



TWA/37/9

ORIGINAL: English

DATE: July 7, 2008

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

**TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS**

**Thirty-Seventh Session**  
**Nelspruit, South Africa, July 14 to 18, 2008**

**MATTERS TO BE RESOLVED CONCERNING**  
**TEST GUIDELINES ADOPTED BY THE TECHNICAL COMMITTEE**

*Document prepared by the Office of the Union*

1. Document TGP/7/1 “Development of Test Guidelines”, Section 2.2.8.3, explains that “Where the Technical Committee adopts the Test Guidelines subject to further information being provided by the leading expert with the agreement of all interested experts and the Chairman of the [Technical Working Party (TWP)] concerned (see 2.2.7.3(b)), the necessary information, agreed with all interested experts, should be provided to the Office of the Union within three months of the Technical Committee meeting, or before the subsequent session of the TWP concerned, whichever is the sooner. In those cases where the necessary information is not provided within this time, the Test Guidelines concerned will not be adopted and will be re-presented at the TWP concerned (Step 4).”.
2. In the case of the Test Guidelines for Common Millet, which were adopted by the TC at its forty-third session, held in Geneva, from March 26 to 28, 2007, certain information was required prior to finalization of the Test Guidelines. That information is now provided for consideration by the TWA.
3. In the case of the Test Guidelines for Coffee and for Grain Amaranth, which were adopted by the Technical Committee (TC) at its forty-fourth session, held in Geneva from April 7 to 9, 2008, certain information needed to be agreed by all interested experts. In accordance with the timing set out in document TGP/7/1 (see above), those matters are presented for consideration by the Technical Working Party for Agricultural Crops (TWA) at its thirty-seventh session, to be held in Nelspruit, South Africa, from July 14 to 18, 2008.

Test Guidelines for Common Millet

4. At its forty-third session, the TC adopted the Test Guidelines for Common Millet on the basis of document TG/COM\_MIL(proj.6) ([http://www.upov.int/restrict/en/tc/43/tg\\_com\\_mil\\_proj\\_6.pdf](http://www.upov.int/restrict/en/tc/43/tg_com_mil_proj_6.pdf)), subject to the following amendments:

|          |   |
|----------|---|
| 2.2, 2.3 | to read:<br><br>“2.2 The material is to be supplied in the form of seeds and, if requested by the competent authority, panicles should also be submitted.<br><br>“2.3 The minimum quantity of plant material, to be supplied by the applicant, should be:<br><br>Seed: 1 kg; and<br>Panicles (if requested): 100” |
| 3.5      | To add: “... and any other observation should be made on all plants in the test.”   |
| 4.2.2    | to delete the final sentence  |
| Char. 2  | to add (*)<br><i>Leading Expert: agreed</i>   |
| Char. 7  | to add (*) (TQ characteristic)  |
| Char. 19 | to be indicated as QN and state 3 to read “circular”  |
| Char. 24 | to be indicated as QN and state 3 to read “circular”  |
| Char. 25 | example variety to be provided by China for state 12, if possible<br><i>China: example variety for state 12: “Hexiaoyingmizi”</i>   |
| Char. 28 | state 9 to read “very high”   |
| Char. 29 | example variety to be provided by China for states 7 and 9, if possible. Example varieties for states 1, 3, 5 to be checked. States to be kept unchanged.<br><i>China: states 7 and 9 to be deleted</i>   |

|  | Example Varieties     | Note |
|--|-----------------------|------|
| <b>29. 90-92 Kernel (not (*) VG polished): color</b> |                       |      |
| <b>PQ (a)</b> whitish                                | Veselopodolyanske 176 | 1    |
| light yellow   | Kyivske 96            | 3    |
| medium yellow  | Omriyane              | 5    |
| dark yellow  | [CN to provide]       | 7    |
| green yellow   | [CN to provide]       | 9    |

|          |   |
|----------|---|
| Char. 30 | To replace “placental spot” by “hilum”  |
| Char. 31 | example varieties and explanation to be provided by China<br><i>China: characteristic to be changed from “Kernel: type” to “Kernel: type of endosperm” and Ad. 31 to read “The characteristic is observed by reaction to KI-I solution: waxy type endosperm is stained reddish purple; non-waxy type endosperm is stained blue purple.”</i> |

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| Char. 32 | translations of heading to be checked  |
| Char. 32 | to have 3 states and to be indicated as QN. New states and explanation to be approved by TWA by correspondence.<br><i>see below:</i> |

|             |  | Example Varieties | Note  |
|-------------|--|-------------------|-------|
| <b>32.</b>  | <b>57-59 Resistance to smut</b>                |                   |       |
|             | <b>VS (<i>Sporisorium destruens</i>: Yank)</b> |                   |       |
| <b>32.1</b> | <b>Race 1</b>                                  |                   |       |
| <b>QN</b>   | susceptible                                    | Raduha            | 1     |
|             | moderately resistant                           |                   | 2     |
|             | highly resistant                               | Myronivske 51     | 3     |
|             | -----  | -----             | ----- |
| <b>32.2</b> | <b>Race 2</b>                                  |                   |       |
| <b>QN</b>   | susceptible                                    | Novokyivske 01    | 1     |
|             | moderately resistant                           |                   | 2     |
|             | highly resistant                               | Myronivske 51     | 3     |
|             | -----  | -----             | ----- |
| <b>32.3</b> | <b>Race 3</b>                                  |                   |       |
| <b>QN</b>   | susceptible                                    | Kharkivske 56     | 1     |
|             | moderately resistant                           |                   | 2     |
|             | highly resistant                               | Myronivske 51     | 3     |
|             | -----  | -----             | ----- |
| <b>32.4</b> | <b>Race 4</b>                                  |                   |       |
| <b>QN</b>   | susceptible                                    | Kyivske 87        | 1     |
|             | moderately resistant                           |                   | 2     |
|             | highly resistant                               | Myronivske 51     | 3     |
|             | -----  | -----             | ----- |
| <b>32.5</b> | <b>Race 5</b>                                  |                   |       |
| <b>QN</b>   | susceptible                                    | Kyivske 87        | 1     |
|             | moderately resistant                           |                   | 2     |
|             | highly resistant                               | Myronivske 51     | 3     |
|             | -----  | -----             | ----- |
| <b>32.6</b> | <b>Race 6</b>                                  |                   |       |
| <b>QN</b>   | susceptible                                    | Kyivske 87        | 1     |
|             | moderately resistant                           |                   | 2     |
|             | highly resistant                               | Myronivske 51     | 3     |

*Leading Expert: Ad.32 to read:*

“Ad. 32.1 - 32.6: Resistance to smut (*Sporisorium destruens*: Yank)

Method for determination of resistance to infection by smut races:

|                        |   |
|------------------------|---|
| Inoculum:              | The spores must be viable and ripe. Each race (1, 2, 3, 4, 5, 6) to be used separately.   |
| Method of inoculation: | Before sowing, grains and smut spores are mixed carefully by shaking thoroughly. 100 seeds are infected with each race.   |
| Infectin load:         | 0,2% spores in relation to seed weight  |
| Place of growing:      | Field   |
| Observations:          | Observations should be made on healthy plants when inflorescences are fully emerged. For each variety, the number of affected plants is observed. The response of the variety to a specific smut race is described as follows:<br>Note 1 – susceptible (>50% affected plants)<br>Note 2 – moderately resistant (5-50% affected plants)<br>Note 3 – highly resistant (<5% affected plants) |
| Remark:                | It is possible to obtain races for testing from the Institute of Agriculture (Chabany, Kyevo-Svyatoshynskyi district, Kyiv region 08162, Ukraine).”   |

|        |   |
|--------|---|
| Ad. 7  | label text to be formatted  |
| Ad. 9  | to read “The time of panicle emergence is when the first spikelet is visible in 50% of the plants”      |
| Ad. 31 | to be provided (see comments for Char. 31)<br><i>see Char. 31</i>                                       |
| Ad. 32 | see comments at Char. 32 and wording in English to be edited and text to be translated in all languages |
| 8.3    | “collor” to read “collar”   |
| 9.     | to regenerate references  |
| TQ     | to add Char. 2<br><i>Leading Expert: agreed</i>   |
| TQ 6   | example to be provided  |

### Test Guidelines for Coffee

5. At its forty-fourth session, the TC agreed the adoption of the Test Guidelines for Coffee subject to the amendments to document TG/COFFEE(proj.7) ([http://www.upov.int/export/sites/upov/restrict/en/tc/44/tg\\_coffee\\_proj\\_7.pdf](http://www.upov.int/export/sites/upov/restrict/en/tc/44/tg_coffee_proj_7.pdf)) specified in the table below. The table also presents the proposals by the Leading Expert for the Test Guidelines for Coffee in response to the request by the TC. At its thirty-ninth session, held in Lisbon, Portugal, from June 2 to 6, 2008, the Technical Working Party for Fruit Crops (TWF) agreed with the proposals by the Leading Expert, except where indicated:

|                          |   |
|--------------------------|---|
| Table of Characteristics | to check whether further characteristics could be indicated with (*), subject to agreement by the TWA and TWF:<br><i>Leading Expert: to add (*) for the following characteristics</i> |
|--------------------------|---|

|                   |   |
|-------------------|---|
|                   | <p><i>Char. 1: Plant: shape</i></p> <p><i>Char. 2: Plant: height</i></p> <p><i>Char. 4: Plagiotropic primary branch: length of internode</i></p> <p><i>Char. 8: Leaf: shape</i></p> <p><i>Char. 13: Inflorescence: number of flowers</i></p> <p><i>Char. 15: Fruit: shape</i></p> <p><i>Char. 16: Fruit: color</i></p> <p><i>Char. 19: Seed: length</i></p> <p><u>TWF:</u></p> <p><i>The TWF agreed with the addition of an (*) for the characteristics above, except for Char. 8 “Leaf: shape”.</i></p> <p><i>With regard to Char. 15 “Fruit: shape”, the TWF agreed that the addition of an (*) should be subject to an example variety being provided by the Leading Expert before the thirty-seventh session of the TWA</i></p> |
| Char. 1           | to add (*) (TQ characteristic)  |
| Char. 1           | state 2 to read “ellipsoid”   |
| Char. 9           | to check whether note (b) should be deleted   |
| Char. 14          | to check spelling of “Bourbon”/ “Borbon” and whether should be “Catuai Amarelo” (upper case “A”)<br><u>Leading Expert:</u> <i>to read “Bourbon” and “Catuai Amarelo”</i>  |
| Chars. 19, 22     | to check whether to be observed on non-floating fruits: if so, to be explained in a note for Chars. 18 to 23<br><u>Leading Expert:</u><br><i>Char. 18 and Chars. 19 to 22 to be observed on non-floating fruits only (note to be added)</i>   |
| Char. 23          | to move explanation in brackets to Ad. 23   |
| Chars. 25, 26, 27 | to change to notes 1, 2, 3, or to amend the scales in Ad. 25, 26, 27<br><u>Leading Expert:</u> <i>to change to notes 1, 2, 3</i>  |
| Ad. 3             | to change “measurement” to “observation”  |
| Ad. 4             | to provide an illustration of plagiotropic branches<br><u>Leading Expert:</u> <i>see below</i>  |
| Ad. 12            | to provide an explanation of “domatia”<br><u>Leading Expert:</u> <i>explanation to read “Leaf domatia are small structures found on the lower surface of the leaves, usually consisting of small depressions, partly enclosed by leaf tissue or hairs, located in the axils of the veins of Coffea arabica L. , C. canephora and other plants of Rubiaceae family.”</i><br><u>TWF</u><br><i>The TWF agreed that the explanation of “domatia” should read “Leaf domatia are small raised structures found on the lower surface of the leaves, partly enclosed by leaf tissue or hairs, located in the axils of the veins of Coffea arabica L., C. canephora and other plants of Rubiaceae family.”</i>                               |
| Ad. 13            | To read “The number of flowers per axil ...” and to explain the stage at  |

|        |  |
|--------|--|
|        | which the characteristic should be observed<br><i>Leading Expert: to be observed on flower bud, before anthesis</i>                              |
| Ad. 24 | to provide explanation for time of flowering<br><i>Leading Expert: the time of flowering is when the largest flush of flowers is at anthesis</i> |

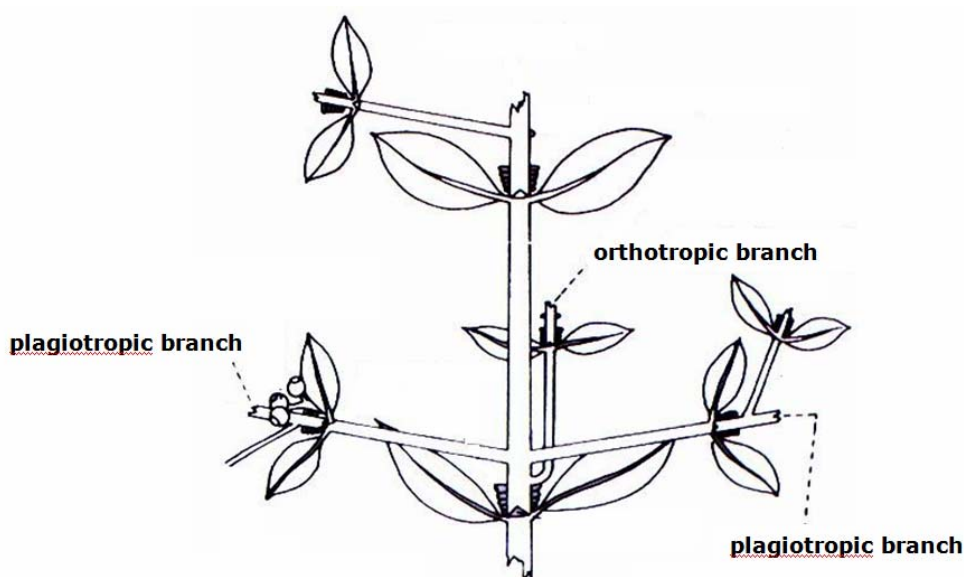
Ad. 4 to read as follows:

“Ad. 4: Plagiotropic primary branch: length of internode

The length of the internodes should be observed in the middle third of the branch.

Plagiotropic: mode of growth of lateral branches, growing horizontally away from the leading shoot and maintaining a different morphology

Orthotropic: mode of growth of vertical branches or leading shoots, where lateral (plagiotropic) branches may have different morphology”



Test Guidelines for Grain Amaranth

6. At its forty-fourth session, the TC agreed the adoption of the Test Guidelines for Amaranth on the basis of document TG/AMARAN(proj.9) ([http://www.upov.int/export/sites/upov/restrict/en/tc/44/tg\\_amaranth\\_proj\\_9.pdf](http://www.upov.int/export/sites/upov/restrict/en/tc/44/tg_amaranth_proj_9.pdf)) with the amendments specified in the table below. The table also presents the proposals by the Leading Expert for the Test Guidelines for Amaranth in response to the request by the TC.

|    |   |
|----|---|
| 1. | to read:<br>“These Test Guidelines apply to all varieties of <i>Amaranthus</i> L., but have been developed on the basis of varieties used for grain production. The main grain species are <i>Amaranthus caudatus</i> L., <i>Amaranthus cruentus</i> L. and <i>Amaranthus</i> |
|----|---|

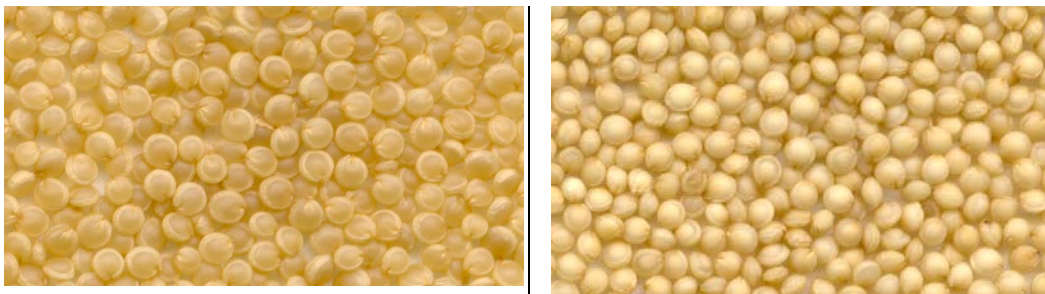
|         |   |
|---------|---|
|         | <i>hypochondriacus</i> L.. In the case of ornamental varieties, it may, in particular, be necessary to use additional characteristics to those included in the Table of Characteristics in order to examine Distinctness, Uniformity and Stability.”<br><i>Leading Expert: agreed</i> |
| Char. 8 | to be indicated as QN and to have 3 states<br><i>Leading Expert: to read:</i>   |

|           |           |  | Example Varieties  | Note |
|-----------|-----------|--|--------------------|------|
| <b>8.</b> | <b>VG</b> | <b>Young leaf:<br/>prominence of veins</b> |                    |      |
|           | <b>QN</b> | <b>(b)</b> weak                            | Rojita             | 1    |
|           |           | medium                                     |                    | 2    |
|           |           | strong                                     | Nutrisol, Revancha | 3    |

|          |   |
|----------|---|
| Char. 10 | <i>Leading Expert: to be indicated as QN to delete states 3, 4 and 6</i>  |
| Char. 12 | to delete “type of”<br><i>Leading Expert: agreed</i>  |
| Char. 13 | Note (d) to be deleted.   |
| Char. 14 | to read “Time of flowering”   |
| Char. 16 | - to be indicated as PQ and to have 3 states<br>- to check presentation of example variety “BRS_ALEGRÍA”<br><i>Leading Expert: to read:</i> |

|            |           |                                   | Example Varieties | Note |
|------------|-----------|-----------------------------------|-------------------|------|
| <b>16.</b> | <b>VG</b> | <b>Stem: color of<br/>stripes</b> |                   |      |
|            | <b>PQ</b> | <b>(e)</b> red                    | Roja Tulyehualco  | 1    |
|            |           | red purple                        |                   | 2    |
|            |           | purple                            | BRS_Alegría       | 3    |

|          |   |
|----------|---|
| Char. 28 | to be indicated as QN<br><i>Leading Expert: agreed</i>  |
| Char. 29 | to read “Inflorescence: length of bract relative to utricle”, with the states: shorter (1); equal (2); longer (3) |
| Char. 34 | to change “height” to “length”<br><i>Leading Expert: agreed</i>   |
| Char. 36 | to read “Stem: shape in cross section”<br><i>Leading Expert: agreed</i>   |
| Char. 38 | to be indicated as QL<br><i>Leading Expert: agreed</i>  |
| 8.1 (d)  | to be deleted   |

|         |  |
|---------|--|
| 8.1 (e) | to add “(see Ad. 14)”  |
| 8.1 (f) | to add “(see Ad. 33)”  |
| Ad. 14  | to read “The time of flowering is when 50% of the plants have a panicle approximately 5 cm long, showing open flowers in its middle parts with separate stamens and with the stigma completely visible.”   |
| Ad. 25  | to read “Compactness of the inflorescence is defined by the angle ...”<br><i>Leading Expert: agreed</i>  |
| Ad. 27  | to read:<br>“Inflorescence type should be observed from flowering stage up to fully developed grains.<br>Amarantiform: if the glomerules are inserted in the secondary axes and the glomerules have an extended shape, the inflorescences are ‘amarantiform’.<br>Glomerulate: if the glomerules are inserted in the primary axes and the glomerules have a spherical shape, the inflorescences are ‘glomerulate’.”<br><i>Leading Expert: agreed</i>                                  |
| Ad. 29  | to read: “Bract: Outer leaves enclosing the tepals.”<br><i>Leading Expert: agreed</i>  |
| Ad. 29  | to correct the indication of the length of utricle in the diagrams to exclude the bracts<br><i>to be provided</i>  |
| Ad. 39  | to provide a reference for the method<br><i>Leading Expert: to read “The type of seed should be observed by diaphanoscopy, i.e. using a box with a glass lid and a light source within. The seed is placed on the glass lid: if the light is transmitted through the seed, it is flint type seed; if the light is not transmitted, it is floury type seed.”</i><br><br>1<br>flint<br>2<br>floury |
| TQ 9.3  | to be deleted<br><i>Leading Expert: agreed</i>   |

[End of document]