INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
GENEVA

TECHNICAL WORKING PARTY FOR FRUIT CROPS

Thirty-Seventh Session
Salvador, Bahia State, Brazil, August 21 to 25, 2006

REPORT ON THE CONCLUSIONS

adopted by the Technical Working Party for Fruit Crops

Opening of the Session

1. The Technical Working Party for Fruit Crops (TWF) held its thirty-seventh session in Salvador, Bahia State, Brazil, from August 21 to 25, 2006. The list of participants is reproduced in Annex I to this report.

2. The TWF was welcomed by Mrs. Maria Delia Gómez, Representative of the Ministry of Agriculture, Livestock and Food Supply.

3. The session was opened by Mr. Alejandro F. Barrientos-Priego (Mexico), Chairman of the TWF, who welcomed the participants, and in particular new participants to the TWF.

4. The TWF received a presentation on DUS Testing in Brazil from Mrs. Vera Lucia Santos do Machado, Head, División de Normalización y Registro, Servicio Nacional de Protección de Cultivares (SNPC), a copy of which is reproduced in Annex II to this report.

Adoption of the Agenda

5. The TWF adopted the revised agenda as reproduced in document TWF/37/1 Rev.
Short Reports on Developments in Plant Variety Protection in Fruit Crops

(a) Reports from members and observers (oral reports by the participants)

6. The TWF received oral reports from the participants on developments in plant variety protection in their respective countries and organizations.

(b) Reports on developments within UPOV (oral report by the Office of the Union)

7. The TWF received an oral report from the Office of the Union on the latest developments within UPOV.

Molecular techniques:

(a) Developments in UPOV concerning the use of molecular techniques

8. The TWF considered document TWF/37/2.

(b) Ad hoc Crop Subgroups

9. The TWF received an oral report on developments concerning the Ad hoc crop subgroups on molecular techniques. It noted the extension of the Crop Subgroup for Wheat to cover both wheat and barley and the establishment of a crop subgroup for vegetatively propagated crops which, in conjunction with all interested parties and breeders in particular, could formulate proposals for consideration by the TC and the BMT Review Group.

TGP Documents

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

TGP/4 Constitution and Management of Variety Collections

9. The TWF discussed document TGP/4/1 Draft 7 and agreed to propose the following:

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>2.1.1.2</td>
<td>With respect to the comments made by the TWA to clarify that variety collections include candidate varieties, the TWF considered that before taking decisions on including candidate varieties in a reference collection it was necessary to complete the examination of them to obtain the necessary background information to use the candidate variety as a comparator.</td>
</tr>
<tr>
<td>Title Section 3</td>
<td>The TWF considered that the term “Management” is more appropriate for the title of Section 3 because it reflects more accurately the content of the section, giving the idea that the variety collection evolves in time.</td>
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</tbody>
</table>
**TGP/9 Examining Distinctness**

10. The TWF discussed document TGP/9/1 Draft 7 and agreed to propose the following:

<table>
<thead>
<tr>
<th>Section</th>
<th>Proposal</th>
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<tbody>
<tr>
<td>2.3 Title</td>
<td>The TWF proposed to reword the title as follows: “2.3 Grouping of varieties on the basis of grouping characteristics”. The TWF noted that there may be different criteria for the grouping of varieties (e.g. by breeder, year of breeding, etc.); therefore the TWF considered it important to clarify that, for the DUS examination, the grouping characteristics should be the basis for grouping.</td>
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<tr>
<td>2.3.3.2</td>
<td>In respect to the proposal for a revised text of this paragraph, the TWF agreed to maintain the text in conformity with the General Introduction, i.e. “as a general rule, qualitative characteristics are not influenced by the environment”. The TWF agreed with the comment made by the TWA.</td>
</tr>
<tr>
<td>2.3.4 Title</td>
<td>The expression “combining grouping characteristics” to be changed to make clear that it refers to the use of more than one grouping characteristic and not to the creation of a combined characteristic. To check throughout the document for the use of the terms “combining characteristics” or “combination of characteristics” and to reword them where necessary.</td>
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<tr>
<td>2.4.2</td>
<td>Section 2 deals with the selection of varieties for the growing trial and the last two sentences of paragraph 2.4.2 (i.e. the highlighted text) deal with the rejection of the application. The highlighted text should be deleted or reworded to put it in the context of Section 2.</td>
</tr>
<tr>
<td>3.2</td>
<td>To explain that, in perennial plants, the possibility of grouping is limited once the collection has been established.</td>
</tr>
<tr>
<td>5.2.1.1 (b)</td>
<td>The highlighted text could be interpreted in different ways, e.g. the value of the difference between several characteristics in a characteristic-by-characteristic approach; the use of combined characteristics like length/width ratio, or the use of multivariate analysis. The TWF agreed with the reworded text proposed by the TWA (i.e. “Assessment by Notes / single variety records (“Notes”): the assessment of distinctness is based on the recorded state of expression of the characteristics of the variety”)</td>
</tr>
<tr>
<td>5.2.3.14</td>
<td>The TWF agreed with the rewording of the text proposed by the TWA (i.e. “However, in general, varieties with the same Note in the UPOV Test Guidelines would not normally be considered to be clearly distinguishable.”).</td>
</tr>
<tr>
<td>6.5 Title</td>
<td>To delete “panel of” because, in some cases, it was one expert who provided advice and not a panel of experts.</td>
</tr>
</tbody>
</table>
11. The TWF discussed document TGP/10/1 Draft 4 and agreed to propose the following:

| 2.3.1 (a) | To add apricot and avocado as examples of vegetatively propagated species. |
| 4.2.3 and 4.2.4 and 4.2.5 | The section should be restructured into only two sections, on the basis of plants which should not be considered off-types (section 4.2.3) and plants which should be considered as off-types (sections 4.2.4 and 4.2.5). Furthermore, the TWF considered that it is not possible to clearly separate between whole plant off-types (section 4.2.4) and plant-part off-types (section 4.2.5); off-types are considered on a characteristic-by-characteristic basis, in the same way as distinctness is assessed, as presented in section 4.2.2. The TWF considered that paragraph 4.2.4.2 should be deleted and that paragraph 4.2.4.3 should be moved to the section which should not be considered off-types (the present section 4.2.3). With respect to the two versions presented in paragraph 4.2.5.1, the TWF did not agree with version 1. |
| 4.2.6.3 | To be divided into two paragraphs, one dealing with growing of a further generation and another with the examination of new plant material. |
| 4.3 | There is no need to develop this section. |
| Adoption of TGP/10 | The TWF considered that TGP/10 should be discussed by the Technical Working Parties again in 2007. |

(b) Other TGP documents:

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

12. The TWF discussed document TGP/8/1 Draft 4 and requested that the drafters of TGP/8 take into account the comments the TWF had made at its thirty-sixth session, in particular with respect to PART II, Section 1: Methods for assessing uniformity on the basis of off-types.

TGP/12 Special Characteristics: Section 1: Development of Characteristics based on a Response to an External Factor

13. The TWF discussed document TGP/12 Section 1 Draft 3. In reply to the request of the expert from Israel to develop a section on chemical compounds and other special characteristics, the TWF recalled that this was the subject of Section 2 of TGP/12, which was under development by experts of the TWA.

TGP/13 Guidance for New Types and Species

14. The TWF discussed document TGP/13/1 Draft 6 and agreed to propose the following:
2.7 Even in the case of descriptions of a candidate variety of a new species, it was necessary to follow the UPOV format (i.e. a tabulated list of characteristics) as far as possible.

TGP/14 Section 2: Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents: Botanical Terms:

- Plant shapes (including hair types)

15. The TWF discussed document TGP/14.2.1(&2) Draft 5 and agreed to propose the following:

<table>
<thead>
<tr>
<th>SECTION II: SHAPES</th>
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<tbody>
<tr>
<td>General</td>
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<tr>
<td>1</td>
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<tr>
<td>1.2 (a)</td>
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<tr>
<td>1.3</td>
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<td>2.3</td>
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<td>2.5</td>
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<td>2.6</td>
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</table>
3.4 To improve the illustration of “cylindrical” which is confusing with tubular and to improve the illustration of “capitate”.

The term “spheric” to be replaced by “globose”.

To consider the possibility to add illustrations of other angular shapes, e.g. pyramidal (Germany will provide).

SECTION IV: DEFINITIONS

Where more than one term exists for the same shape, to include all terms and to provide the definition in the one considered the most widely used. The definition of the alternative terms to make a cross-reference to the definition of most widely used (e.g. deltoid is broad conical, globose is spheric).

- Color characteristics

16. The TWF did not have time to discuss document TGP/14.2.3.1 Draft 2 and TGP/14.2.3.2 Draft 4.

UPOV Information Databases

17. The TWF noted the information provided in document TWF/37/4.

Variety Denominations

18. The TWF noted the information provided in document TWF/37/5.

Project to Consider the Publication of Variety Descriptions

19. The TWF noted the information provided in document TWF/37/6.

Criteria for Determining Off-type Plants

20. The TWF considered document TWF/37/9 in conjunction with the discussion of document TGP/10/1 Draft 4.

Drafters’ Kit for Test Guidelines

21. The TWF considered document TWF/37/7. It agreed on the usefulness of the TG template and of TGP/7; however it also considered that its structure may be regarded as rather complicated, in particular for those experts using it for the first time. The TWF expressed some concern about developing electronic templates for variety types, in particular if it would reduce the flexibility that exists at the moment for the development of Test Guidelines. The TWF was in favor of considering the improvement of the TG template to provide a more user-friendly document.
Information on Probability Levels used in COY and Population Standards used in the Assessment of Uniformity by Off-types

22. The TWF noted the information provided in document TWF/37/10.

Additional Characteristics

23. The TWF noted the information provided in document TWF/37/8.

Discussion on draft Test Guidelines

Apricot (Partial Revision)

24. The subgroup discussed document TWF/37/12, as presented by Mr. Sergio Semon (European Community) and Mr. Richard Brand (France), and agreed the following changes:

Char. 9 To check the state of expression of example variety “Veecot” (inserted in two states).
Char. 44 To have the state “not visible” (1) added, with an example variety to be provided by France.
Char. 45 To have the state “very large” (9) added, with an example variety to be provided by France.
Char. 57 State “medium” (5) to have the example varieties “Bergeron, Harlayne, Pisana, Polonais”, state 7 to have the example varieties “Borsi rozsa, Larqueen, Tardif de Bordaneil type 2, Revlar”, and state “very late” (9) to have the example varieties “Boutard, Lartago”.

25. The subgroup agreed to submit the changes for adoption to the Technical Committee at its forty-third session in 2007.

Banana (Musa L.) (Revision)

26. The subgroup discussed document TG/123/4(proj.4), as presented by Mrs. Vera dos Santos Machado (Brazil), and agreed the following changes:

General All the example varieties will be rechecked.
General A table of synonyms of example varieties will be provided after 8.2.
General Variety denominations will be proposed to replace cultivated groups, e.g. “Smooth Cayenne”, which is a group, will be replaced by “Champaka”.
General To reorder all the characteristics according to the UPOV order.
General To review all indications of types of expression (PQ, QL and QN).
Char. 1 (*) to be added; Brazil to provide an explanation of the method to count chromosomes and France of the method of cytometry.
Char. 2 To read: “Rhizome: number of suckers above ground”. To insert in Chapter 8: to be observed at harvest.

Char. 4a New To read: “Pseudostem: imbrications in leaf sheaths.” States to read: weak (3), medium (5), strong (7). To add a (+) and an explanation.

Char. 5 To read: “Pseudostem: shape”. States to read: narrow conical (1), medium conical (2), broad conical (7). To add a (+).

Char. 6 To read: “Pseudostem: color”. To delete states: yellow (1) and blue (9). To replace “purple/violet” with “purple”. To reorder the notes.

Char. 7 (*) to be added and a (+) with an explanation.

Char. 8 To delete the state pink purple and to check other states.

Char. 8a New Pseudostem: size of spots. States to read: small (1), medium (2), large (3).


Char. 10 To read: “Pseudostem: color of the inner side on sheath base”. State 4 to read “purple”.

Char. 11 To read: “Plant: compactness of crown”. States to read: loose (3), medium (5), compact (7).

Char. 12 To read: “Plant: growth habit”.

Char. 13 States to read: curved outwards (1), straight (2), curved inwards (3).

Char. 13a New To read: “Petiole: overlapping of wings at base”, with the states: absent (1) and present (9).

Char. 13b New To read: “Petiole: width in cross section”, with the states: medium (3), medium (5) and broad (7). To add a (+) with an illustration. To be checked with France.

Char. 15 To read: “Leaf blade: color of midrib on lower side”.

Char. 16 States to read: rounded (1), one rounded and one acute (2), acute (3).

Char. 17 To read: “Leaf blade: waxiness of lower side”.

Char. 18 States to read: absent (1), present (9).

Char. 22 To be deleted.

Char. 23 To be deleted.

Char. 26 To read: “Peduncle: pubescence” and to add a (+).

Char. 27 To read: “Peduncle: curvature”, with the states: weak (3), medium (5), strong (7). To add an explanation with an illustration. To check the example varieties.

Char. 28a New To read: “Bunch: diameter”, with the states: narrow (3), medium (5), broad (7).

Char. 29 To delete the state “intermediate”.

Char. 29a New To read: “Bunch: symmetry”, with the states: symmetric (1), asymmetric (2).

Char. 30 To read: “Bunch: attitude of hands”. State 3 to read: turned up and horizontal.

Char. 31 To read: “Bunch: compactness”.
Char. 34 To read: “Rachis: attitude of male part”, with the states: curved with vertical end (3), with inclined end (4).

Char. 35 To read: “Rachis prominence of scars”.

Char. 36 States to read: absent or very weak (1) (with the same example varieties), moderately persistent (2) (example variety “Prata”), strongly persistent (3) (with the same example varieties).

Char. 37 To read: “Persistence of rachis hermaphrodite flowers” States to read: absent (1), present (2), with the same example varieties.

Char. 38a New To read: “Fruit: position of the fruit compared to the rachis”. Explanation to be provided by France.

Char. 39 To read: “Fruit: longitudinal ridges”. To rename the states in the illustration. To add a (+) and the explanation: “to be observed on the medium third of the fruit”.

Char. 41 To read: “Fruit: width (excluding sharp edges)”, with the states: narrow (3), medium (5), broad (7).

Char. 43 To add the state “truncate” (4) with example variety “Grande Naine”; with an illustration to be provided by France for this state. To reorder states.

Char. 45 To have the states: light green (1), medium green (2), dark green (3), pink (4), red (5), purple (6), brown (7) (state “brown” to be checked by Brazil).

Char. 46 To have the states: light yellow (1), yellow (2), dark yellow (3), green yellow (4), orange (5), red orange (6), reddish (7), brown (8), black (9). States to be checked by France and Brazil.

Char. 47a New To read: “Fruit: persistence of floral organs”. To have the states: absent (1) (example variety “Figue rose”), present (9) (example varieties “IDN 110, Grande Naine, Yangambi km 5”).

Char. 48 To read: “Fruit: color of flesh (stage 6 for ripe fruit)”. To replace states “dull white” with “off white” and “pink” with “pinkish cream”.

Char. 49 To read: “Fruit: firmness of flesh (stage 6)” and to replace the state “moderately soft” with “medium” (3).

Char. 49a New To read: “Male inflorescence: presence”, with the states: absent (1), present (9).

Char. 50 To read: “Male inflorescence: shape”. To have the states: lanceolate (1), ovate (2) (with the example varieties “Yangambi km 5, Pacovan”), triangular (3), rounded (4).

Char. 52 To read: “Bract: color of inner side”. To have the states: whitish (1), pink (2), yellow (3), green (4), orange red (5), red (6), purple (7).

Char. 53 To read: “Male inflorescence: yellow hue of the apex of the bract on outer side”. To check if it concerns the outer or the inner side.

Char. 54 To read: “Male inflorescence: separation of the bract from the male inflorescence”.

Char. 55 To read: “Male inflorescence: shape of apex of bract”. To have the states: acute (1) (example variety “Gros Michel”), intermediate (2), obtuse (3) (example varieties “Yangambi Km 5, Figue Pomme”).

Char. 55a New To read: “Male inflorescence: incision of apex of bract”. To have the states: absent (1), present (9) (example variety “Figue Pomme”).
Black Currant (Revision)

27. The subgroup discussed document TG/40/7(proj.2), as presented by Mr. Erik Schulte (Germany), and agreed the following changes:

1. To check the family and to refer to the Test Guidelines for Jostaberry (TG/138) for hybrids

3.4.1 To read: “Each test should be designed to result in a total of at least 5 plants”.

5.3 To have the following grouping characteristics:
   (a) One-year-old shoot: color (characteristic 4)
   (b) Young shoot: anthocyanin coloration (characteristic 10)
   (c) Fruit: size (characteristic 22)
   (d) Fruit: color (characteristic 24)
   (e) Time of beginning of fruit harvest (characteristic 28)

Char. 2 State “spreading (3)”; to have example variety “Wellington XXX” instead of “Wellington” throughout the document.

Char. 3 To check whether example variety “Baldwin Hilltop” is the same as “Hilltop” and to indicate the correct denomination throughout the table.

Char. 6 Example varieties for state “short” (1) to read “Ben Alder”

Char. 7 Example varieties for state “rounded” (3) to read “Goliath”

Char. 8 To read: “Vegetative bud….”

Char. 10 To delete state “very strong” (9)

New After Char. 12 To read: “Leaf blade: ratio length/width”, with the states: small (3), medium (5), large (7). To be indicated as QN.

Char. 13 Example varieties for state “straight” (3) to read “French”; for state “strongly open” to read “Tor Cross” and for state “moderately open” to have example variety “Baldwin”.

Char. 14 Example varieties for state “light” (3) to read “Malvern Cross”; and for state “dark” (7) to have the following example varieties “Ben Alder” and “Magnus”.

Char. 15 To have the following states of expression: “absent or weakly expressed” (1), with example variety “Blacksmith”; state “moderately expressed” (2), with example variety “Titania” and state “strongly expressed” (3), with example variety “Jet”.

Char. 16 To read: “Petiole: intensity of anthocyanin coloration on upper side” and to amend the spelling of example variety to “Brødtorp”
New. Char.  To read: “Inflorescence: type” with states of expression “Type 1 (1)” to “type 6 (6)”, with the following illustrations:

![Illustrations of inflorescence types](image)

Char. 22  To add asterisk. In state “small” (3), to delete example variety “Ben Nevis” and in state “very large” (9) to delete example variety “Ben Lomond”.

Char. 24  To add asterisk.

Char. 27  To delete note (d) and to add state “very early” (1) with “Brødtorp” as example variety; to add to the existing example varieties “Malvern Cross” for state 3, “Goliath” for state 5, and “Black Reward” for state 7. To delete “Ben Sarek” as example variety for state 9.

Char. 28  To delete note (d) and to add to the existing example varieties, “Boskoop Giant” for state 1, “Tor Cross” for state 3, “Baldwin Hilltop” for state 5, and “Ben Alder” for state 7.

Ad. 7  To improve the illustration for state “obtuse” (2).

Ad. 27  To assess the beginning of flowering at 10 % of flowers fully open, instead of at 20 %.

Add 22.  To read:

“Ad. 22: Fruit: size

“Fruit size is determined by the weight of a minimum of 50 berries. Sufficient berries should be harvested from the 5 plants and combined in a single container. The 50 berry sample is then randomly taken from the combined sample”.

TQ 5  To amend the list of characteristics to reflect the changes in the grouping characteristics (i.e. only grouping characteristics to be included in Section 5 of the TQ).
Blueberry (Revision)

28. The subgroup discussed document TG/137/4(proj.2), as presented Mrs. Maria Zaleska (Poland), and agreed the following changes:

Cover page
To add the botanical name “Vaccinium simulatum Small”, common name in English “Upland Highbush Blueberry” and the following names in English:
Vaccinium formosum Andrews, Vaccinium australe Small to add the English common name “Swamp or Southern Highbush”, for Vaccinium corymbosum to add “Swamp or Southern Highbush” and “Northern Highbush.”

3.5 The last sentence to read: “In the case of parts of plants, the number to be taken from each of the plants should be 2.”

5.3 To have the following grouping characteristics:
(a) Plant: habit (characteristic 2)
(b) Plant: fruiting type (characteristic 15)
(c) Fruit: color of skin (after removal of bloom) (characteristic 22a)
(d) Fruit: intensity of blue color of skin (after removal of bloom) (characteristic 23)
(e) Time of beginning of flowering on one-year-old shoot (characteristic 27)
(f) Varieties which fruit on one-year-old shoots and current season’s shoots: Time of beginning of flowering on current season’s shoot (characteristic 27a)
(g) Time of beginning of fruit ripening on one-year-old shoot (characteristic 28)
(h) Varieties which fruit on one-year-old shoots and current season’s shoots: Time of beginning of fruit ripening on current season’s shoot (characteristic 28a)

Char. 2 To read: “Plant: growth habit”.
Char. 3 To have the following states of expression: greenish (1), greenish red (2), greyish red (3), reddish yellow (4), reddish brown (5), and dark red (6).
Char. 4 To delete MG. To be indicated as QN.
Char. 5 To add the example varieties: “Bluecrop” and “Patriot” for state 5; “Toro” for state 7.
Char. 6 To delete example variety “Bluecrop” from state 3 and to move it to state 5; to add example varieties “Emil” and “Putte” for state 3, and to add example variety “Ama” for state 5.
Char. 7 To add example varieties “Gretha” for state 3, “Patriot” for state 5 and “Heerma” for state 7.
Char. 8 To insert a state: “ovate” (2), with example variety “Puru”.
New Char. 8a To read: “Leaf: color of upper side” with states of expression “yellow” (1), with example variety “Geerdens” and “green” (2). To be indicated as QL/VG.

Char. 9 To read: “Varieties with green color only: Leaf: intensity of green color on upper side”; and to add example varieties: “Berkeley” and “Toro” for state 5.

Char. 10 To add example variety “Brigitta” for state 2.

Char. 11 To be indicated as MG/VG.

New Char. 11a To read: “Flower bud: anthocyanin coloration” with states of expression “weak” (3), with example variety “Hele”; “medium” (5), with example variety “Patriot” and “strong” (7), with example variety “Bluecorp”. To be indicated as QN and have note (a).

New Char. To read: “Flower: shape of corolla” with states of expression “urceolate” (1), with example variety “Maru”; campanulate” (2) and “cylindrical” (3), with example variety “Reka”. To be indicated as PQ and have note (c).

Char. 12a To be deleted.

Char. 13 To add state “absent or very weak” (1) with example variety “Maru”.

Char. 14 No explanation necessary.

New Char. 14a To read: “Fruit: density of cluster” with the states of expression: “sparse” (3) with example variety “Rahi”; “medium” (5) with example variety “Toro”) and “dense” (7) with example variety “Tifblue”). To be indicated as VG and have note (d).

Char. 15 To read: “Plant: fruiting type” and to be moved after Char. 14.

Char. 19 To be deleted.

Char. 19a and 19b New Zealand to provide example varieties.

Char. 21 To delete example variety “Top Hat”.

Char. 22 To add the following example varieties: “Gretha” for state 3, “Ama”, for state 5, “Gila” for state 7.

New Char. 22a To read: “Fruit: color of skin” with the states of expression “blue-red” (1) with example variety “Delite” and “blue” (2) with example variety “Bluetta”. To be indicated as QL and have note(d).

New Char. 23a To read: “Fruit: firmness” with the states of expression “soft” (1); “medium” (3), with example variety “O’Neil”; “firm” (7), with example variety “Duke” and “very firm”(9), with example variety “Rahi”. To be indicated as QN.

Char. 24 and 25 To be indicated as QN.

New Char. 27a To delete states (1) and (9) and NZ to provide example varieties for the rest.

Char. 28 To read: “Time of beginning of fruit ripening on one-year-old shoot”.

Char. 28a To read: “Varieties which fruit on one-year-old shoots and current season’s shoots (see char. 15): Time of beginning of fruit ripening on current year’s shoot”; with states of expression: early (3), medium (5), late (7). To have notes (*) (+) and to be indicated as MG and QN.

Section 8.2

Ad. 11a and Ad. 14 To be deleted.

Ad. 27 To include Ad. 27a in the same explanation.

Ad. 28 To include 28a in the same explanation.

9 Poland to provide a complete list of names of authors and to avoid the use of italic font.

TQ. 5 To include the grouping characteristics.

TQ. 7 To finish the sentence with a full stop.

Coffee

29. The subgroup discussed documents TG/COFFEE(proj.4 Rev.) and TWF/37/11, as presented by Mrs. Vera Machado (Brazil), and agreed the following changes:

General To recheck all example varieties.

Alternative Names To delete the names “Arabica type coffee”, “Robusta type coffee” and “C. arabica x C. canephora” from the table of Alternative Names.

2.3 To read as follows (additions are underlined, deletions are strikethrough):

“i) Vegetatively propagated varieties: 8 one-year-old plants,

ii) Seed-propagated varieties: 20 one-year-old plants, 50 seeds.”

3.5 To read: “Varieties resulting from crossing — unless otherwise indicated, all observations should be made on 5 plants or parts taken from each of 5 plants for vegetatively propagated varieties and 20 plants for seed-propagated varieties”.

4.2.4 To check if this information is needed.

Char. 1 To replace all the states of expression by cylindrical (1), conical (2), oblong (3).

Char. 4 To add a (+) and the explanation: “to be observed on one axil from 3 to 6 from the top of the tree”.

Char. 5 To read: “Plagiotropic primary branch: length of internode.”

Char. 5a New To read: “Plagiotropic primary branch: diameter”. States: small (3), medium (5), large (7). Brazil to provide an explanation.
Char. 9  
To provide photographs of leaf shapes and to check states of expression.

Char. 9a New  
To read: “Leaf: shape of apex”. States: apiculate (1), acuminate (2), caudate (3).

Char. 10  
To delete (+) and the state ”green and bronze” and to replace “bronze” with “dark brown”.

Char. 11  
To read: “Leaf: undulation of margin and to replace “slight” by “weak”.

Char. 12  
To provide an explanation or example varieties.

Char. 13  
To delete the state “partially developed” and to replace “fully developed” with “present”.

Char. 14  
To be deleted.

Char. 15  
To add a (+) and the explanation: “to be observed on one axil from 3 to 6 from the top of the tree”.

Char. 16  
To be deleted.

Char. 17  
To add example varieties of C. canephora and to modify the example scale accordingly.

Char. 18  
To replace “round” by “circular” and to replace the illustrations with those to be provided by Mexico.

Char. 20  
To be deleted.

Char. 21  
To read: “Fruit: adherence to the branch”. States: very weak (1), weak (3), medium (5), strong (7), very strong (9) and to describe the method of assessment.

Char. 21a New  
To read: “Fruit: fresh weight of 100 ripe fruits”. States: low (3), medium (5), high (7).

Char. 21b New  
To read: “Fruit: proportion of single-seed fruits”. States: low (3), medium (5), high (7). To check the wording.

Char. 22 and 23  
To add illustrations to be provided by Mexico.

Char. 23a New  
To read: “Seed: length/width ratio”. States: small (3), medium (5), large (7).

Char. 25  
To be deleted.

Char. 26  
To read: “Seed: adherence of silver skin” and to check to which structure (seed or fruit) it is related botanically. To describe the method and time of assessment.

Char. 27  
To read: “Period between flowering and harvesting” and to check existing UPOV Test Guidelines for appropriate states of expression.
Char. 28  To read: “Maturity synchronization”. States: low (3), medium (5), high (7) and to place before characteristic 27.

Char. 29  To delete (+) and “Only varieties of Coffea canephora L.”. To redefine states as dry (1), medium (2), juicy (3).


Char. 30b New  To read: “Seed: total chlorogenic acid content”. States: low (3), medium (5), high (7). France to provide method of assessment.


Char. 31a New  To read: “Resistance to rust”. States: susceptible (3), intermediate (5), resistant (7). Brazil to provide protocol and strains.

Char. 31b New  To read: “Resistance to leaf miner”. States: susceptible (3), intermediate (5), resistant (7). Brazil to provide protocol and species.

Char. 31c New  To read: “Resistance to nematodes”. States: susceptible (3), partially resistant (5), resistant (7). Brazil to provide protocol and species.

**Fig (Ficus carica L.)**

30. The subgroup discussed document TG/FIG(proj.1), as presented by Mr. Pedro Chomé Fuster (Spain), and agreed the following changes:

3.1  To finish the paragraph with a full stop.

3.4.1  To read: “5 plants” instead of “3 plants” and to make the corresponding changes throughout the document.

3.5  To read: “Unless otherwise indicated, all observations should be made on 5 plants or parts taken from each of 5 plants. In the case of parts of plants, the number to be taken from each of the plants should be 2.”

4.2.2  To refer to 5 plants instead of 3 plants.

Table of Char. To replace “Tree” by “Plant” throughout the Table of Characteristics.

Char. 1  To read: “Plant: growth habit” to delete the state of expression “open” (5) and to have states of expression: upright (1), semi-upright (2), spreading (3).

Char. 3  “Plant: number of basal suckers” with the states: few (3), medium (5) and many (7)

Char. 4  State 5 to read: “medium”

Char. 5  To read “One-year-shoot: color”, with the states: orange (1), brown (2), grey-brown (3), grey (4).

Char. 6  To read: “One-year-old shoot: length of internode” with states: short (3), medium (5), long (7).
Char. 7  To have “few” and “many” instead of “low” and “high”
Char. 10  To be indicated as PQ.
Char. 11  To read: “Shoot: bud support”; with the states: absent or very small (1), small (3), medium (5), large (7).
Char. 12  To read: “Plant: number of bark tubers”; with the states: absent or very few, few (3), medium (5), many (7) and to add (*).
Char. 13  To read: “Two-year old shoot: type of growth”. To be indicated as QN.
Char. 14  To read: “Plant: weeping of secondary shots”; to be moved after Char. 1.
Char. 15  To read: “Leaf: type” with states: entire (1), tri-lobbed (2), five-lobed (3) and 17
Char. 16  To be deleted.
Char. 18  To read: “Varieties with lobed leaves only: Leaf: shape of terminal lob”.
Char. 19  To read: “Varieties with lobed leaves only: ratio length of terminal lobe/length of blade”, with the states: small (3), medium (5), large (7).

31. The subgroup agreed that comments for characteristic 20 to the end of the Test Guidelines should be sent to the leading expert for the preparation of the following draft.

Grapevine (Vitis L.)

32. The subgroup discussed document TWF/37/13, as presented by Mr. Pedro Chomé Fuster (Spain). The TWF noted that there was a new revised draft ready to be circulated among the leading experts, and agreed the following:

- To have the following interested experts: AR, AU, BR, CZ, FR, HU, IL, KR, NZ, JP, MX, PL, QZ, SK, ZA.
- The leading experts will circulate the new revised draft to the interested experts before August 28.
- The interested experts will send comments by September 15.
- The leading experts will prepare a new draft of the Test Guidelines for Grapevine for discussion with the OIV incorporating the comments from the interested experts.
- A meeting for the harmonization of UPOV and the OIV documents will be agreed for the end of October or beginning of November. Once agreed, the venue for the meeting will be notified to all the interested experts. Experts from the European Community, France, Hungary, Germany and Spain expressed their interest in taking part in the meeting with the experts of the OIV.
- After the meeting with OIV experts, the leading experts will prepare a new draft of the Test Guidelines for Grapevine, which will be circulated to the interested experts for comments.
- If appropriate, a second meeting with UPOV and OIV experts by February 2007 will be arranged, if possible.
A revised draft of the Test Guidelines for Grapevine will be presented for discussion at the thirty-eighth session of the TWF.

**Hawthorn (Crataegus L.)**

33. The subgroup discussed the table of characteristics of document TG/HAWTH(proj.3)), as presented by Mr. Alejandro F. Barrientos-Priego (Mexico), and agreed the following changes:

5.3 The grouping characteristics will be updated according to the table of characteristics changes.

General
Netherlands to provide example varieties.

General
To change (a) for (b) and (b) for (a) in all characteristics.

Char. 1
To have note (b). To read: “Plant habit”. To add state “weeping” (6) with example variety “Pendula”.

Char. 2
To read: “Plant: shape of canopy”.

Char. 3
To read: “Plant: height”.

Char. 4
To read: “Plant: growth type”. State 1 to read “shrub”.

Char. 5
To read: “Plant: candelabrous branching”. States: absent (1), with example variety “Calpan Gold”, present (9), with example variety “Gaca”.

Char. 6
To read: “Plant: density of foliage”.

Char. 7
To be deleted.

Char. 13
To be deleted.

Char. 16

Char. 17
Example variety: “Flexuosa” (1).

Char. 20
To be deleted.

Char. 20b New

Char. 21
To read: “Leaf blade: pubescence on upper side”.

Char. 24
To be deleted.

Char. 24a New
To read: “Flower: type”. States: single (1) with example varieties “Edgar, Gloria, Punicia;” double (2) with example varieties “Masekii, Paul’s Scarlet”.

Char. 25
To add an explanation according to the apple guidelines.

Char. 26
Char. 27 Flower: color of base of anthers. To change order of states to: green (1), yellow (2), pink (3), red pink (4), purple (5), dark purple (6), brown (7).

Char. 28 To be indicated as QN.

Char. 29 To add “single varieties only”.

Char. 30a To be deleted.

Char. 30b To be deleted.

Char. 31 To be deleted.

Char. 32 To move “light brown” (4), “medium brown” (5) and “dark brown” (6) after “purple” (9).

Char. 34 To read: “Flower: calyx length”.

Char. 35 To be deleted.

Char. 36 To read: “Flower: pedicel length”.

Char. 37 To be deleted.

Char. 38 To move states: “light green” (9) and “medium green” (10) before “yellow” (1). To delete “brown” (11).

Char. 39 State 1 to read “conic”.


Char. 44 To be deleted.

Char. 45 To read: “Fruit: cavity of eye basin”.

Char. 46 To read: “Fruit: depth of eye basin”.

Char. 47 To read: “Fruit: main color of the flesh”.

Char. 48 To read: “Fruit: glossiness”.

Char. 49 To have the states: very sparse (1); sparse (3); medium (5); dense (7); very dense (9).

Char. 50 To be indicated as QN.

Char. 51 To be indicated as QN. State 1 to read: “absent or very weak” (1).

Char. 53 To be deleted.

Char. 54 State 7 to read: “long” (7).

8.1 (a) To change to (b). To read: “Plant: All observations should be made on foliated plants in spring”.

8.1 (b) To change to (a). To read: “Plant, stem and branch: All observations on vegetative shoot should be made on the current season’s shoot after growth.”

8.1 (g) To read: “Fruit and endocarp: All observations on the fruit and endocarp should be made on 10 typical fruits taken from a minimum sample of 20 fruits, at the time of fruit ripening.”
8.2 To be updated according to the changes in the Table of Characteristics.


10 Technical Questionnaire to be updated according to changes in the Table of Characteristics.

**Papaya (Carica papaya L.)**

34. The subgroup discussed the table of characteristics of document TG/PAPAYA(proj.2)), as presented by Mr. Alejandro F. Barrientos-Priego (Mexico), and agreed the following changes:

1. To add: “of the family Caricaceae”.

5.3 To be updated according to the changes in the Table of Characteristics.

Char. 1 To delete (a). To amend the following states: green (1); purple (4).

Char. 1a New To read: “Tree: position of pigmentation”. States: at base (1); above base (2); at middle (3); above middle (4); along stem(s). To add a (+) and an illustration.

Char. 2 To check if is appropriate to take the height to first flower or to first fruit.

Char. 3 To read: “Plant: branching”. States: absent (1); present (9). To add (+) stating: “To be observed at the beginning of flowering”.

Char. 4 To read: “Stem: maximum diameter”. To delete (+).

Char. 5 To be deleted.

Char. 6 To check if is appropriate to take the number of notes to first flower or to first fruit.

Char. 11 To check if this characteristic is suitable.

Char. 14 To read: “Leaf blade: pubescence on underside”.

Char. 16 To be deleted.

Char. 17a New To read: “Petiole: intensity of anthocyanin coloration”, with the states: low (1); medium (2); high (3). To add (+).

Char. 17b New To read: “Petiole: distribution of anthocyanin coloration”. To check if it is a suitable characteristic.

Char. 19 To have the states: few (3); medium (5); many (7).

Char. 21 To check if the following states would be suitable: light purple (2); dark purple (3).

The discussion of the document was not finished due to a lack of time.

It was agreed that the leading expert would maintain contact with the breeders from Brazil.
Passion Fruit (Fruit species)

35. The subgroup discussed document TG/PASSI(proj.2), as presented by Mrs. Carensa Petzer (South Africa), and agreed the following changes:

5.3 To add characteristics 6 and 16 as grouping characteristics.
Char. 1(a) To be deleted.
Char. 3 To read: “Leaf blade: maximum width”.
Char. 4 To read: “Leaf blade: maximum width of terminal lobe”.
Char. 4a To add (+) with an illustration.
Char. 4b To add (+) and illustration to have the states of expression: shallow (3), medium (5), deep (7).
Char. 8 to 19 To add an illustration of the flower showing the different parts and where to observe the characteristics.
Char. 18 Israel to check and to provide example varieties; if no example varieties to delete the characteristic.
Ad. 23 To read: “Fruit: main color of the skin” with states of expression: light yellow (1), yellow (2), yellow-orange (3), pinkish red (4), red (5), greenish purple (6), reddish purple (7), purple (8), dark purple (9).
New Char. To read: “Fruit: presence of lenticels”; with the states of expression: absent (1), present (9).
Char. 24 To have the states: inconspicuous (1), conspicuous (2), and to be indicated as QL.
Char. 26 To be deleted.
Char. 28 To be indicated as QL.
Char. 29 To add the states: yellow-orange (4), orange (5).
8.1 (d) To read: “Fruit: Observations on the fruit should be made on 10 typical fruits at the time of ripeness for eating.”
Ad. 1a Explanation to read: “To be assessed on the upper third of the vine at full flowering”.

Peach

36. The subgroup discussed document TG/53/6 Rev.(proj.1), as presented by Mr. Richard Brand (France), and agreed the following changes:

Cover Spanish common names: “melocotón, duraznero, nectarina”.
page French common names: “pêche, nectarine, pavie, brugnon”.
To check the English common names.
To check if sub species are necessary.
I to VI  To check if revision is necessary for updating.

II. Material required

1. To read:  - “5 budsticks with sufficient buds to propagate 5 trees […]”
   - 5 dormant shoots for grafting, sufficient to propagate 5 trees […]
   - 5 trees grafted on appropriate rootstock to be selected by the competent authorities”.

III. Conduct of tests

1. To have the general sentence “…two independent cycles with sufficient production of fruits”.

IV. Methods and observations

2 To read: “:…”In the case of a sample size of 5 plants, the maximum number of off types allowed would be 0.”

All methodologies and observations to be placed in Chapter 8.

VII. Table of characteristics

General, to check the German translation.

Char. 2 To add a (+) with an explanation.

Char. 3 To have the states “upright to spreading” (3s) (example varieties “Fair haven, Redwing”), “spreading” (5s) (example varieties “Elegant Lady, O’Henry, Albertina”). To be observed the year before the main pruning, with an illustration as in the Test Guidelines for Apricot and the TGP/14.2.1 (& .2) Draft 5, p. 29, to be provided in Chapter 8.

Char. 4a To check if characteristic “tendency to produce on brindilles” is necessary.

Char. 7 To read: “Flowering shoot: intensity of anthocyanin coloration on the sunny side”.

Char. 8 To have the states: very sparse (1) (example variety “Monline”), sparse (example varieties “O’Henry, Bigtop”), medium (example varieties “Michelini, Rich Lady, Melina”), dense (7) (example varieties “Redhaven, Jade”), very dense (9) (example varieties “Armking, Harco”).

Char. 9 State 1 to read “isolated”.

Char. 10 To add (+) with explanation to observe “just before opening”.

Char. 12 To check if the states “very light pink” and “light pink” can be combined, also for “dark pink” and “violet pink”.

Char. 13 State 3 to read: “circular”; to check if “elliptic” should be changed. France will provide an illustration for checking.

Char. 15 To read: “Flower: number of petals”.
Char. 16 France to check if it can be deleted.
Char. 23 To have the states: low (3), medium (5), high (7).
Char. 26 State 2 to read: “acute to obtuse” (to be checked).
Char. 27 To be deleted.
Ad. 28 a To read: “Leaf blade: red color of the main vein on the lower side”, with the states: absent (1), present (9).
Char. 33 To have the following example varieties: Nectarine Cerise (1), Spring time, Maycrest (3), Sunhaven, Spring lady, Jade (5), Loring, Royal Glory, BigTop (7), Comanche, Maillarbig (9).
Char. 34 State 5 to read: “broad elliptic”; to have the following example varieties for state 1: Bailou, Plate de Chine.
Char. 35 To have the following example varieties for state 5: Bailou, Plate de Chine.
Char. 42 To add state 7 “burgundy (to be checked in English: “rouge vineux” in French)” with the example varieties “Monec, Monid”.
Char. 45 To replace the culti group by variety denominations.

Pecan nut

37. The subgroup discussed document TG/PECAN(proj.4), as presented by Mr. Baruch Bar-Tel (Israel), in the absence of the leading expert, and agreed the following:

1 To add the name of the botanical family.
Char. 3 State 3 to read: “‘horizontal’.
Char. 5 To read: “One-year-old shoot ...”
Char. 6 To add note (d).
Char. 7 to 14 To add (+) and to provide illustration.
Char. 11 To read: “Lateral leaflet: curvature of longitudinal axis”.
Char. 12 To be indicated as QL.
Char. 13 To add illustration.
Char. 14 To read: “Only varieties with asymmetric lateral leaflets: Lateral ...”
Char. 16 To be indicated as PQ.
Char. 17 To add (+) and to provide illustration.
Char. 18 To add (*).
Char. 22 To be moved after Char.23.
Char. 24 and 25 To have the following order for the states of expression: circular (1), elliptic (2), oblong (3), obovate (4), ovate (5).
Char. 30 and 31
To be indicated as QN.

Char. 33
To be moved after characteristic 34.

Char. 34
To have states of expression: low (3), medium (5), high (7).

Char. 38
To be indicated as QL.

Char. 39
To add (+) with an explanation and to read: “Time of beginning of receptivity of stigma”.

Char. 40
To be deleted.

Char. 41
To read: “Time of beginning of anther dehiscence”.

Char. 42 and 43
To be deleted.

Char. 45
To be indicated as QN.

8.1
To incorporate Ad.7-14 from Chapter 8.2 as note (a).

General
To modify wording of characteristics and states of expression as per changes in the Table of Characteristics.

8.2
To add
“Ad. 1: Tree: vigor
The vigor of the plant should be considered as the overall abundance of vegetative growth.”

Ad 21
To become Ad. 21, 22 and 23.

Ad 24
To become Ad. 24 and 25 and to indicate the point of attachment of the fruit.

Ad 26
To have state “oblate” instead of “obovate”.

Ad 27
To check the illustrations.

Pineapple (Ananas comosus (L.) Merr.)

38. The subgroup discussed document TG/PINEAP(proj.3), as presented by Mr. Richard Brand (France), and agreed the following changes:

Cover:
Title: Ananas comosus L. Merr,
Add: “edible varieties”

Alternative name:
Add: “edible varieties”

1.
To read: “These Test Guidelines apply to all edible varieties of ….”

3.1
To delete: “… independent …”, because the second cycle is established on the production of the same plant of the first cycle

3.3.2
To be deleted and replace by:
“Stage of development for the assessment of each characteristic
The stages of development … by each number are described in paragraph 8.1.

6.5
To delete: “1-T See chapter 3.3.2….to 4-M See chapter 3.3.2”.
Chapter 7  All example variety group names, or culti groups, to be replaced by individual.

General  varietal denominations by Brazil and France;  to delete:  “NOTE … to … proposal” and any reference to this in the list of characteristics.

Char. 1  State 3:  to delete “Smooth Cayenne” and replace by “Champaka, Gold”.
Char. 3  To delete “(the longer leaf)” and insert this information in the explanation in Chapter 8.
Char. 5  To read:  “Leaf:  main color of upper side”;  to replace “ vert foncé” by “vert pourpre”.
Char. 6  To read:  “Varieties with only green color leaf”;  to check if the scale should be 3, 5, 7 or 1, 2, 3.

Char. 7 and 8  To be deleted because variegation of the leaf does not occur in commercial varieties.

Char. 9  To be deleted and combined with characteristic 10, as below (see char.10).
Char. 10  To read:  “Only for non-green color leaf varieties, Leaf:  intensity of anthocyanin coloration (on upper side)”, with the states:  very weak, weak, medium, strong, very strong.
Char. 12  To be deleted (CIRAD to be consulted).
Char. 13  To keep and read:  “Leaf:  density of trichomes on lower side”, with the states:  absent or very sparse, intermediate, dense, and the notes 3, 5, 7 or 1, 2, 3.
Char. 13a  To insert a new characteristic:  “Leaf:  spines”, with the states absent (1), present (9), with the example variety “Queen” for state 1.
Char. 14  To read:  “Leaf:  silvering color on the margins”.  To add an explanation in Chapter 8:  “silvering color:  known as piping in the pineapple breeding and industrial areas”.
Char. 15  To be deleted and replaced by:”Leaf:  distribution of spines at margin” (ex. Br 9), with the states:  at base only (1), at apex only (2), at base and apex (3), along all margins (4);  “sand paper” and “smooth” states to be considered with CIRAD with an explanation.
Char. 15a  To insert a new characteristic (ex Br 9):  “Leaf:  distribution of spines”, with the states regular (1), irregular (2).
Char. 16  To be deleted (not useful for commercial varieties).
Char. 17  To read:  “Leaf:  color of the spine in relation to leaf blade” with the example varieties:  Ananas bouteille (1), Queen (2).
Char. 18  To read:  “Leaf:  size of spines”.
Char. 19  To read:  “Peduncle:  color of the upper side of the bracts”, with an illustration in the explanation in Chapter 8.  To be placed just before the fruit characteristics.  To be checked if the organ is a peduncle.
Char. 21  State 1 to read “from bottom to top”.
Char. 22  To be deleted.
Br 10  To be deleted.
Char. 23  To read: “Petal: color of apex” with the states: whitish (1) (with an example variety to be provided, if not to be deleted), blue purple (2), red purple (3).

Char. 24  To be deleted.

Char. 25  To be kept and to read: “Petal: length”.

Br 12 and Br 13  To be deleted.

Char. 26  To be deleted.

Br 11  To be deleted.

Char. 27  “Flower: style type” to be kept, “Perolera” to be indicated as example variety for state 2.

Br 16  To be deleted.

Char. 28  To be deleted (more adapted to genetic resources and breeding material identification)

Chars. 29 and 30  To be deleted (as characteristic 27 is sufficient)

Char. 31  To read: “Fruit: color (fully grown immature fruit)”, with the states: grey (1) (example variety RHS 157C), medium green (2), dark green (3), red (4), brownish purple (5), purple (6) (with example variety “Roxo de Tefe” to be added), dark brown (7). To be studied if “dark red” and “brown purple” states are needed.

Char. 32  To read: “Fruit: density of trichomes (on fully grown immature fruit)” with the states: sparse (3), medium (5), dense (7).

Char. 33  To be deleted.

Char. 34  To be deleted.

Char. 35  To read: “Plant: height to top of foliage”, with a (+) and an illustration.

Char. 36  To read: “Plant: height to fruit base”, with a (+) and an illustration.

Char. 38  To keep “Peduncle: diameter” (ex Br 21).

Char. 38 a  Br 23 to be kept: “Peduncle: number of bracts”, with the states: few (3), medium (5), many (7).

Br 24  To be deleted.

Char. 38 b  Br 25 to be kept (Brazil to provide example varieties).

Char. 39  To read: “Plant: presence of underground suckers” with the states: absent (1), present (9); characteristic and example varieties to be checked by France and Brazil, methodology to be provided (how to count them without destroying the DUS trial ?)

Char. 40  To read: “Plant: number of aerial suckers on stem”, with state 1 to read: absent or very few.

Char. 41  To read: “Plant: size of aerial suckers on stem at fruit harvest”.

Char. 42  To read: “Plant: slips”, to be placed before characteristic 43.

Br 35  To be deleted.

Add Br 36  To read: “Fruit: relief of fruitlet”, with the states: flat (1), prominent (3), very prominent (5); to be placed with fruit characteristics.
Char. 43 To read: “Plant: number of slips”.
Char. 44 To be deleted.
Char. 45 To read: “Crown: attitude”, with the states: upright (1), semi upright (2), spreading (3). State “drooping” to be deleted
Char. 46 To read: “Crown: anthocyanin coloration”, CIRAD to check if useful: if not, to be deleted.
Char. 47 To be deleted.
Char. 48 To be deleted.
Char. 49 To be deleted.
Char. 50 To be deleted with the agreement of CIRAD to recover.
Char. 51 To read: “Crown: size”.
Char. 52 To be deleted.
Char. 53 To have the states: ovate (1), oblong (2), elliptic (3), circular (4).
To check if this presentation fits with the shape of Singapore canning variety.
Char. 59 To be placed after characteristic 53, with the characteristic 60 “width of fruit”.
Char. 60 To read: “Fruit: diameter at broadest part”, with the states: small (3), medium (5), large (7).
Add 60a To read: “Fruit: Position of broadest part”, with the states: towards the base (1), in middle (2), towards apex (3).
Char. 61 To be deleted.
Char. 62 To be deleted.
Char. 64 To be deleted.
Char. 65 To be deleted.
Char. 66 To read: “Fruit: number of eyes”, with the states: few (3), medium (5), many (7).
Char. 67 To read: “Fruit: size of eyes”.
Char. 68 State 1 to read: depressed; to be checked by France to which it corresponds (which organ of the eye is depressed?).
Char. 69 State 1 to read: even (1), state 2 to read: uneven (2).
Char. 70 To have the states: much smaller (1), smaller (3), slightly smaller (5), equal (7), larger (9).
Char. 71 To read: “Flesh: color”, with the states: whitish cream (1), light yellow (2), medium yellow (3), yellowish orange (4), orange (5) (with example variety “Manzana”). Golden color type has been named: yellowish orange.
Char. 72 To read: “Flesh: evenness of the color”, with the states: even (1), uneven (2)
Char. 73 To read: “Fruit: width of central axis”, with the states: narrow (3), medium (5), large (7).
Char. 74 To read: “Fruit: thickness of eye layer”, with the states: thin (3), medium (5), thick (7).
Char. 75 To read: “Flesh: compactness” with the states: loose or soft (3), medium (5), compact or dense (7).
Char. 76 To read: “Flesh: firmness”, with the states: soft (3), medium (5), firm (7).
Char. 77 To be deleted.
Char. 78 To read: “Flesh: presence of fibers”, with the states: weak (3), medium (5), strong (7).
Char. 79 To read: “Flesh: aroma”, with the states: weak (3), medium (5), strong (7).
Char. 80 To read: “Flesh: sugar content”, with the states: low (3), medium (5), strong (7), with an explanation to be provided by France.
Char. 81 To read: “Flesh: acidity”, with the states: low (3), medium (5) (example variety “Queen”), strong (7) (example variety “Champaka”), with an explanation to be provided by France.
Char. 82 To read: “Flesh: juiciness” with the states: dry (3), medium (5) (example varieties “Champaka, Mac Gregor”), juicy (7).
Char. Br 49 To have the states: susceptible (1), intermediate (3), resistant (5), with a methodology to be provided by Brazil. In Brazil, only one strain exists and the resistance is quantitative.

Sea Buckthorn (Hippophae L.)

39. The subgroup discussed document TG/HIPPH(proj.2), as presented by Mr. Erik Schulte (Germany) in the absence of Mrs. Bronislava Bátorová (Slovakia), and agreed the following changes:

1 To read: “These Test Guidelines apply to all vegetatively propagated varieties of Hippophae rhamnoides L.“

3.5 To verify whether 3 parts of plants are necessary, or if 2 parts are sufficient”

5.3 To have the following grouping characteristics:
   (a) Plant: growth type (characteristic 1);
   (b) Plant: attitude of branches (characteristic 2);
   (c) Plant: sex (characteristic 4);
   (d) Shoot: number of thorns (characteristic 7);

Char. 1 To have states of expression: tree-type (1), bush-type (2), with the existing example varieties.
Char. 2 To have the following states of expression: erect (1), semi-erect (2), horizontal (3), arching (4).
Char. 8 To delete the characteristic.
Char. 9 To check possible example varieties provided by Hungary for state 1: “Obil’naya, Yantarnaya”.
Char. 10 To be indicated as VG instead of VS.
Char. 12 To read: “Leaf blade: size”, with states of expression: small (3), medium(5), large (7); to be indicated as MG instead of MS and to check the example varieties.
New Char. “Leaf blade: undulation of margin”; with states of expression: absent (1), present (9). To check possible example varieties and to be indicated as QL.
Char. 13 To read: “Leaf blade: color of upper side” and to add example variety “Sprite” for state 2.
Char. 14 To read: “Leaf blade: intensity of green color of upper side”.
Char. 15 To read: “Leaf blade: pubescence of lower side”.
Char. 17 States (5) and (6) to read: pear-shape (5), broad ovate (6), and to modify the illustrations accordingly.
Char. 20 To check whether the characteristic should refer to “peduncle” or to “pedicel”, to delete MS and to have notes 1, 2, 3.
Char. 21 and 22 To delete VG.
8.1 To read as follows:
“(a) **Plant:** Observations should be made during winter dormancy.
“(b) **Shoot:** Observations should be made during active growth.
“(c) **Leaf blade:** Observations should be made on mature leaves taken from the middle third of the current season’s shoot in the middle part of plant.
“(d) **Pubescence:** Observations should be made using a magnifying glass.
“(e) **Fruit:** Observations should be made at the time of fruit maturity.”
8.2 To be updated according to the changes to the Table of Characteristics.
Ad. 11 To improve the illustration for state 3.
Ad. 17 To turn the illustrations upside down.
Ad. 21 To refer to 10% instead of 20%.
9 To delete the last three references and to check for more literature to be included.
TQ 5. To incorporate the grouping characteristics.
TQ 6. To have the example: Leaf: color of upper side / green / silverish
Strawberry (Revision)

40. The subgroup discussed document TG/22/10(proj.1), as presented by Mr. Kiyofumi Nakamura (Japan), and agreed the following changes:

Cover page
Alternative names: Spanish: To add: “Frutilla”
1. To add “of the family Rosaceae”.
3.4.1 To replace “in a total of at least 20 plants” by “in a total of at least 20 plants (vegetatively propagated varieties) or at least 40 plants (seed-propagated varieties)”.
3.5 To replace “should be made on 20 plants” with “should be made on 40 plants”.
4.2.2 To add “In the case of a sample size of 40 plants, 2 off-types are allowed.”
6.4 To replace all “   ” with ‘   ’.
6.5 To add “MG, VG: – see Chapter 3.3.2”

Table of Chars.
Example varieties to be checked by interested experts. NL will provide a set.

Char. 1 To replace “Plant: habit” with “Plant: shape in profile”, “globose” with “circular”, “flat globose” with “oblate”, and “flat” with “transverse elliptic”.
Char. 2 To replace “open” with “sparse”.
Char. 4 To correct position of lines for example varieties. To delete “Akihime” and “Macherauchs Fruehernte”. All experts to consider which example varieties should be removed from state 4.
Char. 6 To replace “Leaf” with “terminal leaflet”, and to move after characteristic 11. Experts to check example variety names.
Char. 7 To replace “PQ” with “QN”.
Char. 8 To replace states “3, 5, 7” with “1, 2, 3”; “weak” (state 1) to be changed to “absent or weak”.
Char. 9 To delete “(only for ornamental varieties)”.
Char. 10 To replace “ratio of length/width” with “length in relation to width”.
Char. 12 To replace “shape of incisions of margin” with “incisions”, and “PQ” with “QL”.
Char. 13 To replace “strong” with “strongly”.
Char. 14 To add state 7, “long” (7) (example varieties: Akihime, Tochiotome).
Char. 15 To replace “QL” with “QN”.
Char. 16 To replace “Stolons: number” with “Plant: number of stolons”, “MG” with “VG”. To be moved after characteristic 3.
Char. 18 To replace “pubesence” with “pubescence”, and to change notes from “3, 5, 7” to “1, 2, 3”.
Char. 19 To replace “Inflorescence: position relative to foliage” with “Plant: position of inflorescence in relation to foliage”, “PQ” with “QN”. To be moved after characteristic 3.

Char. 20 To replace “size (diameter)” with “diameter”.

Char. 21 To move after characteristic 25. To replace “Flower: color on the upper side of petal” with “Petal: color of upper side”, and to move after characteristic 19.

Char. 22 To replace “... size of calyx relative to corolla” with “... size of calyx in relation to size of corolla”.

Char. 23 To move after characteristic 19. To replace “Flower: flower number/flower cluster” with “Inflorescence: number of flowers”.

Char. 24 To delete “(observe only on flower with 5 or 6 petals)”.

Char. 25 To replace “ratio of length/width” with “length in relation to width” and “PQ” with “QN”.

Char. 27 To replace “bi-conical” with “rhombic”, and “almost cylindrical” with “cylindrical”.

Char. 28 To replace “ratio of length/width” with “length in relation to width”.

Char. 31 To replace “absent or weak” with “even”, “medium” with “slightly uneven” and “strong” with “strongly uneven”.

Char. 32 To check “red black”. Experts to check whether “red black” or “black red”.

Char. 33 To replace “evenness” with “unevenness”, “uneven” with “even” and “even” with “strongly uneven”.

Char. 34 To replace “3, 5, 7” with “1, 2, 3”.

Char. 35 To replace “insertion of achenes” with “position of achenes”.

Char. 36 To replace “insertion of calyx” with “relative position of calyx”, “in a basin” with “inserted”, “level” with “level with fruit” and “above fruit” with “above”.

Char. 37 To replace “attitude of the calyx segment” with “attitude of calyx”, “clasping” with “upwards”, “spreading” with “outwards”, “reflexed” to “downwards” and “PQ” with “QN”.

Char. 38 To replace “size of calyx in relation to fruit diameter” with “diameter of calyx in relation to diameter of fruit”.

Char. 41 To replace “except for core” with “excluding core” and “pale pink” with “light pink”.

Char. 42 To delete “in longitudinal section”. To replace “pale red” with “light red”.

Char. 43 To replace “hollow center” with “cavity in center”, “absent or weak” with “absent or very small”, “moderate” with “medium” and “strong” with “large”.

Char. 44 To replace “Time of flowering” with “Time of beginning of flowering”.

Char. 45 To replace “Time of ripening” with “Time of beginning of ripening”.

Char. 46 To delete “except for core” with “excluding core” and “pale pink” with “light pink”.

Char. 47 To replace “in longitudinal section”. To replace “pale red” with “light red”.

Char. 48 To replace “hollow center” with “cavity in center”, “absent or weak” with “absent or very small”, “moderate” with “medium” and “strong” with “large”.

Char. 49 To replace “Time of flowering” with “Time of beginning of flowering”.

Char. 50 To replace “Time of ripening” with “Time of beginning of ripening”.
After characteristic 25 to add new characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Absent</th>
<th>Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Flower: stamen”</td>
<td>Pondora, Yamasaka</td>
<td>Gariguette</td>
</tr>
<tr>
<td>“Pedicel: attitude of hairs”</td>
<td>Cigaline</td>
<td>Darselect, Parker</td>
</tr>
</tbody>
</table>

Ad. 2 To replace “7, 8, 9” with “3, 5, 7”, and to correct the order of the illustrations.

Recommendations on Draft Test Guidelines

41. The TWF agreed that the draft Test Guidelines below would be sent to the TC for adoption at its forty-third session in 2007, on the basis of the following documents with the amendments presented in this document:

- Apricot (Partial Revision) (document TWF/37/12)
- Blackcurrant (Revision) (document TG/40/7(proj.2))
- Blueberry (Revision) (document TG/137/4(proj.2))
- Hawthorn (Crataegus spp.) (document TG/HAWTH(proj.3))

42. It was noted that the Office would incorporate the amendments specified in this document in order to prepare the draft Test Guidelines for the TC. The leading experts noted that they were not required to submit revised draft Test Guidelines, but were required to provide the Office with all the information necessary for the document to be finalized.

43. The TWF decided to re-discuss the following draft Test Guidelines at its thirty-eighth session:

- Banana (Musa spp) (Revision)
- Coffee
- Fig (Ficus carica)
- Grapevine (Vitis L.)
- Papaya (Carica papaya L.)
- Passion Fruit (Fruit species)
- Peach (Revision)
- Pecan nut
- Pineapple (Ananas comosus)
- Sea Buckthorn (Hippophae L.)
- Strawberry (Revision)

44. The TWF decided to start discussions on the following draft Test Guidelines at its thirty-eighth session:

- Dragon-fruit (Hylocereus undatus (Haw.) Britton et Rose)
- Durian
- Rambutan
- Pistachio (Pistacia vera L.)
- Pomegranate (Punica granatum L.)
- Solanum muricatum Aiton (Melon-pear, Pepino)
45. The TWF decided that in the case of new species where the TWF has no experience, such as Durian and Rambutan, prior drafting should be carried out before the TWF considers it.

46. The leading experts, interested experts and timetables for the development of the Test Guidelines, are set out in Annex IV.

47. The TWF decided to consider discussing the following draft Test Guidelines at its thirty-ninth session:

   Cacao (*Theobroma cacao* L.)
   Pitaya

48. The TWF agreed that the partial revision for the Test Guidelines for Apricot presented a concrete proposal with fully justified and illustrated proposed changes. It was considered a good example on the way to deal with these revisions which could be the basis for the development of guidance to be incorporated in future versions of TGP/7.

49. The TWF agreed that a list of TWF Test Guidelines be prepared.

**Date and Place of the Next Session**

50. At the invitation of the expert from the Republic of Korea, the TWF agreed to hold its thirty-eighth session in Seoul, from July 9 to 13, 2007.

**Future Program**

51. The TWF proposed to discuss the following items at its thirty-eighth 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 (oral reports by the participants).
   (b) Reports on developments within UPOV (oral report by the Office of the Union).
4. Molecular techniques
5. TGP documents
6. UPOV information databases
7. Variety denominations
8. Project to consider the publication of variety descriptions
9. Drafters’ Kit for Test Guidelines
10. Information on probability levels used in COY and population standards used in the assessment of uniformity by off-types
11. Additional characteristics
12. Discussion on draft Test Guidelines (Subgroups)
13. Recommendations on draft Test Guidelines
14. Date and place of the next session
15. Future program
16. Report of the session (if time permits)
17. Closing of the session

Technical Visit

52. On August 22, 2006, the TWF visited the Empresa Brasileira de Pesquisa Agropecuária (EMBRAPA) Center for Cassava and Tropical Fruits located in the city of Cruz das Almas. The TWF was welcomed by Mr. José Carlos Mascimento, General Director, and by Mr. Domingo Haroldo Reinhardt, Director of Research and Development. A copy of the presentation is included in Annex III to this document.
LIST OF PARTICIPANTS

I. MEMBERS

AUSTRALIA

Helen EDDY-COSTA (Mrs.), Plant Breeder's Rights, IP Australia, P.O. Box 200, Woden ACT 2606 (tel.: +61 2 6283 7983 fax: +61 2 6283 7999 e-mail: helen.eddy-costa@ipaustralia.gov.au)

BRAZIL

Rodrigo BARBOSA NAZARENO, National Laboratory of Analysis, Distinctness and Characterization of Plant Varieties (LADIC), Ministry of Agriculture, Livestock and Food Supply, Parque Estação Biológica, W5 Norte - Final (Embrapa Cenargen), 70.770-900 Brasilia, D.F. (tel.: 61 32182274 fax: 61 3349 3942 e-mail: rodrigobn@agricultura.gov.br)

Maria do Carmo BASSOLS RASEIRA, Fruit Breeder, Embrapa Clima Temperado, Embrapa, Caixa Postal 403, BR 392 km 78, Pelotas, RS (tel.: +55 3275 8155 fax: +53 3275-8221 e-mail: bassols@cpact.embrapa.br)

Luís Carlos BERNACCI, Agronomic Institute (IAC), Avenida Barão de Itapura, 1481, Campinas, S.P. 13020-902 (tel.: +55 19 3231 5422, ext. 153 fax: +55 19 3231 4943 e-mail: bernacci@iac.sp.gov.br)

Milene CASSOVA (Sra.), Embrapa Cassava and Tropical Fruits, Caixa Postal: 007, Cruz das Alams - Ba. 44380-000, (tel.: +55 75 3621 8030 fax: +55 75 3621 8096 e-mail: milene@cpmf.embrapa.br)

Vera Lúcia DOS SANTOS MACHADO (Sra.), Jefe, División de Normalización y Registro, Servicio Nacional de Protección de Cultivares (SNPC), Ministerio de Agricultura, Ganadería y Alimentación, Esplanada dos Ministerios, Bloco D, Anexo A, Sala 249, 70043-900 Brasilia, D.F. (tel.: +55 61 3218 2549 fax: +55 61 3224 2842 e-mail: veramachado@agricultura.gov.br)

Luiz Carlos FAZUOLI, Centro de Café "Alcides Carvalho", Instituto Agronômico de Campinas, CP 28, 13.001-970 Campinas (tel.: +19 32415188 Ramal 370 fax: +19 32120458 e-mail: fazuoli@iac.sp.gov.br)

Francisco Ricardo FERREIRA, Researcher, Ministério da Agricultura, Esplanada dos Ministérios, Bloco D Anexo A, Brasília , D.F. 700443-900 (tel.: +55-61 344 84614 fax: +55-61 334 03624 e-mail: fricardo@enargen,embrapa.br)

Davi Theodoro JUNGHAUS, Embrapa Cassava and Tropical Fruits, Caixa Postal: 007, Cruz das Alams - Ba. 44380-000 (tel.: +55 75 3621 8062 fax: +55 75 3621 8096 e-mail: davi@cpmf.embrapa.br)
Marcus Vinicius LEITE, Examiner, National Plant Variety Protection Service (SNPC), Ministry of Agriculture, Livestock and Food Supply, Rua Mato Grosso, 285, Centro, 37701-006 Poços de Caldas (tel.: 35 3722 1578 fax: 35 3722 1578 e-mail: mv.leite@uol.com.br)

Izabela MENDES CARVALHO (Sra.), Associação Brasileira dos Obtentores Vegetais (BRASPOV), SCS - Quadra 01, Bloco G - Edif. BARACAT - Sala 501. CEP 70309-900 Brasília - DF (tel.: +55 61 32269022 e-mail: izabela@braspov.com.br)

Leontino REZENDE TAVEIRA, Department of Intellectual Property and Agriculture Technology, Ministry of Agriculture, Livestock and Food Supply, Esplanada dos Ministérios, Bloco D, Anexo A, Sala 239, Brasilia , D.F. 70043-900 (tel.: +55 61 3218 2547 fax: +55 61 3224 2842 e-mail: leontino@agricultura.gov.br)

José Renato SANTOS CABRAL, Embrapa Cassava and Tropical Fruits, Caixa Postal: 007, Cruz das Almas - Ba. 44380-000 (tel.: +55 75 3621 8027 fax: +55 75 3621-8096 e-mail: jrenato@cnpmf.embrapa.br)

Tumoru SERA, Coffee Breeder, Instituto Agronômico do Paraná (IAPAR), Secretaria da Agricultura e Abastecimento do Estado do Paraná, Rod. Celso Garcia Cid., Km 375, Barrio Três Marcos, Londrina, 86001-971 Paraná (tel.: 43 3376.2000 fax: 43 3376.2101 e-mail: tsera@iapar.br)

Raul SOARES MOREIRA, Research, Instituto Agronômico de Campinas, Secretaria da Agricultura do Estado de São Paulo, Avenida Papa Pio XII nº 199-101, 13071-090 Campinas (tel.: 19 3241 0085 fax: 19 3241 0085 e-mail: raulmoreira@mpc.com.br)

Fernanda VIDIGAL DUARET SOUZA (Sra.), Embrapa Cassava and Tropical Fruits, Embrapa, Caixa postal 007, Cruz das Almas, Bahia (tel.: +55 75 36218094 fax: +55 75 36218096 e-mail: fernanda@cnpmf.embrapa.br)

Luc VILLAIN, CIRAD / Cultures Pérennes, UMR DGPC, CIRAD/Cultures Pérennes, UMR DGPC, IAC / Centro de Café "Alcides Carvalho", Avenida Barão de Itapura, 1481, Cx. Postal 28, 13020-902 Campinas, SP (tel.: 19 3212.0458 fax: 19 3212.0458 e-mail: villain@iac.sp.gov.br)

CANADA

Christine IRVING (Mrs.), Examiner, Plant Breeder's Rights Office, Canadian Food Inspection Agency (CFIA), 2, Constellation Crescent, Ottawa Ontario K1A 0Y9 (tel.: +1 613 221 7530 fax: +1 613 228 4552 e-mail: cirving@inspection.gc.ca)

CHILE

Manuel TORO UGALDE, Ingeniero Agrónomo, Departamento Semillas, Division Semillas, Servicio Agrícola y Ganadero, Ministerio de Agricultura, avda Bulnes 140, piso 2, 1167-21 Santiago de Chile (tel.: +53 2 345 159 fax: +53 2 697 2179 e-mail: manuel.toro@sag.gob.cl)
CHINA

LU Xin (Ms.), Senior Agronomist, Division of New Plant Variety Protection, Development Center for Science and Technology, Ministry of Agriculture, Building 41, Mai Zi Dian Street, Chao Yang District, Beijing 100026 (tel.: +86 10 659 26315  fax: +86 10 659 23176  e-mail: luxin@agri.gov.cn)

YANG Kun, Management of DUS Testing, DUS Test Division, Development Center for Science and Technology, Ministry of Agriculture, Building 41, Mai Zi Dian Street, Chao Yang District, Beijing 100026 (tel.: +86 10 65922934  fax: +86 10 65925213  e-mail: yang_kun1978@263.net)

EUROPEAN COMMUNITY

Sergio SEMON, Community Plant Variety Office (CPVO), 3, boulevard Maréchal Foch, B.P. 10121, 49101 Angers Cedex 02, France (tel.: 33 241 256 434  fax: 33 241 256 410  e-mail: semon@cpvo.europa.eu)

FRANCE

Richard BRAND, INRA GEVES Cavaillon, B.P. 1, F-84300 Les Vignères (tel.: +33 4 9078 6660  fax: +33 4 9078 0161  e-mail: richard.brand@geves.fr)

GERMANY

Erik SCHULTE, Referatsleiter Obst und Stauden, Prüfstelle Wurzen, Bundessortenamt, Torgauer Str. 100, 04808 Wurzen (tel.: +49 3425 90 40 24  fax: +49 3425 90 40 20  e-mail: erik.schulte@bundessortenamt.de)

HUNGARY

József HARSÁNYI, Head, Department for Fruit and Grapevine, Variety Testing Division, National Institute for Agricultural Quality Control (NIAQC), P.O. Box 30, H-1024 Budapest (tel.: +36 1 336 9304  fax: +36 1 336 9309  e-mail: harsanyij@ommi.hu)

ISRAEL

Baruch BAR-TEL, Examiner, The Volcani Center, Plant Breeders’ Rights Testing Unit, P.O. Box 6, Bet Dagan 50250 (tel.: +972 3 968 3458  fax: +972 3 968 3458  e-mail: Baruch@volcani.agri.gov.il)

JAPAN

Tsukasa KAWAKAMI, Senior Staff, DUS Test Division, National Center for Seeds and Seedlings, 2-2 Fujimoto, Tsukuba, Ibaraki305-0852 (tel.: +81 29 838 6584  fax: +81 29 838 6595  e-mail: kawaka3@affrc.go.jp)

Kiyofumi NAKAMURA, Examiner, Seeds and Seedlings Division, Ministry of Agriculture, Forestry and Fisheries (MAFF), 1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo 100-8950 (tel.: +81 3 3592 0305  fax: +81 3 3502 6572  e-mail: kiyofumi_nakamura@nm.maff.go.jp)
MEXICO
Alejandro F. BARRIENTOS-PRIEGO, Professor-Investigator, Departamento de Fitotecnia, Universidad Autónoma Chapingo (UACh), Km. 38.5 Carretera México-Texcoco, Chapingo, Estado de México56230 (tel.: +52 595 952 1569 fax: +52 595 952 1569 e-mail: abarrien@gmail.com)

NETHERLANDS
Gerard, J.J. BOLSCHER, Varieties & Trials, Naktuinbouw, Bornsesteeg 65, gebouw 122, postbus 16, NL-6700 AA Wageningen (tel.: +31 317 476821 fax: +31 71 3326363 e-mail: g.bolscher@naktuinbouw.nl)

POLAND
Maria ZALESKA (Mrs.), Research Centre for Cultivar Testing (COBORU), PL-63 022 Slupia Wielka (tel.: +48 61 285 2341 fax: +48 61 285 3558 e-mail: sekretariat@cboru.pl)

REPUBLIC OF KOREA
JANG Yong Seok, Korea Forest Research Institute, Korea Forest Service, 44-3 Omokcheon, Gwonseon, Gyeonggi, Suwon 441-350 (tel.: +82 31 290 1187 fax: +82 31 290 1050 e-mail: mushrm@foa.go.kr)

JANG Jun-yon, 1095-47, seokcheon-ri, Nangsan-myun, Ikan-si, Chunlabuk-do 570-892 (tel.: +82 63 8612595 fax: +82 63 862 0069 e-mail: jangiy@seed.go.kr)

KIM Eung-Bon, Director, Plant Variety Protection Division, National Seed Management Office, 433 Anyang 6-dong, Manan-gu, Anyang-si, Anyang City, Kyunggi-do 430-016 (tel.: +82 31 467 0150 fax: +82 31 467 0161 e-mail: ebkim@seed.go.kr)

SOUTH AFRICA
Robyn HIERSE (Ms.), Department of Agriculture, Genetic Resources, Private Bag X5044, Stellenbosch 7599 (tel.: +27 21 809 1655 fax: +27 21 887 2264 e-mail: robynh@nda.agric.za)

Carensa PETZER (Mrs.), Directorate Genetic Resources, Private Bag X5015, Stellenbosch 7599 (tel.: +27 21 809 1653 fax: +27 21 887 2264 e-mail: carensap@nda.agric.za)

SPAIN
Pedro Miguel CHOMÉ FUSTER, Jefe del Servicio de Plantas de Vivero, Oficina Española de Variedades Vegetales (OEVV), Ministerio de Agricultura, Pesca y Alimentación (MAPA), Calle Alfonso XII, No. 62, E-28014 Madrid (tel.: +34 91 347 69 13 fax: +34 91 347 6703 e-mail: pchomefu@mapya.es)
III. ORGANIZATION

INTERNATIONAL SEED FEDERATION (ISF)

Vincent PÉTIARD, Plant Science & Technology, Centre R&D Nestlé Tours, BP 49716, 101 Avenue Gustave Eiffel, 37097 Tours Cedex 2, France (tel.: +33 2 47628374 fax: +33 2 47491414 e-mail: vincent.petiard@rdto.nestle.com)

IV. OFFICER

Alejandro F. BARRIENTOS-PRIEGO, Chairman

V. OFFICE OF UPOV

Raimundo LAVIGNOLLE, Senior Counsellor, International Union for the Protection of New Varieties of Plants (UPOV), 34, chemin des Colombettes, 1211 Geneva, Switzerland (tel.: +41 22 338 9565 fax: +41 22 733 0336 e-mail: raimundo.lavignolle@upov.int)

[Annex II follows]
Mr. Barrientos, Chairman of the Technical Working Party for Fruit Crops; Mr. Raimundo Lavignolle, Senior Counsellor of the UPOV; Distinguished Participants; Ladies and Gentlemen. Welcome to the 37th TWF UPOV Meeting.

I'll read a few words from Mr. Helinton Rocha, the Director of the Intellectual Property Department of Ministry of Agriculture, Livestock and Food Supply. He shall meet this Wednesday.

Let me extend my sincere gratitude to the Chairman and the UPOV Secretariat for giving us this opportunity to host the UPOV TWF meeting in Salvador, State of Bahia, Brazil.

In 2002 we hosted the UPOV TWA meeting in Rio de Janeiro, where our staff had a great opportunity to get acquainted with the UPOV system and procedures.

The Federative Republic of Brazil will also host the next session of the Technical Working Group on Ornamental and Forest Trees, to be held next week in the city of Fortaleza. As such, the Federative Republic of Brazil has been very active member of the organization.

As a member of the UPOV, the Federative Republic of Brazil will continue to play a leading role in fulfilling its obligations as a member State and in actively protecting intellectual property rights of new varieties.

This TWF meeting is not only a great opportunity for us to exchange ideas about the topics related to plant variety protection, but also is a way for Brazil to improve its own national agricultural mechanisms of production.

Brazil is playing a progressive role in international organizations such as the United Nations and the World Trade Organization. We are talking to our South American neighbors to build a regional community of nations, based on the principle of mutual interests. In this context, we regard the UPOV as a partner to help us and other developing countries to reach integral development.

We shall leave Salvador aware that in this room we will discuss and make significant progress on some very important test guidelines and procedures that compose the UPOV agenda, such as pineapple, coffee, banana, papaya and passion flower.
Finally, we are pleased with hosting this meeting, specially by allowing the interaction between national designated authorities, and our important contribution towards the creation and promotion of international use of top quality products, for the benefits of farmers and society worldwide.

Thank you.
APPLICATIONS

DECLARATORY SYSTEM

- Application and Denomination Forms
- Variety description, specific species form
- Technical Report on the breeding method and DUS
- Table of Characteristics
- Live sample declaration and location
- Sworn Statement
- Tax

FOREIGN TESTS AND TRIALS

Foreign tests and trials may be accepted when they are purchased by SNPC from UPOV member countries. Tests may also be conducted outside Brazil. In that case, it is recommended to repeat a test in Brazil to confirm the characteristics.

COST OF PROTECTION

The total cost of protection is 340 USD. This price includes a 90 USD fee for application and analysis, and a certificate fee of 250 USD, upon issuance of the certificate. The annual fee for the maintenance of the certificate is about 175 USD.

LIVE SAMPLE

When demanded, a live sample must be submitted to the SNPC. The applicant must comply with all import procedures.

ENFORCEMENT

The holder of the PBR may bring a civil action against any person infringing on his or her rights. He may ask a court to issue an injunction to prevent from further violations and also might bring a suit in such cases.

RIGHTS PROTECTED

The effect of the right granted to the breeder is that his prior authorization shall be required for:
- the production for purposes of commercial marketing;
- the offering for sale;
- the marketing;
- of the reproductive or vegetative propagating material, as such, of the variety.

DATABASE AND TESTS

Prepare of live samples

Distinctness test
LADIC - NATIONAL LABORATORY FOR DIFFERENTIATION, ANALYSIS AND CHARACTERIZATION OF VARIETIES

MISSION

To provide laboratorial support to PVP related activities concerning the characterization and differentiation of varieties and maintenance of live samples

Ministry of Agriculture, Livestock and Food Supply

65 SPECIES ELIGIBLE FOR PLANT BREEDERS’ RIGHTS

- **FRUIT**: pineapple, banana, apple, mango, strawberry, pear and grape
- **ORNAMENTALS**: amaryllis, anthurium, aster, begonia, rose, guzmania, kalanchoe, cymbidium, zantedeschia, dianthus, chrysanthemum, statice (3 species), grasses (2 species), gerbera, gypsophila, hybiscus, hypericum, Impatiens walleriana, Impatiens x New Guinea, illium, poinsettia, solidago and saintpaulia
- **FOREST TREES**: eucalyptus
- **AGRICULTURAL**: cotton, rice, oat, potato, sugarcane, coffee, barley, French bean, corn, soybean, sorghum, wheat and triticae
- **VEGETABLES**: pumpkin, lettuce, garlic, onion, carrot, okra, tomato, pepper and sweet pepper
- **FORRAGE**: brachiaria (syn. urochloa) (5 species), Panicum maximum, Pennisetum purpureum, Cajanus cajan, macrotyloma and pearl millet

Applications in Analysis

112

Withdraw Applications

1149 APPLICATIONS

Claimed Rights

Granted Rights
APPLICATIONS EVOLUTION

Number of Applications

- Soybean
- Forage Species
- Fruit Species
- Others - Agriculture
- Forest Trees
- Ornamentals


Granted Rights / Species Group

- Agricultural Crops: 750
- Forage: 20
- Fruit: 51
- Vegetable: 112
- Ornamental: 8

SNPC

Internet: www.agricultura.gov.br

serviços > cultivares > proteção

Telefones: (+55) 61 3218 2549 / 3218 2547

E-mail: snpc@agricultura.gov.br

luispacheco@agricultura.gov.br

[Annex III follows]
Welcome to Embrapa Cassava and Tropical Fruits!

EMBRAPA, Brazilian Fruitculture and Genetic Resources of Tropical Fruits
Domingo Haroldo Reinhardt, R&D director and the GR group

37º International Meeting / UPOV / Salvador, Bahia, Brazil, August 22, 2006

EMBRAPA - Brazilian Corporation for Agricultural Research

- Created in 1973 (32 years)
- Central Divisions of Headquarters: 3 Service Centers and 37 Research Centers distributed in different states of Brazil
- 2,221 researches
- About 8,000 employees
- International cooperation with 56 countries
- Important and distinction contribution to the Tropical Agriculture

National Agricultural Research System - SNPA

Embrapa Headquarters
- 09 National Thematic Centers
- 15 National Product Centers
- 13 Agroforestry or Ecorregional Research Centers
- 03 Special Services
- 17 State Ag. Research Organizations

MISSION

The Brazilian Agricultural Research Corporation's mission is to provide feasible solutions for the sustainable development of the Brazilian agribusiness by knowledge and technology generation and transfer.

INTERNATIONAL COOPERATION

Embrapa is world-known as an enterprise with an expressive and qualified number of technological and scientific knowledge, especially for the tropics, stimulating international cooperation.

BILATERAL COOPERATION

In bilateral cooperation Embrapa keeps international cooperation partnership with 55 countries and 155 institutions, corresponding to about 270 actions of cooperation.
MULTILATERAL COOPERATION

- Partnerships with 34 countries and 29 institutions
- Active participation on global initiatives, such as the Global Forum for Agricultural Research (GFAR) and the Consultative Group of International Agricultural Research (CGIAR) (positions in the Executive Council).
- Regionally, Embrapa has the presidency of the Forum of Investigation and Development of Agriculture (Foragro)
- Member of several sub-regional research networks, as the Procisur and the Procitrópicos, programs coordinated by Inter-American Institute of Cooperation for Agriculture (IICA).

MISSION

The Embrapa Cassava & Tropical Fruits' mission is to provide solutions for the sustainable development of the cassava and tropical fruit crops agribusiness by generation, adaptation and transfer of knowledge and technologies for social benefit.

IMPORTANCE OF BRAZILIAN FRUITS

- First world producer of citrus, cashew, passion fruit, acerola, papaya, pineapple and several other less important fruits
  - Second producer of banana
  - Seventh producer of mango
- World producer: behind China and India
- Production value: US$ 6 billions
- More than 2 million hectares
- Job generation: 5 millions, 2 to 5 per ha

IMPORTANCE OF BRAZILIAN FRUITS

North
- Central-West
- Northeast
- Southeast
- South

Brazilian Geographical Regions

Distribution of fruit production in Brazil

Source: IBGE, 2003
Distribution of Tropical Fruit crops In Brazil

- Pineapple
- Barbados cherry
- Bananas
- Papaya
- Passion fruit
- Citrus

WORLD SCENARY
GERMPLASM INTERDEPENDENCE

Risks
- forest fragmentation
- reduction of population sizes
- genetic erosion

Brazil
- megadiverse country
- neglected and underutilized species

Strategy
- Link conservation and use of genetic resources

GENETIC RESOURCES AT CNPMF

Germplasm Conservation
- Food and Agricultural use

Embrapa Cassava and Tropical Fruits
- TRADITIONAL FRUIT CROPS (FOOD)
- AND
- ORNAMENTAL FRUITS

The contribution of Embrapa Cassava & Tropical Fruits on germplasm conservation in Brazil (* Ferreira, 2001; 2005)

<table>
<thead>
<tr>
<th>PRODUCTS</th>
<th>NUMBER OF GENEbanks</th>
<th>Nº OF ACCESSIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRAZIL</td>
<td>CNPMF</td>
<td></td>
</tr>
<tr>
<td>Pineapple</td>
<td>3</td>
<td>692 *</td>
</tr>
<tr>
<td>Barbados cherry</td>
<td>8</td>
<td>389 *</td>
</tr>
<tr>
<td>Banana</td>
<td>6</td>
<td>154 *</td>
</tr>
<tr>
<td>Citrus</td>
<td>4</td>
<td>303 *</td>
</tr>
<tr>
<td>Papaya</td>
<td>5</td>
<td>161 *</td>
</tr>
<tr>
<td>Passion fruit</td>
<td>8</td>
<td>94 (95.4%)</td>
</tr>
<tr>
<td>Mango</td>
<td>7</td>
<td>485 *</td>
</tr>
<tr>
<td>Cassava</td>
<td>7</td>
<td>115 (25.1%)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>10575</td>
<td>4065</td>
</tr>
</tbody>
</table>

The contribution of Embrapa Cassava & Tropical Fruits on germplasm conservation in Brazil (* Ferreira, 2001; 2005)

Strategies of genetic resources conservation
- Embrapa Cassava and Tropical Fruits → In vitro genebanks (since 2002)
- Field genebanks (since 1973)

Embrapa Genetic Resources and Biotecnology
- Cold storage room (-20 °C) → Seed base genebank (since 1976)
- Criopreservation

Conservation and use of genetic resources
BARBADOS CHERRY (Malphigia emarginata)

Ministério da Agricultura, Pecuária e Abastecimento
Ministério da Agricultura, Pecuária e Abastecimento

**Ornamental Citrus**

- **Kunkaat Nagami**
- Citrus reticulata
- **JN SOU**
- Munaya

Landscape plants

**Breeding program: Development of hybrids, specially rootstocks**

Focus on varieties:
- Tolerant to water stress and adapted to soils with high level of aluminum
- Resistant to Phytophthora gummosis
- Resistant to CTV (Citrus Tristeza Virus)
- Resistant to Citrus Sudden Death
- Ornamental potential

**Varieties released by Embrapa Cassava and Tropical Fruits**

- **‘SALUSTIANA’**
- **‘PINEAPPLE 1’**
- **‘SUNKI TROPICAL’**
- **‘CRAVO SANTA CRUZ’**
- **‘SUNKI MARAVILHA’**

**Conservation and use of genetic resources**

- **PASSION FRUIT**

- Genebank created in 1997
- Number of accessions: 94
- Morphological and physical-chemical characterization
- Evaluation for resistance to main diseases (Fusarium wilt and bacterium diseases)
- Evaluation of ornamental potential and new conduction strategies as pot plants
Conservation and use of genetic resources
PINEAPPLE

- Field genebank created in 1975
- Number of accessions: 641
- In vitro conservation
- Molecular characterization in advance (RAPD)
- Morphological characterization using 20 IPGRI's descriptors for pineapple
- Evaluation to fusariosis resistance

Ananas comosus / Ananas macrodontes / Ananas parguazensis
Other Bromeliaceae: Bromelia, Dickia, Tillandsiae Billbergia

Genetic variability in crowns

Ornamental Pineapples selected and new hybrid

- A. comosus var. erectifolius
- A. comosus var. bracteatus
- A. macrodontes
- A. parguazensis
- A. comosus var. bracteatus 'tricolor'

Ornamental pineapple selected
Varieties released by Embrapa Cassava and Tropical Fruits

- 'PRIMAVERA'
- 'PEROLERA'
- 'IMPERIAL'

Hybrid under study

Conservation and use of genetic resources

PAPAYA

- Genebank created in 1991
- Number of accessions: 161
- Focus on Carica papaya
- Other Caricaceae: Vasconcellea cauliflora / Vasconcellea guerifolia / Jaracatia spinosa
- Morphological characterization
- Black spot disease and papaya’s weevil evaluation

Variety to be released by Embrapa Cassava and Tropical Fruits (developed in cooperation with Cornell University)

- Papaya GM
- Resistant to papaya’s ringspot virus
- Strain: GCP of PRSV- BR
- Under biosafety evaluations

Conservation and use of genetic resources

BANANA
Ministério da Agricultura, Pecuária e Abastecimento

- Field genebank created in 1976
- Number of accessions: 400
- In vitro conservation
- Molecular characterization of accessions: RAPD and SSR
- Morphological characterization using 113 descriptors

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Ministério da Agricultura, Pecuária e Abastecimento

Ornamental Banana selected

- Musa velutina
- Musa coccinea
- New hybrid
- Musa rubra
- Musa velutina
- New hybrid

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Ministério da Agricultura, Pecuária e Abastecimento

Ornamental banana

- Used as cut flowers

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Ministério da Agricultura, Pecuária e Abastecimento

Varieties released by Embrapa Cassava & Tropical Fruits

- ‘Maravilha’ (AAAB)
- ‘Tropical’ (AAAB)
- ‘Pacovan Ken’ (AAAB)
- ‘Preciosa’ (AAAB)
- ‘Caprichosa’ (AAAB)

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Ministério da Agricultura, Pecuária e Abastecimento

FHIA’s cultivars:

- ‘Fhia 18’ (AAAB)
- ‘Vitória’ (AAAB)

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Ministério da Agricultura, Pecuária e Abastecimento

Cultivars protection in Brazil (since 1997, Law 9456; Decree 2366)

- Can be protected
- Hybrids
- New cultivars
- GM varieties (CTNBIO/ Biosafety law)

Direct use of germplasm cannot be protected

Embrapa Cassava and Tropical Fruits

---
1950's: crop introduced in Brazil

Variations observed in fruits: shape, size, skin color, pulp color, number of furrows, contents of vit. C and total soluble solids

Field genebank created in 1992  154 accessions

High variability in intraespecific level

Variations in color of flowers

Variations observed in fruits: shape, size, skin color, pulp color, number of furrows, contents of vit. C and total soluble solids

Landscape Plants

CNPMF Accession nº 030

Ornamental
Barbados Cherry

Varieties released by Embrapa Cassava and Tropical Fruits

‘CABOCLA’

direct use of germplasm

Recommended use: processing and fresh consumption

‘RUBRA’

Recommended use: fresh consumption

PERSPECTIVES =========   Selection of varieties with potential use as:
=====================(1)   rootstocks (perspectives CMF 101 and 102),
=====================(2)   for processing (CMF 017),
=====================(3)   fresh consumption (F10),
=====================(4)   and ornamental use (CMF 030)

Thanks for your attention!
Ministério da Agricultura, Pecuária e Abastecimento

CITRUS

Conservation and use of genetic resources

Field genebank created in 1980's

- Number of accessions: 700
- Focus on: *Citrus* and other related geni: *Fortunella*, *Poncirus*, *Microcitrus*, *Eremocitrus*, *Severinia*, *Citropsis*
- Morphological and cytogenetic characterization
- Accessions evaluations for resistance to diseases and water stress

[Annex IV follows]
LIST OF LEADING EXPERTS

DRAFT TEST GUIDELINES TO BE SUBMITTED TO THE TECHNICAL COMMITTEE IN 2007

All requested information to be submitted to the Office of the Union before October 6, 2006

<table>
<thead>
<tr>
<th>Species</th>
<th>Basic Document(s)</th>
<th>Leading expert(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apricot (Partial Revision)</td>
<td>TG/70/4 and TWF/37/12</td>
<td>Mr. Harsanyi (HU), Mr. Sergio Semon (QZ), Mr. Richard Brand (FR)</td>
</tr>
<tr>
<td>Blackcurrant (Revision)</td>
<td>TG/40/7(proj.2)</td>
<td>Mr. Barnaby (NZ)</td>
</tr>
<tr>
<td>Blueberry (Revision)</td>
<td>TG/137/4(proj.2)</td>
<td>Mrs. Julia Borys (PL)</td>
</tr>
<tr>
<td>Hawthorn (Crataegus spp.)</td>
<td>TG/HAWTH(proj.3)</td>
<td>Mr. Barrientos-Priego (MX)</td>
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</table>

DRAFT TEST GUIDELINES TO BE DISCUSSED AT TWF/38
(* indicates possible final draft Test Guidelines)

New draft to be submitted to the Office of the Union before May 25, 2007

(Guideline date for Subgroup draft to be circulated by Leading Expert: March 23, 2007
Guideline date for comments to Leading Expert by Subgroup: April 20, 2007)

<table>
<thead>
<tr>
<th>Species</th>
<th>Basic Document(s)</th>
<th>Leading expert(s)</th>
<th>Interested experts (countries) 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banana* (Musa spp)</td>
<td>TG/123/4(proj.4)</td>
<td>Mrs. dos Santos Machado (BR)</td>
<td>CPVO, ES, FR, IL, KE, ZA, IPGRI</td>
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<tr>
<td>Coffee*</td>
<td>TG/COFFEE (proj.4 Rev.)</td>
<td>TWA (BR)</td>
<td>KE, MX</td>
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<tr>
<td>Dragon-fruit</td>
<td>New</td>
<td>Mr. Barrientos-Priego (MX)</td>
<td>IL,</td>
</tr>
<tr>
<td>(Hylocereus undatus</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(Haw.) Britton et Rose)</td>
<td></td>
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<tr>
<td>Fig (Ficus carica)</td>
<td>TG/FIG(proj.1)</td>
<td>Mr. Chomé Fuster (ES)</td>
<td>AR, DE, ES, FR, IL, JP, PT, IPGRI</td>
</tr>
</tbody>
</table>

1 for name of experts, see List of Participants
<table>
<thead>
<tr>
<th>Species</th>
<th>Basic Document(s)</th>
<th>Leading expert(s)</th>
<th>Interested experts (countries)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grapevine* (Vitis L.)</td>
<td>TG/50/8 and TWF/37/13</td>
<td>Mr. Chomé Fuster (ES), Mr. Schulte (DE)</td>
<td>AR, AU, BR, CZ, FR, HU, IL, KR, NZ, JP, MX, PL, SK, ZA</td>
</tr>
<tr>
<td>Papaya (Carica papaya L.)</td>
<td>TG/PAPAYA(proj.2)</td>
<td>Mr. Barrientos-Priego (MX)</td>
<td>AU, BR, IL, ZA</td>
</tr>
<tr>
<td>Passion Fruit (Fruit species)</td>
<td>TG/PASSI(proj.2)</td>
<td>Mr. Venter (ZA)</td>
<td>BR, IL, JP, KE, MX, IPGRI</td>
</tr>
<tr>
<td>Peach (Revision)</td>
<td>TG/53/6 Rev.(proj.1)</td>
<td>Mr. Brand (FR)</td>
<td>AU, BR, CA, CL, CPVO, DE, ES, HU, JP, KR, MX, NZ, PL, ZA</td>
</tr>
<tr>
<td>Pecan nut</td>
<td>TG/PECAN(proj.4)</td>
<td>Mr. Labarta (AR)</td>
<td>BR, IL, MX, ZA, IPGRI</td>
</tr>
<tr>
<td>Pineapple (Ananas comosus)</td>
<td>TG/PINEAP(proj.3)</td>
<td>Mr. Brand (FR) and Mr. Salaices (ES)</td>
<td>AU, BR, CPVO, JP, KE, MX, PT, IPGRI, ZA</td>
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<tr>
<td>Pistachio (Pistacia vera L.)</td>
<td>New</td>
<td>Mr. Bar-Tel (IL)</td>
<td>ES, ZA</td>
</tr>
<tr>
<td>Pomegranate (Punica granatum L.)</td>
<td>New</td>
<td>Mr. Bar-Tel (IL)</td>
<td>ES, ZA</td>
</tr>
<tr>
<td>Sea Buckthorn* (Hippophae L.)</td>
<td>TG/HIPPH(proj.2)</td>
<td>Mrs. Bátorová (SK)</td>
<td>DE, FR, HU, PL, RO</td>
</tr>
<tr>
<td>Solanum muricatum Aiton (Melon-pear, Pepino)</td>
<td>New</td>
<td>Mr. Richard Brand (FR)</td>
<td>ES, IL, NZ</td>
</tr>
<tr>
<td>Strawberry* (Revision)</td>
<td>TG/22/10(proj.1)</td>
<td>Mr. Nakamura (JP)</td>
<td>AU, BR, CA, CL, CPVO, DE, ES, FR, HU, IL, KR, MX, NL, NZ, PL, SK, ZA</td>
</tr>
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**DRAFT TEST GUIDELINES TO POSSIBLY BE DISCUSSED IN 2008**

<table>
<thead>
<tr>
<th>Species</th>
<th>Basic Document</th>
<th>Leading expert(s)</th>
<th>Interested experts (countries)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cacao (Theobroma cacao L.)</td>
<td>New</td>
<td>Mrs. dos Santos Machado (BR)</td>
<td>FR, MX</td>
</tr>
<tr>
<td>Pitaya</td>
<td>New</td>
<td>MX</td>
<td>IL</td>
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</table>

[End of Annex IV and of document]

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2 for name of experts, see List of Participants