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|  |  | E  TWV/47/34  **ORIGINAL:**  English  DATE:  May 24, 2013 |
| INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS | | |
| Geneva | | |

Technical working party for vegetables

Forty-Seventh Session  
Nagasaki, Japan, May 20 to 24, 2013

Report

prepared by the Office of the Union

The Technical Working Party for Vegetables (TWV) held its forty-seventh session in Nagasaki, Japan, from May 20 to 24, 2013. The list of participants is reproduced in Annex I to this report.

The TWV was welcomed by Mr. Junya Endo, Director, New Business and Intellectual Property Division, Food Industry Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries of Japan (MAFF). A copy of the welcome address is provided in Annex II to this report.

The TWV received presentations on the plant variety protection (PVP) system in Japan by Mr. Kenji Numagachi, Senior Examiner, and on breeding activities developed by the National Agricultural and Food Research Organization (NARO) Institute of Vegetable and Tea Science (NIVTS) by Mr. Youichi Kawazu, Senior Researcher, Vegetable Breeding and Genome Division, NIVTS. Copies of the presentations are provided in Annexes III and IV to this report, respectively.

The session was opened by Mr. François Boulineau (France), Chairman of the TWV, who welcomed the participants and thanked Japan for hosting the TWV session.

## Adoption of the Agenda

The TWV adopted the agenda as presented in document TWV/47/1 Rev.

## Short Reports on Developments in Plant Variety Protection

1. *Reports on developments in plant variety protection from members and observers*

The TWV noted the information on developments in plant variety protection from members and observers provided in document TWV/47/28 Prov. The TWV noted that reports submitted to the Office of the Union after May 14, 2013, would be included in the final version of document TWV/47/28.

1. *Reports on developments within UPOV*

The TWV received a presentation from the Office of the Union on the latest developments within UPOV, a copy of which is provided in document TWV/47/27 Rev.

The TWV received a presentation from the Office of the Union on the results of the 2012 survey to seek views on the effectiveness of the Technical Working Parties, as requested by the TC at its forty‑ninth session, a copy of which is provided in document TWV/47/27 Add.

## Molecular Techniques

The TWV considered document TWV/47/2.

The TWV noted the program for the adoption of document TGP/15/1 “Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)”.

The TWV noted the discussion on molecular techniques at the forty-ninth session of the TC.

The TWV noted that the TC had proposed to hold a coordinated meeting of the Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular (BMT) with the International Organization for Standardization (ISO), the International Seed Testing Association (ISTA) and the Organisation for Economic Co-Operation and Development (OECD) and including breeders; and that if it was not possible to organize a coordinated meeting in 2014, a meeting of the BMT would be organized in the meantime.

The TWV agreed with the TC that there was a need to provide suitable information on the situation in UPOV with regard to the use of molecular techniques to a wider audience, including breeders and the public in general.

The TWV received a presentation by an expert from the Netherlands on “Male sterility detection (in cabbage) using Molecular Techniques”, and by an expert from France on “Molecular Techniques in DUS Testing in the Group for Study and Control of Varieties and Seeds (GEVES)”, a copies of which are provided in document TWV/47/2 Add.

## TGP documents

The TWV considered the TGP documents below on the basis of documents TWV/47/3 and TWV/47/3 Add.

The TWV noted the agreement of the TC and the CAJ to submit document TGP/15/1 “Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)” for adoption by the Council, at its forty-seventh session, to be held on October 24, 2013.

The TWV noted the agreement of the TC and the CAJ to invite the Council to adopt document TGP/14/2 “Glossary of Terms Used in UPOV Documents” at its forty-seventh session, to be held on October 24, 2013, and noted that the Council would be invited to adopt document TGP/0/6, in order to reflect the adoption of documents TGP/15/1 and TGP/14/2. The TWV received a presentation, made by the Office of the Union, on the main changes and key features on TGP/14, proposed by the TC at its forty-ninth session in 2013.

The TWV noted the matters approved by the TC for future revision of documents TGP/7, TGP/8 and TGP/9, as set out below:

### (a) TGP/7: Development of Test Guidelines

1. *Coverage of Types of Varieties in Test Guidelines*
2. *Selection of Asterisked Characteristics*
3. *Standard References in the Technical Questionnaire*
4. *Applications for Varieties with Low Germination*
5. *Procedure for the Development of Test Guidelines*
6. *Quantity of Plant Material Required*
7. *Minimum Quantity of Plant Material*
8. *Guidance on Number of Plants to be Examined (for Distinctness)*
9. *Guidance for Method of Observation*
10. *Example Varieties*
11. *Providing Photographs with the Technical Questionnaire*
12. *Duration of Test*
13. *Number of Plants Required for Description*

### (b) TGP/8: Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability

#### Part I: DUS Trial Design and Data Analysis

1. *New Section 2: “Data to be recorded”*
2. *New Section: “Reduction of Size of Trials”*

#### Part II: Techniques Used in DUS Examination

1. *Section 3: “The Combined-Over-Years Criteria for Distinctness (COYD)”*
2. *Section 3, Subsection 3.6: “Adapting COYD to special circumstances”*
3. *Section 4: “2x1% Method-Minimum Number of Degrees of Freedom for the 2x1% Method”*

### (c) TGP/9: Examining Distinctness

1. *Guidance on Number of Plants to be Examined (for Distinctness)*
2. *Providing Photographs with the Technical Questionnaire*

The TWV noted the agreement of the TC that a draft revision of document TGP/5 Section 10 “Notification of Additional Characteristics and States of Expression” be presented for consideration by the TC at its fiftieth session, subject to the conclusion of discussions on disclaimers on UPOV documents in the Consultative Committee.

The TWV also noted the matters for discussion on future revision of documents TGP/7, TGP/8 and TGP/14 that would be considered on basis of documents TWV/47/9 to TWV/47/21 and TWV/47/23.

The TWV noted the program for the development of TGP documents, as set out in the Annex to document TWV/47/3.

The TWV considered the TGP documents below on the basis of documents TWV/47/3 and TWV/47/3 Add. “Comments by the Technical Working Party for Ornamental Plants and Forest Trees on TGP documents”.

*TGP/7: Development of Test Guidelines*

1. *Revision of document TGP/7: Additional Standard Wording for Growing Cycle for Tropical Species*

The TWV noted the information provided in document TWV/47/9.

The TWV considered the proposed Additional Standard Wording (ASW) for growing cycle of tropical species and agreed with the proposed following wording and the modifications proposed by the Technical Working Party for Fruit Crops (TWF):

*New (after (b)): ~~Tropical fruit species~~ Evergreen species with indeterminate growth*

The growing cycle is considered to be the period ranging from the beginning of flowering of an individual flower or inflorescence, through active flowering and fruit development, and concluding with the harvesting of fruit.

1. *Revision of document TGP/7: Source of Propagating Material*

The TWV considered the proposed guidance on source of propagating material, as presented in Section IV “Guidance for drafting Test Guidelines” of the Annex to document TWV/47/10, which was presented by an expert from the European Union.

The TWV noted that the document provided useful information on the effects of the source of propagating material as a source of general guidance for drafters of Test Guidelines, for inclusion in document TGP/7, and requested the expert from the European Union, with the support of experts from France and the Netherlands, to prepare a condensed version of the wording to be presented to the TWV at its forty-eighth session in 2014.

The TWV agreed to request the addition of examples for vegetatively propagated vegetables.

1. *Revision of document TGP/7: Indication of Growth Stage in Test Guidelines*

The TWV considered document TWV/47/11 and considered that there was no need to amend the existing guidance in document TGP/7 with regard to the indication of the growth stage at which to observe characteristics in the Test Guidelines. The TWV noted that the existing guidance provided sufficient information and that the indication of growth stages in Test Guidelines should remain optional and be used where appropriate.

The TWV agreed with the Technical Working Parties for Ornamental Plants and Forest Trees (TWO) that the indication of growth stages in Test Guidelines should be used where appropriate, and should as far as possible use a harmonized, simple numbering, such as in the Test Guidelines for Potato (document TG/23/6) as illustrated below:

*“8.3 Optimal Stage of Development for the Assessment of Characteristics*

1 = bud stage

2 = flowering stage

3 = ripening stage of tubers

4 = after harvest”

*(iv)* *Revision of document TGP/7: Providing Illustrations of Color in Test Guidelines*

The TWV considered document TWV/47/12.

The TWV agreed with the proposal of the TWO at its forty-sixth session, and the TWF at its forty-fourth session, to include the following guidance in a future revision of document TGP/7, with the addition of the reference to “light intensity” of a color, in the last sentence:

“~~Particular caution is needed when considering the~~ It is generally not appropriate to use ~~of~~ illustrations of color, as such, in the Test Guidelines because the color in photographs can be affected by the technology of the camera, ~~and~~ the facilities used to display the photograph (including printer, computer and screen~~, etc.~~) and lighting conditions under which the photograph is taken. Furthermore, the expression of color may vary according to the environment in which the variety is grown. For example, a photograph of a “~~light~~ weak intensity” of anthocyanin coloration or of a “light intensity” of a color, provided by the Leading Expert in one UPOV member may not represent a “weak ~~light~~ intensity” of anthocyanin coloration or a “light intensity” of a color in another UPOV member.”

*(v) Revision of document TGP/7: Presence of Leading Expert at Technical Working Party Sessions*

The TWV considered document TWV/47/13 and agreed with the proposed guidance, as amended by the TWF at its forty-fourth session, on the presence of a Leading Expert at a Technical Working Party session, for inclusion in a future revision of document TGP/7, section 2.2.5.3, as set out below:

“2.2.5.3 Requirements for draft Test Guidelines to be considered by the Technical Working Parties

“Unless otherwise agreed at the TWP session, or thereafter by the TWP Chairperson, the timetable for the consideration of draft Test Guidelines by the Technical Working Parties is as follows:

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| Action | Latest date  before the TWP session |
| Circulation of Subgroup draft by Leading Expert: | 14 weeks |
| Comments to be received from Subgroup: | 10 weeks |
| Sending of draft to the Office by the Leading Expert: | 6 weeks |
| Posting of draft on the website by the Office: | 4 weeks |

“In cases where *either* of the deadlines for circulation of the Subgroup draft or for the sending of the draft to the Office by the Leading Expert is not met, the Test Guidelines would be withdrawn from the TWP agenda and the Office would inform the TWP accordingly at the earliest opportunity (i.e. not later than 4 weeks before the TWP session). In those cases where draft Test Guidelines are withdrawn from the TWP agenda because of failure by the Leading Expert to meet the relevant dates, it would be possible for specific matters concerning those Test Guidelines to be discussed at the TWP session. However, to consider specific matters it would be necessary for a document to be provided to the Office at least 6 weeks before the TWP session.

“In order to be considered by a Technical Working Party, the Leading Expert of the draft Test Guidelines should be present at the session, unless a suitable alternative expert can be arranged to act as the Leading Expert sufficiently in advance of the session, or unless the Leading Expert is able to participate in an effective way by electronic means.”

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

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

The TWV considered document TWV/47/14.

The TWV proposed that experts from the European Union, France and the Netherlands help the drafter to develop further guidance on the proposed text to be included in TGP/8 part I: DUS Trial and Design and Data Analysis, New Section: Minimizing the Variation due to Different Observers, in a future revision of document TGP/8.

The TWV noted that the expert from the Netherlands would draft, in conjunction with other experts, a proposed text with regard to further guidance on PQ and QN/MG characteristics, to be circulated to the groups of experts of the other interested Technical Working Parties (TWPs).

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

The TWV considered document TWV/47/15.

The TWV noted that:

(a) the TC had requested the TWC to continue its work with the aim of developing recommendations to the TC concerning the proposals to address the bias in the present method of calculation of COYU, and that

(b) a document on possible proposals for improvements to COYU would be prepared for the TWC session in 2013.

*(iii) Revision of document TGP/8: Part II: Selected Techniques Used in DUS Examination, New Section 10: Minimum Number of Comparable Varieties for the Relative Variance Method*

The TWV considered document TWV/47/16.

The TWV noted the comments made by the TWPs at their sessions in 2012 and the TC, at its forty‑ninth session, held in 2013. The TWV agreed with the proposed amendments for revision of Section 10 of document TGP/8 and the new proposed guidance to specify the minimum number of comparable varieties in the relative variance method as set out in the Annex to document TWV/47/16.

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

The TWV considered document TWV/47/17.

The TWV noted that the TC had agreed to replace the proposed text for new Section 11 “Examining DUS in Bulk Samples” in the Annex to document TC/49/28 with guidance on the use of characteristics examined on the basis of bulk samples, in order to ensure that the characteristics fulfill the basic requirements for a characteristic.

The TWV agreed that Leading Experts of Test Guidelines could be requested to provide data from different years to demonstrate that the expression of the characteristic is “sufficiently consistent and repeatable in a particular environment”.

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

The TWV considered document TWV/47/18.

The TWV considered the developments on a practical exercise with a common data set to produce variety descriptions of self‑pollinated and/or vegetatively propagated varieties, in order to determine the aspects in common and divergence between methods, with a view to developing general guidance.

The TWV agreed that the COY method was working well for cross pollinated crops and highlighted the importance of developing guidance for producing variety descriptions for self‑pollinated and/or vegetatively propagated varieties.

The TWV agreed with the value of a practical exercise and requested the development of guidance on data processing for the assessment of distinctness and for producing variety descriptions of vegetatively propagated crops.

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

The TWV considered document TWV/47/19.

The TWV noted the comments made by the TWPs at their sessions in 2012 and the TC-EDC in 2013, and considered the draft new Section on “Guidance for Data Analysis for Blind Randomized Trials.”

The TWV agreed that the drafter should further develop the guidance to include explanations that the origin of the material should not influence the final judgment and that the authorization of the breeder should be obtained for varieties that were the subject of an application, as well as certain parent lines.

*(vii) Revision of document TGP/8: Part II: Selected Techniques Used in DUS Examination, New Section: Examining characteristics using image analysis*

The TWV considered document TWV/47/20.

The TWV noted the information on software and hardware used for image analysis, as set out in Annex I to document TWV/47/20.

The TWV noted that the AIM software for image analysis would be considered in document TWV/47/7 “Exchangeable software”.

The TWV noted that a draft of the new section “Examining Characteristics Using Image Analysis” for document TGP/8 would be presented to the TWC in 2013.

The TWV invited experts from Czech Republic, France, Germany, the Netherlands and the United Kingdom to make a presentation at its forty-eighth session, on the use of image analysis on pea, carrot, onion and parsley respectively. With regard to pea, the TWV agreed to receive presentations from the Czech Republic, France and the United Kingdom in order to compare the method used for image analysis in different UPOV members on the same crop.

*(viii) Revision of document TGP/8: Part II: Selected Techniques Used in DUS Examination, New Section: Statistical methods for visually observed characteristics*

The TWV considered document TWV/47/23.

The TWV noted that:

1. the TC had agreed that it would not be appropriate to continue the development of a section on “Statistical Methods for Visually Observed Characteristics”, unless new guidance was provided beyond the methods already provided in document TGP/8; and

(b) requested the TWC to clarify if it proposed to modify an existing method or provide a new additional method.

*TGP/14: Glossary of Terms Used in UPOV Documents*

*(i) Revision of document TGP/14: Section 2: Botanical Terms, Subsection 3: Color, Definition of "Dot"*

The TWV considered document TWV/47/21.

The TWV agreed with the proposal of the TWO at its forty-sixth session and the TWF at its forty-fourth session, that a“dot” was a small “spot” and that only the term “spot” should be used in the future, according to the guidance provided in document TGP/14: Section 2: Botanical Terms, Subsection 3: Color. The TWV agreed with the TWF proposal that the Test Guidelines should be revised whenever the use of these terms could cause confusion.

## Variety denominations

The TWV considered document TWV/47/4.

The TWV noted the developments concerning the International Commission for the Nomenclature of Cultivated Plants of the International Union for Biological Sciences (IUBS Commission) and the International Society for Horticultural Science Commission for Nomenclature and Cultivar Registration (ISHS Commission), of relevance for UPOV.

The TWV noted the planned contribution from the Office of the Union to the Draft Joint Notice for publication in the *Hanburyana Journal* and the participation of UPOV in the IUBS Commission, to be held on July 19 and 20, 2013 in Beijing.

## Uniformity assessment

*(a) Assessing uniformity by off-types on the basis of more than one sample or sub‑samples*

The TWV considered document TWV/47/22 and noted that:

(a) the TWC had agreed that more detailed information and further analysis were needed in order to give guidance on consequences on the use of the different approaches presented in Annex I to IV of document TWV/47/22, and that France, Germany and the Netherlands would present one or more concrete situations in their countries and the statistical basis of their analysis for its next session;

(b) the TWC had agreed that the statistical basis for the acceptable number of off‑types in the subsample of 20 plants used in the context of a sample size of 100 plants (situation D) would be assessed by experts from France and Germany; and

(c) with regard to the approach combining the results from two growing cycles, as set out in Annexes I and II of document TWV/47/22, Situation A and B, the TC had agreed that care would be needed when considering results that were very different in each of the growing cycles, such as when a type of off‑type was observed at a high level in one growing cycle and was absent in another growing cycle.

The TWV noted that with regard to the situation B, as set out in Annex II of document TWV/47/22, the expert from France indicated that France was now considering each cycle to be independent and was no longer combining the results of two locations, therefore the reference to France and cauliflower was no longer appropriate and that the text should be amended as follows:

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| SITUATION B: TWO GROWING LOCATIONS IN THE SAME YEAR |
| **Approach: Third growing cycle for inconsistent results**  A variety is considered uniform if it is within the uniformity standard in both of the growing locations.  A variety is considered non-uniform if it fails to meet the uniformity standard in both of the growing locations.  If the variety is within the uniformity standard in one growing location but is not within the uniformity standard in the other growing location, then  Alternative (a) the trial is repeated at both locations for a second year;  Alternative (b) the trial is repeated at the Leading station (location)  (European Union(Cauliflower))  **Approach: Combining the results of two locations**  ~~(France (Cauliflower))~~  A variety is considered uniform if it is within the uniformity standard in both locations.  A variety is considered non-uniform if it fails to meet the uniformity standard in both locations.  A variety is considered within the uniformity standard if the number of off-type plants or parts of plants does not exceed the allowed number of off-types for the combined sample (two locations). |

The TWV agreed that the preferred approach, for the assessment of uniformity for vegetables, was to use the individual results rather than the combined results and requested the TWC to consider the following example when considering the different approaches:

Trial 1: 50 plants / 2 off-types → the variety is considered uniform

(based on a population standard of 1% and an acceptance probability of 95% from a sample of 36 to 82 plants)

Trial 2: 50 plants / 2 off-types → the variety is considered uniform

(based on a population standard of 1% and an acceptance probability of 95% from a sample of 36 to 82 plants)

Trial 1+2: 100 plants/ 4 off-types → the variety is considered non-uniform

(based on a population standard of 1% and an acceptance probability of 95% from a sample of 83 to 130 plants)

If the two trials are considered independent, the variety is considered to be uniform. If the two trials are combined, the variety is considered not uniform.

*(b) Testing uniformity of apple varieties arising from mutation*

The TWV considered document TWV/47/26.

The TWV noted the current practice for the assessment of uniformity and stability by off-types on the basis of two samples for apple varieties originating as mutations in New Zealand. It noted that the results from the two locations are not combined but treated as two separate samples. The TWV also noted the comment from the expert from New Zealand that “Consistency over two seasons in the same trial location is considered more important than consistency between two trial locations in the same year”. Finally, the TWV highlighted the fact that, for fruit testing, the same plants are observed over two years, whilst in vegetable testing, different plants are observed each year.

## Experiences with new types and species

No new experiences with new types and species were reported.

## Discussion on draft Test Guidelines

*Bottle Gourd, Calabash (*Lagenaria siceraria *(Molina) Standl.)*

The subgroup discussed document TG/LAGEN(proj.2), presented by Mrs. Chrystelle Jouy (France) and agreed the following:

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| Cover page | to check German alternative name |
| 3.3.2 | to be deleted |
| 4.2 | to delete headings (a), (b) |
| 4.2.2 | to read “The assessment of uniformity for cross pollinated varieties should be according to the recommendations for cross-pollinated varieties in the General Introduction.” |
| 4.2.3, 4.2.4 | to delete “and parental lines” |
| 5.3 | to delete characteristic 2 |
| Table of chars. | to check number (\*) |
| Char. 1 | to delete (a) and (+) |
| Char. 2 | to be indicated as VG/MG  to improve wording  to delete example variety “Koganeizairai” from state 3 |
| Char. 5 | to be deleted |
| Char. 6 | o provide example varieties or to delete characteristic |
| Char. 10 | to be indicated as QN |
| Char. New (UA 1) | to be deleted |
| Char. New (UA 2) | to add (+) and explanation  to provide example varieties or delete characteristic |
| Char. 11 | to delete (c)  to provide example varieties for state 9 |
| Char.12 | state 4 to read “clavate”  state 5 to read “bottle shaped”  to check whether to add an additional state |
| Char. 15 | to read “Presence of neck”  to be indicated as QN  to have states absent or very weak (1), weak (3), medium (5), strong (7), very strong (9) |
| Char. 16 | to be indicated as PQ  to read “Fruit: shape of neck”  to check example varieties  to have states globose (1), fusiform (2), cylindrical (3) |
| Char. 17 | to read “Fruit: length of neck in relation to the total length of the fruit”  to have states very low (1) to very high (9) |
| Char. 18 | to read “Fruit: diameter of the neck in relation to the diameter of the base” |
| Char. 20 | to read “Fruit: intensity of main color”  to provide example varieties |
| Char. 21 | to be deleted |
| Char. 22 | to add (\*)  to read “Fruit: number of speckles”  to have states absent or very few (1), few (3), medium (5), many (7)  to update example varieties |
| Char. NEW (NL-1) | to read “Fruit: size of speckles” |
| Char. 23 | to check and update example varieties  to check spelling of example variety for state 2: “Blue Mayo” or “Bule Mayo”  to have states smooth (1), slightly verrucose (2), moderately verrucose (3), strongly verrucose (4), slightly corrugated (5), moderately corrugated (6), strongly corrugated (7) |
| Char. 24 | to be deleted |
| Char. 25 | to check spelling of example variety 5: “Mayo Giant Blue” or “Mayo Giant Bule” |
| Char. 26 | to delete (+) |
| 8.1 | to delete note (a) |
| Ad. 1 | to be deleted |
| Ad. 2 | to be improved |
| Ad. NEW 6 | to provide better illustrations |
| Ad. NEW  (UA-1) | to be deleted |
| Ad. NEW  (UA-2) | to provide illustration |
| Ad. 11 | to add that observations are made 2 weeks after flowering |
| Ad. 12, 16 | to delete definition of states according to TGP/14 |
| Ad. 13 | to indicate that observations are made at the time of full development of the fruit |
| Ad. 21 | to be combined with Ad. 22 |
| Ad. 26 | to be deleted |
| TQ 5 | to be updated |
| TQ 6 | example to read “Fruit: length of neck” with states “long” and “very long” |
| TQ 7.1 | to delete table |
| TQ 7.3 (b) | to delete all wording and table after the word “rootstock” |
| TQ 7.3 (c) | to delete “container, ornamental, musical instrument…” |
| TQ 4 | to be revised according to example of the Test Guidelines for Radish |
| Ad. 26 | to be deleted |

*Brown Mustard (*Brassica juncea *(L.) Czern.)*

The subgroup discussed document TG/BRASS\_JUN(proj.1), presented by Mr. Yoshiyuki Ohno (Japan) and agreed the following:

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| 1. | to delete “and its hybrids” |
| 2.3 | to check quantity  to delete “for drilled plots” |
| 3.4 | to read “40 plants for single spaced plants and 300 plants for drilled plants” instead of “40 for vegetable and 300 for agricultural plants” |
| 4.1.4 | to read ”Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 30 plants or parts taken from each of 30 plants and any other observations made on all plants in the test, disregarding any off-type plants.” |
| 4.2.3 | to be deleted |
| 4.2.4 | to check wording |
| 6.5 | to read  “…  (+) See Explanations on the Table of Characteristics in Chapter 8.1  00-89 Stage of development: see 8.2” |
| Table of Chars. | to add example varieties  to consider whether to also add example varieties for agricultural varieties |
| Char. 1 | to check whether to be observed not on harvested material, but at a later stage |
| Chars. 5, 17, 24 | to check whether there is a correlation  to check whether there is also a correlation with cotyledon |
| Char. 6 | to read “Only for vegetable varieties: Leaf: type” |
| Char. 7 | to check whether large scale only applies to vegetable varieties  to check whether to reduce number of states if no example varieties are available |
| Char. 8 | to add (+) and explanation  to have notes 1, 3, 5 |
| Chars. 9, 10 | to delete wording in brackets and adapt illustrations accordingly |
| Char. 11 | state 3 to read “short” |
| Char. 12 | to read “Leaf: width of petiole”  to have states narrow (3), medium (5), large (7)  to add (+) and illustration |
| Char. 13 | to check whether to move after char. 17 if linked to char. 17 |
| Char. 14 | to add explanation on terminal lobe  to read: “Only varieties with leaf: type: type 1 or 2: Leaf blade: size of terminal lobe” |
| Char. 15 | to delete MS  to read “Only varieties with leaf: type: type 1 or 2: Leaf blade: density of lateral lobe” |
| Char. 16 | to have states absent or very weak (1), weak (3), medium (5), strong (7) |
| Char. 18 | to read “Only varieties with anthocyanin coloration: present: Leaf blade: intensity of anthocyanin coloration” |
| Char. 21 | to add (+) and illustration |
| Char. 22 | to check whether 9 notes are needed |
| Char. 23 | to read “Only varieties with leaf: type: type 4: …” |
| Char. 25 | to check whether to use this characteristic to distinguish vegetable and agricultural varieties  to check how to implement this crucial element to distinguish vegetable from agricultural types in the Test Guidelines |
| Char. 26 | to be indicated as MG  to add (+) and explanation  to move after char. 33 |
| Char. 27 | to read “Plant: head formation”  to add (+) and explanation |
| Char. 28 | to read “Plant: head height” and to move part in brackets at beginning of name of characteristic |
| Char. 29 | to read “Plant: head diameter” and to move part in brackets at beginning of name of characteristic  to have states small (1), medium (2), large (3) |
| Char. 30 | to read “Plant: number of leaves on head” and to move part in brackets at beginning of name of characteristic |
| Char. 31 | to read “Plant: color of inner side of head” and to move part in brackets at beginning of name of characteristic |
| Char. 32 | to read “Plant: length of core of head” and to move part in brackets at beginning of name of characteristic  to add (+) and explanation on core  to have notes 3, 5, 7 |
| Char. 33 | to read “Plant: branching” |
| Char. 34 | to be indicated as MG  to add (+) and explanation |
| Chars. 35, 36 | to be deleted |
| Char. 37 | to add (+) and explanation on how to measure total length |
| Chars. 37, 38 | to add (+) and to move text in first brackets to Chapter 8.1 |
| Chars. 37 to 41 | to move “(not for vegetable mustard)” to beginning of the name of the characteristics and to read “Only for agricultural varieties:…” |
| Ad. 2 | to revise photos (state 3 not strong) or to delete Ad. 2 |
| Ad. 7 | to be presented in a grid and to change order of states according to grid (if applicable, see comment on char. 7) |
| Ad. 25 | to delete drawings |
| 8.2 | to be checked (to have different stages for varieties with and without head?) |

*Cassava (*Manihot esculenta *Crantz.)*

The subgroup discussed document TG/CASSAV(proj.4), presented by Mr. Ricardo Zanatta (Brazil) and agreed the following:

|  |  |
| --- | --- |
| 4.2.2 | to delete “of clones” |
| 4.3.2 | to read “a new plant stock” |
| 5.3 | to add characteristics 16 and 27 |
| Table of Chars. | general remark: to have two sets of example varieties (one for Kenya, one for Brazil) |
| Char. 1 | to delete (+) and explanation of color in Ad. 1 |
| Chars. 1, 4, 5, 9, 22 | to check whether to split in two characteristics in order to separate anthocyanin coloration and intensity of green color (see TGs Ginseng, Yam)  check example varieties |
| Char. 2 | to add example variety “IAC 576-70 (BR)” for state 1 and “Taquara Amarela (BR)” for state 9 |
| Char. 3 | to read “Leaf: shape of central lobe” |
| Char. 4 | to delete (+) and Ad. 4 |
| Char. 6 | to provide example varieties until TWA |
| Char. 9 | to delete (+) and Ad. 9 |
| Char. 10 | to delete state 4  to add example varieties:  state 1: Xingu (BR)  state 2: IAC 576-70 (BR)  state 3: BGMC 1117 (BR) |
| Char. 11 | to delete (\*)  to delete example variety “Karibuni” from state 5 |
| Char. 12 | to add (\*) |
| Char. 13 | to provide example varieties until TWA |
| Char. 14 | to be deleted |
| Char. 15 | to check whether to read “Plant: branching” with states all along the stem (1), upper two thirds (2), upper third (3) |
| Char. 16 | to add (\*)  to have “cream” as first state  to add example varieties:  state “cream”: BGMC 1426 (BR)  state “light green”: EAB 182 (BR)  state “dark green”: IAPAR 19 (BR)  state “purplish”: Mandioca Batata (BR) |
| Char. 17 | to read “Stem: color of bark”  to add (+) and combine with Ad. 16  to move “orange” after “brownish yellow” |
| Char. 18 | to read “Stem: color of internal surface of bark”  to add (+) and combine with Ad. 16  to add example varieties:  state 1: IAC 177-66 (BR)  state 2: Taquara Amarela (BR)  state 3: IAPAR 19 (BR)  state 4: EAB 675 (BR)  state 5: Mandioca Batata (BR) |
| Char. 20 | to read “Stem: prominence of leaf scars”  to add example varieties  state 3: IAC 105-66 (BR)  state 5: IAC 576-70 (BR)  state 7: BGMC 117 (BR)  to add (+) and combine with Ad. 21 |
| Char. 21 | to be indicated as VG/MS  to check whether the leaf scars in line have the same number of leaf scars, otherwise add a new. char. “pattern of leaf scars”  to add example varieties:  state 3: Taquara Amarela (BR)  state 5: IAC 576-70 (BR)  state 7: EAB 321 (BR) |
| Char. 22 | to delete (\*)  to add (+) and illustration |
| Char. 23 | to check whether to read “peduncle”or “neck”  to be indicated as QN  to have states absent to short (1), medium (2), long (3) |
| Char. 24 | to read “Root: color of epidermis”  to add (+) and combined illustration for characteristics 24, 26 and 27  to check whether to add (\*)  to add example varieties:  state 2: Taquara Amarela (BR)  state 3: Mandioca Batata (BR) |
| Char. 25 | to add (\*)  to add example variety “Mantiqueira (BR)” for state 2 |
| Char. 26 | to add (\*)  to add (+) and combined illustration for characteristics 24, 26 and 27  to ad example varieties:  state 1: Branca de Santa Catarina (BR)  state 2: IAC 576-70 (BR)  state 3: Xingu (BR)  state 4: EAB 182 (BR)  state 5: Mandioca Batata (BR) |
| Char. 27 | to add (\*)  to provide example varieties until TWA  to add (+) and combined illustration for characteristics 24, 26 and 27 |
| Char. 28 | to delete state 4 |
| Char. 29 | to add example varieties  to provide data over years |
| Char. 30 | to check whether to be deleted or to check number of notes |
| new. char. | to check whether to add new char. “Root: content of starch in flesh”, if data over years can be provided, also provide methodology |
| Ad. 1 | to be deleted |
| Ad. 2 | to be improved |
| Ad. 3 | to rotate photos by 90%  to check states and photos of states 2 and 3 |
| Ad. 4 | to be deleted |
| Ad. 9 | to be deleted |
| Ad. 11 | to add indication/arrows where to be observed |
| Ad. 12 | to replace photos by drawings or add arrows |
| Ad. 21 | to be checked, see comment on char. 21 |
| Ad. 23 | to invert photos |
| Ad. 29 | to move literature to Chapter 9 |
| 9. | to specify the last two references  to check and add literature of Ad. 29 |
| TQ 5 | to be updated according to Chapter 5.3 |

*Chives (*Allium schoenoprasum *L.) (Revision)*

The subgroup discussed document TG/198/2(proj.2), presented by Mrs. Marian van Leeuwen (Netherlands) and agreed the following:

|  |  |
| --- | --- |
| 4.2 | to read “4.2 Uniformity 4.2.1 It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding uniformity. However, the following points are provided for elaboration or emphasis in these Test Guidelines:  4.2.2 The assessment of uniformity for cross-pollinated varieties should be according to the recommendations for cross-pollinated varieties in the General Introduction.  4.2.3 The assessment of uniformity for hybrid varieties depends on the type of hybrid and should be according to the recommendations for hybrid varieties in the General Introduction.” |
| 5.3 | to add characteristic 1 “Plant: height” |
| Table of Chars. | to check and add example varieties and to delete “Fitlau” throughout all the T.o.C |
| Char. 3 | to delete “Polystar” in state 7 |
| Char. 4 | to add (\*) |
| Char. 5 | to read “Leaf: intensity of green color” |
| Char. 6 | to provide example variety for state 3 |
| Char. 12 | to be indicated as MG |
| Char. 14 | to delete (+)  to add example variety “Jemná” for state 1 |
| Char. 15 | to be indicated as QN |
| Ad. 3 | to add explanation/illustration |
| Ad. 6 | to improve explanation or to add drawing with indications |
| Ad. 13 | to delete picture and to read “observations should be made at the broadest part of fully flowering inflorescences” |
| 9. | to add Brewster 1990 before Brewster 1994 |
| TQ 4 | to add 4.1 Breeding scheme  to be revised to follow the example of the Test Guidelines for Radish |
| TQ 5 | to add characteristic 5 |

*Cucumber (*Cucumis sativus *L.) (Partial revision)*

The subgroup discussed document TWV/47/29, presented by Mr. Raoul Haegens (Netherlands) and Mrs. Chrystelle Jouy (France) and agreed with the proposed revisions, subject to the following modifications:

|  |  |
| --- | --- |
| 5.3 | to read  (f) Resistance to *Cladosporium cucumerinum* (Ccu) (characteristic 44)  (g) Resistance to *Cucumber mosaic virus* (CMV) (characteristic 45)  (h) Resistance to Powdery mildew (*Podosphaera xanthii*) (Px) (characteristic 46)  (i) Resistance to Corynespora blight and target leaf spot (*Corynespora cassiicola*) (Cca) (characteristic 48)  (j) Resistance to *Cucumber vein yellowing virus* (CVYV) (characteristic 49) |
| Char. 44 | to delete (\*)  example varieties to read:  state 1: Frontera, Cherubino, Pepinex 69  state 9: Corona, Sheila, Marketmore 76 |
| Char. 45 | to delete (\*)  example varieties to read:  state 1: Bosporus, Corona, Ventura  state 2: Capra, Gardon, Verdon |
| Char. 46 | to delete (\*)  example varieties to read:  state 1: Corona, Ventura  state 3: Aramon, Bella, Cordoba |
| Char. 47 | to read “Resistance to Downy mildew (*Pseudoperonospora cubensis*) (Pcu)”  to provide example variety for state 3 or to delete state 3 and to indicate characteristic as QL |
| Char. 48 | to delete (\*) |
| Char. 49 | to delete (\*)  example varieties to read  state 1: Corinda, Corona, Ventura  state 9: Dina, Summerstar, Tornac |
| Char. 50 | example varieties to read  state 1: Corona, Hilton, Ventura  state 9: Dina, Summerstar, Thunder |
| Ads. 44, 45, 46, 47, 48, 49, 50 | to read “days post inoculation” instead of “dpi” (throughout all doc)  to delete uncompleted/unused items and to add explanation as follows: “(unused items have been removed but numbering is kept according TGP/12)” |
| Ad. 44 | 3: to read “*Cucumis sativus* (cucumber or gherkin)”  5: to be provided  9.2: to be provided  9.8: to be deleted  11.2: to have states absent (1), present (9) |
| Ad. 45 | 3: to read “*Cucumis sativus* (cucumber or gherkin)”  9.3: to read Moderately resistant instead of Intermediate Resistant  10.3: to read “Cotyledons, e.g.: 8 and 11 days after sowing”  11.4: to add “maximum 1 out of 6-35 plants” |
| Ad. 46 | 1: to read “Powdery mildew *Podosphaera xanthii* (*Sphaerotheca fuliginea)”*  5: to be provided  9.3: to be provided  9.2: to read “Ventura, Corona (Susceptible) Flamingo (Moderately Resistant), Bella, Aramon, Cordoba (highly Resistant)”  10.6: to be deleted  10.7: to read “14 days post inoculation”  12: to read “QN [1] susceptible, [2] moderately resistant, [3] highly resistant”  13: intermediate = moderate |
| Ad. 47 | title to read “Resistance to Downy mildew (*Pseudoperonospora cubensis*) (Pcu)”  3: to read *“Cucumis sativus* (cucumber or gherkin)”  4: to be provided  5: to be provided  9.2: to be provided  9.3: “Pepinex 69, SMR 58 (susceptible), Poinsett 76(moderately resistant)” to be included in 6.  10.7: to be checked  11.2: to include listed varieties  12: to read “QN [1] susceptible, moderately resistant [2] and highly resistant [3]” |
| Ad. 48 | 5: to be provided  9.2: to be provided  9.3: to read “Bodega (absent); Corona, Cumlaude, (present)  10.5: to read “8 days post inoculation”  10.6 to be deleted  10.7: to read “8-11 days post inoculation”  11.2: example variety to be provided for state [1] 2 susceptible  12: to read “QL [1] 1-2, absent; [9] 3-4, present” |
| Ad. 49 | 4: to read “Naktuinbouw (NL)”  9.2: to be provided  9.3: to read “Corinda” instead of “Korinda”  11.2: to read “Corinda” instead of “Korinda”  11. 4: “maximum 1 out of 6-35 plants” |
| Ad. 50 | 4: to read “Naktuinbouw (NL)”  9.2: to be provided  12: to read “2 scale points difference with the most present type”  11.4: “max one out of 30 plants” |
| TQ 5 | to add the following characteristics to Chapter TQ 5: with addition of non-tested option [ ]  Resistance to *Cladosporium cucumerinum* (Ccu) (characteristic 44)  Resistance to *Cucumber mosaic virus* (CMV) (characteristic 45)  Resistance to Powdery mildew (*Podosphaera xanthii*) (Px) (characteristic 46)  Resistance to *Corynespora* blight and target leaf spot (*Corynespora cassiicola*) (Cca) (characteristic 48)  Resistance to *Cucumber vein yellowing virus* (CVYV) (characteristic 49) |
| TQ 7 | to add the following characteristics to Chapter TQ 7:  Resistance to Downy mildew (*Pseudoperonospora cubensis*) (Pcu) (characteristic 47)  Resistance to *Zucchini yellow mosaic Virus* (ZYMV) (characteristic 50) |
| 9. | To be updated |

Cucurbita maxima x Cucurbita moschata *(including Rootstocks)*

The subgroup discussed document TG/CUCUR\_MMO(proj.1), presented by Mrs. Chrystelle Jouy (France) and agreed the following:

|  |  |
| --- | --- |
| Table on cover page | to delete wording in English and French columns |
| Cover page | Other associated documents to read  “TG/155: *Cucurbita maxima* Duch.  TG/234: *Cucurbita moschata* Duch.” |
| 1.1 | to delete second sentence |
| 1.2 | to be deleted |
| 3.3.2 | to be deleted |
| 4.2 | to delete headings |
| 4.2.2 | to be deleted |
| 4.2.3 | first paragraph to read  “For the assessment of uniformity a population standard of 3 % for hybrid varieties with an acceptance probability of at least 95 % should be applied. In the case of a sample size of 20 plants, the maximum number of inbreds allowed would be 2.”  to delete second paragraph |
| 5.3 | to be provided |
| Table of chars. | to check number (\*) |
| Char. 1 | to delete MS  state 2 to read “broad elliptic” |
| Char. 2 | to be indicated as VG/MS  to provide example varieties  to improve explanation |
| Char. 3 | to delete MS |
| Char. 4 | to read “Leaf blade: development of lobes”  to have states absent or very weak (1), weak (2), medium(3), strong (4) |
| Char. 5 | state 7: to replace example variety “Tetsukabuto” by “Zadok” |
| Char. 7 | to be deleted |
| Char. 8 | to be indicated as VG/MG |
| Char. 9 | to be deleted |
| Char. NEW (ISF-1) | to provide example varieties |
| Char. NEW (ISF-2) | to provide example varieties  to delete (+) |
| Char. NEW (ISF-3) | to provide example varieties |
| Char. 10 | to provide example varieties  to be indicated as VG/MG |
| Char. NEW (ES-1) | to provide example varieties  to be indicated as VG/MG  to have states small (3), medium (5), large (7) |
| Char. 11 | to be indicated as PQ  example varieties:  state 1: to delete “Iron Cap”  state 2: to add “Shintosa”  state 3: to delete both example varieties |
| Char. 12 | to provide example variety for sate 5 |
| Char. 13 | to provide example variety for sate 7 |
| Char. 14 | to have states very low (1) to very high (9) |
| Char. 16 | to check example varieties |
| Char. 17 | to provide example variety for state absent or to delete characteristic |
| Char. 18 | to be deleted |
| Char. 20 | to read “Fruit: type of surface”  to be indicated as QN  to have states smooth (1), weakly rough (2), moderately rough (3), strongly rough (4) |
| Char. 21 | to be deleted |
| Char. 22 | to check example varieties  to delete state 3  to add example variety “Zadok” for state 2 |
| Char. 23 | to be indicated as PQ |
| Char. 24 | to have states from very light (1) to very dark (9)  to delete example varieties |
| Char. 25 | to check whether blotch or speckle  to add example variety “Kazako” for state 1 |
| Char. 26 | to delete (+)  to check whether blotch or speckles |
| Char. NEW (FR-1) | to be deleted |
| Char. 27 | state 1 to read “yellowish white”  to provide example varieties |
| Char. 28 | to check if characteristic relevant |
| Char. 29 | to delete (b) and to add (c)  to check if characteristic relevant |
| Char. 30 | to check if characteristic relevant |
| 8.1 | to read  “(a) Observations should be made on fully developed leaves, after the beginning of flowering  (b) Observations should be made on fully developed fruit at full development.  (c) Observations should be made on fully developed and dry seed, after washing and drying in the shade.” |
| Ads. 2, 4 | to be improved |
| Ad. 26 | to provide illustrations |
| 9. | to be updated |
| TQ 1.2 | to delete “Interspecific hybrids” |
| TQ 4.1.1 | to delete the reference to identity of parents, to keep reference to the species of parent |
| TQ 4.2 | to correct spelling of “hybrid” in title  to simplify the requested information (to keep title only) |
| TQ 7.1 | to delete all text except for Standard Wording |
| TQ 7.3 (b) | to delete all wording and table after the word “rootstock” |

*Leaf Cichory (*Cichorium intybus *L. var.* foliosum *Hegi) (Revision)*

The subgroup discussed document TG/154/4(proj.2), presented by Mr. Pascal Coquin (France) and agreed the following:

|  |  |
| --- | --- |
| 2.2 | to read “The material is to be supplied in the form of seed in the case of seed propagated varieties or plants in the case of vegetatively propagated varieties.” |
| 2.3 | to read “…10.000 seeds in the case of seed propagated varieties or  120 plants of normal transplantation size in the case of vegetatively propagated varieties.” |
| 4.2 | to add Chapter 4.2.4 for vegetatively propagated varieties (see TG/Leek) |
| 4.2.2 | to read “The assessment of uniformity for cross-pollinated varieties should be according to the recommendations for cross-pollinated varieties in the General Introduction.” |
| 4.3.2 | to read “a new seed or plant stock” instead of “a new seed stock” |
| 5.4 | to check against Chapter TQ 5 |
| Table 1 | to add title “Growth Sub-Types”  to check that table 1 corresponds to table of characteristics  growth type “Chioggia”:  Char. 4 to read “Very short to medium (notes 1-5)”  Char. 5 to read “Medium to broad (notes 5-7)”  growth type “Verona”:  Char. 4 to read “Medium (note 5)”  Char. 18 to read “Very early to very late (notes 1-9)”  growth type “Variegata a palla”:  Char. 4 to read “Medium to large (notes 5-7)”  Char. 18 to read “Early to late (notes 3-7)”  growth type “Catalogna”:  Char. 5 to read “Narrow (note 3)”  growth type “Pain de sucre / Pan di Zucchero”:  Char. 4 to read “Medium to long (notes 5-7)” |
| Char. 2 | to be indicated as VG/MS |
| Char. 4 | to be indicated as VG/MS  to delete example variety “Zuccherina di Trieste” from state 1  to delete example variety “Palla rossa 2” from state 3 |
| Char. 6 | to be indicated as VG |
| Char. 8 | to add example variety “Castelfranco 2” for state 9 |
| Char. 9 | to add example variety “Variegata di Lusia” for state 3 |
| Char. 11 | to be indicated as PQ  to delete (+) |
| Char. 16 | to check types of incisions |
| Char. 18 | to be indicated as MG and QN  to read “Time of Head formation”  to delete example variety “TT506” from state 5 |
| Char.19 | to read “Head: density”  state 3 to read “loose”, state 7 to read “dense”  to move example variety “Variegata di Chioggia”from state 5 to state 7 |
| Char. 21 | state 1: to correct spelling of example variety “A Grumolo Verde Scuro” |
| Char. 22 | state 4 to read “oblate” |
| Char. 23 | to be indicated as QN |
| Char. 24 | to be indicated as PQ |
| Char. 26 | to move example variety “Variegata di Castelfranco” from state 4 to state 3  to add example variety “Variegata di Chioggia” |
| Char. 27 | to review and check whether to read “Plant: early formation of stems”  to add (a)  to delete (+) |
| Char. 28 | to check whether to read “Stem: degree of fasciation” and make sure Char. 28 is linked to Char. 27 |
| Char. 29 | to have notes 1 and 2 |
| Char. 30 | to be indicated as MS/MG  to add (+) and explanation |
| 8.1 | heading to read “Plant Growth Sub-Types (see Section 5.3) |
| 8.1 (3) | to provide better photo for “Rossa di Treviso tardivo” |
| 8.1 (5) | to correct name of photo on right hand side to “Variegata di Lusia” and remove reference from photo |
| 8.2 | to delete “All” from all notes  last point under “Harvest maturity stage is specific to the plant growth types:” to add “(before forcing period)” |
| Ads. 4, 5, 6, 10, 16 | to use photos of single leaves for each state |
| Ad. 7 | to use definition of main color according to TGP/14 |
| Ad. 11 | to be deleted |
| Ad. 14 | to improve photos |
| Ad. 22 | to be presented in a grid |
| Ad. 24 | to use color definition according to TGP/14 |
| Ad. 27 | to be deleted and to add note (a) to char. 27 |

*Lentil (*Lens culinaris *Medik.) (Revision)*

The subgroup discussed document TG/210/2(proj.1), presented by Mr. Pascal Coquin (France) and agreed the following:

|  |  |
| --- | --- |
| 3.4.1 | to keep 100 plants |
| 5.3 | to add characteristics 21, 26 and 27 |
| Char.1 | to be indicated as PQ |
| Table of Chars. | to add the indication when observation should be done (growth stage to be added in Chapter 8.1) |
| Char. 1 | to be indicated as PQ |
| Char. 2 | to be indicated as QN |
| Char. 4, 15, 18, 19 | to move wording in brackets to a note in Chapter 8.1 (Explanations covering several characteristics) |
| Char. 6 | to be indicated as PQ |
| Char. 7 | to add (\*) |
| Char. 12 | to be indicated as PQ  to delete example variety “Nigricans” |
| Char. 13 | to add (\*) |
| Char. 14 | to be deleted |
| Char. 15 | to read “Pod: color”  to have states light green (1), medium green (2), dark green (3)  to check whether to have notes 1 to 3 or 1 to 5 |
| Char. 16 | to be indicated as MG/VG  to have states one (1), two (3), three (5) |
| Char. 17 | to be deleted |
| Char. 19 | to add (+) and illustration |
| Char. 20 | to keep if example varieties can be provided  if so, to be indicated as QN |
| Char. 21 | to delete states 1 and 9 |
| Char. 22 | to read “Dry seed: height”  to have states narrow elliptic (1), medium elliptic (2), broad elliptic (3)  to be indicated as QN  to add (+) and illustration |
| Char. 23 | to be deleted |
| Char. 24 | to delete state 5  to add (+) and definition of main color according to TGP/14 |
| Char. 25 | to add (\*)  to read “Dry seed: secondary color”  to be indicated as PQ  to add state (1) none |
| Char. 26 | to be indicated as MG  to add (+) and on weight of 100 seed |
| Char. 27 | to add (+) and explanation  to be indicated as MG  to delete example variety “Nigricans” |
| Char. 28 | to check whether to keep  if so, to add (+) and definition of time of maturity |
| 8. | to add Chapter 8.1 Explanations covering several characteristics and add information when observations should be made (leaf, flower, seed,…) |
| Ad. 25 | to use illustrations from TGP/14 or photographs |
| 9. | to add literature |
| TQ 4 | to add 4.1 Breeding Scheme |
| TQ 5 | to add characteristic 23 |
| TQ 6 | example to be added |

*Melon* (Cucumis melo *L.) (Partial revision)*

The subgroup discussed document TWV/47/30, presented by Mrs. Chrystelle Jouy (France) and Mr. Raoul Haegens (Netherlands) and agreed with the proposed revisions, subject to the following modifications:

|  |  |
| --- | --- |
| Cover page | paragraph 2 (b): Chapter 9 to complete |
| General | to review all example varieties for all characteristics and apply necessary changes between Chapter 7 and Chapter 8 (6., 9.3, 11.2) |
| Char. 69 | to be indicated as QL for races 0,1 and 2 (69.1, 69.2 and 69.3) and as QN for race 1-2 (69.4),  state 1 = susceptible |
| Char. 69.4 | state 1 to read “susceptible”, example variety to read “Dinero” |
| Char. 70 | to be indicated as QN for each races separately, and to have numbering 70.1 to 70.5 |
| Char. 73 | to clarify the proposal with state absent (1), present (9) (according to TGP/12) |
| Char. 74 | to provide example variety for state absent, or to delete the characteristic |
| Ads. 69 – 76  General | to delete uncompleted/unused items, and to add explanation as follows: (unused items have been removed but numbering is according TGP/12)  to check example varieties throughout all Ads.  to read days post inoculation instead of “dpi” (throughout all Ads)  to update example varieties accordingly in 6., 9.3, 11.2 |
| Ad. 69.4 | to delete remarks under item 9.1  observation scale (item 11.2) to be reworded |
| Ad. 70.1 to 70.3, Ad. 71 | to provide clean and completed table under 6  8.1 and 9.4: to be reworded  9.7: to read “12 to 24 h darkness after inoculation” |
| Ad. 72 | 8.5: to clarify  10.2: to read “at least 10 adult wingless aphid per plant”  10.4: to delete “optional”  11.2: to be reworded |
| Ad. 73 | 5: to be clarified, to read “hypersensitivity” instead of “hypersusceptibility”  12: to be indicated as QL |
| Ad. 75 | 11.2: to read “Necrotic lesions on the inoculated organs, possible: systemic reaction, possible death of plant” |
| Ad. 76 | 5: to read “Use ‘common’ strains (e.g. Tl, P9)”  10.4: to read “Inoculation by rubbing: After a few minutes, rinse the cotyledons with running water, when uses activated charcoal”  11.2: to be indicated as absent (1) present (9)  13: to be reworded |
| 9. | to be completed |
| TQ 5 | to be updated |
| TQ 7 | to be updated |

The subgroup agreed with the proposal to include characteristics for disease resistance as grouping characteristics as follows:

*Proposed new wording:* (Underlining (highlighted) indicates insertion)

(a) Inflorescence: sex expression (at full flowering) (characteristic 12)

(b) Fruit: shape in longitudinal section (characteristic 28)

(c) Fruit: ground color of skin (characteristic 29)

(d) Fruit: warts (characteristic 38)

(e) Fruit: grooves (characteristic 43)

(f) Fruit: cork formation (characteristic 48)

(g) Fruit: main color of flesh (characteristic 54)

(h) Seed: length (characteristic 60)

(i) Seed: color (characteristic 63)

(j) Resistance to *Fusarium oxysporum* f. sp. *melonis,* race 0 (characteristic 69.1)

(k) Resistance to *Fusarium oxysporum* f. sp. *melonis,* race 1 (characteristic 69.2)

(l) Resistance to *Fusarium oxysporum* f. sp. *melonis,* race 2 (characteristic 69.3)

The subgroup noted that the grouping characteristics for disease resistance coincided with those in the Community Plant Variety Office of the European Union (CPVO) protocol.

*Opium/Seed Poppy (*Papaver somniferum *L.) (Revision)*

The TWV considered document TWV/47/32 and noted that the TC, at its forty-ninth session held in Geneva from March 18 to 20, 2013, had agreed that the draft Test Guidelines for Opium/Seed Poppy (document TG/166/4 proj.4), on the basis of the recommendation of the TC-EDC, should be referred back to the TWV for further consideration of technical issues regarding characteristics 29 to 32 (see document TC/49/41 “Report on the conclusions”, paragraph 149).

The TWV considered the data provided by the Leading Expert and agreed that the data demonstrated that the expression of the characteristics was “sufficiently consistent and repeatable in a particular environment” to fulfill the basic requirement for a characteristic.

The TWV considered that characteristics 29 to 32 were useful for DUS, as indicated by the Leading Expert.

The TWV agreed to amend characteristics 29 to 32, as follows:

|  |  |
| --- | --- |
| Chars. 29, 32 | to review example varieties |
| Chars. 30, 31 | to have notes 1 to 5, to review example varieties |

*Pea (*Pisum sativum *L.) (Partial revision)*

The subgroup discussed the partial revision of the Test Guidelines for Pea on the basis of documents TG/7/10 and TWV/47/25 Add., presented by Mr. François Boulineau (France).

The subgroup agreed on the following grouping characteristics:

1. Plant: anthocyanin coloration (characteristic 1)
2. Stem: fasciation (characteristic 3)
3. Stem: length (characteristic 4)
4. Stem: number of nodes up to and including first fertile node (characteristic 5)
5. Leaf: leaflets (characteristic 8)
6. Stipule: flecking (characteristic 20)
7. Only varieties with stem fasciation absent: Plant: maximum number of flowers per node (characteristic 25)
8. Pod: length (characteristic 37)
9. Pod: parchment (characteristic 39)
10. Excluding varieties with pod parchment: entire: Pod: thickened wall (characteristic 40)
11. Only varieties with Pod: thickened wall: absent: Pod: shape of distal part (characteristic 41)
12. Pod: curvature (characteristic 42)
13. Pod: color (characteristic 43)
14. Immature seed: intensity of green color (characteristic 47)
15. Seed: type of starch grains (characteristic 49)
16. Seed: color of cotyledon (characteristic 52)
17. Only varieties with plant anthocyanin coloration present: Seed: marbling of testa (characteristic 53)
18. Only varieties with plant anthocyanin coloration present: Seed: violet or pink spots on testa (characteristic 54)
19. Seed: hilum color (characteristic 55)
20. Seed: weight (characteristic 57)
21. Resistance to *Erysiphe pisi* Syd. (characteristic 59)
22. Resistance to *Fusarium oxysporum* f. sp. *pisi* (characteristic 58.1)

The subgroup agreed, that characteristic 59 be added to Section 7 of the Technical Questionnaire, because this is not an asterisked characteristic (see document TGP/7 “Development of Test Guidelines, GN 13 (3.6)).

The subgroup agreed that the following characteristics identified as grouping characteristics also be added to Chapter TQ 5:

Fasciation (characteristic 3)

Stem: length (characteristic 4)

Pod: curvature (characteristic 42)

The subgroup agreed to replace the example variety “Iceberg” of characteristic 59 “Resistance to *Erysiphe pisi* Syd.” by the following two example varieties, as proposed in document TWV/47/25 Add.:

Field Pea – “Stratford” maintainer UK1252

Pea – “Vivaldi” – maintainer DK52

The subgroup agreed that the Test Guidelines for Pea be submitted to the TC for adoption at its fiftieth session to be held in Geneva in April 2014, subject to approval of the proposed amendments by the TWA, at its forty-second session to be held in Kyiv, Ukraine, from June 17 to 21, 2013.

*Sweet Pepper, Hot Pepper, Paprika, Chili (*Capsicum annuum *L.) (Partial revision)*

The subgroup discussed document TWV/47/31, presented by Mr. Raoul Haegens (Netherlands) and Mrs. Chrystelle Jouy (France), and agreed with the proposed revisions, subject to the following modifications:

|  |  |
| --- | --- |
| Cover page, paragraph 2 (b) | Chapter 10 Technical questionnaire: Paragraph 5 to read “Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines” |
| Char. 48.1 | state 1 to have example variety “Lamu” |
| Char. 48.2 | state 1 to have example variety “Yolo Wonder”  state 9 to have example varieties “Novi 3, Orion, Solario” |
| Char. 48.3 | state 1 to have example variety “Yolo Wonder”  state 9 to have example varieties “Cuby, Solario” |
| Char. 49.3 | nomenclature to be checked  state 9 to have example variety “Solario” |
| Char. 50 | state 9 to have example varieties “Favolor, Solario” |
| Char. 51 | state 9 to have example varieties “Alby, Favolor, Milord, Gadir, Vania” |
| Char. 52 | to delete (\*) |
| Char. 53 | to check availability of listed example varieties, not to be kept as it is in the adopted TG |
| Ads. 48, 49, 50, 51, 52, 53 | to read “days post inoculation” instead of “dpi” (throughout whole document)  11.4: to read “Maximum 1 on 20 plants”  to update the list of example varietiesin 6., 9.3, 11.2 |
| Ad. 48 | 1: to read “Tobamovirus (Tm) (the genus containing *Tobacco mosaic virus* (TMV), *Tomato mosaic virus* (ToMV), and *Pepper mild mottle virus* (PMMoV))”  9.2: to be provided  9.4: to read “to add blank treatment”  11.2: to update with listed example varieties, to check level of resistance and to have “state [1] absent, state [9] present”  13: to add strains to the table, example varieties to read:  L0: Pepita, Lamu  L1: Explorer, Lamuyo, Sonar, Yolo Wonder  L2: *C. frutescens* ‘Tabasco’\* (to copy text for \* from previous protocol)  L3: Ferrari, Novi 3, Orion, Solario  L4: Friendly, Cuby, Tom 4 |
| Ad. 49 | 2: to read “No”  9.2: to be provided  9.4: to read “to add blank treatment”  11.2: to have state [1] absent, state [9] present  13: to read “Avoid high temperatures (>30°C)” |
| Ad. 50 | 6: to be provided  9.2: to be provided  9.3: to read “Jupiter, Yolo Wonder (susceptible), Favolor, (MR) Solario, Phyo 636 (resistant)” and to be updated  12: to read “Based on the stem nectaries length increase compared to the standards” and to have states:  [1] susceptible: Jupiter, Yolo Wonder  [9] moderately Resistant: Favolor  [9] resistant: Solario, Phyo 636 |
| Ad. 51 | 5: to be completed with a new isolate  9.2: to be provided  9.3: to read “moderately resistant” instead of “IR”  10.3: to read “Cotyledon, before emergence of first leaf (12-13 days after sowing)”  10.7: to delete (\*)  11.2: to read  [1] susceptible: Yolo Wonder many local lesion, mosaic  [9] moderatley resistant: Milord intermediate symptoms  [9] resistant: Vania, Alby, Favolor Few local lesions, No or light symptoms  13: to be deleted |
| Ad. 52 | 5. to read “e.g. LYE 51 or Br-01”  8.2: to read “Yolo Wonder or *N. benthamiana*, *N. rustica*”  8.3: to read “cotyledons fully developed / at “first leaf” pointed stage or 1- 3 leaves”  9.2: to be provided  10.6: to read “10-11 dpi to 15 - 21 days post inoculation”  10.7 to delete (\*)  11.2: to have state [1] absent, state [9] present  13: to be checked (*Bremisia tabaci*)  to indicate literature and add to Chapter 9; to read “Niemirowicz- Szczytt, K” |
| Ad. 53 | title to read “Resistance to *Xanthomonas campestris* pv. *vesicatoria* race 1, race 2, race 3”  4: to be provided  5: to be provided  6: to be updated  9.2: to be provided  9.3: to be updated  9.6: to be checked  10.7 to delete (\*)  11.2: to have state [1] absent, state [9] present |
| TQ 7 | to add the following characteristics to Chapter TQ 7: with addition of non-tested option [ ]  Resistance to *Potato Virus* Y (PVY ) Pathotype 1 (characteristic 49.2)  Resistance to *Potato Virus* Y (PVY ) Pathotype 1-2 (characteristic 49.3)  Resistance to *Phytophthora capsici* (characteristic 50)  Resistance to *Cucumber mosaic virus* (CMV) (characteristic 51)  Resistance to *Tomato spotted wilt virus*(TSWV) Pathotype P0 (characteristic 52)  Resistance to *Xanthomonas campestris pv. vesicatoria* (characteristic 53) |
| 9. | to be updated |

The subgroup agreed to include characteristic 52 for Resistance to *Tomato spotted wilt virus* (TSWV) – Pathotype P0 as a grouping characteristic (chapter 5.3) and to be added to Section 7 of the Technical Questionnaire, because this is not an asterisked characteristic (see document TGP/7 “Development of Test Guidelines, GN 13(3.6)).

The subgroup noted that characteristic 52 for Resistance to *Tomato spotted wilt virus* (TSWV) – Pathotype P0 coincided with the characteristic included in the Chapter 7 of the Technical Questionnaire of the Community Plant Variety Office of the European Union (CPVO) protocol.

*Witloof Chicory (*Cichorium intybus *L. partim) (Revision)*

The subgroup discussed document TG/173/4(proj.1), presented by Mr. Pascal Coquin (France) and agreed the following:

|  |  |
| --- | --- |
| Cover page name box | to check latin name, common names and UPOV code |
| 1. | to check with cover page |
| 2.3 | to read “50g or 30.000 seeds” |
| 4.1.4 | to move the last two sentences to 8.1 and delete “All” in the beginning of these sentences |
| 5.3 | to add char. 9 |
| Table of Chars. | to add indication of stage when to be observed (see notes Chapter 8.1) |
| Char. 1 | to have states narrow elliptic (1), medium elliptic (2), broad elliptic (3)  to add (+) and illustration |
| Char. 2 | to check whether to have more states and to check the type of expression |
| Chars. 3, 4 | to be indicated as QN |
| Char. 5 | to be indicated as QN  to check whether to delete or to add (+) and explanation |
| Char. 7 | to be indicated as QN |
| Char. 8 | to have states low (3), medium (5), high (7)  to add (+) and to provide illustration according to TGP/ 14 |
| Char. 9 | state 1 to read “green”, state 2 to read “red”  to check order of colors according to TGP/14 |
| Char. 10 | to be indicated as QN  to check whether only applies to green leaves or to green and red leaves |
| Char. 11 | to be indicated as QN |
| Char. 14 | to check whether anthocyanin coloration or red color |
| Char. 21 | to add (+) and move explanation in brackets to Ad. 21  to correct spelling of “tendency” |
| Char. 22 | to check how to measure the beginning of flowering  to add MG |
| Char. 25 | to add (+) and explanation  to be indicated as VG |
| Char. 27 | to be indicated as PQ |
| Char. 32 | to add (+) and illustration in form of grid according to TGP/14  to be indicated as PQ |
| Char. 35 | state 1 to read “yellow”, state 2 to read “red” |
| Char. 36 | to be indicated as QN |
| Char. 38 | to add (+) and illustration |
| Char. 40 | to be indicated as PQ |
| 8.1 | to delete “all” in all notes  to add new note (a) for cotyledon  (b) to read “Head: observations on the head should be done after a forcing period in a complete dark environment.” |
| Ad. 6, 7 | to replace numbers of characteristics by “length” and “width” in illustration |
| Ad. 19 | to delete underlining |
| Ad. 22 | to check whether to indicate a precise percentage of open flowers or to read “Observations are made when the first flower opens. The time of beginning of flowering of a variety is the average of the dates recorded on the plants.” |
| Ad. 23 | to improve photo and wording |
| Ad. 24 | to be improved |
| 9. | to add relevant literature |
| TQ 4 | to add 4.1 Breeding Scheme |
| TQ 5 | to have all grouping characteristics (see Chapter 5.3) |

Correction of the Test Guidelines for Curly Kale

The TWV considered document TWV/47/33 and agreed with the proposal to correct the Test Guidelines for Curly Kale (document TG/90/6) as follows:

|  |  |
| --- | --- |
| Char. 4 | to have notes 1, 2, 3 |

Recommendations on draft Test Guidelines

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

The TWV agreed that the following draft Test Guidelines should be submitted to the TC for adoption at its fiftieth session, to be held in Geneva in April 2014, on the basis of the following documents and the comments in this report:

|  |  |
| --- | --- |
| Subject | Basic Documents (2013) |
| Chives (*Allium schoenoprasum* L.) (Revision) | TG/198/2(proj.2) |
| Cucumber (*Cucumis sativus* L.)  (Partial revision: disease resistance) | TG/61/7, TWV/47/29 |
| Melon (*Cucumis melo* L.)  (Partial revision: disease resistance) | TG/104/5, TWV/47/30 |
| Sweet Pepper, Hot Pepper, Paprika, Chili  (*Capsicum annuum* L.)  (Partial revision: disease resistance) | TG/76/8, TWV/47/31 |
| \*Pea (*Pisum sativum* L.) (Partial revision: grouping characteristics)[[1]](#footnote-2) | TG/7/10, TWV/47/25, TWV/47/25 Add. |
| \*Opium/Seed Poppy (*Papaver somniferum* L.) (Revision) | TG/166/4(proj.4), TWV/47/32 |

*(b) Test Guidelines to be discussed at the forty‑eighth session*

The TWV agreed to discuss the following draft Test Guidelines at its forty‑eighth session:

| Subject |
| --- |
| Basil (*Ocimum basilicum* L.) (Revision) |
| Bottle Gourd, Calabash (*Lagenaria siceraria* (Molina) Standl.) |
| \*Brassica (Partial revision: male sterility for all concerned subspecies) |
| Brown Mustard (*Brassica juncea* (L.) Czern.) |
| \*Cassava (*Manihot esculenta* Crantz.) |
| \*Cucumber (Partial revision: Cucurbit yellow stunting disorder virus (CYSDV)) |
| *Cucurbita maxima x Cucurbita moschata* |
| \*French Bean (*Phaseolus vulgaris* L.) (Partial Revision: format of disease resistance explanations) |
| \*Leaf Chicory (*Cichorium intybus* L. var. *foliosum* Hegi) (Revision) |
| \*Lentil (*Lens culinaris* Medik.) (Revision) |
| Lettuce (*Lactuca sativa* L.) (Revision) |
| \*Shiitake (*Lentinula edodes* (Berk.) Pegler) (Partial revision: plant material required) |
| Turnip (*Brassica rapa* L. var. *rapa* L. (Revision) |
| Witloof Chicory (*Cichorium intybus* L. partim) (Revision) |

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

## Guidance for drafters of Test Guidelines

The TWV considered document TWV/47/24.

The TWV noted the information provided in the TG Drafters’ webpage of the UPOV website, including the Revised Practical Guide for Drafters (Leading Experts) of UPOV Test Guidelines.

The TWV noted:

(a) the plan for the development of a prototype web-based TG Template for testing by interested experts by the end of 2013;

(b) that the template would provide sufficient flexibility for drafters of Test Guidelines to introduce proposals that were not covered by existing standard wording and would retain flexibility in the structure for further development of Test Guidelines by UPOV members.

The TWV requested the Office of the Union to investigate the possibility of using a different way of sharing draft Test Guidelines between interested experts (e.g. SharePoint or restricted area on the TG Drafters’ webpage of the UPOV website), as the size of the documents could be an issue when using regular email addresses.

The TWV agreed with the proposal of the TWO at its forty-sixth session and the TWF at its forty‑fourth session, to receive a demonstration during the Preparatory Workshop on how to use the TG Template available on UPOV website, and to include a template for a grid for shape and ratio in the future web-based TG Template that leading experts might use when drafting Test Guidelines.

The TWV noted the file “Summary information on quantity of plant material required on adopted Test Guidelines” available on the TG Drafters’ webpage of the UPOV website.

The TWV agreed that the previous versions of adopted Test Guidelines should be made available on the TG Drafters’ webpage of the UPOV website, including a cover page and a disclaimer as mentioned by the TC at its forty-ninth session (see document “Report on the Conclusions” TC/49/41 paragraph 156).

## Information and databases

1. *UPOV information databases*

The TWV considered document TWV/47/5.

The TWV agreed to check the amendments to UPOV codes and the new UPOV codes or new information added for existing UPOV codes by July 31, 2013.

The TWV noted the developments concerning the program for improvements to the Plant Variety Database since the forty-sixth session of the TWV.

The TWV noted that an introduction to the PLUTO database would be included in the Preparatory Workshop of future TWP sessions.

The TWV noted the plans of the Office of the Union to conduct a survey of members of the Union on their use of databases for plant variety protection purposes and on their use of electronic application systems.

*(b) Variety description databases*

The TWV considered documents TWV/47/6 and TWV/47/25.

The TWV noted the report on the Pea Database study as presented in document TWV/47/25.

The TWV noted the approach for managing variety collections of pea as presented in the Annex to document TWV/47/25.

The TWV requested the expert from France to make a presentation, at its forty-eighth session, on the GEMMA software being used by the Group for Study and Control of Varieties and Seeds (GEVES) in a CPVO R&D project. This software is seen as being adapted for the development of such a common database.

*(c) Exchangeable software*

The TWV considered document TWV/47/7.

The TWV noted that the TC had concluded that the title of document UPOV/INF/16 “Exchangeable Software” and Section 1 “Requirements for exchangeable software” should remain unchanged, but that it would be useful to develop a separate information document that would allow members of the Union to provide information on the use of non-customized software and equipment that was used by members of the Union.

The TWV noted that the TC had:

(a) agreed with the inclusion of “Information System (IS) used for Test and Protection of Plant Varieties in the Russian Federation” and the AIM software from France in document UPOV/INF/16;

(b) requested the Office of the Union to investigate the possibility of the translation of “Information System (IS) used for Test and Protection of Plant Varieties in the Russian Federation” into English on the basis that the Russian Federation would verify the translation provided by the Office of the Union; and

(c) requested the Office of the Union to translate the AIM software to English on the basis that France would verify the translation provided by the Office of the Union.

The TWV noted that the TC had agreed with inclusion of the information contained in the Annex II to document TWV/47/7 for a revision of document UPOV/INF/16 by the Council at its forty-seventh session, to be held in Geneva on October 24, 2013.

The TWV noted that the TWC would be invited to consider the software proposed by Mexico for inclusion in document UPOV/INF/6 “Exchangeable software”, as presented in Annex III to document TWV/47/7, at its thirty‑first session, to be held in Seoul, from June 4 to 7, 2013.

*(d) Electronic application systems*

The TWV considered document TWV/47/8.

The TWV noted the developments concerning a prototype electronic form.

Date and Place of the Next Session

At the invitation of Italy, the TWV agreed to hold its forty-eighth session in Paestum, Italy, from June 23 to 27, 2014, with the preparatory workshop on June 22, 2014.

Chairperson

The TWV agreed to propose to the TC that it recommend to the Council to elect Mrs. Swenja Tams (Germany), as the next chairperson of the TWV.

Matters for future consideration

The TWV proposed that suitable agenda items to be added to the program at its forty-eighth session, under which the following items would be presented and discussed:

1. Presentation on the use of molecular techniques in DUS examination (document to be prepared by the Netherlands and presentations invited from members of the Union)
2. Presentation on the use of statistical approaches in DUS examination (document to be prepared by the Netherlands and presentations invited from members of the Union)
3. Presentation on the use of disease resistance characteristics in DUS examination (document to be prepared by the European Union and presentations invited from members of the Union)
4. Management of reference collections (document to be prepared by France and presentations invited from members of the Union)
5. New issues arising for DUS examination (presentations invited from members of the Union)

Future program

The TWV proposed to discuss the following items at its next session:

1. Opening of the Session
2. Adoption of the agenda
3. Short reports on developments in plant variety protection
4. Reports from members and observers
5. Reports on developments within UPOV (oral report by the Office of the Union)
6. Molecular Techniques
7. Developments in UPOV (document to be prepared by the Office of the Union)
8. Presentation on the use of molecular techniques in DUS examination (document to be prepared by the Netherlands and presentations invited from members of the Union)
9. TGP documents
10. Presentation on the use of statistical approaches in DUS examination (document to be prepared by the Netherlands and presentations invited from members of the Union)
11. Variety denominations (document to be prepared by the Office of the Union)
12. Information and databases

(a) UPOV information databases (document to be prepared by the Office of the Union)

(b) Variety description databases (document to be prepared by the Office of the Union and documents invited)

(c) Exchangeable software (documents to be prepared by the Office of the Union)

(d) Electronic application systems (document to be prepared by the Office of the Union)

1. Uniformity assessment
2. Presentation on the use of disease resistance characteristics in DUS examination (document to be prepared by the European Union and presentations invited from members of the Union)
3. Management of reference collections (document to be prepared by France and presentations invited from members of the Union)
4. New issues arising for DUS examination (presentations invited from members of the Union)
5. Matters to be resolved concerning Test Guidelines adopted by the Technical Committee (if appropriate)
6. Discussion on draft Test Guidelines (Subgroups)
7. Recommendations on draft Test Guidelines
8. Guidance for drafters of Test Guidelines
9. Date and place of the next session
10. Future program
11. Report on the session (if time permits)
12. Closing of the session

Visit

On the afternoon of May 22, 2013, the TWV visited the Unzen Station of the National Center for Seeds and Seedlings (NCSS), where the TWV was welcomed by Mr. Sanji Takemori, President of NCSS, and Mr. Kunio Tokunaga, Director General of the Unzen Station. The TWV received a presentation on NCSS and the Unzen Station by Mr. Kazuto Higasimura, a copy of which is provided in Annex V to this report. At the facilities of Unzen Station the TWV visited DUS growing trials for several vegetable crops including tomato, lettuce, pumpkin, garlic, bitter gourd and bottle gourd.

*The TWV adopted this report at the end of its session.*

[Annexes follow]

[Annexes I to V only available in the pdf version of the document]

[Annex VI follows]

LIST OF LEADING EXPERTS

**DRAFT TEST GUIDELINES TO BE SUBMITTED  
TO THE TECHNICAL COMMITTEE IN 2014**

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

**before July 5, 2013**

| Species | Basic Document | Leading expert(s) |
| --- | --- | --- |
| Chives (*Allium schoenoprasum* L.) (Revision) | TG/198/2(proj.2) | Mrs. Marian van Leeuwen(NL) |
| Cucumber (*Cucumis sativus* L.) (Partial revision: disease resistance) | TG/61/7, TWV/47/29 | Mr. Raoul Haegens (NL), Mrs. Chrystelle Jouy (FR) |
| Melon (*Cucumis melo* L.) (Partial revision: disease resistance) | TG/104/5, TWV/47/30 | Mr. Raoul Haegens (NL), Mrs. Chrystelle Jouy (FR) |
| Sweet Pepper, Hot Pepper, Paprika, Chili (*Capsicum annuum* L.) (Partial revision: disease resistance) | TG/76/8, TWV/47/31 | Mr. Raoul Haegens (NL), Mrs. Chrystelle Jouy (FR) |
| \*Pea (*Pisum sativum* L.) (Partial revision: grouping characteristics)[[2]](#footnote-3) | TG/7/10, TWV/47/25, TWV/47/25 Add. | Mr. François Boulineau (FR) |
| \*Opium/Seed Poppy (*Papaver somniferum* L.) (Revision) | TG/166/4(proj.4), TWV/47/32 | Mrs. Marianna Feher (HU) |

DRAFT TEST GUIDELINES TO BE DISCUSSED AT TWV/48

(\* indicates possible final draft Test Guidelines)

New draft to be submitted to the Office of the Union

**by May 9, 2014**

**(Guideline date for Subgroup draft to be circulated by Leading Expert: March 14, 2014**

**Guideline date for comments to Leading Expert by Subgroup: April 11, 2014**

| Species | Basic Document | Leading expert(s) | Interested experts  (State / Organization) |
| --- | --- | --- | --- |
| Basil (*Ocimum basilicum* L.) (Revision) | TG/200/1 | Mrs. Swenja Tams (DE) | ES, FR, HU, IT, JP, NL, QZ, ZA, ESA, ISF, Office |
| Bottle Gourd, Calabash (*Lagenaria siceraria* (Molina) Standl.) | TG/LAGEN(proj.2) | Mrs. Chrystelle Jouy (FR) | JP, KR, NL, QZ, UA, ESA, ISF, Office |
| \*Brassica (Partial revision: male sterility) =   * Cauliflower (*Brassica oleracea* L. convar *botrytis* (L.) Alef*.* var*. botryris* L.), * Cabbage (*Brassica oleracea* L.), * Brussels Sprout (*Brassica oleracea* L. var.*gemmifera* DC.), * Kohlrabi (*Brassica oleracea* L. convar. *acephala* (DC.) Alef. var. *gongylodes* L.; *Brassica oleracea* L. *Gongylodes* Group), * Swede-Rutabaga (*Brassica napus* L. var. *napobrassica* (L.) Rchb.), * Curly Kale (*Brassica oleracea* L. var. *sabellica* L.), * Chinese Cabbage (*Brassica rapa* L. var. *pekinensis* (Lour.) Kitam.), * Calabrese- Sprouting Broccoli (*Brassica oleracea* L. convar. *botrytis* (L.) Alef.   var. *cymosa* Duch. (including *Brassica oleracea* L. convar. *botrytis* (L.) Alef. var. *italica*)) | TG/45/7,  TG/48/7,  TG/54/7,  TG/65/4,  TG/89/6 Rev.,  TG/90/6,  TG/105/4,  TG/151 | Mr. Raoul Haegens (NL) | CZ, DE, ES, FR, GB, JP, KR, QZ, ZA, ESA, ISF, Office |
| Brown Mustard (*Brassica juncea* (L.) Czern.) | TG/BRASS\_JUN (proj.1) | Mr. Yoshiyuki Ohno (JP) | CZ, DE, KR, NL, PL, QZ, ZA, ESA, ISF, Office |
| \*Cassava (*Manihot esculenta* Crantz.) | TG/CASSAV(proj.4) | Mr. Simeon Kibet (KE) / Mr. Fabricio Santana Santos (BR) | TWA, CO, JP, ISF, Office |
| \*Cucumber (Partial revision: Cucurbit yellow stunting disorder virus (CYSDV)) | TG/61/7, TWV/47/29 | Mr. David Calvache (ES) | CN, CZ, DE, ES, FR, HU, IT, JP, KR, NL, QZ, UA, ZA, ESA, ISF, Office |
| *Cucurbita maxima* x *Cucurbita moschata* | TG/CUCUR\_MMO (proj.1) | Mrs. Chrystelle Jouy (FR) | ES, HU, IT, JP, KR, NL, QZ, UA, ZA, ESA, ISF, Office |
| \*French Bean (*Phaseolus vulgaris* L.) (Partial Revision: format of disease resistance explanations) | TG/12/9 Rev. | Mr. Raoul Haegens (NL) | BR, CN, CZ, DE, ES, FR, JP, KE, QZ, ZA, ESA, ISF, Office |
| \*Leaf Chicory (*Cichorium intybus* L. var. *foliosum* Hegi) (Revision) | TG/154/4(proj.2) | Mr. Pascal Coquin (FR) | IT, NL, QZ, ESA, ISF, Office |
| \*Lentil (*Lens culinaris* Medik.) (Revision) | TG/210/2(proj.1) | Mr. Pascal Coquin (FR) | ES, HU, IT, PL, UA, ISF, Office |
| Lettuce (*Lactuca sativa* L.) (Revision) | TG/13/10 Rev. | Mrs. Marian van Leeuwen (NL) | BR, CZ, DE, ES, FR, IT, JP, KR, MA, NL, QZ, ZA, ESA, ISF, Office |
| \*Shiitake (*Lentinula edodes* (Berk.) Pegler) (Partial revision: plant material required) | TG/282/1 | Mr. Yoshiuki Ohno (JP) | CN, KR, ISF, Office |
| Turnip (*Brassica rapa* L. var. *rapa* L. (Revision) | TG/37/10 | Mr. Pascal Coquin (FR) | CZ, DE, GB, IT, JP, KR, NL, QZ, ZA, ESA, ISF, Office |
| Witloof Chicory (*Cichorium intybus* L. partim) (Revision) | TG/173/4(proj.1) | Mr. Pascal Coquin (FR) | IT, NL, QZ, ESA, ISF, Office |

[End of Annex VI and of document]

1. Subject to approval by the TWA at its forty-second session. [↑](#footnote-ref-2)
2. Subject to approval by the TWA at its forty-second session. [↑](#footnote-ref-3)