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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
GENEVA

TECHNICAL COMMITTEE

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MATTERS ARISING FROM THE TECHNICAL WORKING PARTIES

Document prepared by the Office of the Union

1. This document summarizes certain matters arising from the 2006 sessions of the Technical Working Parties (TWPs) which are not expressly covered by specific agenda items. The matters arising are presented in two sections. The first section, "Matters for information and for a possible decision to be taken by the Technical Committee (TC)", identifies matters raised by the TWPs, which may require a decision to be taken by the TC. The Office of the Union (Office) has highlighted aspects where the TC may wish to take a decision by introducing a proposed decision paragraph shown in italics. The second section, "Matters for information", is provided for the information of the TC but does not require decisions at this stage.

2. The following abbreviations are used in this document:

TWA:	Technical Working Party for Agricultural Crops
TWC:	Technical Working Party on Automation and Computer Programs
TWF:	Technical Working Party for Fruit Crops
TWO:	Technical Working Party for Ornamental Plants and Forest Trees
TWPs:	Technical Working Parties
TWV:	Technical Working Party for Vegetables

3. The following table of contents specifies the items covered in this document:

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I. MATTERS FOR INFORMATION AND FOR A POSSIBLE DECISION TO BE TAKEN BY THE TECHNICAL COMMITTEE

Drafting Test Guidelines

4. At present, the electronic template (in Word) for drafters of Test Guidelines (see http://www.upov.int/restrict/en/tgp/TG_drafters_template_e.doc) contains the standard wording for all Test Guidelines (TGP/7/1: Annex 1 “TG Template”) plus the additional standard wording (TGP/7/1: Annex 2: Additional Standard Wording (ASW) for the TG Template). Drafters are required to delete the ASW not relevant for the Test Guidelines under development. At present the Table of Characteristics is left blank.

5. At their sessions in 2006, the TWA, TWF, TWO and TWV were invited to suggest improvements to the current electronic template, in particular with respect to whether it would be appropriate to seek to develop a customized electronic template for particular TWPs and/or to develop customized templates for specific types of varieties (e.g. hybrids, seed-propagated, vegetatively propagated etc.). Such customized templates would, for example, omit inappropriate additional standard wording and/or could incorporate standard characteristics in the Table of Characteristics.

6. The TWA agreed that the electronic template should not include the text of the additional standard wording.

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

8. The TWO did not consider that it was necessary to develop customized electronic templates for the TWO. However, it considered that it would be useful to develop a more user-friendly kit with a more streamlined template to facilitate use by crop experts. In that respect, it was noted that there were, in particular, formatting problems in Section 10 “Technical Questionnaire”.

9. The TWV concluded that the current electronic template containing the additional standard wording worked well and that it would not be appropriate to seek to develop customized versions for the TWV or for certain crops. It noted that the discussions concerning the possible inclusion of a request for color photographs in the Technical Questionnaire had highlighted the need for care to be taken in selecting only appropriate additional standard wording. A representative of the International Seed Federation (ISF) requested that consideration be given to authorities providing photographs of varieties to the breeders. The TWV noted that this would have substantial resource implications and would require careful consideration.

10. The TC may also wish to take into account the proposal made by ISF, that UPOV should consider the development of an electronic version of the model application form and technical questionnaire for use by members of the Union (see document TC/43/5, paragraph 22), when discussing any changes to the electronic template.

11. The Office will review ways of improving the user-friendliness of the electronic template for drafters of Test Guidelines and, in particular, plans to introduce a formatted, blank Table of Characteristics and to address the formatting problems experienced in the Technical Questionnaire. In the case of a positive response by UPOV to the ISF proposal concerning the development of an electronic version of the model application form and technical questionnaire (see paragraph 10), the Office would seek to ensure that that initiative would be coordinated with the Technical Questionnaire in the electronic template for drafters of Test Guidelines.

12. In response to the comments made by the TWPs, the Office is considering whether to develop two versions of the electronic template: Version 1, with no Additional Standard Wording (ASW); and Version 2, with all ASW included. Drafters of Test Guidelines would be free to choose which version to use when starting to draft Test Guidelines.

13. The Office has observed that the procedure for preparing Test Guidelines for consideration by the TWPs and by the TC is not always clear for new drafters. For that reason, the Office proposes to develop a practical guide for drafters, which would be made available as a part of the “Drafter’s kit” in the first restricted area of the UPOV website (see http://www.upov.int/restrict/en/index_drafters_kit.htm). That practical guide would reflect the procedure set out in document TGP/7 “Development of Test Guidelines”, Section 2 “Procedure for the Introduction and Revision of UPOV Test Guidelines”, but would provide more practical guidance in response to the questions which the Office regularly receives. A draft practical guide for drafters of Test Guidelines would be presented for comment by each of the TWPs at their sessions in 2007.

14. *The TC is invited to:*

(a) note the plans for the Office to improve the user-friendliness of the electronic template for drafters of Test Guidelines (see paragraph 11);

(b) comment on the proposal for the Office to develop two versions of the electronic template: Version 1, with no Additional Standard Wording (ASW); and Version 2, with all ASW included (see paragraph 12); and

(c) comment on the proposal for the Office to develop a practical guide for drafters of Test Guidelines, as set out in paragraph 13.

Development of COY

15. The TWC discussed document TWC/24/10 “Influence of number of plants per plot on the assessment of uniformity and distinctness for quantitative characteristics in rape seed and yellow mustard”, introduced by an expert from Germany, and document TWC/24/12 “The possibility of reducing the number of assessed plants for quantitative

characteristics for reference varieties”, introduced by an expert from Denmark. The TWC noted that both documents were the continuation of work presented at the twenty-third session of the TWC (see documents TWC/23/10 and TWC/23/15).

16. The TWC agreed that new documents be presented at its twenty-fifth session taking into account the comments and discussion at its session. The TWC also agreed to propose to the TC that these new documents be considered by the other TWPs.

17. The TC is invited to consider the TWC proposal that new versions of documents TWC/24/10 “Influence of number of plants per plot on the assessment of uniformity and distinctness for quantitative characteristics in rape seed and yellow mustard” and document TWC/24/12 “The possibility of reducing the number of assessed plants for quantitative characteristics for reference varieties”, be presented to all TWPs at their sessions in 2007.

Exchangeable Software and TWC Documents

18. The TWC considered document TWC/24/14, introduced by an expert from Germany, who distributed CD-ROMs containing a prototype of a database to search for TWC documents.

19. The TWC agreed that a new document should be prepared for its twenty-fifth session. It further agreed to propose to the TC that, in future TWC documents, the authors might include a list of key words to facilitate searching within the database and that the database should be presented to other TWPs for comments. It was also agreed that the Office would circulate to the TWC a list of the exchangeable software, to be updated and then returned to the Office for inclusion in this document.

20. The TC is invited to consider the TWC proposal for a prototype of a database to search for TWC documents to be presented to other TWPs for comments.

II. MATTERS FOR INFORMATION

Development of Regional Sets of Example Varieties for the Test Guidelines for Rice

21. At its thirty-fifth session, the TWA received a report on the development of regional sets of example varieties for the Test Guidelines for Rice from the Republic of Korea, a copy of which was provided as document TWA/35/6 Add. A new document will be produced for the thirty-sixth session.

Information on COY and Off-type Standards

22. At its forty-second session (see document TC/42/12 “Report”, paragraph 91), the TC agreed to request the relevant TWPs to consider the results of the information provided by members of the Union responding to a questionnaire on probability levels used in COY, as presented in document TWC/23/10, and to explain the reasons where different probability levels are used to those indicated in the COY recommendations. It also agreed that the TWPs should be informed that the TWC was working on a questionnaire seeking information on population standards used in the assessment of uniformity by off-types, in particular when tests from more than one year were used (see document TC/42/12 “Report”, paragraph 92).

23. At its twenty-fourth session, the TWC heard that the options presented in the draft questionnaire circulated to the TWPs in 2006 did not reflect the real situation for the assessment of uniformity on the basis of off-types. The TWC agreed to circulate a revised draft of the questionnaire to the TWC.

24. The TWA agreed to suggest that the TWC investigate the variation within and between varieties for selected crops in order to determine whether harmonized standards would be appropriate.

25. The TWF noted the information provided in document TWF/37/10 “Information on COY and off-type standards”.

26. The TWO did not have time to consider document TWO/39/10 “Information on COY and off-type standards”.

27. The TWV considered documents TWV/40/10 “Information on COY and off-type standards” and TWC/23/10 “Standard probability levels for COY”. The Chairman noted that the influence of the environment could mean that different standards would need to be applied in different environments in order to set a comparable requirement for distinctness and uniformity. It was also noted that the choice of reference varieties would influence the requirements for distinctness and uniformity where COY was applied. The TWV requested the TWC to request information on the standards for off-types for different types of plots.

Development of COY

Further Comparison of Decisions on Uniformity of Rye Varieties based on COYU Approach and on Bennett's Test (document TWC/24/7)

28. The TWC considered document TWC/24/7, introduced by an expert from Poland, and agreed that a new paper should be presented at its twenty-fifth session, taking into account the comments and discussion at its twenty-fourth session.

A Rationale for Elimination of Reference Varieties when COYD is used – work in progress (document TWC/24/9)

29. The TWC considered document TWC/24/9, introduced by an expert from the United Kingdom, which contained a proposal for reducing the size of the trial by producing thresholds on a characteristic-by-characteristic basis for exclusion of a reference variety from the trial. It was reported that this might be done at two stages: firstly during the first year of the trial, using information provided in the Technical Questionnaire, and secondly, at the start of the second growing trial using information from the first growing trial. The document was only considering the second option. The TWC agreed that a new document should be prepared for its twenty-fifth session.

Segregation Ratios

30. The TWC considered document TWC/24/11, introduced by an expert from Denmark, which presented three methods for the comparison of distribution of colors of cotyledons in sugar beet for the assessment of distinctness: method 1, analysis of the frequency of each color separately using either COYD (on transformed data); method 2, analyzing all colors simultaneously assuming that they follow a multinomial distribution using a χ^2 test; and method 3, analyzing all colors simultaneously using a generalized linear mixed model. It was explained that method 3 seemed to be the most promising, but the power of its tests might be expected to be rather low - especially for those varieties present in only 2 years (because of few degrees of freedom) and that the occurrence of zero for most varieties (for at least one color) prevented analyses including all varieties. The TWC agreed that a new paper should be prepared for its twenty-fifth session.

31. The TWC considered document TWC/24/16 "Reducing the number of plants per variety in the assessment of distinctness of a segregating characteristic", introduced by an expert from France. The TWC agreed that a new paper should be prepared for its twenty-fifth session.

SELECT: A Method for Identification of Varieties to be Excluded from the Growing Trial

32. The TWC considered document TWC/24/8, introduced by an expert from Germany. It was explained that the SELECT method made comparisons of variety descriptions in order to select varieties for the growing trial on the basis of a characteristic-by-characteristic approach in a way that small differences did not count in the assessment. It was explained that SELECT made the comparison of the candidate varieties with stabilized descriptions of reference varieties from a database. Descriptions of candidate varieties would be incorporated into the database only when two descriptions of the same variety in the same location were available. An expert from France explained that GAIA did much the same as SELECT. He

added that, in GAIA, crop experts determined the weightings in a way that small differences were not counted, and the value of the threshold “distinctness plus” was greater than the threshold used for distinctness in the growing trial, therefore the aim with both GAIA and SELECT was to work “on the safe side”. Experts agreed that both GAIA and SELECT might benefit from inclusion of statistical methodology, such as that described in document TWC/24/9, to select the weights. The expert from Denmark explained that, to be on the “safe side”, it would be necessary to take into account the possible correlation between characteristics in the comparisons made by SELECT and GAIA. The TWC agreed that a new document on the SELECT method would be prepared for its following session.

33. The TWA considered document TWA/35/9 as a part of its discussion of document TGP/9/1 Draft 7. The TWA noted that the clarifications it proposed for Section 2.6 of TGP/9/1 Draft 7 (see TWA/35/12 “Report”, paragraph 26) demonstrated that a characteristic-by characteristic approach was applied for both GAIA and SELECT. In particular, it was clarified that weightings would only be given to differences for a characteristic where those differences were clear and consistent. The use of a lower weighting for some characteristics was exclusively subject to a lower reliability of a characteristic due to environmental effects. Subject to modifications proposed for Section 5 of TGP/8/1 Draft 4 (see TWA/35/12 “Report”, paragraph 28), it was concluded that SELECT was covered by the GAIA methodology. Basic principles of GAIA were found in SELECT (weighting of differences and combining the characteristics). The options chosen in the particular example on barley (weightings, limitation of the number of characteristics considered, etc.) were possible options of GAIA and could be implemented in GAIA. The French experts expressed their opinion that SELECT was similar to GAIA.

Image Analysis of Ornamentals with Emphasis to Rose and Alstroemeria

34. The TWC considered document TWC/24/15 and received a presentation on a project for the development of a database for images of ornamental varieties by an expert from the Netherlands.

Study on the Use of Data from Multiple Locations in DUS testing

35. The TWC considered document TWC/24/13, introduced by an expert from Germany. The TWC agreed that a new document should be prepared for its twenty-fifth session.

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