip)” to read states (1) “acute”, (2) “obtuse”, (3) “rounded”
Char. 27	to read: “Leaf blade: twisting along length”
Char. 30	to read: “Leaf blade: venation on upper side” to delete example variety “Merensky 2” in state (3)
Char. 31	to have states (1), (2), (3) to read state (2) “medium”
Char. 33	to add (+) to read state (3) “strong”
Char. 36	to read: “Petiole: groove”
Char. 37	to read: “Petiole: cross section” to be indicated as VG to read state (1) “broader than tall”, (2) “as broad as tall”, (3) “taller than broad”
Char. 38	to be indicated as VG/MG
8.1 (a)	to read: “<u>Shoot / leaf</u>: Observations on mature leaves and shoots should be made on branches or stems which are not showing signs of new flush on the outside of the tree. They should be made in the middle third of the last current season's growth and close to next budbreak.”
8.1 (b) (new)	Leading expert to provide explanation on lateral shoots and to provide illustration on lateral bud versus terminal bud
Ad. 16	to read: “Should be assessed on the upper third of the shoot and without considering the color of lenticels on the stem. “
Ad. 22, 23	to review grid
Ad. 24	to add a dotted line to exclude the tip
Ad. 29	to improve illustration for state (1)

Ad. 33	to provide method
9.	to complete
TQ 1.3	to update and add species (see Prunus rootstocks TG/187/2(proj.3))

*Chestnut (*Castanea sativa *Mill.) (Revision)*

82. The subgroup discussed document TG/124/4(proj.1), presented by Mr. Takeshi Esaki and Mr. Katsumi Yamaguchi (Japan), and agreed the following:

Cover page Name box	to read: "…; *Castanea crenata* Siebold & Zucc.; …"
Alternative names	to read: Botanical names "*Castanea sativa* Mill. *Castanea crenata* Siebold & Zucc. *Castanea mollissima* Blume" to read: English: "Sweet chestnut Japanese chestnut Chinese Chestnut" to read: French: "Châtaignier Châtaignier du Japon Châtaignier de Chine" to read: German: "Edelkastanie; Esskastanie Japanische Kastanie Chinesische Kastanie" to read: Spanish: "Castaño Castaño del Japón Castaño de China"
1.	to read: "These Test Guidelines apply to all varieties of *Castanea sativa* Mill., *Castanea crenata* Siebold & Zucc., *Castanea mollissima* Blume and hybrids among these species.
2.2	to read: "The material is to be supplied in the form of dormant shoots for grafting or two-year-old trees grafted on a rootstock selected by the testing authority."
2.3	to read: "- 10 dormant shoots or - 6 two-year-old trees."
4.2.2	to read: "…, no off-types are allowed."
6.4	to delete "Example varieties are separated into four groups: "Group A: Castanea sativa Mill. "Group B: Castanea crenata Siebold & Zucc. "Group C: Castanea mollissima Bl. "Group D: Hybrids among above three species" to provide information on example varieties in a table under new chapter 8.3
T.o.C.	to move indication next to example varieties (A), (B), (C) in the table in new chapter 8.3 to review example varieties and to decide on regional sets to review all method of observation (MG, VG, MS, …)
Char. 1	to delete
Char. 1 new	to add (+)
Char. 2	to read state (1) "upright" to read state (2) "semi-upright"
Char. 5	to review
Char. 6	to be indicated as QL
Char. 9, 12, 13, 29	to be moved towards end according to TGP/7
Char. 10	to consider reducing number of states
Char. 14	to check whether to be indicated as QL

Char. 15	to add (+) and explanation
Char. 16	to read “Leaf: profile in cross section” to add (+) and explanation on how to assess` to be indicated as QN to read state (3) “strongly concave”
Char. 17	to be indicated as QN to read state (3) “strongly asymmetric”
Char. 18	to have states (3) “low”, (5) “medium”, (7) “high” to add (+) and illustration in a grid
Char. 19	to have states (1), (2), (3) to add (+) and illustration/explanation referring to the attitude
Char. 20	to read: “Leaf: intensity of green color of upper side”
Char. 21	to check whether to be indicated as QL
Char. 22 (new)	to read: “Leaf: shape” to read state (3) “broad elliptic”
Char. 23 (new)	to read state (1) “narrow acuminate” to read state (2) “broad acuminate”
Char. 25	to be indicated as QL to check whether different types of serrate according to TG/14/9 (apple) could be applicable
Char. 26	to read “Leaf: symmetry of base” to be indicated as QN to add (+) and illustration
Char. 27	to check whether to be indicated as PQ with 3 states
Char. 28	to read “Leaf: ratio length of leaf blade/ length of petiole” to read states (3) “low”, (5) “medium”, (7) “high”
Char. 29	to read “Time of maturity for consumption”
Char. 30 (new)	to be indicated as PQ to read states (1) “globose”, (2) “obloid”, (3) “cylindric”
Char. 31 (new)	to delete (+)
Char. 32	to be indicated as QL to add (+) and explanation/illustration (ref. to TG/124/3 Ad. 27) to check whether suitable characteristic for DUS examination
Char. 33	to add (+) and explanation (ref. to TG/124/3) to check whether suitable characteristic for DUS examination
Char. 34, 35	to add (+) and explanation/illustration
Char. 36	to read: “Nut: shape”
Char. 37	to read: “Nut: distribution of pubescence”
Char. 38	to read: “Nut: size of hilum”
Char. 39	to read: “Nut: shape of border line of hilum and pericarp”
Char. 40	to read: “Nut: contrast of hilum to pericarp”
Char. 41	to read: “Nut: glossiness (immediately after opening of involucre)
Char. 42	to read: “Nut: color of skin”
Char. 43	to read: “Nut: size”
Char. 36	to be indicated as PQ to read states (1) “medium ovate”, (2) “broad ovate”, (3) “circular”, (4) “broad oblate”, (5) “medium oblate”
Char. 37 (new)	to read: “Nut: extent of pubescence on upper part” to read states (1) “small”, (3) “medium”, (5) “large”
Char. 39	to be indicated as PQ to read state (2) “curved” to read state (3) “wavy”

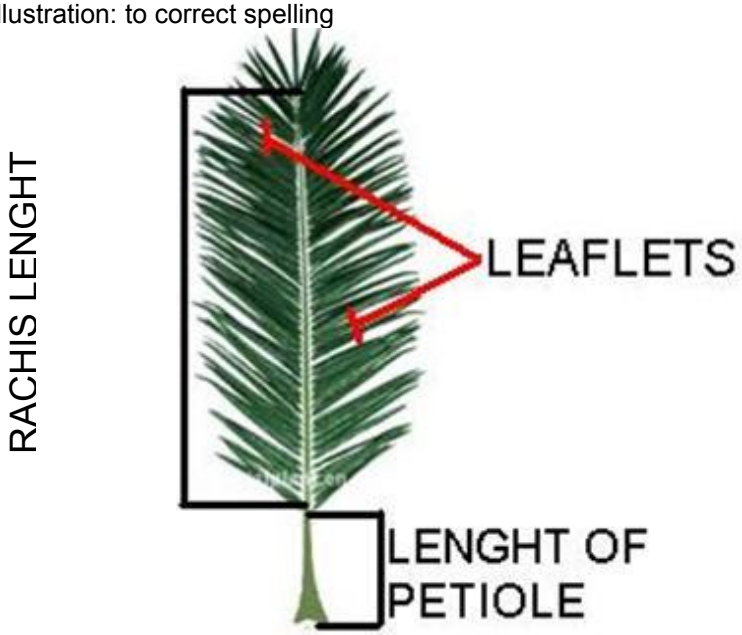
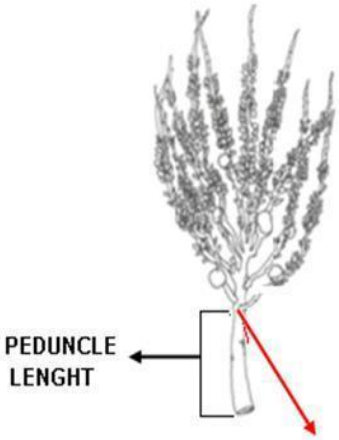
Char. 40	to read: “Nut: conspicuousness of hilum” to read states (1) “inconspicuous”, (2) “moderately conspicuous”, (3) “strongly conspicuous”
Char. 41	to consider increasing the number of states
Char. 42	to read state (2) “medium brown”
Char. 45	to read state (2) “whitish yellow”
Char. 46	to be indicated as QL
8.1	to add note: “All observations on the leaf should be made on the leaf blade”
Ad. 1 (new)	to add explanation “Overall abundance of vegetative growth” (standard wording)
Ad. 15	to add explanation “To be assessed by leaf area”
Ad. 24	to add explanation on where to observe on the shoot
Ad. 44	to read: “The adherence to kernel should be determined by observation of easiness of peeling seed coat by hand after just harvested fruits are steamed for 50 minutes or roasted for 10 to 15 minutes at 200-230 ^{o}C.”

*Coconut (*Cocos nucifera *L.)*

83. The subgroup discussed document TG/COCOS(proj.3), presented by Mrs. Vera Machado (Brazil), and agreed the following:

1.	to read: “These Test Guidelines apply to all varieties of *Cocos nucifera* L.
2.2	to read: “The material is to be supplied in the form of mature fruits.”
2.3	to read: “20 mature fruits.”
3.1.1	to read: “The minimum duration of tests should normally be two independent growing cycles.”
3.1.2	to read: “The growing cycle is considered to be the period ranging from the beginning of development of an inflorescence, through fruit development and concluding with the harvesting of fruit from the corresponding individual inflorescence.”
3.1.3 (new)	to read: “In particular, it is essential that the tree produce a satisfactory crop of fruit in each of the two growing cycles.”
3.3	to read: “The tests should be carried out under conditions ensuring satisfactory growth for the expression of the relevant characteristics of the variety and for the conduct of the examination.”
3.4.1	to read: “Each test should be designed to result in a total of at least 12 plants.”
4.1.1	to check standard wording for second paragraph: “Further guidance is provided in documents …”
4.2.2	to read: “For the assessment of uniformity, a population standard of 1% …”
5.3	to be consistent with TQ 5
T.o.C.	to check example varieties
Char. 1	to delete
Char. 3	to read: “Young plant: time of leaf splitting”
Char. 7	to read: “Stem: diameter of bole”
Char. 8	to update example varieties
Char. 11	to read: “Petiole: thickness in cross section”
Char. 16	to read: “Leaflet: length”
Char. 17	to read: “Leaflet: width”
Char. 18	to read “Leaflet: intensity of green color”
Char. 19	to read: “Peduncle: length”
Char. 20	to read: “Peduncle: width”
Char. 21	to read: “Inflorescence: length of central axis”
Char. 21 a	to delete

Char. 23	to provide example varieties
Char. 24	to read: “Inflorescence: length of first spikelet with female flowers”
Char. 25	to delete (+) to check example varieties
Char. 26	to have states (1), (2), (3), (4)
Char. 27	to be indicated as VG
Char. 28	to read: “Fruit: size” to read states (3) “small”, (5) “medium”, (7) “large” to update example varieties
Char. 29	to delete
Char. 30	to update example varieties to add (+)
Char. 31	to read state (1): “obovate”
Char. 35	to add (+)
8.1(a)	to read: “Palm, stem, petiole and leaf: Observations should be made at the time when the eleventh leaf scars appears (see photo Ad. 5 to 9: leaf scars). Observations on leaf and petiole should be made at 14th mature leaf.”
8.1(c) (new)	to read: “Leaflet: Observations on the leaflet should be done at the middle of the rachis taking two opposite leaflets.”
8.1(d) (old (c))	to read: “Bunch, peduncle and fruit color: Observations on the bunch, peduncle and fruit color should be made at the time of consumption as coconut water (at 6-7 months age fruit), after the appearance of the sixth bunch onwards.”
8.1(e) (old (d))	to read: “Fruit, nut, shell and meat: Observations on the fruit, nut, shell and meat should be made at maturity for consumption as fresh meat (at 11-12 months age fruit), after the appearance of the sixth bunch onwards.”
Ad. 3	to delete picture 1
Ad. 8	to read: “The stem height should be observed from the ground to the top of the 11th scar (see photo Ad. 5 to 9: leaf scars).”
Ad. 9	to read: “The stem width should be measured halfway from the ground to the top of the 11th scar.”
Ad. 10	to read: “The petiole length should be observed from base to the most proximal leaflet of the rachis.”
Ad. 11	to improve illustration
Ad. 11, 12	to read: “The petiole thickness and the petiole width should be observed at the insertion of the first leaflet.”

Ad. 14	to add illustration: to correct spelling 
Ad. 19, 20	to add illlustration: to correct spelling  MEASURE PEDUNCLE WIDTH AT THE POINT OF THE FIRST SPIKELET INSERTION
Ad. 21 a	to delete
Ad. 23	to update illustration
Ad. 24	to add illustration: 

Ad. 26	to delete Ad.
Ad. 27	to improve grid
Ad. 28	to clarify method of observation; to be assessed on 24 fruits (12x2)
Ad. 29, 31, 33, 34	to delete Ad. 29
Ad. 30	to read: "Fruit: aroma of coconut water "The aroma is assessed by smelling the water at the maturity stage for consumption as water."
Ad. 31	to improve grid
9.	to be updated

*Black Walnut (*Juglans nigra *L.)*

84. The subgroup discussed document TG/JUGLA(proj.1), presented by Mr. Pedro Miguel Chomé Fuster (Spain), and agreed the following:

Cover page Name box	to add "*Juglans major* (Torr.) A. Heller*"*, "*Juglans hindsii* (Jeps) Jeps" to provide UPOV codes
Alternative names	to read: Botanical names: *Juglans nigra* L. *Juglans major* (Torr.) A. Heller *Juglans hindsii* (Jeps) Jeps English: Black Walnut Arizona Walnut Northern California Walnut French: Noyer - - German: Schwarznuß - - Spanish: Nogal negro Nogal de Arizona Nogal negro de California to complete common names
1.	to read (b) *Juglans major* (Arizona Walnut) (c) *Juglans hindsii* (Northern California Walnut)
3.1.1	to read: "The minimum duration of tests should normally be two independent growing cycles. In particular, it is essential that the trees produce a satisfactory crop of fruit in each of the two growing cycles."
3.1.2	to read: "The growing cycle is considered …"
3.3	to delete last sentence
4.1.4	to delete: ", disregarding any off-type plants"
5.3	to align with T.o.C. (char. 13 and 14 to be indicated as (*)) to delete "(f) Time of leaf drop (characteristic 19)"
T.o.C.	to move all "BM, CM, Ff, etc." indications of phenotypical stages to first or second column as for TG/grapevine to consider adding characteristics from TG/125/7 and TG/25/6 (and Pecan Nut) to delete example variety "*J. regia* …" to delete (G) in second column
Char. 1	to be indicated as PQ

Char. 2	to be indicated as VG
Char. 3	to read: “Leaf: presence of terminal leaflet” to be indicated as VG to check example varieties to delete state (2) to read states (1) “absent” and (9) “present”
Char. 3.a (new)	to read: “Leaf: size of terminal leaflet in relation to lateral leaflet” to check whether to be reworded “Only varieties with terminal leaflet: present: Leaf: size of terminal leaflet in relation to lateral leaflet” to be indicated as QN to be indicated as VG to have key (1) (in second column) to have state (1) “smaller” and to check example varieties to have state (2) “as large as” with example variety “Mj2-2, 722” to have state (3) “larger” and to check example varieties
Char. 4	to add (+) and explanation
Char. 5	to read: “Female flower: conspicuousness before the Df stage” to check whether in correlation with char. 17 to check how to reword states if char. remains
Char. 6	to check possible combinations of flower arrangements to be indicated as VG to have states (1) to (5)
Char. 7	to read: “Stigma: intensity of anthocyanin coloration” and move “Ff2” to first or second column to have states (1) “absent or very weak”, (2) “weak”, (3) “medium”, (4) “strong”, (5) “very strong” to be indicated as VG
Char. 8	to read: “Stigma: length” to be indicated as VG to have states (1) “very short”, (2) “short”, (3) “medium”, (4) “long”, (5) “very long”
Char. 9	to read: “Stigma: attitude” to check whether to have states (1) “upright”, (2 “spreading”, (3) “drooping” to be indicated as VG
Char. 10	to check whether QL to read: “Male flower: presence of well developed catkins” to have states (1) “absent”, (9) “present”
Char. 11	to read: “Catkin: shape” to read states (1) “broad obovate”, (2) “narrow obovate”, (3) “oblong” to be indicated as PQ
Char. 12	to read: “Nut: shape in longitudinal section perpendicular to suture”
Char. 13	to be indicated as PQ to add (*) to read: “Nut: shape of base perpendicular to suture” to check wording for state (6)
Char. 14	to read: “Nut: shape of apex perpendicular to suture” to be indicated as PQ to add (*)
Chars. 15, 16, 17, 19	to be indicated as MG
Char. 16	to read: “Time of male flowering”
Char. 17	to read: “Time of female flowering”
Char. 18	to be indicated as VG to refer to TG/125/6, char. 35 both for wording and for states
Char. 19	to delete (*)
8.1	to clarify stages (Ff2/ Df/ Cf…): to add table of stages to clarify explanations
Ad. 4	to read: “Juvenile phase means that the tree is less than five years old.”

Ad. 11	to show illustrations upside down and to show pedicel to have states (1) “broad obovate”, (2) “narrow obovate” (3) “oblong” and to swap drawings 2 and 3
Ad. 12	to provide photos for all states
9.	to be updated
TQ 1.1 and 1.2	to update as for section 1.
TQ 1.	to check whether to add 1.3 “Species” and box to check whether to add 1.4 “Hybrids” and box
T.Q. 5.6 (19)	to be deleted

*Mandarins (*Citrus *L. - Group 1) (Partial revision)*

85. The TWF received a presentation from Mr. Jean Maison (European Union), the coordinator of the Subgroup as presented in document TWF/45/31 Rev.

86. The Leading expert presented the proposal for the partial revision of the Test Guidelines for Mandarin (TG/201/1) as presented in document TWF/45/30.

87. The TWF noted that the results from Spain were presented at its forty fourth session, as provided in the Annex to document TWF/44/30.

88. The experts from Morocco and South Africa reported on their results of the ring test as provided in document TWF/45/31 Ad. and document TWF/45/31 Ad. 2 Rev., respectively.

89. On the basis of the results of the ring test:

- the Delegation of Morocco is of the opinion that the characteristic ‘*Fruit: number of seeds (controlled manual cross-pollination)*’ does not fulfill the requirements for UPOV characteristic since it is not sufficiently repeatable;

- the Delegations of Spain and South Africa are of the opinion that the characteristic ‘*Fruit: number of seeds (controlled manual cross-pollination)*’ does fulfill the requirements for a UPOV characteristic with the methodology defined in the ring test.

Therefore, the TWF noted that there was no consensus to modify characteristic 99 or to add a new characteristic 98.

90. The TWF noted the consensus to amend characteristic 25 “Anther: viable pollen”” of the Test Guidelines for Mandarin (TG/201/1) as presented in document TWF/45/30.

91. The TWF noted the absence of consensus for further amendment of the Test Guidelines for Mandarin (TG/201/1).

92. The TWF noted the information provided by the expert from Spain on the use at national level of the characteristic ‘Fruit: number of seeds (manual pollination)’ as a QN characteristic with a range of stages of expression from 1 to 9.

93. The TWF noted the intention of the delegation from Spain to notify the utilization of this characteristic at national level and the notification as an additional characteristic to the Office of the Union according to the procedure set out in document TGP/5 section 10.

94. The TWF noted the reservations from the delegation of Morocco on the use of this characteristic in the absence of consensus.

95. The TWF expressed its appreciation for the work done by Mr. Jean Maison (European Union), as coordinator of the subgroup.

**Papaya (*Carica papaya *L.) (Revision)*

96. The subgroup discussed document TG/264/2(proj.7), presented by Mr. Alejandro F. Barrientos-Priego (Mexico), and agreed the following:

3.1.3 (new)	to read: “In particular, it is essential that the plants produce a satisfactory crop of fruit in each of the two growing cycles.”
3.3	to delete last sentence (moved to 3.1.3)
3.4.1	to read “varieties” instead of “plants” to be redrafted: to mention at least 15 hermaphrodite plants and at least 15 female plants if exist
4.1.4	to be amended according to the changes to be made in 3.4.1
4.2.2	to read “…, no off-types are allowed.”
4.2.3	to check the uniformity for seed-propagated hybrids varieties
Char. 11	to add (b) and to amend explanation in (b): Leaf + leaf blade + petiole
Char. 12	to delete (+)
Char. 13	to add (+)
Char. 16	to delete (*)
Chars. 17, 19, 21	to be deleted
new Char.	to read: “Peduncle: length in female plants” to provide example varieties
new Char.	to read: “Fruit: length in female plants” to provide example varieties
new Char.	to read: “Fruit: shape in female plants” to provide example varieties
Char. 26	to read: “Fruit: width” to add (+) to read: “To be assessed at the broadest part.”
Char. 27	to read: “Fruit: ratio length/width”
Char. 41	to read states (3): “weakly stellate”, (4): “strongly stellate”
Char. 48	to read states (1) “low”, (2) “medium”, (3) “high” to be indicated as MG
8.1 (b)	to read: “Leaf, leaf blade and petiole: Observations on the leaf blade and petiole should be made on mature leaves. Leaves should be taken from the middle third of the current season’s growth when the first inflorescence or single flower has appeared.”
8.1 (c)	to be clarified
8.1 (d)	to read: “Fruit: Observations should be on a fruit taken from the middle of the fruiting area. A fruit is considered ripe when the color change is complete.”
Ad. 7, 8, 9	to use illustration from Ad.10 to indicate length/width
Ad. 16 to 21	to delete Ad. 17
Ad. 28	to review order of states
Ad. 47	to improve illustration
Ad. 48	to read: “The amount of mucilage is determined visually by hand separating the mucilage from the seed.”

**Pecan nut (*Carya illinoinensis *(Wangenh.) K. Koch)*

97. The subgroup discussed document TG/PECAN(proj.10), presented by Mr. Alejandro F. Barrientos-Priego (Mexico), and agreed the following:

3.1.3 (new)	to read: “In particular, it is essential that the plants produce a satisfactory crop of fruit in each of the two growing cycles.”
3.3	to delete last sentence (moved to 3.1.3)
Char. 4	to read state (2): “reddish brown”
Char. 8	to read: “Leaf: terminal leaflet: ratio length/width” to have an illustration
Char. 9	to be indicated as VG/MS
Char. 12	to delete (+)
Char. 18	to clarify when to observe and provide illustration on each different states
Char. 21	to read “Nut: width in lateral view facing the suture”
Char. 22	to read “Nut: shape in lateral view facing the suture”
Char. 23	to add (*)
Char. 24	to read “Nut: shape in ventral view facing the attachment” to be indicated as PQ to read state (1) “broad oblate”
Char. 25	to read: “Nut: shape of apex in lateral view (excluding tip)” to reverse order of states
Char. 29	to be indicated as VG/MS to add (+) and explanation
Char. 30	to read: “Kernel: size of the kernel in relation to the size of the nut” to add (+) and illustration to add (c) to have states (1) “small”, (2) “medium”, (3) “large”
Char. 31	to be indicated as MS
Chars. 33, 34, 35	to be indicated as MG
8.1	to read: “(a) Leaf/Leaflet: observations should be made at the end of leaflet expansion on fully developed leaflets. Leaves on the middle section of a one year old shoot. “(b) Flower: observations should be made at full receptivity of stigma when stigma is turgid and sticky. Observation must be done on the terminal section of a one-year-old shoot. “(c) Husk nut: observations should be made at husk opening stage, 24 weeks after pollination. At Full development of the nut. Observation must be done on the terminal section of a one-year-old shoot.”
Ad. 6 to 12	to delete Ad. 12
Ad. 22	to improve grid
Ad. 29 (new)	to read: “To be observed with the help of a Vernier calliper.”
Ad. 31	to read: “The weight of the kernel should be assessed as the average weight of 10 kernels when ready for consumption.”
Ad. 33	to read: “The time of leaf burst should be considered when 75% of the buds are open.”
Ad. 34	to read: “The time of leaf fall should be considered when 75% of the leaves have fallen.”
Ad. 35	to read: “The time of husk opening should be considered when 75% of the husks are split.”
8.3	to be deleted

*Walnut (*Juglans regia *L.) (Revision)*

98. The subgroup discussed document TG/125/7(proj.2), presented by Mr. Qing-guo Ma (China), and agreed the following:

Alternative names	to check whether “English walnut” as common name as well
1.	to read “These Test Guidelines apply to all varieties of *Juglans regia* L. for fruit production.”
2.2	to read: “The material is to be supplied in the form of dormant shoots sufficient for grafting 5 plants or in the form of grafted plants on a rootstock specified by the testing authority.”
2.3	to read: “10 dormant shoots for grafting or 5 one-year-old grafted plants.”
3.1	to read: “The minimum duration of tests should normally be two independent growing cycles with sufficient fruit set each.”
3.4.1	to read: “Each test should be designed to result in a total of at least 5 plants.”
4.1.4	to read: “Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 5 plants or parts taken from each of 5 plants and any other observations made on all plants in the test, disregarding any off-type plants. In the case of observations of parts taken from single plants, the number of parts to be taken from each of the plants should be 2.”
4.2.2	to read: “For the assessment of uniformity, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 5 plants, no off-types are allowed”
Char.1	to be indicated as QN
Char. 2	to add (+) and illustration to check whether to be deleted
Char. 3	to read “Tree: branching”
Char. 4	to check whether to be indicated as QN to check whether to add an intermediate state to check whether to change wording of existing states to “mostly …” or “predominantly …”
Char. 6	to read: “Leaflet: glandular hair” to be indicated as VG to add (+) and explanation on observation “to use magnifying glasses”
Char. 7	to have states (1) and (2)
Char. 8	to read: “Female flower: number per cluster” to check whether additional information can be obtained from assessing both char. 8 and 10
Char. 9	to read: “Female flower: intensity of color of stigma” to check chart for color
Char. 10	to read: “Fruit: setting type” to be indicated as PQ if kept
Char. 11	to read: “Nut: shape in ventral view” to read states (1) “narrow elliptic”, (2) “medium elliptic”, (3) “broad elliptic” to check whether example variety exists for state (3)
Char. 17	to have states (1), (2), (3)
Char. 19	to be indicated as VG/MG to have states (1), (3), (5)
Char. 20	to have states (1), (3), (5)

Char. 21	to add (+) and illustration to add example varieties from other countries to provide as regional sets to be indicated as PQ
Char. 23	to be deleted
Char. 24	to reword information under (f) if char. 24 indicated as MS to check whether example variety Hartley really represents state (7)
Char. 25	to be indicated as VG to have states (1), (2), (3), (4)
Char. 26	to be indicated as PQ to add (+)
Char. 27	to read: “Kernel: color of endopleura” to add (+) and explanation on endopleura to read state (4) “red” to delete (b) (also under 8.1)
Char. 28	to delete: “(%)” in title to add (f) to reword information under (f) if char. 28 indicated as MS
Char. 29	to add (+) and explanation on how to assess to have states (1), (2), (3), (4)
Char. 30	to be indicated as VG/MS to have states (1), (2) , (3), (4), (5) to read state (5) “very thick”
Char. 32	to be deleted
Char. 33	to read: “Time of beginning of female flowering” to add (+) and explanation: “Should be assessed when 10% of the flowers are opened”
Char. 34	to read: “Time of beginning of male flowering” to add (+) and explanation: “Should be assessed when 10% of the flowers are opened” to delete “,” after “Parisienne”
Char. 35	to read “Time of harvest maturity”
8.1(a)	to consider adding an indication referring to dormant season
8.1(b)	to be deleted
8.1(f) (new (e))	to be reworded if characteristics 24 and 28 indicated as MS
Ad. 1	to improve illustration (to present drawings without leaves)
Ad. 5	to amend drawings for states (1) and (2)
Ad. 11	to read: “Observed in ventral view” to improve figure for state (3): shape must be different and pads must be indicated
Ad. 13	to improve illustration (to remove arrow sign from screen shot)
Ad. 16	to indicate the tip with arrow
Ad. 23	to be deleted
Ad. 25	to add “Ad. 26: Nut: inner pleat wall of shell” to improve resolution of illustration
9.	to update
TQ 4.2.1	to delete (d)

Guidance for drafters of Test Guidelines

99. The TWF considered document TWF/45/10 and received a presentation on the web-based TG Template by electronic means, a copy of which is presented in the Annex to document TWF/45/10.

100. The TWF noted the features of Version 1 of the web-based TG Template, as set out in document TWF/45/10, paragraph 10.

101. The TWF noted the request for Leading Experts to participate in the testing of Version 1 of the web-based TG Template.

102. The TWF noted the exclusive use of the web-based TG Template for the development of all Test Guidelines from 2015.

Information and databases

(a) UPOV information databases

GENIE Database

103. The TWF considered document TWF/45/5.

104. The TWF noted the plan to provide information for type of crop for each UPOV code in the GENIE database, as set out in document TWF/45/5, paragraph 8.

UPOV Code System

105. The TWF checked the amendments to UPOV codes.

106. The TWF checked the new UPOV codes or new information added for existing UPOV codes, which are provided in Annex III to document TWF/45/5, and agreed to submit any comments to the Office of the Union by July 31, 2014.

PLUTO Database

107. The TWF noted the developments concerning the program for improvements to the Plant Variety Database, as reported in document TWF/45/5, paragraphs 17 to 33.

108. The TWF received information from an expert from the European Union on a proposal for a development of UPOV codes to indicate different types within a species (e.g. rootstock, mutation) and agreed to invite the expert from the European Union to make a proposal at its forty sixth session.

(b) Variety description databases

109. The TWF considered document TWF/45/6.

110. The TWF noted the developments on variety description databases, as set out in document TWF/45/6.

111. The TWF considered the proposal of the expert from Australia, not to develop a database at the moment.

112. The TWF noted the matters raised by the ISF in relation to variety descriptions.

113. The TWF noted the conclusion of the CAJ on matters concerning variety descriptions, as set out in document TWF/45/6, paragraph 29.

(c) Exchangeable software

114. The TWF considered document TWF/45/7.

115. The TWF noted that document UPOV/INF/22 “Software and equipment used by members of the Union” would be presented for adoption by the Council at its forty-eighth ordinary session, to be held in Geneva on October 16, 2014, as set out in document TWF/45/7, paragraph 5.

116. The TWF noted that, subject to adoption of document UPOV/INF/22 by the Council at its forty-eighth ordinary session, a circular would be issued to the designated persons of the members of the Union in the Technical Committee (TC), inviting them to provide information regarding non-customized software and equipment used by members of the Union, as appropriate.

117. The TWF noted that a revision of document UPOV/INF/16/3 concerning the inclusion of the SIVAVE software would be presented for adoption by the Council at its forty-eighth ordinary session, to be held on October 16, 2014.

118. The TWF noted that Mexico had been invited to provide further information on the SISNAVA software at the thirty-second session of the Technical Working Party on Automation and Computer Programs (TWC).

119. The TWF noted that the TC and CAJ had agreed with the proposed revision of document UPOV/INF/16 concerning the inclusion of information on the use of software by members of the Union.

120. The TWF noted that an expert from France would make a presentation on the AIM software at the thirty-second session of the TWC, based on the English translation of the software.

121. The TWF noted that the explanation of the software "Information System (IS) used for Test and Protection of Plant Varieties in the Russian Federation" was provided in the Annex to document TWF/45/7.

(d) Electronic application systems

122. The TWF considered document TWF/45/8.

123. The TWF noted the developments concerning the development of a prototype electronic form as set out in document TWF/45/8

124. The TWF noted the results of the survey of members of the Union on their use of databases for plant variety protection purposes and also on their use of electronic application systems, as presented in Annex II to document TWF/45/8.

Recommendations on draft Test Guidelines

(a) Test Guidelines to be put forward for adoption by the Technical Committee

125. The TWF agreed that the following draft Test Guidelines should be submitted to the TC for adoption at its fifty-first session, to be held in Geneva on March 23 to 25, 2015, on the basis of the following documents and the comments in this report:

Subject	Relevant document
*Acca (*Acca sellowiana* (Berg) Burret)	TG/ACCA(proj.3)
Apple rootstocks (*Malus* Mill.) (Revision)	TG/163/4(proj.3)
*Mandarins (*Citrus L*. - Group 1) (Partial revision)	TG/201/1
*Pecan nut (*Carya illinoinensis* (Wangenh.) K. Koch)	TG/PECAN(proj.10)

(b) Test Guidelines to be discussed at the forty-sixth session

126. The TWF agreed to discuss the following draft Test Guidelines at its forty-sixth session:

*Apricot (*Prunus armeniaca* L.) (Partial revision: example varieties)
Argania (*Argania spinosa*) (New)
Avocado rootstock (*Persea* Mill.)
Blueberry (*Vaccinium angustifolium* Aiton; *V. corymbosum* L.; *V. formosum* Andrews; *V. myrtilloides* Michx.; *V. myrtillus* L.; *V. virgatum* Aiton; *V. simulatum* Small) (Revision)
Chestnut (*Castanea sativa* Mill.) (Revision)
*Coconut (*Cocos nucifera* L.)

Chestnut (*Castanea sativa* Mill.) (Revision)
Black Walnut (*Juglans nigra* L.)
Date palm (*Phoenix dactylifera*) (New)
Macadamia *(Macadamia integrifolia* Maiden et Betche, *Macadamia tetraphylla* L.A.S. Johnson) (Revision)
Papaya (*Carica papaya* L.) (Revision)
Pear, Japanese Pear (*Pyrus communis* L.; P. xbretschneideri Rehder, P. pyrifolia (Burm. f.) Nakai; P. xlecontei Rehde, P. Pyrifolia (Burm.f.) Nakai var. *culta* (Mak.) Nakai, P. *ussuriensis* Maxim. and hybrids between) (Revision)
Walnut (*Juglans regia* L.) (Revision)

127. The leading experts, interested experts and timetables for the development of the Test Guidelines are set out in Annex V of this report.

Date and place of the next session

128. At the invitation of South Africa, the TWF agreed to hold its forty-sixth session in Mpumalanga, South Africa, from August 24 to 28, 2015, with the preparatory workshop on August 23.

Future program

129. The TWF proposed to discuss the following items at its next session:

1. Opening of the Session
2. Adoption of the agenda
3. Short reports on developments in plant variety protection
   (a) Reports from members and observers (written reports to be prepared by members and observers
   (b) Reports on developments within UPOV (oral report by the Office of the Union)
4. Improving the effectiveness of the Technical Committee, the Technical Working Parties and the Preparatory Workshops (document to be prepared by the Office of the Union)
5. Molecular Techniques (document to be prepared by the Office of the Union)
6. TGP documents (documents to be prepared by the Office of the Union and by Israel)
7. Variety denominations (document to be prepared by the Office of the Union)
8. Information and databases
   (a) UPOV information databases (documents to be prepared by the Office of the Union and by the European Union)
   (b) Variety description databases (documents to be prepared by the Office of the Union and by the European Union)
   (c) Exchangeable software (document to be prepared by the Office of the Union)
   (d) Electronic application systems (document to be prepared by the Office of the Union)
9. Uniformity assessment (document to be prepared by the Office of the Union)
10. Experiences with new types and species (oral reports invited)
11. Management of variety collections for DUS examination (oral reports invited)

12. Duration of DUS tests in the fruit sector (document to be prepared by the European Union)

13. Harmonized example varieties for Apple: historical data and possible new developments (document to be prepared by Germany)

14. Matters to be resolved concerning Test Guidelines adopted by the Technical Committee

15. Proposals for partial revision/corrections of Test Guidelines

16. Discussion on draft Test Guidelines (Subgroups)

17. Recommendations on draft Test Guidelines

18. Guidance for drafters of Test Guidelines

19. Date and place of the next session

20. Future program

21. Adoption of the Report of the session (if time permits)

22. Closing of the session

Visit

130. On May 29, the TWF visited the Domain Tabouhanit, a 425 hectares' orchard cultivated with citrus (mainly oranges, lemons and clementines), nectarines, olives and grapevine, in the neighborhood of Marrakesh. The TWF was welcomed by Mr. Ben Arirou Lahcen, Manager. The TWF further visited the Essnoussi Nurseries, founded by Mr. Essnoussi, and managed by his son Noureddine Essnoussi, who welcomed the TWF. The Essnoussi Nurseries produce certified plants of olive trees and almonds as well as carob and pomegranate plantlets. The owner explained the procedure for producing certified plants. The TWF visited then the Laboratory of Plant Biotechnology of the Regional Center of the Institut National de Recherche Agronomique (INRA) in Marrakesh. It was welcomed by Mr. Mohamed Anjarne, Deputy Director, who explained the main task of the Laboratory for multiplication of date palm tree using organogenesis techniques (somatic embryogenesis and flowering techniques used for research), and the breeding program for disease resistance.

131. The TWF adopted this report at the close of the session.

[Annexes follow]

ANNEX I

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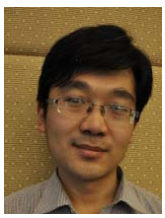

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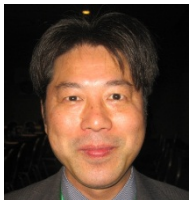

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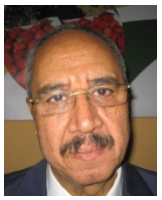

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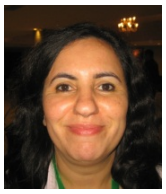

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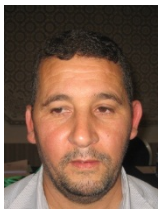

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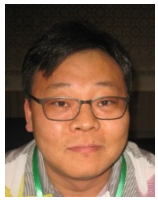

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[Annex II follows]

المملكة المغربية

ROYAUME DU MAROC

وزارة الفلاحة والصيد البحري

Opening ceremony of the 45th session of the TWF of UPOV

Hôtel Atlas Asni, Marrakech, May 26 2014

Opening speech of

Mr. Secretary General

Department of Agriculture

Marrakech, May 26 2014

- Honorable Mme Chairperson,
- Distinguished Delegates and UPOV members of Technical Working Party for Fruit Crops, UPOV
- Director General of INRA, Morocco
- ONSSA representative and staff

Ladies & gentlemen,

On behalf of the Minister of Agriculture His Excellency Aziz Akhannouch, it gives me a great pleasure indeed to welcome to the meeting of the 45th Session of the Technical Working Party for Fruit Crops to Morocco and especially to Marrakech, one of our important imperial cities.

I am personally particularly honored to be here as geneticist-breeder.

My cursus has been focusedinthis area before joining administrative responsabilities Morocco joined UPOV as member in 2006 and participates to the TWF

meetings since the 41st session.

This is the first time that your meeting is organized in the kingdom of Morocco. I would like to take this opportunity to thank you for choosing to hold this event here.

Ladies & gentlemen

The topic of your meeting around plant variety protection is in the heart of the agricultural development, which is on the top of Morocco priorities.

Indeed, Agriculture is a major driving sector of Morocco economy contributing up to 25% of GDP including agroindustry. It plays a major social role as an essential employment sector providing more than 40% jobs in the country; besides to its role as one of the sources of foreign currencies thanks to export of agricultural and agroindustry products and goods.

Therefore, Morocco has made the sustainability of agriculture and the food systems more than a desire for the future; it is imperative. Hence, the country developed a comprehensive solid and inclusive strategy to rehabilitate agriculture and the agricultural space.

Named the ***Green Morocco Plan***, the new agricultural development strategy, was launched in 2008 by His Majesty the King as inter-sectorial approch, based on long-term and aiming at sustainable and innovative agriculture to be competitive and socially integrated.

The ***Green Morocco Plan*** declines the country's vision to address the issue of food security in a comprehensive way, making **agriculture a major catalyst** for growth, economic and social development, and to combat poverty with a clear respect of the sustainable development principles.

The reform strategy is built on **2 pillars** and puts the **investment** in this this sector at the center of the equation, expecting a total funding up to 15 billions US $ in 10 years time span (2008-2020).

Pillar I deals with the development of a modern agriculture based mostly on **private investment** in high productivity/high value added sub-sectors targeting export.

While **Pillar 2** concerns the modernization of production of the smallholder farmers, with a social impact based on massive **public investment**, thus giving the family agriculture a special attention and alleviating poverty a main focus.

The implementation of the Plan takes into consideration several **transverse challenges** in order to improve agricultural productivity, especially ***land tenure, water scarcity, inter-professional organization, improving doing business conditions, and administrative refocusing***.

Agriculture is based both on crop production as well as on animal production. Thanks to the country agro-ecological diversity, crop production is based on a very high number of species cultivated in the country, including very endemic ones such as Argania, and Safran. Besides field crops (such as cereals and vegetables), fruit crops (olives, citrus, Rosaceae, date palms) are main producing sub-sectors.

The sustainable agricultural intensification, promoted by this crosscutting strategy, requires the use of appropriate and adapted technologies at different stages along the value chains. Besides adequate use of resources (water and soil), this concerns particularly agri-inputs, including certified seeds and seedlings, fertilizers and pesticides.

In this regard, a tremendous progress was made by increasing the use of certified cereal seeds from 60 000 tons in 2008 (date of the start of the strategy) to 150 000 tons in 2014, covering more than 30 % of the

land cropped to cereals. Likewise certified material is increasingly used for seedling and propagated material of trees fruit corps.

While this achievement is encouraging, it is still much under the objectives to expand certified material as a key technology for enhancing crop production and ensuring quality. Indeed, Morocco promulgated the law on **Plant variety protection** (PVP) in 1997 aiming at:

1. Promoting national breeding programs, both public and private,
2. Encouraging introduction of foreign varieties adapted to Morocco in order to allow farmers to take advantage and profit from the elsewhere obtained advanced and updated technologies and
3. Giving breeders legal tools to protect and defend their released varieties.

The PVP law was implanted in Morocco in October 28th 2002 and soon after, Morocco became a UPOV member that is in 2006.

The National Office for the Food Sanitary Safety (ONSSA), a public institution under the Ministry of agriculture and Marine Fishery, is the national food safety Authority, in charge of the implementation of the law on plant variety protection and all related aspects and issues.

I would like to take this opportunity to express deep appreciation and consideration to the ONSSA team for their continuous effort and mobilization to contribute efficiently to the agricultural development endeavor and to extend cooperation and partnership regionally and internationally in the area of varieties and seed.

Indeed, ONSSA developed a wide network of cooperation and partnership with a large number of foreign PVP services in DUS testing transfer such as with EU countries, particularly France, Spain, Netherlands, Poland but also other countries such as South Africa, Chili, and Australia.

The eligible list for PVP's contains 97 species of major importance for Moroccan agriculture. But it is progressively extended to other species on request of breeders or seed companies.

Since 2002, 509 applications were submitted for PVP. The applications are originating from 12 different countries, with 21% from Morocco, mainly from the National Institute of Agricultural Research (INRA). Up today 257 PVP certificates were issued (32% originates from Morocco), and 192 applications are still under examination.

Ladies & gentlemen;

I would like to take this opportunity to express our will to share experience with UPOV countries as we seek to benefit from their knowledge. In this regard, we welcome partnership with UPOV to promote exchange of experiences and expertise in terms of scientific knowledge and new technologies in the area of PVP.

I would like to thank the organizing committee for the effort made and for all the arrangements taken to make this meeting possible and I hope enjoyable.

Once more, I would like to thank UPOV for choosing Marrakech for holding this session of the TWF.

Again my warmest welcome to you all and wish all a good and pleasant stay in Marrakech and full success to your meeting.

Thank you for your attention

[Annex III follows]

PRESENTATION OF MR. AMAR TAHIRI

Chief, Division of Seeds and Plant Control National Office of Sanitary Food Safety (ONSSA)

PLANT VARIETY PROTECTION IN MOROCCO

45TH SESSION OF THE UPOV-TECHNICAL WORKING PARTY FOR FRUIT CROPS

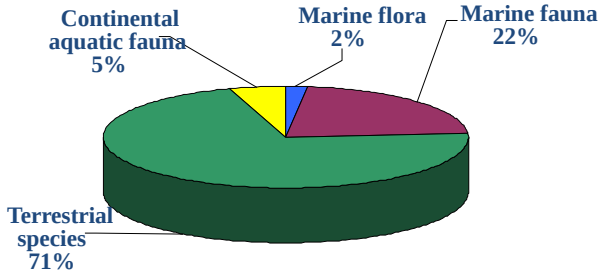
Marrakech, Morocco 26-30 MAI 2014

Amar TAHIRI
Head, Seed and Plant Certification Division

PRESENTATION HIGHLIGHTS

- INTRODUCTION
- AGRICULTURE SECTOR
- SEED AND PLANT SECTOR
- PLANT VARIETY PROTECTION
  - * LAW 9-94 AND OBJECTIVES
  - * PROCEDURE
  - * ACTUAL STATUS
- CONCLUSION

INTRODUCTION
Biodiversity Structure of Morocco



Morocco is one of the country with the richest flora and fauna in the western Mediterranean.

INTRODUCTION

Morocco, because of his climatic and geomorphologic diversity is hosting a large and riche biological diversity adapted to different zones (humid, semi dry, dry, presaharan and Saharan).

He has one the richest flora and fauna of the Mediterranean countries, with 39675 species.

Historically, Morocco has suffered drought approximately one year in three, and, despite irrigation development, coping with climate variation remains a major focus of government policy.

INTRODUCTION

The unpredictable climate in Morocco along with the effects of the multiple diseases and insects constitute the major constraints causing low yields in field crops in Morocco.

Salinity and shortage of arable lands due to erosion and desertification constitute also majors constraints for Moroccan agriculture

AGRICULTURE SECTOR

Agriculture plays a major role in Morocco.

Economically, it represents 18% of the GDP.

Socially, 50% of the population lives from agriculture (80% in rural areas).

It also provides employment to 40% of the labour force and accounts for 30% of export earnings.

AGRICULTURE SECTOR

Cereals, Food legumes, and forage crops constitute the major pillars of Moroccan agriculture.

Wheat occupy the first place with 3 million hectares.

Food legumes are occupy the second place with about 450 000 ha.

Tomato and potato are major vegetable species.

Olives, citrus, almonds and date palm are major agricultural trees.

AGRICULTURE SECTOR

Despite huge efforts aiming at covering food needs of the excessively growing population, currently 32 millions and it is expected to exceed 40 millions in 2025,

the country still imports important quantities of its needs of grains, sugar and table oil.

Exports concern mainly citrus, tomato, potato and other vegetables.

SEED SECTOR

In Morocco, the seed activity has started in early 1920's, and the first legislative texts were promulgated in 1940's.

However, the basis of the actual seed and plant system was built in 70's and 80's, through:

- The promulgation and legislative and regulatory texts related to the production and trade of seeds and plants;
- The State support to the research and breeding programs, mainly for cereals;
- The setup of the variety examination and registration system;
- The creation of State companies dedicated to the production and trade of seeds and plants;

SEED SECTOR

- The setup a seed and plant control and certification system;
- The liberalisation of the seed and plant sector;
- The authorization of more than 200 private companies to import and trade seeds and plants;
- The creation of professional organizations.

MAJOR ACCTORS IN THE SEED AND PLANT SECTOR

Research and breeding

- INRA, mainly
- Private sector: introduction of new varieties for experimentation and application for release in the official catalogue.

Production and et commercialisation

- SONACOS: State company;
- Private companies for seeds;
- Nurseries for plants.
  - Seeds : 101 campanies;
  - Potato : 42 campanies;
  - Plants : 101 nurseries

Homologation and protection of varieties, control and certification

Office national de sécurité sanitaire des produits alimentaires (ONSSA)

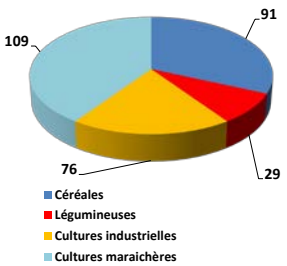
Professionnal Organizations

Fédération nationale interprofessionnelle des semences et plants:

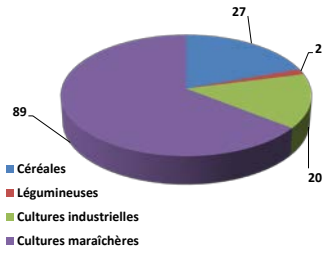
- Association marocaine des semences et plants (trade);
- Association marocaine des multiplicateurs de semences (multiplication);
- Association marocaine de producteurs de plants certifiés (nurseries).

Number of varieties tested and released in 2014

Number of varieties tested



number of varieties released



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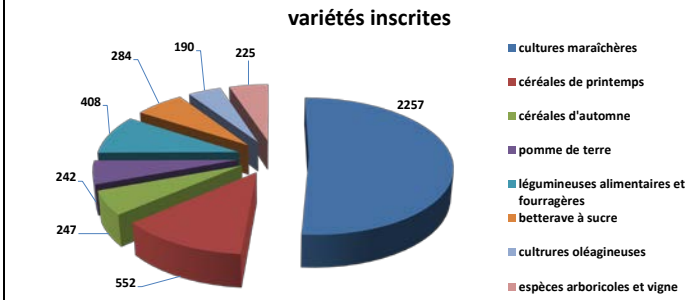
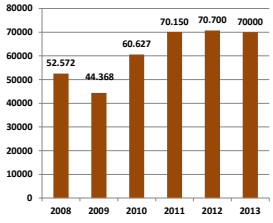
TOTAL NUMBER OF VARIETIES RELEASED IN THE OFFICIAL CATALOGUE SINCE 1978

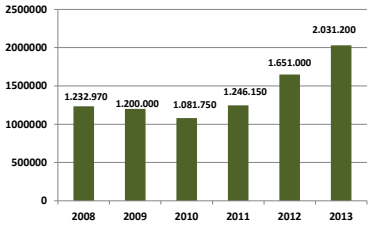


CONTRÔLE DES SEMENCES

Evolution des superficies contrôlées (Ha)

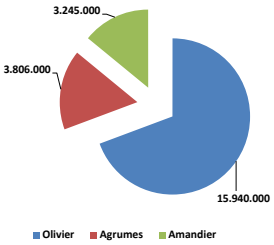


Evolution des productions de semences Certifiées (Qx)

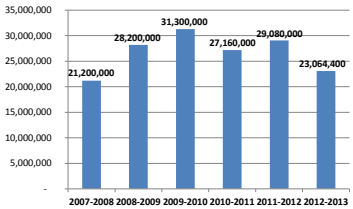


Contrôle et certification des plants des espèces arboricoles

Répartition des 22.991.000 plants contrôlés en 2013



Evolution de contrôle des plants des espèces arboricoles



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PLANT VARIETY PROTECTION

The law 9/94 on plant variety protection was promulgated in 1997.

The law is conform to 1991 UPOV convention.

For the implementation of the law:

2 decrees were published in the official journal in marsh 2002;

7 ministerial decrees (arrêtés) were published in the official journal in October 28th, 2002.

Date of implementation: October 28th, 2002

Since 2006, Morocco became a member of the UPOV

OBJECTIVES OF THE LAW

- ☞ Dissipate the fears of breeders by offering them the juridical tools allowing them to protect their rights;
- ☞ Permit the Moroccan agriculture to take benefit from the new technology in plant breeding;
- ☞ Favor the access of Moroccan agricultural products to the exporting market and improve their competitiveness;

OBJECTIVES OF THE LAW

- ☞ Encourage the investment, at the national level, in seed industry sector and particularly in plant breeding field;
- ☞ Permit Morocco to fulfill international economical and juridical requirements and insure the respect of WTO agreements, mainly the TRIPS agreement which stipulate the obligation of the protection of intellectual property rights of the "inventors", breeders included;
- ☞ Have the juridical tools allowing Morocco to join the International Union for the Protection of New Varieties of Plants (UPOV).

SPECIES ELIGEABLE FOR PROTECTION:97

✓ Cereals	8
✓ Food legumes:	5
✓ Forage crops:	7
✓ Industrial crops:	7
✓ Legumes:	18
✓ Potato:	1
✓ Strawberry:	1
✓ Bleuberry:	1
✓ Raspeberry:	1
✓ Ornementals:	6
✓ Fruit trees and grapevine*:*	42

DURATION OF PROTECTION

☞ 20 years for annual species;

☞ 25 years for trees and grape vine;

☞ 30 years for palm dates.

PROTECTION PROCEDURE

WHO CAN PROTECT?

✓ Moroccans persons and companies;

✓ Foreign persons and companies that have their domicile in Morocco. An agent residing in Morocco for non-resident aliens;

✓ Persons and companies belonging to countries that assure to Moroccans a protection at least equivalent to the one stipulated by the law 9/94 (Principal of reciprocity).

WHERE TO FILE?

Office National de Sécurité Sanitaire des Produits Alimentaires (ONSSA)/

Division de Contrôle des Semences et Plants

Rue Sidi El Hafiane Cherkaoui, BP 1308, Guich, Rabat

Tél : + 212 5 37 77 10 85 / Fax : + 212 5 37 77 98 52

PROTECTION PROCEDURE

* Application file
  - Forms A, B and C;
  - Mandatory appointment;
  - Fees;
  - Seed or plant samples for DUS tests.

* Registers: 1 for demands and 1 for certificates

* PVP bulletin : avril and septembre.

FORM A

- General information related to the breeder and the applicant;
- General information related to the breeder and the variety;
- Signature of the breeder and/or the applicant;
- N°, date and hour of application (administration).

FORM B

- General information related to the breeder and the applicant;
- General information related to the variety;
- Indications concerning the closed varieties;
- Description of the variety according to UPOV guidelines.

FORM C

- **Statment of the breeder or applicant that the variety is novel;**
- **Engagment to submit seeds or propagating material for DUS tests.**

FEES

- ✓ **Groupe A : Cereals, food legumes, forage crops, industrial crops, vegetables, florale and ornemantal species, potato and strawberry;**
- ✓ **Groupe B : Fruit trees and vine;**
- ✓ **Groupe C : Other species.**

PVP Bulletin

Published in April and September

Objectif: inform the public on all aspects related to PVP and to permit to any person to react:

- ✓ Application to PVP;
- ✓ Denominations of the varieties;
- ✓ Withrawal of applications/certificates;
- ✓ Grant, reject of PVP certificates;
- ✓ Modifications;
- ✓ Begining and end of protection;
- ✓ Licences;
- ✓ Other informations related to PVP.

CONSULTAIVE COMMITTEE FOR PLANT VARIETY PROTECTION

- ✓ Composition: 12 members, representing both the administration and private sector;
- ✓ Ordinary meetings: April and September;
- ✓ Secretariat of the Committee: Seed and plant certification service.

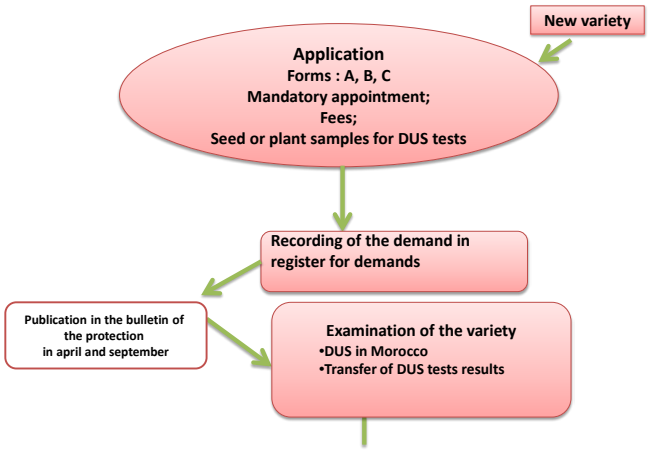
Main tasks:

- ✓ Give consultative advice to the Minister of agriculture on aspects related to:
  - ➢ The grant of PVP;
  - ➢ The legislation on PVP;
- ✓ Establish examination protocols of the varieties;
- ✓ Fix the composition and attributes of the technical committees.

Organsationnal aspects:

- ✓ **The existing, facilities and humains resources used for the variety testing and registration in the official catalogue both at central and regional level are used for variety protection;**
- ✓ **For varieties already protected in an other country, or for species with no experience for DUS test in Morocco: the results are transfred directly from the service of the country doing the tests. The applicant is supporting the charges.**
- ✓ **For administrative aspects: 1/ 3 person.**

PROCEDURE OF EXAMINATION THE APPLICATION



The result is subjected to the consultative committee of PVP which expresses an opinion to the minister of agriculture on any application for a certificate of plant variety rights

Ministerial decree

Publication in the Official Bulletin

Grant of Certificate (ONSSA)

Recording of the certficate in register for certficate

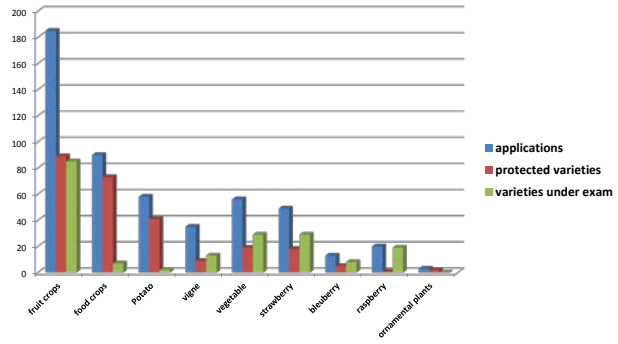
Cooperation

DUS reports transferred from other UPOV members are as following:

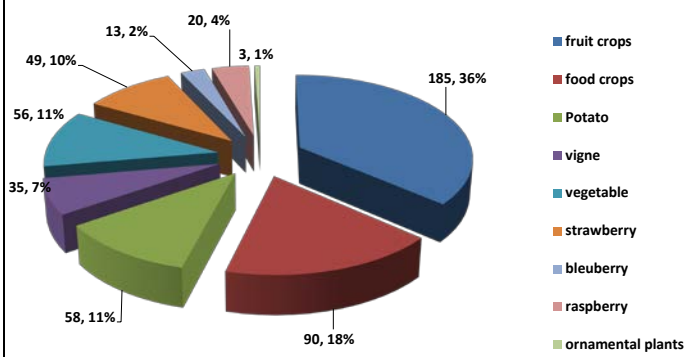
CPVO :	80
France :	47
Netherlands :	35
Spain :	22
South Africa:	02
Irland :	04
Australia :	04
Tcheque:	01

PVP STATUS IN MOROCCO

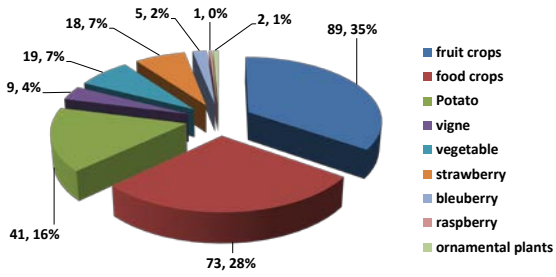
Applications and protected varieties per crops



Applications per crops



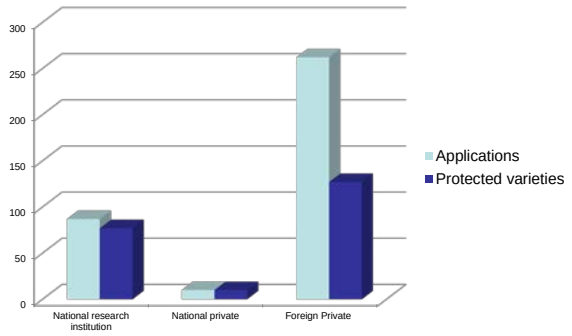
protected varieties per crops



Applications and protected varieties per country

Country	Applications	Protected varieties
Morocco	108	85
France	120	58
USA	89	31
Netherlands	77	34
Spain	53	20
South Africa	16	02
Ireland	12	11
Italy	15	04
England	06	04
Others	13	04
Total	**509**	**257**

Applications and protected varieties by Breedr's Status



CONCLUSION

- During the last 30 years, Morocco has established his national seed/plant system, integrating all components: breeding, release and protection of new varieties, and production, certification and trade of seeds and plants.
- The private sector is playing major role in Moroccan seed/plant sector, and this role is expected to increase in the coming years because of the ongoing privatization of state companies operating in the agriculture domain .

CONCLUSION

- The implementation of the PVP law has permitted the introduction in Morocco of an important number of new varieties mainly for species vegetativelly propagated (potato, fruit trees).
- The number of varieties submitted for protection is expected to grow up with the new "Green Morocco Strategy" aiming an investment of 15 billions US$ in next 10 years.

THANK YOU

FOR YOUR ATTENTION

www.onssa.gov.ma
amar.tahiri@gmail.com

[Annex IV follows]

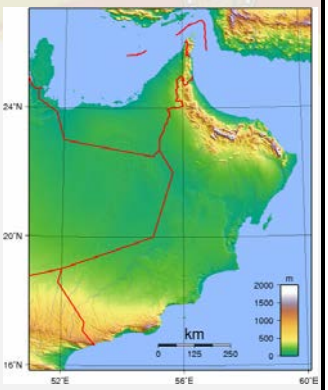
THE DATE PALM

Rashid Al-Yahyai, PhD

Dept. of Crop Sciences
College of Agricultural & Marine Sciences
Sultan Qaboos University

Oman: Climate & Geography

Oman



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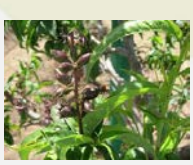
Al Jabal Al Akhdar (Green Mountain)

4

Fruit Crops of Al Jabal al Akhdar



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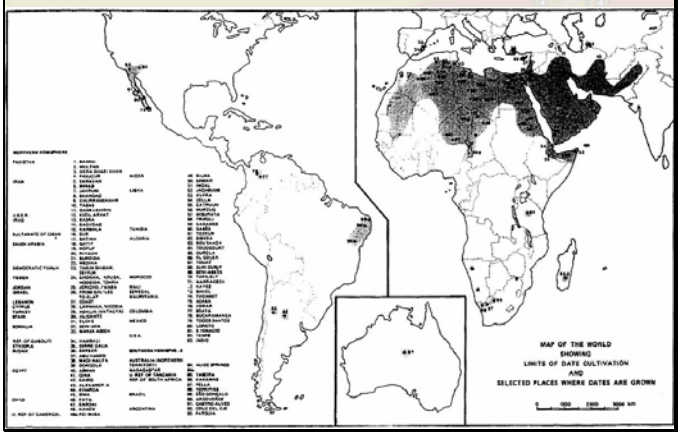
PDO, 1988

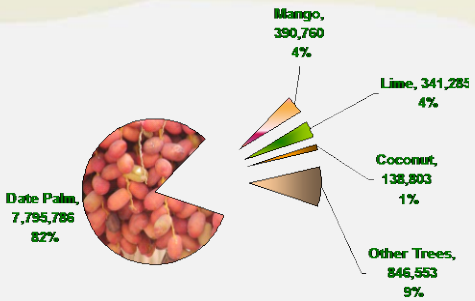
The Date Palm

- *Phoenix dactylifera*
- Family: Arecaceae

Date Palm World Distribution



Total numbers and percentages of major fruit trees in the Sultanate of Oman

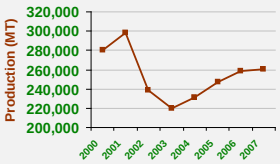


MAF, 2005

Current Status of Date Palm in Oman

- ~ 50% Agr. Area
- ~ 80% Fruit Crops
- ~ 8 Million Palms

- Production:



Country	Egypt	Iran	KSA	UAE	Pakistan	Algeria	Sudan	Iraq	Oman	Libya
Prod. (1000MT)	1130	1000	970	755	510	468	330	290	260	175
6,422,325	17.59	15.57	15.10	11.76	7.94	7.29	5.14	4.52	4.05	2.72

Source: FAOSTAT, 09

Varieties & season

- Over 200 varieties
  - 180 female & 21 male varieties
  - 10 varieties > 75% of all date production
- Longest season (May to Nov)

Cultivar (% of total)	
Um Sella (14.15)	Khunaizi (4.91)
Mabsli (13.24)	Khalas (4.82)
Khasab (11.55)	Madloki (2.35)
Naghal (10.75)	Barni (2.15)
Fardh (7.81)	231,034.91
Shahl (4.95)	

MAF, 2004

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الأخبار المحلية....

Oman Daily 1 May 2009

حية الرطب بعشرة ريالات
تباشير القيظ تهل على دماء والطائيين

دماء والطائيين - أحمد المعمري

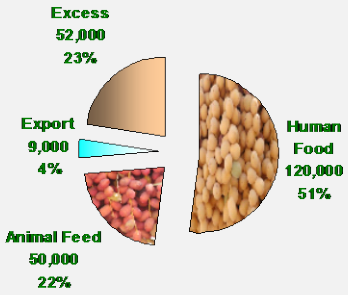
بدأت أولى تباشير القيظ تهل على ولاية دماء والطائيين التي عرفت بتقدمها المبكر في حصاد الرطب على مستوى السلطنة حيث تم صباح أمس بيع أولى منتجات رطب النغال الذي يعد أول أنواع الرطب إنتاجا في هذه الولاية وهو الشعار الذي تشتهر به الولاية.

فقد باع المزارع بلعرب بن شامس البطاشي من قرية سوط أولى منتجات هذا النوع من الرطب في سوق ولاية محلاح.

وأوضح خلفان بن محمد المعمري انه بعد سماع الأهالي بخبر وجود الرطب في السوق توافد مواطنو الولاية إليه ومداولته حيث بلغت حبة الرطب في أول الصباح خمسة ريالات عمانية ثم بدأت بالارتفاع إلى أن بيعت الحبة بعشرة ريالات حوالي الساعة الحادية عشرة ظهرا مشيرا الى أن هذا الرطب تم جنيه من نخلة واحدة توجد في قرية سوط ومن المعروف أن هذه القرية تعتبر من أولى القرى التي يتم جني ثمار نخلة النغال فيها بالإضافة إلى القرى الواقعة على طول الوادي الشرقي من الولاية.

رجوع

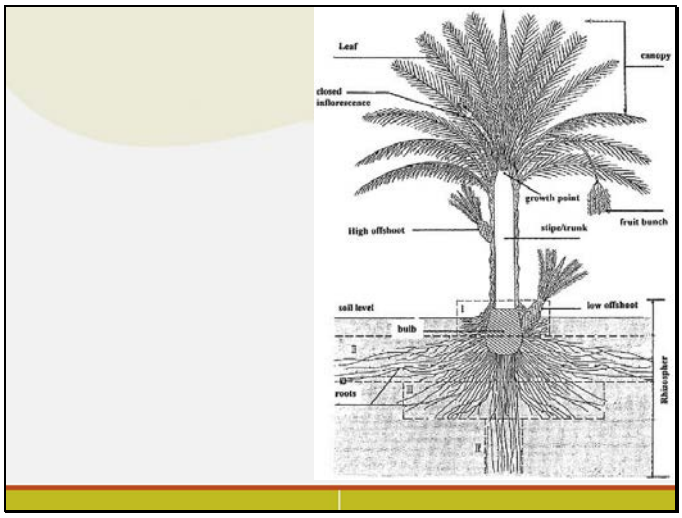
Total amounts (MT) and percentages of dates consumed by various sectors in the Sultanate of Oman in 2004.



MAF, 2005

Date Palm Morphology

The Vegetative Structure


Leaf
canopy
closed inflorescence
growth point
fruit bunch
High offshoot
stipe/trunk
soil level
low offshoot
bulb
roots
Rhizosphere


Stipe


VB

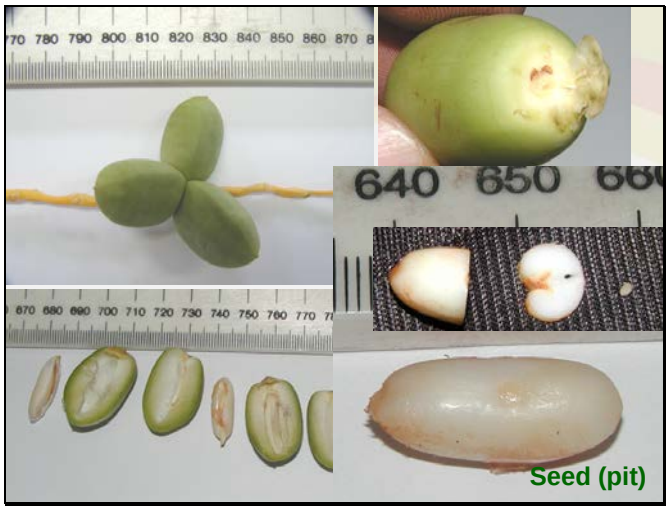

Leaves (Fronds) & Leaflets

Date Palm Morphology

The Reproductive Structure


Male & Female Inflorescences

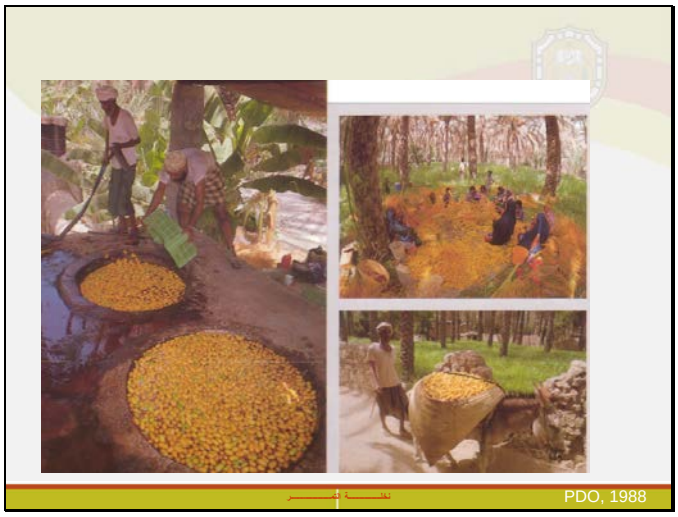

The Fruits



- Metaxenia: Pollen source affects fruit characteristics & maturity

Fruit Developmental stages

- 4-8 months after pollination:
- Hababok (4 weeks)
- Kimri (9-14 weeks)
- Khalal (3-5 weeks)
- Rutab (2-4 weeks)
- Tamar (2-4 weeks)


PDO, 1988

Types of Dates

- Soft: High Reducing Sugar: Sucrose
- Semi-soft: 50:50
- Dry: Low Reducing Sugar: Sucrose

Cultivars


Um Sella
ام السله


Khasab
خصاب


Khalas
خلاص


Khunaizi
خنيزي


Fardh
فرض


Firani
فيراني
Saudi Dates

Propagation

- Seed propagation:
  - 50% Male, 50% Female
  - Not true-to-type
- Propagation via:
  - Tissue Culture (Commercial)
  - Offshoots (Traditional)

Summary

- Dioecious, male & female cultivars
- Pollen source affect fruit
- Date typeness: sucrose content
- Wide range of fruit shapes & colors
- Range of vegetative characters

Descripteurs du

IPGRI **Palmier dattier**

(Phoenix dactylifera L.)

Consideration for Characteristics

- - Fruit Crop
- - Extensively used as Ornamental
- - Dioecious: Male & Female
- Large no. of "cultivars":
  - Saudi Arabia 450
  - Oman 250

Standard (non commercial characteristics)

- - Stem (Stipe_ shape (columnar, conical)
- - Canopy shape (upright, outward, dropping)
- - Leaf (frond) color, direction (attitude), No of fully mature leaves (40:10:50)
- - Leaf length, shape, length of petiole, spinal area, leaflet areas, angle at tip,
- - Petiole length, petiole width, petiole color, pine area length, number of spines, length of spines,
- - Leaflet maximum length, number per frond, distribution along the frond, apical leaflet length, leaf angle,

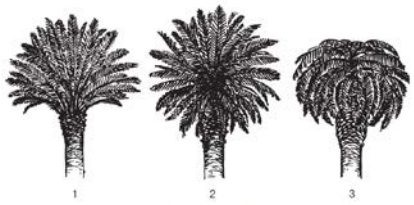


Fig. 3. Port de la plante

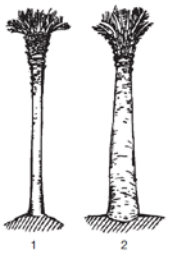
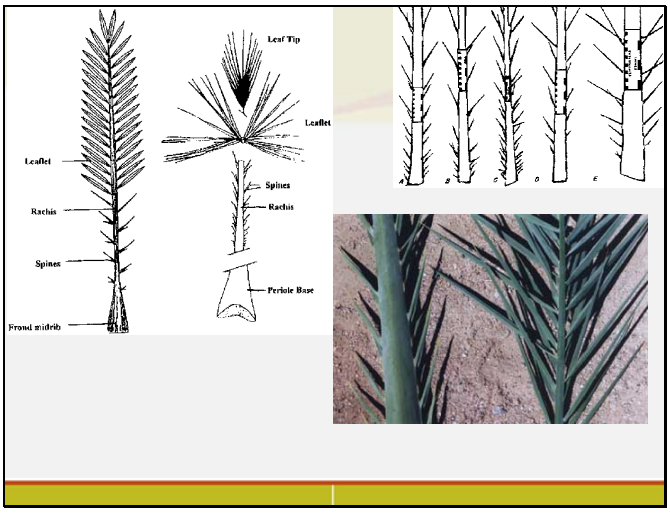
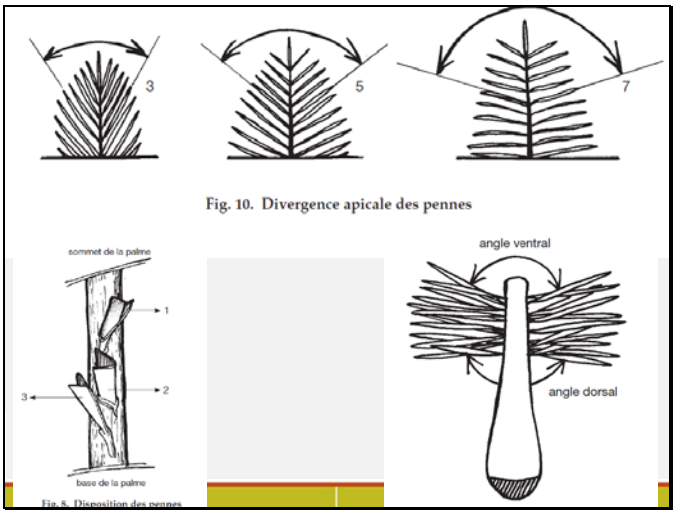


Fig. 4. Forme du stipe



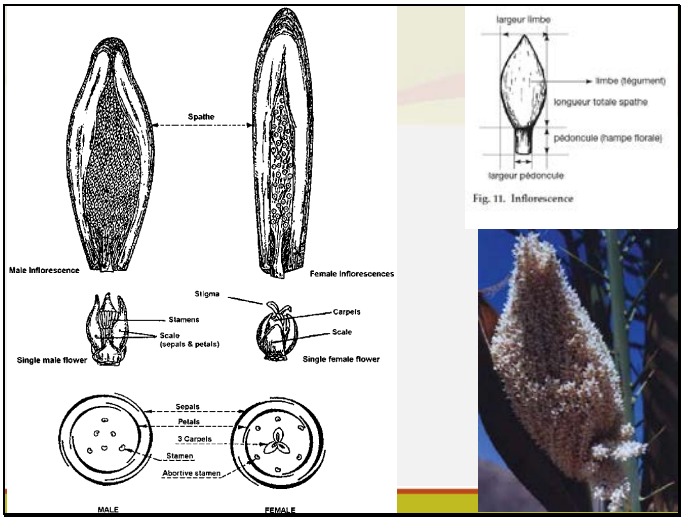


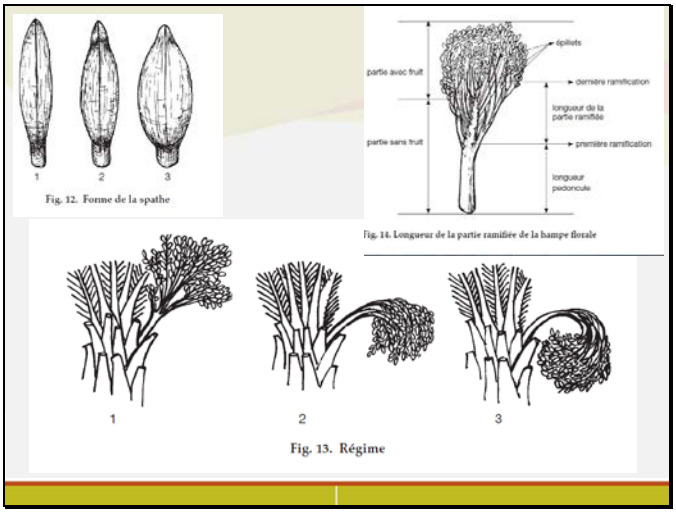
Commercial Value (Female):

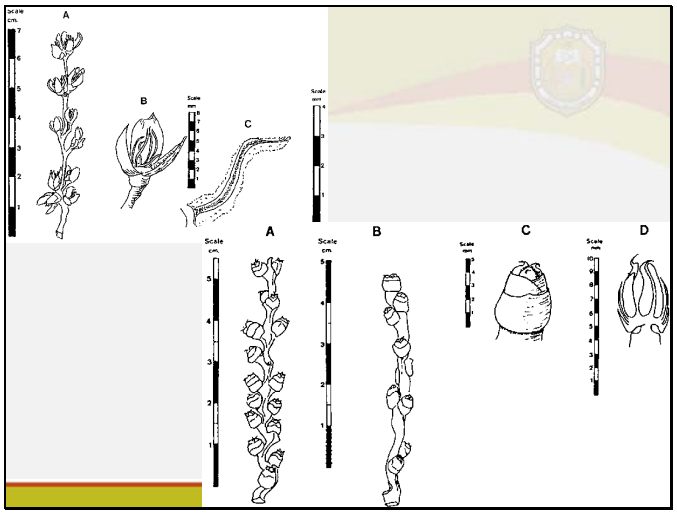
- - Fruit (Dates)
- - Characteristic: Weight (not individual)
- - Stages: Khalal (boiled & dried, shipped, international trade)
- Rutab (Fresh consumption, mostly local trade)
- Tamar (Main commercial value, international trade)
- - Main quality characteristics:
- Bunch Characteristics:
- - No of bunches (before thinning)
- - No of spikelet (strands) per bunch
- - No of fruits (dates) per spikelet
- - Morphological: Size (variable), color (stable), shape (stable), seed (stable, flesh:seed)
- - Sugar content & type (reducing sugars & sucrose) (dry, semi-dry, soft)
- - Moisture content (%) at constant dry weight (tamar stage)

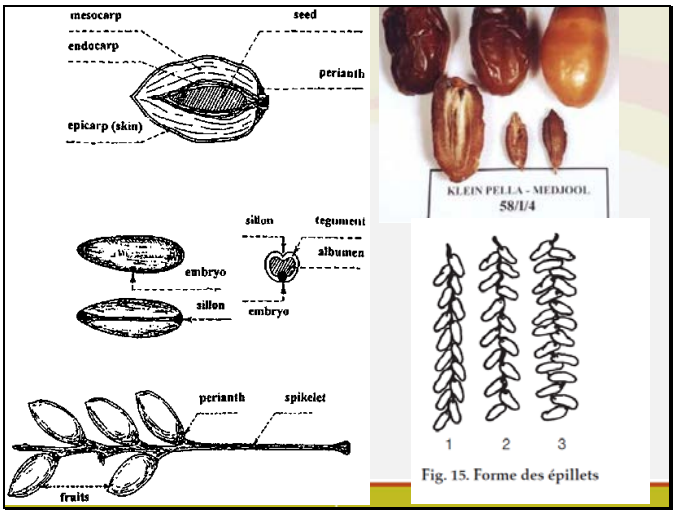
Commercial Value (Male):

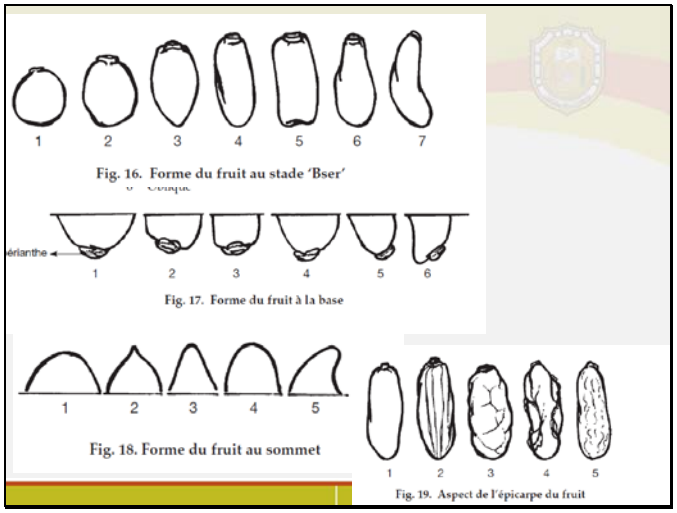
- - No of Inflorescence (Spathes) per palm
- - No of spikelet
- - Quality of pollen
- - Viability (at harvest & in storage)

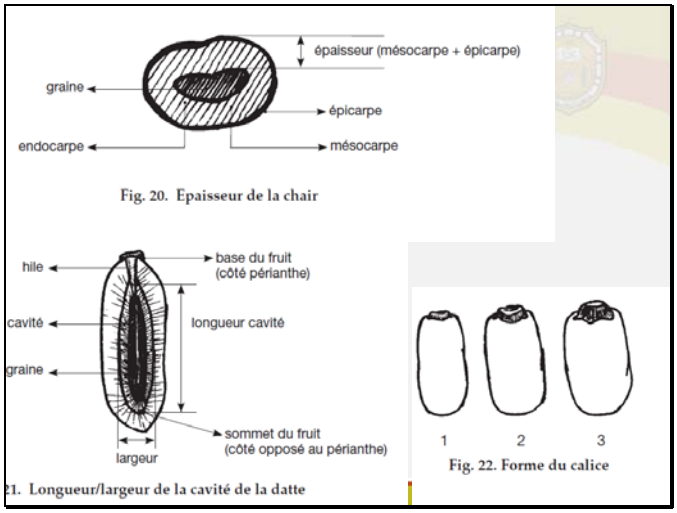


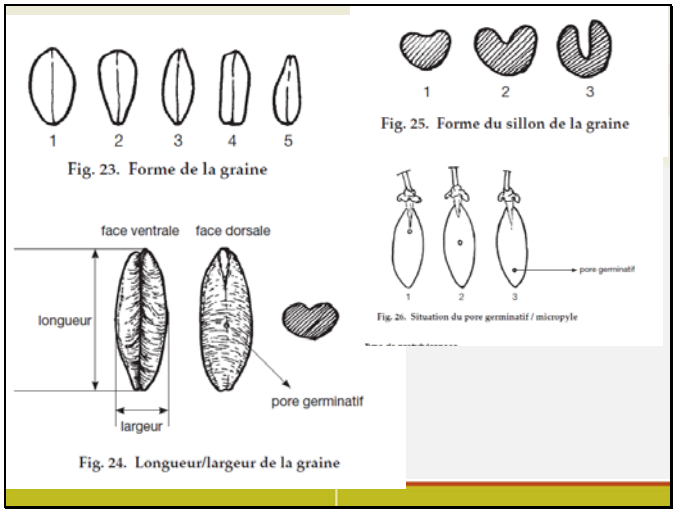












MORPHOLOGICAL IDENTIFICATION OF DATE PALM FROM TUNISIA 2673

Table 1. List of measured descriptors.

	Characters	Code	Used by			
			I	P	R	S
Leaf	Length (cm) (figure2)	PM1	X	X	X	X
	Midrib length (cm) (figure2)	PM2				X
	Pinnated part length (cm) (figure2)	PM3	X	X	X	X
	Pinnated midrib part length (cm)	PM4			X	
	Spined part length (cm) (figure2)	PM8	X	X	X	X
	% of spinned midrib part	PM9				
	% of spinned leaf part	PM10				X
	Leaf width at the first spine (cm)	PM11	X	X		
	Maximal width (cm)	PM12	X			
	Midrib width (on first pinnae) (cm)	PM13	X			
	Apical divergence angle (°)	PM16	X			
Pinnaes	Number	PN1	X	X	X	X
	Density /cm	PN2				X
	% of antrose pinnae	PN3	X			
	% of introse pinnae	PN4	X			
	% of retrose pinnae	PN5	X			
	Maximal pinnae width at the middle leaf(cm)	PN6	X	X	X	X
	Pinnae length at the middle leaf (cm)	PN7	X	X	X	X
	Pinnae length at the top leaf (cm) (figure2)	PN8	X	X	X	X
	Maximal pinnae width at the top leaf (cm)	PN9	X	X	X	X
	Index of spacing	PN10	X			
Spines	Number	EP1	X	X	X	X
	Density /cm	EP2				X
	% solitary spine	EP3	X			
	% of spine grouped by per	EP4	X			
	% of spine grouped by 3	EP5	X			
	Spine length at the middle (cm)	EP6	X	X	X	X
	Maximal spine width at the middle (cm)	EP7				
	Maximal angle (°)	EP8				
	Minimal angle (°)	EP9				

I : IPGRI (2005), P : Peyron (1988), R: Rhouma Abdelmajid (1994 et 2005) et S: Sedra (2001)

Tunisia

Table 2. Name, origin, and main characteristics of date-palm genotypes studied.

Noun	Geographical distribution[a]	Fruit characteristics		Harvesting (Rhouma 1995 and 2005)	
		Color	Consistency	Period	Day (±10)[b]
Alig	N, J	Dark brown	Semi-dry	Late	235
Ammary	N, J	Black	Soft	Early	150
Beijou	N, J	Brown	Dry	Late	230
Bissr Helou	N, J	Pale brown	Dry	Season	195
Choddakh	N, J	Dark Amber	Semi-soft	Season	205
Choddakh Ben Jbir	N	Dark Amber	Semi-soft	Season	185
Dhahbi	J	Amber	Semi-soft	Late	215
Deglet Nour	N, J	Amber	Semi-soft	Late	225
Fermla	N	Brown	Semi-dry	Season	195
Fezzani	N, J	Amber	Semi-dry	Season	185
Gondi	N, J	Amber	Semi-soft	Season	195
Gosbi	N, J	Black	Soft	Early	155
Ghars souf	N, J	Dark brown	Soft	Season	200
Hissa	N, J	Honey	Soft	Early	155
Hlwa	N	Honey	Semi-dry	Late	215
Hamra	N, J	Amber	Semi-dry	Season	210
Horra	N, J	Amber	Dry	Season	210
Kintichi	J	Reddish	Dry	Late	215
Loghrabi	J	Dark brown	Semi-soft	Season	195
Om Leghlez	J	Amber	Soft	Early	180
Rtob Houdh	J, N	Amber	Soft	Season	205
Rtotbayet elmansoura	N	Brouwn	Soft	Season	185
Rotbayet yagouta	N	Dark amber	Soft	Early	175
Tronja	N, J	Dark brown	Semi-dry	Late	215
Tezerzayet Kahla	N, J	Black	Soft	Season	185
Tezerzayet Safra	J	Dark brown	Soft	Early	180

a- N: Oases of Nefzaoua, J: oases of Jerid. b-The day zero is the 1st of March (flowering month).

Tunisia

Table(1) Average of vegetative characters of Date palm cultivars grown at Jalo, Aujla and Eikara

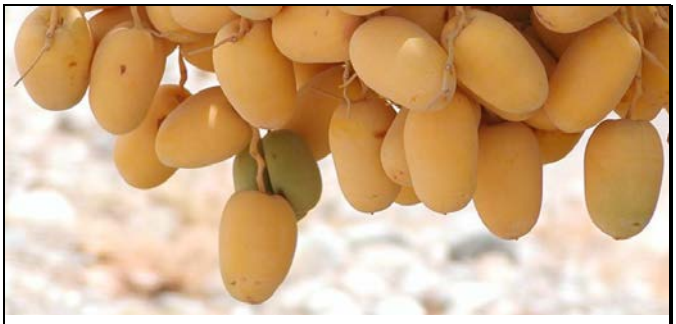
Cultivars	Trunk thickness cm	Leaf base width cm	Leaf Length cm	Blade Length cm	Pinnae number	Spines number	Pinnae length cm	Pinnae width cm	Spines length cm	Spines area length cm
Azwa	235.00	24.91	392.41	254.33	195.91	44.75	43.87	3.84	15.29	97.25
Omdiab	301.66	21.33	304.00	275.75	162.08	44.16	38.16	3.90	15.98	74.25
Hamra	171.66	20.08	296.91	269.41	147.00	47.91	38.04	2.90	14.54	92.08
Omeltai	210.00	21.00	388.00	361.91	146.83	54.16	65.08	3.06	33.58	119.33
Masmot	166.66	19.75	306.16	281.58	141.50	52.16	49.20	2.85	17.33	94.25
Helwa	126.66	20.50	313.75	285.41	118.75	42.16	35.54	2.98	14.95	116.66
Saidi	181.00	27.16	413.08	375.91	167.25	28.16	46.75	3.77	14.79	93.91
Tediss	169.00	23.50	365.75	341.66	185.83	52.66	56.50	3.37	15.12	116.50
Jadag	200.33	17.75	340.08	315.75	175.83	46.58	44.91	3.25	20.16	112.58
Rattab	158.66	16.50	426.50	390.25	177.58	45.83	59.75	3.55	28.29	113.41
Saltany	192.00	18.16	380.25	350.75	193.25	46.83	61.79	3.63	26.16	98.00
Nefaik	162.33	18.58	363.75	332.00	164.41	48.58	47.91	3.48	26.37	107.66
Filfil	130.66	18.83	356.75	328.33	167.58	45.25	64.04	2.79	30.58	78.50
Saifi	214.66	19.50	390.00	363.58	169.33	48.83	62.33	3.67	31.25	83.16
Agadi	158.00	18.08	401.91	371.16	169.08	71.66	45.66	3.21	23.05	141.25
Maleo	130.00	27.08	390.58	355.41	171.16	48.91	55.58	3.15	42.83	107.00
Nakfosh	159.33	19.91	350.91	320.83	153.75	42.25	50.91	3.01	21.33	93.41
Degla	169.33	18.25	364.66	332.41	132.33	41.08	57.41	2.80	19.83	108.33
Brolsi	187.66	22.25	396.41	366.66	187.50	24.83	69.75	3.11	18.41	50.91
Mosrum	166.66	21.25	318.41	289.16	154.16	35.83	37.91	2.85	13.87	74.08
LSD 0.05	24.003	2.19	22.49	21.14	9.33	3.24	5.52	0.322	13.87	74.08

Libya

Table 4: measurements shows the differences in several vegetative characteristic between 4 Omani date palm cultivars.

cultivar	Fa	Na	um	Kh
leaf length	344.97	332.21	347	336.8
leaf maximum width	65.933	75.143	72	85.133
leaf spine area	80.8	53.571	74.667	48.033
angle of leaflet	142.267	133.429	126.867	106.667
No.of spines	24.267	20.467	19.357	17.533
leaflet max. width	3.0867	3.6857	3.2533	3.6227
leaflet max. length	53.733	46.214	57.633	57.867
angle at leaflet 5th	60.067	73.321	65.133	84.2
Max. length of spine	38.63		38.154	24.08
No.spine /node	1	1	1	1
Length of Apical leaflet	44.267	38.708	25.731	24.13
width of Apical leaflet	2.02	3.0615	1.5429	1.03
No. of leaflet per 30cm	21.467	27.154	29.133	20.533

Oman



Thank you!

Rashid Al-Yahyai

[Annex V follows]

ANNEX V

LIST OF LEADING EXPERTS

DRAFT TEST GUIDELINES TO BE SUBMITTED TO THE TECHNICAL COMMITTEE IN 2015

All requested information to be submitted to the Office of the Union

by July 11, 2014

Species	Basic Document(s)	Leading expert(s)	Interested experts (States/Organizations)[1]
*Acca (*Acca sellowiana* (Berg) Burret)	TG/ACCA(proj.3)	Mr. Barnaby (NZ)	BR, ZA, CIOPORA, Office
*Mandarins (Citrus L. - Group 1) (Partial revision)	TG/201/1 TWF/45/30 TWF/45/31 Rev.	Mr. Chomé Fuster (ES)	AU, CN, CO, IL, JP, KR, MA, MX, NZ, OM, QZ, ZA, CIOPORA, Office
*Pecan nut (*Carya illinoinensis* (Wangenh.) K. Koch)	TG/PECAN(proj.10)	Mr. Barrientos-Priego (MX)	BR, IL, KR, ZA, Office
Apple Rootstock (Malus Mill.) (Revision)	TG/163/4(proj.5)	Mr. Venter (ZA)	AU, CN, DE, FR, QZ, BR, JP, KR, NZ, RO, CIOPORA, Office

[1] for name of experts, see List of Participants

DRAFT TEST GUIDELINES TO BE DISCUSSED AT TWF/46
(* indicates possible final draft Test Guidelines)

New draft to be submitted to the Office of the Union
before July 13, 2015

**(Guideline date for Subgroup draft to be circulated by Leading Expert: June 15, 2015
Guideline date for comments to Leading Expert by Subgroup: May 18, 2015)**

Species	Basic Document(s)	Leading expert(s)	Interested experts (States/Organizations) [2]
*Apricot (*Prunus armeniaca* L.) (Partial revision: example varieties)	TG/70/4 Rev.	Mr. Venter (ZA)	CN, ES, FR, HU, JP, KR, MA, NZ, RO, QZ, Office
Argania (*Argania spinosa*)	New	Mrs. Belmehdi (MA)	IL, Office
Avocado rootstock (*Persea* Mill.)	TG/PERSE(proj.1)	Mr. Barrientos-Priego (MX)	AU, BR, IL, NZ, QZ, ZA, Office
Blueberry (*Vaccinium angustifolium* Aiton; *V. corymbosum* L.; *V. formosum* Andrews; *V. myrtilloides* Michx.; *V. myrtillus* L.; *V. virgatum* Aiton; *V. simulatum* Small) (Revision)	TG/137/4	Mr. Hulse (AU)	BR, JP, NZ, QZ, RO, ZA, Office
Chestnut (*Castanea sativa* Mill.) (Revision)	TG/124/4(proj.1)	Mr. Esaki (JP)	CN, ES, HU, KR, NZ, QZ, ZA, Office
Black Walnut (*Juglans nigra* L.)	TG/JUGLA(proj.1)	Mr. Chomé Fuster (ES)	CN, KR, QZ, ZA, Office
*Coconut (Cocos nucifera L.)	TG/COCOS(proj.3)	Mrs. Machado (BR)	CN, ID, MX, MY, OM, PH, TH, VN, Office
Date palm (*Phoenix dactylifera*)	New	Mr. Al-Yahyai (OM)	AU, BR, MA, MX, TN, Office
Macadamia *(Macadamia integrifolia* Maiden et Betche, *Macadamia tetraphylla* L.A.S. Johnson) (Revision)	TG/111/3	Mr. Hulse (AU)	BR, KE, MX, ZA, Office
Papaya (*Carica papaya* L.) (Revision)	TG/264/2(proj.7)	Mr. Barrientos-Priego (MX)	BR, CN, IL, JP, KE, MY, OM, PH, QZ, TH, VN, ZA, CIOPORA, Office
Pear, Japanese Pear (*Pyrus communis* L.; P. xbretschneideri Rehder, P. pyrifolia (Burm. f.) Nakai; P. xlecontei Rehde, P. Pyrifolia (Burm.f.) Nakai var. *culta* (Mak.) Nakai, P. *ussuriensis* Maxim. and hybrids between) (Revision)	TG/15/3 TG/149/2	Mr. Barnaby (NZ)	AU, BR, CN, DE, ES, FR, HU, JP, MA, QZ, RO, ZA, Office
Walnut (*Juglans regia* L.) (Revision)	TG/125/7(proj.2)	Ms. Dong Pei (CN)	ES, HU, JP, KR, QZ, ZA, Office

[End of Annex V and of document]

[2] for name of experts, see List of Participants