

**TWV/46/38****ORIGINAL:** English**DATE:** June 5, 2012**INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS**

Geneva

**TECHNICAL WORKING PARTY FOR VEGETABLES****Forty-Sixth Session****near the city of Venlo, Netherlands, June 11 to 15, 2012**

COMMENTS BY THE TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, AT ITS FORTY-FIRST SESSION, ON DOCUMENTS TO BE CONSIDERED BY THE TECHNICAL WORKING PARTY FOR VEGETABLES, AT ITS FORTY-SIXTH SESSION

*Document prepared by the Office of Union*

The Annex to this document contains the comments made by the Technical Working Party for Agricultural Crops (TWA), at its forty-first session held in Angers, from May 21 to 26, 2012, on documents that will be considered by the Technical Working Party for Vegetables (TWV), at its forty-sixth session.

[Annex follows]

ANNEX

COMMENTS BY THE TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, AT ITS FORTY-FIRST SESSION, ON DOCUMENTS TO BE CONSIDERED BY THE TECHNICAL WORKING PARTY FOR VEGETABLES, AT ITS FORTY-SIXTH SESSION

1. The Technical Working Party for Agricultural Crops (TWA), at its forty-first session, made comments as follows:

Agenda item 4: Molecular techniques (document TWV/46/2)

2. The TWA noted the information provided in document TWA/41/2 “Molecular Techniques” (see document TWA/41/34 “Report”, paragraph 9).

Agenda item 5: TGP documents (document TWV/46/3)

(b) *Revision of TGP documents*

TGP/7: Development of Test Guidelines

(i) *Summary of revisions agreed for document TGP/7 “Development of Test Guidelines” (see document TWV/46/11)*

3. The TWA considered document TWA/41/11. The TWA noted that the TC had agreed that the guidance in document TGP/7: GN 7 should be extended to encourage Leading Experts to consider the quantity of plant material required for similar crops in order to seek consistency as far as that was appropriate. In that regard, it had agreed that a summary of the following information should be prepared by the Office of the Union for all adopted Test Guidelines and made available to Leading Experts on the TG Drafters’ webpage in order that information on Test Guidelines for similar crops could be presented to the Subgroup of Interested Experts by the Leading Expert:

- (a) Chapter 2.3 Minimum quantity of plant material to be supplied by the applicant
- (b) Chapter 3.1 Number of growing cycles
- (c) Chapter 3.4.1 Each test should be designed to result in a total of at least X plants
- (d) Chapter 4.1.4 Number of plants / parts of plants to be examined for distinctness
- (e) Chapter 4.2 Number of plants to be examined for uniformity
- (f) Number of plants for special tests (e.g. disease resistance).

(see document TWA/41/34 “Report”, paragraph 12).

4. The TWA agreed that, as proposed in document TWA/41/11 Annex, document TGP/7: GN 7 should be amended to read as follows:

1. “GN 7 (TG Template: Chapter 2.3) – Quantity of plant material required

“The drafter of the Test Guidelines should consider the following factors when determining the quantity of material required:

- (i) Number of plants/ parts of plants to be examined
- (ii) Number of growing cycles
- (iii) Variability within the crop
- (iv) Additional tests (e.g. resistance tests, bolting trials)
- (v) Features of propagation (e.g. cross-pollination, self-pollination, vegetative propagation)
- (vi) Crop type (e.g. root crop, leaf crop, fruit crop, cut flower, cereal, etc.)
- (vii) Storage in variety collection
- (viii) Exchange between testing authorities
- (ix) Seed quality (germination) requirements
- (x) Cultivation system (outdoor/glasshouse)
- (xi) Sowing system

(xii) Predominant method of observation (e.g. MS, VG)

"In general, in the case of *plants* required only for a single growing trial (e.g. no plants required for special tests or variety collections), the number of plants requested in Chapter 2.3 often corresponds to the number of plants specified in Chapters 3.4 "Test Design" and 4.2 "Uniformity". In that respect, it is recalled the quantity of plant material specified in Chapter 2.3 of the Test Guidelines is the minimum quantity that an authority might request of the applicant. Therefore, each authority may decide to request a larger quantity of plant material, for example to allow for potential losses during establishment (see GN 7 (a)). In relation to the number of plants specified in Chapter 2.3, the number of plants/parts of plant to be examined (Chapter 4.1.4), should at least allow for the possibility of off-type plants within the tolerated number to be excluded from observations."

(see document TWA/41/34 "Report", paragraph 13).

5. With regard to the proposed Additional Standard Wording (ASW) for Chapter 2.3 (minimum quantity of plant material), the TWA agreed that it would not be appropriate to seek to develop ASW, because the matter concerned arrangements by individual members of the Union (see document TWA/41/34 "Report", paragraph 14).

(ii) *Revision of document TGP/7: Guidance on Number of Plants to be Examined (for distinctness)*  
(see document TWV/46/12)

6. The TWA considered document TWA/41/12. The TWA agreed to correct Annex II, paragraph 3 from "qualitative" to "quantitative" (see document TWA/41/34 "Report", paragraph 16).

7. The TWA agreed that the number of plants for candidate varieties and varieties to be compared with the candidate varieties, as set out in the last paragraph of Annex II to document TWA/41/12, needed further clarification with regard to similar varieties of common knowledge. In particular, it was recalled that candidate varieties would also need to be considered as potential similar varieties of common knowledge (see document TWA/41/34 "Report", paragraph 17).

(iii) *Revision of document TGP/7: Guidance for Method of Observation* (see document TWV/46/13)

8. The TWA considered document TWA/41/13 on guidance for method of observation and the indication of observation by measurement for characteristics such as dates and counts, with a view to inclusion in GN 25 "Recommendations for conducting the examination" in document TGP/7. It agreed with the proposed text for guidance on method of observation as set out in paragraphs 2 to 6 of the Annex to document TWV/46/13 and proposed to modify the text of paragraph 7 to read as follows:

"(b) Number

7. If a characteristic is observed by counting (for example 'Number of lobes', observed by counting), the assessment is a measurement (M). If a characteristic is observed by estimation (for example 'Number of lobes', observed by estimation), the assessment is a visual observation (V)."

(see document TWA/41/34 "Report", paragraph 18).

(iv) *Revision of document TGP/7: Example Varieties* (see documents TWV/46/14 and TWA/41/14 Add.)

9. The TWA considered document TWA/41/14. The TWA supported the proposal made by the expert from New Zealand and presented by an expert from France as follows:

- Leading Expert collects the example varieties proposed by the interested UPOV members with a description for each of these varieties.
- Leading Expert compiles the proposals taking into account the number of countries in common. Request for additional information on descriptions if necessary.
- Based on the descriptions received, Leading Expert analyses the robustness of the levels of expression and establishes a proposal based on the most common varieties as a first priority for QN characteristics. This proposal included in the 2<sup>nd</sup> draft will be studied by the experts before the following session and discussed during the session.
- Finally the subgroup decides for which characteristic the example varieties will be proposed.

(see document TWA/41/34 "Report", paragraph 19).

- (v) *Revision of document TGP/7: Providing Photographs with the Technical Questionnaire* (see document TWV/46/15)

10. The TWA considered document TWA/41/15 and noted the modifications introduced in the document. It agreed that the proposed new text for ASW 16 should be reviewed taking into consideration that different authorities might have different procedures concerning the provision of photographs with the Technical Questionnaire and, in particular, that the provision of photographs might be optional for some authorities but mandatory for some others. It also requested clarification on the means by which the guidance in the document would be made available to the applicants. The TWA took note of the concern expressed by the representative of European Seed Association (ESA) for submission of photographs for vegetable species (see document TWA/41/34 "Report", paragraph 20).

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

*Revision of document TGP/8: Part I: Techniques used in DUS Examination, New Section 2: Data to be recorded* (document TWV/46/16)

11. The TWA considered document TWA/41/16. The TWA received a presentation by an expert from Germany. It noted the modifications made in the document and agreed that the document should be submitted to the TC for approval at its next session. The TWA also proposed that an explanation of the importance of both statistical approaches and expertise in DUS testing should be reflected in other TGP documents, such as TGP/9 and TGP/10 (see document TWA/41/34 "Report", paragraphs 21 and 22).

*Revision of document TGP/8 Part I: Trial and Design of Data Analysis, New Section: Minimizing the Variation due to Different Observers* (document TWV/46/24)

12. The TWA noted document TWA/41/24, presented by the expert from Netherlands. It was informed that the document has been amended from last year to include the comments received from the TWP sessions in 2011 (see document TWA/41/34 "Report", paragraphs 35 and 36).

*Revision of document TGP/8: Part I: Techniques Used in DUS Examination, New Section: Reduction of Size of Trials* (see document TWV/41/21)

13. The TWA considered document TWA/41/21 Corr. and received a presentation by an expert from the United Kingdom. The TWA considered the presented method useful and recommended inclusion into document TGP/8 (see document TWA/41/34 "Report", paragraphs 29 and 30).

*Revision of document TGP/8: Part II: Techniques Used in DUS Examination, Section 3: The Combined-Over-Years Criteria for Distinctness (COYD) – Minimum Number of Degrees of Freedom for COYU* (see document TWV/46/23)

14. The TWA considered document TWA/41/23. The TWA noted the proposal for the revision of the minimum number of degrees of freedom for distinctness. The TWA agreed to request the TWC to clarify the changes and to suggest how to revise the schematic in document TGP/8 Part I Section III: Choice of statistical methods for examining for distinctness Chapter 3.4 "Requirements for statistical methods for distinctness assessment" (see document TWA/41/34 "Report", paragraphs 33 and 34).

*Revision of document TGP/8: Part II: Techniques Used in DUS Examination, Section 3, Subsection 3.6: Adapting COYD to special circumstances* (see document TWV/46/20)

15. The TWA considered document TWA/41/20. The TWA supported the inclusion of the proposed text as Subsection 3.6 in Section 3 of TGP/8 Part II (see document TWA/41/34 "Report", paragraphs 27 and 28).

*Revision of document TGP/8: Part II: Techniques Used in DUS Examination, Section 4: 2x1% Method- Minimum Number of Degrees of Freedom for the 2x1% Method* (see document TWV/46/22)

16. The TWA considered document TWA/41/22. The TWA noted the proposal for the revision of Section 4 of document TGP/8 on the minimum number of degrees of freedom for the 2x1% method. The TWA agreed

to invite the TWC to clarify whether COYD was the preferred method, or to explain the circumstances in which the 2x1% method would be preferred (see document TWA/41/34 "Report", paragraphs 31 and 32).

*Revision of document TGP/8: Part II: Techniques Used in DUS Examination, New Section 10: Minimum Number of Comparable Varieties for the Relative Variance Method (see document TWV/46/26)*

17. The TWA considered document TWA/41/26. The TWA agreed that Chapter 10.2 "Threshold limits for Relative Variance Method" of the Annex to document TWA/41/26 should be considered by the TWC for incorporation in document TGP/8/1 Section 10. The TWA agreed that the remaining paragraphs were already covered by TGP/8/1 Section 10 (see document TWA/41/34 "Report", paragraphs 37 and 38).

*Revision of document TGP/8: Part II: Techniques used in DUS Examination, New Section 11: Examining DUS in Bulk Samples (see document TWV/46/28)*

18. The TWA considered document TWA/41/28. The TWA considered that in relation to bulk samples there were no specific requirements for assessment of distinctness. The TWA agreed that as long as practical examples could not be provided no specific guidance for the assessment of uniformity was necessary (see document TWA/41/34 "Report", paragraphs 39 and 40).

*Revision of document TGP/8: Part II: Techniques Used in DUS Examination", New Section: Data Processing for the Assessment of Distinctness and for Producing Variety Descriptions (see document TWV/46/30)*

19. The TWA considered document TWA/41/30. The TWA noted the information that a summary of different approaches used for data processing for the assessment of distinctness and for producing variety descriptions would be developed by the Office of the Union (see document TWA/41/34 "Report", paragraphs 43 and 44).

*Revision of document TGP/8: Part II: Techniques Used in DUS Examination, New Section: Guidance of Data Analysis for Blind Randomized Trials (see document TWV/46/17)*

20. The TWA considered document TWA/41/17. The TWA noted the information contained in document TWA/41/17 and the presentation received by the expert from France on guidance of data analysis for blind randomized trials. Remarks by the TWA expressed the importance of these blind randomized trials for the breeders and mentioned the contribution they made to the system. The TWA recommended that the work on that guidance should be continued on the basis of that document (see document TWA/41/34 "Report", paragraphs 23 and 24).

*Revision of document TGP/8: Part II: Techniques Used in DUS Examination, New Section: Guidance for Development of Variety Descriptions (see document TWV/46/18)*

21. The TWA considered document TWA/41/18. The TWA agreed that the document should be redrafted, recommending that the reference to COYD method was not appropriate. It recommended that the draft should include guidance on how to deal with variety x growing cycle interactions, mainly for quantitative characteristics in more than one growing cycle in one location and more than one location. These two situations should not be considered separately and the drafter should refer to TGP/8 and New Section 2 "Data to be recorded". A remark was made suggesting the use of example varieties as a tool to evaluate the interaction (see document TWA/41/34 "Report", paragraphs 25 and 26).

*Revision of document TGP/8: Part II: Techniques Used in DUS Examination", New Section: Statistical Methods for Visually Observed Characteristics (see document TWV/46/29)*

22. The TWA considered document TWA/41/29. The TWA noted that the presented method was an alternative to the Chi-square test for independence in the contingency table. The TWA proposed that the new Section for TGP/8 be developed in closer relation to TGP/8/1 Section 5 "Pearson's chi-square test applied to contingency tables". The TWA agreed that the example of Sugar beet was not appropriate and the example on Carrot needed to be reconsidered. The TWA suggested to consider the development of a new Section with the same example as in TGP/8/1 Section 5 (see document TWA/41/34 "Report", paragraphs 41 and 42).

TGP/14: Glossary of Terms Used in UPOV Documents

- (i) *Revisions of existing Sections of document TGP/14: Section 2: Botanical Terms, Subsection 2: Shapes and Structures (document TWV/46/27)*

23. The TWA considered document TWA/41/27 (see document TWA/41/34 "Report", paragraph 53).
24. The TWA agreed with the proposed text in Annex I to document TWA/41/27 concerning the perspective from which to observe plant shapes (see document TWA/41/34 "Report", paragraph 54).
25. The TWA agreed with the proposed definitions for peduncle, pedicel, petiole and petiolule and recommended to check translation of these terms (see document TWA/41/34 "Report", paragraph 55).
26. With regards to revision of "components of shape: states of expression for ratios" the TWA recommended that it would be more appropriate to use the states small to large in place of low to high when considering ratio: length/width. If the characteristic ratio: length/ width was presented as shape, then the states would be compressed to elongated (see document TWA/41/34 "Report", paragraph 56).
27. The TWA considered the guidance on use of composite characteristics for determining distinctness and uniformity contained in Annex V to document TWA/41/27. The TWA agreed that the presented method was useful and recommended its inclusion in document TGP/14 (see document TWA/41/34 "Report", paragraph 57).

- (ii) *Revision of Document TGP/14: Section 2: Botanical Terms, Subsection 3: Color (document TWV/46/25)*

28. The TWA considered document TWA/41/25 and it noted modifications made in the new draft on the basis of the comments by the TWPs in 2011 (see document TWA/41/34 "Report", paragraph 58 ).

Agenda item 6: Variety denominations (see document TWV/46/4)

29. The TWA noted the developments reported in document TWA/41/4 (see document TWA/41/34 "Report", paragraph 59).

Agenda item 7: Information and databases

- (a) UPOV information databases (see document TWV/46/5)

30. The TWA received a presentation on the PLUTO database by Mr. Glenn Mac Stravic, Head of the WIPO Brand Database Unit, via WebEx (see document TWA/41/34 "Report", paragraph 84).

31. The TWA noted the information provided in document TWA/41/5. With regard to Annex V "UPOV codes to be checked by authorities", the experts of the TWA were invited to provide comments to the Office of the Union by August 31, 2012 (see document TWA/41/34 "Report", paragraphs 85 and 86).

- (b) Variety description databases (see documents TWV/46/6 and TWV/46/6 Add.)

32. The TWA noted the information contained in document TWA/41/6 and in the presentation provided by an expert from France, which would be included in an addendum to document TWA/41/6. The expert from France presented a method to evaluate different grouping characteristics for Pea. The TWA agreed that the work on the project for the Pea database should be continued and that it would be a good example for the development of similar databases for other crops. It also agreed that it would be a good basis for future revision of the Test Guidelines for Pea in respect of grouping characteristics (see document TWA/41/34 "Report", paragraph 52).

- (c) Exchangeable software (see document TWV/46/7)

33. The TWA noted the information provided in document TWA/41/7 (see document TWA/41/34 "Report", paragraph 87).

(d) Electronic application systems (see document TWV/46/8)

34. The TWA noted the information provided in document TWA/41/8 (see document TWA/41/34 "Report", paragraph 88).

Agenda item 8: Uniformity assessment

(a) Method for calculation of COYU (see document TWV/46/10)

35. The TWA noted the information provided in document TWA/41/10 (see document TWA/41/34 "Report", paragraph 45).

(b) Summary of assessing uniformity by off-types on the basis of more than one sample or sub-sample (document TWV/46/9)

36. The TWA considered document TWA/41/9 (see document TWA/41/34 "Report", paragraph 46).

37. The TWA agreed that clarification should be provided for Situations A and B if the approach combining the results from two growing cycles was considered to correspond to the requirement for "independent" growing cycles 8 (see document TWA/41/34 "Report", paragraph 47).

38. The TWA noted the explanation from the expert from the Czech Republic that the apple example should be deleted, because the same approach was used as for other crops (see document TWA/41/34 "Report", paragraph 48).

39. On the basis of information provided at the meeting on "Situation B: Two growing locations in the same year, Approach: Third growing cycle in case of inconsistent results", the TWA agreed to revise the text to read as follows:

"[...] 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)"

(see document TWA/41/34 "Report", paragraph 49).

40. In the case of "Situation D: Assessing sub-samples within a single test/trial, Approach: Sub-sample as first step of assessment", the TWA agreed that the explanation should be generalized (i.e. no reference to 0 off-types in the subsample) and should provide an explanation of the statistical basis for the approach. The TWA also agreed that the statistical experts from France and Germany should be invited to explain 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 (see document TWA/41/34 "Report", paragraph 50).

41. The TWA noted that the TWC would be invited to provide guidance on the possible consequences of different approaches (see document TWA/41/34 "Report", paragraph 51).

Agenda item 15: Guidance for drafters of Test Guidelines

42. The TWA noted the revision of the "Practical Guidance for Drafters (Leading Experts) of UPOV Test Guidelines", Section "Test Guidelines for Discussion at the Technical Working Party", as available on the TG Drafters webpage (see document TC/48/3). The revision concerns the information that "a 'clean' version of the draft should be provided: the draft should not contain any comments within the document. If necessary, any comments should be included in an annex or in a separate document" (see document TWA/41/34 "Report", paragraph 79).

43. The TWA concluded that to facilitate the work during the subgroup discussions it would be helpful to have relevant comments in the Test Guidelines (see document TWA/41/34 "Report", paragraph 80).

44. The TWA noted that, if a Leading Expert of a draft Test Guidelines could not attend a TWP session, the Test Guidelines could be withdrawn from the Agenda of the concerned TWP session. If the Leading Expert and the interested experts wish, an informal subgroup discussion via WebEx after the TWP, could be organized with the support of the Office of the Union (see document TWA/41/34 "Report", paragraph 81).

45. The TWA received a presentation on the project of a web based TG Template in order to introduce the project to drafters of Test Guidelines and seek their feedback and input (see document TWA/41/34 "Report", paragraph 82).

46. The TWA noted the features of the proposed TG Template and discussed possibilities on the use of such a template and related databases also for the development of national guidelines. The TWA supported the initiative and agreed to the continuation of work on the TG Template (see document TWA/41/34 "Report", paragraph 83).

[End of Annex and of document]