



TWC/26/9

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

**TECHNICAL WORKING PARTY ON AUTOMATION AND  
COMPUTER PROGRAMS**

**Twenty-Sixth Session  
Jeju, Republic of Korea, September 2 to 5, 2008**

COMMENTS ON TGP DOCUMENTS

*Document prepared by the Office of the Union*

1. This document presents the comments made on the following TGP documents by: the Technical Working Party for Fruit Crops (TWF), at its thirty-ninth session, held in Lisbon, Portugal, from June 2 to 6, 2008; the Technical Working Party for Ornamental Plants and Forest Trees (TWO) at its forty-first session, held in Wageningen, Netherlands, from June 9 to 13, 2008; the Technical Working Party for Vegetables (TWV), at its forty-second session, held in Cracow, Poland, from June 23 to 27, 2008 and the Technical Working Party for Agricultural Crops (TWA) at its thirty-seventh session, held in Nelspruit, South Africa, from July 14 to 18, 2008:

*(a) New TGP documents*

- TGP/8 Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability (document TGP/8/1 Draft 10)
- TGP/11 Examination of Stability (document TGP/11/1 Draft 5)
- TGP/12 Special Characteristics (document TGP/12/1 Draft 5)
- TGP/13 Guidance for New Types and Species (document TGP/13/1 Draft 12)
- TGP/14 Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents (documents TGP/14/1 Draft 6)

*(b) Revision of TGP documents*

- TGP/7 Development of Test Guidelines (document TGP/7/1)

## I. NEW TGP DOCUMENTS

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

2. The TWF, TWO and TWV commented on documents TGP/8/1 Draft 10 and the matters raised in document TWC/26/3, paragraph 16, as follows:

3. With regard to the invitation by the TC (document TWC/26/3, paragraph 16(a)) to advise if there is a need for additional off type tables in TGP/8 to cover new combinations of population standards and acceptance probabilities: the TWF agreed that no such need existed for fruit crops; the TWO agreed that no such need existed for ornamental plants and forest trees; the TWV agreed that no such need existed for vegetables; and the TWA agreed that no such need existed for agricultural crops and noted that TGP/8/1 Draft 10: part II, Section 4.1.1.4.22 explained that the International Seed Testing Association (ISTA) “seedcalc” method could be used for calculating Type I and Type II errors.

4. In relation to document TWC/26/3, paragraph 16(b), to consider if it would be necessary to conduct a comparison of the results of different statistical methods as a condition for their inclusion in TGP/8, the TWV and TWA agreed that some form of peer review, similar to that used for the development of Test Guidelines, would be appropriate to ensure that any methods would be fit for purpose.

5. In relation to the consideration of including statistical methods for very small sample sizes (document TWC/26/3, paragraph 16(c)), the TWF proposed that TGP/8 should contain an explanation that the observation of several parts of a plant (e.g. several fruits from a tree) did not increase the sample size for the purpose of uniformity, since the sample size was determined by the number of plants. It agreed that a cross reference should be made to document TGP/10/1, Section 4.2.2.4. Concerning statistical methods for very small sample sizes, the TWV agreed that such methods would be of particular interest for vegetables.

6. The TWV and TWA made the following comments on document TGP/8/1 Draft 10:

<u>PART I: DUS Trial Design and Data Analysis</u>		
1.5	The TWA agreed that the section should be checked for consistency with the requirements for distinctness and uniformity and should consider the number of plants in the plot.	TWA
1.6	to check spelling (e.g. last sentence of Section 1.6.1.7)	TWA
1.6.1.5	to clarify that different types of plots do not constitute replicated plots	TWA
1.6.3.4 to 1.6.3.6	to check whether this section is necessary for specific guidance on DUS testing	TWA
1.6.3.5	to provide guidance on optimal sub-block sizes (if kept)	TWA
3	Control of variation due to different observers:  The TWV noted that it had encouraged the development of that section and agreed that it should provide suitable text for aspects which were not adequately covered in document TWC/25/12.	TWV

	<u>PART II: Techniques Used in DUS Examination</u>	
2.	<p>Parent formula of hybrid varieties:</p> <p>The TWV proposed that it should be explained in TGP/8 that it was a choice for authorities to use the parent formula approach for hybrids and not an obligation and to explain that the Test Guidelines would include mention of this method where considered to be useful. The TWV also proposed that guidance should be given in TGP/8 and/or TGP/7 that authorities should not request material of parent lines for the examination of hybrid varieties if the parent formula approach was not used to examine the hybrid.</p> <p>The TWA agreed that it should be explained in TGP/8 that it was a choice for authorities to use the parent formula approach for hybrids and not an obligation and to explain that the Test Guidelines would include mention of this method where considered to be useful. The TWA noted the TWV proposal that guidance should be given in TGP/8 and/or TGP/7 that authorities should not request material of parent lines for the examination of hybrid varieties if the parent formula approach was not used to examine the hybrid. The TWA did not agree with that proposal and agreed that that was a matter for each authority to decide and noted that the parent lines might also be necessary for the examination of uniformity of the hybrid. It was noted that the parent formula would be necessary to avoid the possibility of a hybrid formed by the same parents, but in a reciprocal cross, being considered to be distinct.</p>	TWV/ A
New	<p>The TWA agreed that Mr. Tanvir Hossain (Australia) should prepare guidance on relative tolerance limits for variances (F-test) for inclusion in document TGP/8. It agreed that a first draft should be prepared for consideration by the Technical Working Party on Automation and Computer Programs (TWC) at its twenty-sixth session.</p>	TWA

7. The TWA agreed that any further comments on TGP/8/1 Draft 10 should be sent to the Office of the Union by August 15, 2008.

#### TGP/11 “Examination of Stability”

8. The TWF and TWO noted that it would be necessary to receive the advice of the CAJ before TGP/11 could be developed further.

9. The TWV confirmed its support for its original proposal which was to seek to develop a document on how to address problems concerning stability which were brought to the attention of an authority after the grant of a plant breeder’s right, with the possibility for such a document to be extended to address problems concerning distinctness, uniformity and novelty which were brought to the attention of an authority after the grant of a plant breeder’s right and to consider the status and use of the “official” variety description.

10. The TWA noted that a previous draft of document TGP/11/1 contained a section on technical verification, which could be used for any document which was developed to consider matters of stability after the grant of a plant breeder’s right. The TWA agreed that document TGP/11 should not consider matters other than stability, i.e. should not include novelty and distinctness.

TGP/12 “Special Characteristics”

11. The TWF made no proposals concerning document TGP/12/1 Draft 5. The TWO, TWV and TWA made the following comments on document TGP/12/1 Draft 5:

Title	to be amended to remove reference to “special” characteristics, e.g. to rename as “Characteristics based on a response to an external factor and characteristics for chemical constituents: protein electrophoresis”	TWA
	<u>Section I</u>	
1.1.3	to write living organism in full throughout	TWA
2.2.6 (iii)	to read “[...] In such cases, cooperation in DUS examination is a means to overcome the problem (see the “Introduction” to document TGP/5 “Experience and Cooperation in DUS Testing”).	TWA
2.3.2.2	to be amended to also refer to cross-pollinated varieties	TWA
2.3.2.3	to read “In some cross-pollinated species (e.g. Lucerne) disease resistance (e.g. resistance to <i>Colletotrichum trifolii</i> ) is assessed as percentage of resistant plants within the population. In those cases a continuous range of variation could be observed across varieties. This can be treated as a true quantitative characteristic (1-9 scale) and appropriate statistical methods can be applied in the analysis of data.”	TWA
3.1	to be deleted	TWA
3.3	to read “Example of resistance to <i>Therioaphis maculate</i> in Lucerne (UPOV Test Guidelines: TG/6/5). In some cross-pollinated species (eg. Lucerne) insect resistance (eg. <i>Therioaphis maculata</i> ) is assessed as percentage of resistant plants within the population. In those case a continuous range of variation could be observed across varieties. This can be treated as a true quantitative characteristic.	TWA
5.	the TWO heard that a characteristic for frost tolerance had been investigated by the European Community but had not resulted in distinctness. The TWO agreed that the section on frost tolerance should be deleted from TGP/12. The TWV agreed with the TWO conclusion that the section on frost tolerance should be deleted from TGP/12.	TWO/ V
	<u>Section III</u>	
General:	to remove Section III: “Examination of characteristics using image analysis” from TGP/12 and include in document TGP/8, on the basis that it does not concern characteristics, but methods of examining characteristics	TWA
3.	for existing characteristics: to explain the need to compare the results of the characteristics examined by old method and by image analysis; for new characteristics: to provide guidance on the need to meet the requirements for a characteristic to be used for DUS, as set out in the General Introduction, and the need to check for independence from other characteristics	TWA

12. The TWV received the following proposal from Mr. Kees van Ettekoven (Netherlands):

“In TGP/12, the principles on the use of disease resistance characteristics are given. Besides these principles there are other elements to consider when mentioning disease characteristics in UPOV guidelines:

“1. The nomenclature of the pathogens

“As in the plant kingdom, also in the field of pathogens the denomination of the subject is important in order to correctly identify the various diseases. As in the plant kingdom the names of pathogens sometimes change as a consequence of improved insight in the pathogen and its relation with other pathogens. The use of the proper name is therefore important. In principle, the UPOV Test Guidelines should follow the latest valid taxonomic views. This principle has two disadvantages: the UPOV Test Guidelines are not revised annually and in practice the users of the pathogen names may be familiar with the old name and not yet with the new name. In the ISF disease resistance coding working group, faced with the same problem, the following solution was introduced: a new denomination is given in brackets behind the old name with the prefix ‘new’ for a period of 5 years. After 5 years, the situation is reversed: the new name is given with behind it in brackets the old name with the prefix ‘old’ for a further period of 5 years. After the latter period of five years, only the new name is given. It is proposed to follow the same principles in the UPOV Test Guidelines in order to avoid confusion and have maximum clarity.

“2. The use of abbreviations

“In practice, the scientific binomial for the pathogens is often replaced by a code. In the ISF disease resistance coding working group a system of codes was introduced to ensure uniformity in the use of these codes. The codes are logically derived from the names of the pathogens and can also be found on the ISF website: [www.worldseed.org](http://www.worldseed.org). It is proposed to introduce the disease codes in the UPOV guidelines

“3. The nomenclature of races and strains

“As with the names and codes of the diseases, also the correct naming of the races and strains needs to be observed to avoid confusion. It is proposed to implement the race nomenclature developed by ISF in the UPOV Test Guidelines.”

13. The TWV agreed that the proposal from Mr. van Ettehoven represented an appropriate means of managing the naming of disease resistances. It agreed that that approach should be incorporated in document TGP/12 or TGP/7, and agreed that a decision on which should be postponed until its forty-third session. In the meantime, the TWV agreed that this development should not delay the adoption of TGP/12, because TGP/12 could be revised at a future date if necessary. The TWV agreed that, for its forty-third session, Mr. van Ettehoven should prepare draft guidance for inclusion in document TGP/12 or TGP/7 on the basis of his proposal, set out above, subject to the following:

- (a) to include the names of the relevant pathogen naming organizations on which the names would be based;

(b) to include an explanation that the old and new name should be kept with the appropriate code, e.g. *Oidium lycopersicum* (Ol) (now *Oidium neolyopersici* (On))

(c) to explain that it would not be necessary to revise Test Guidelines in order to reflect changes in pathogen names

TGP/13 “Guidance for New Types and Species”

14. The TWF made no proposals concerning document TGP/13/1 Draft 12. The TWO, TWV and TWA made the following comments on document TGP/13/1 Draft 12:

2.4.2 (i), (ii)	to seek the views of the TC and CAJ concerning the explanation and the implication that a single plant selected from a population could be developed into a variety and protected without further crossing	TWA
2.7.4	to be amended to read “When sufficient varieties of common knowledge, or other plant material, can be collected [...]”	TWO
4.4.3	to delete “If possible”	TWO
4.4.3	The TWV noted that the reference to “minimum distance” was not consistent with document TGP/9/1 and agreed that the paragraph should be replaced with a reference to TGP/9.	TWV

15. The TWF noted the amendments to the text of paragraph 2.4.2 of document TGP/13/1 Draft 12 and discussed the need to consider practical issues of access to wild populations in order to determine if they might constitute varieties of common knowledge. It also discussed the issue of how to determine the boundary of populations. It was agreed that it could be helpful to encourage breeders to provide parent material or representative plants of original population to assist in the DUS examination of new varieties.

16. The TWF agreed that it would not be possible to provide detailed guidance on those matters in document TGP/13, but concluded that it would be of assistance to hear reports from experts on their particular experiences with new types and species. On that basis, the TWF agreed to add an item for such presentations at its fortieth session and invited experts to prepare such reports. It also agreed that breeders might be invited to explain developments with regard to new types and species.

17. The TWO agreed to add an item for reports from experts on their particular experiences with new types and species at its forty-second session and invited experts to prepare such reports. It also agreed that breeders might be invited to explain developments with regard to new types and species.

18. The TWV noted that the TWF and TWO had agreed to add an item for reports from experts on their particular experiences with new types and species at their sessions in 2009 and agreed that it would be interesting to hear about the outcome of that initiative before agreeing to the inclusion of such an item in a future TWV agenda.

TGP/14 “Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents”

19. The following comments were made with regard to document TGP/14/1 Draft 6:

<u>Section 1</u>	<u>Technical Terms</u>	
	The TWA agreed to invite experts to send any comments or proposals for new terms to the Office of the Union	TWA
<u>Section 2</u>	<u>Subsection 2: I Shape</u>	
General	The TWV agreed that it would be useful to consider developing a decision-tree, similar to that developed by Japan for color patterns in document TWV/42/3 Add.; Annex, for determining appropriate shape terms.	TWV
General	The TWF agreed that it would be necessary to provide an explanation of orientation, with reference to base and apex, at the beginning of the subsection. The TWV agreed with the TWF proposal. However, the TWV agreed that TGP/14 should explain that it would not be obligatory to illustrate shapes with the point of attachment (base) at the bottom if that was not the natural orientation of the organ on the plant.	TWF/ V
1.4	<i>Chart for Simple Symmetric Plane Shapes</i> In accordance with the explanation in Section 1.4, the terms used in the chart should not imply that they were restricted to the ratios indicated in the chart	TWA
1.5	to add “alate”	TWA
2.1	To be explained that it is necessary to avoid duplication of the same difference in two separate characteristics; in particular, to avoid the use of characteristics for length, width and ratio length/width; and length, width and shape, where the shape related to different length/width ratios	TWA
2.1.3	The TWF, TWO and TWV noted the alternative to develop a single pseudo-qualitative characteristic for shape rather than using the individual components of shape, provided that, in such cases, the difference between the states of expression was indicated in an illustration. The TWF, TWO and TWV agreed that that was a possibility which would be useful in some cases.	TWF/ O/V
2.2	To amend the examples to avoid an implication that particular shapes would have particular notes (e.g. ovate (1); elliptic (2); obovate (3))	TWA
3.4	To make a cross-reference to Section 2.6 concerning the preference to use 2-dimensional shapes where possible	TWA
<u>Section 2</u>	<u>Subsection 2: II Structure</u>	
	To provide an explanation of tree, shrub and semi shrub, based on the definition of shrub in TGP/14 and the explanation in the Test Guidelines for Hawthorn.	TWF
2.1	To amend the examples to avoid an implication that particular growth types would have particular notes (e.g. upright (1); upright to spreading (2) spreading (3) etc.)	TWA
	<u>Subsection 3: Color; (1) Color characteristics</u>	
II.1, 2.1	The TWO agreed that the definitions of the components of color should be	TWO

	deleted.	
II, 2.	<p>The TWO agreed to start using the proposals set out in document TWO/39/3 Add. [TWC/26/10] in the preparation of draft Test Guidelines for 2009. It noted that it would be necessary to develop a new state of expression in color pattern characteristics to describe the area of color which was previously described as the “main” color, (e.g. continuous dispersion). It was also agreed that the example in 4.2 of document TWO/39/3 Add. [TWC/26/10] should be amended to read “Petal: shape of color [1]/[2] area.</p> <p>The TWO agreed that it would still be important to retain the possibility to have a characteristic for number of colors in order to have a simple overall characteristic, but which was not used as the starting point to describe color pattern. It also agreed that it would be important to retain the option, where appropriate, to describe the color pattern by describing colors in specified parts of the plants (e.g. color of margin, color of basal zone etc.).</p> <p>With regard to anthocyanin coloration, it was agreed that an example of characteristics should be included in TGP/14.</p> <p>In order to develop and test the approach to color characteristics proposed in document TWO/41/3 Add. [TWC/26/10], the TWO agreed to have an exercise on color in Alstroemeria, Canna and Phalaenopsis to see if characteristics based on that approach would be more effective than the traditional approach. The TWO agreed that the European Community should coordinate a subgroup to develop proposals for an exercise to be conducted by the TWO, in which the two approaches would be evaluated. The experts present at the session, from Australia, France, Germany, Japan, Mexico, Netherlands (Kees Grashoff), New Zealand, United Kingdom and the Office of the Union agreed to participate in the subgroup. The first draft of characteristics, to be prepared by the European Community according to the proposed new approach, would be circulated to the subgroup for comment by October 31, 2008, with 4 weeks for comments. On the basis of the comments, a new draft would be prepared by the European Community and checked by the subgroup. A circular presenting the exercise would be sent by the Office of the Union to the TWO by the end of February 2008, with 6 weeks for completion. The completed exercises by the TWO experts would be sent to the European Community, with a copy to the Office of the Union. The European Community would then prepare a TWO document, containing the compiled results of the exercise, 6 weeks before the forty-second session of the TWO.</p>	TWO
	The TWV agreed that consideration should be given to including “flecking” as a color pattern in the scheme in the annex to document TWV/42/3 Add. [TWC/26/10].	TWV
	The TWF supported the proposals set out in document TWF/39/3 Add. [TWC/26/10] With regard to characteristics for color changes over time, it noted that that matter would be discussed at its next session in relation to Peach. It was also noted that any such characteristics would need to fulfill the UPOV requirements for a characteristic.	TWF
	With regard to document TWV/42/3 Add. [TWC/26/10], “(d) Color Change Over Time”, the TWV agreed that characteristic 2 “Fruit: succession of	TWV

	colors” should be considered as a possible option for consideration in relation to relevant Test Guidelines.	
	The TWF proposed that the example of anthocyanin coloration in the flesh of peach could be used to illustrate the need to consider both the intensity and distribution of anthocyanin coloration in some cases.	TWF
	The TWA proposed to include guidance on characteristics and states of expression for green color and, in particular, to avoid the creation of a separate characteristic for intensity of particular hues of green (c.f. draft Test Guidelines for Pea (document TG/7/10(proj.5): Chars. 7 and 8)	TWA

20. The TWA agreed to invite experts to send any comments or proposals to the Office of the Union

## II. REVISION OF TGP DOCUMENTS

### TGP/7 “Development of Test Guidelines”

21. The following comments were made with regard to document TGP/7/1:

<i>Section 1.2: Individual Authorities’ Test Guidelines</i>		
	<i>(new section to be developed on the development of individual authority test guidelines from UPOV Test Guidelines)</i> <i>(to consider developing a more detailed section within TGP/7 for guidance on the development of an authority’s own guidelines in the absence of UPOV Test Guidelines and, in particular, to include the possibility of providing a list of experts willing to provide guidance in the development of such guidelines)</i>	
	The TWF agreed that experts should send comments to the Office of the Union on the draft section 1.2 “Individual Authorities’ Test Guidelines”, presented in document TWF/39/3, Annex II.	TWF
	The TWO proposed the following amendments: (a) to include guidance on modifying the states of expression of characteristics in the Table of Characteristics, including asterisked characteristics; (b) to revise the section on example varieties to reflect the situation that not all authorities use the example varieties (e.g. Canada). At the TWV, the following experts agreed to be added to the list of experts willing to provide guidance in the development of an authority’s own guidelines in the absence of UPOV Test Guidelines: Julia Borys (Poland) Niall Green (United Kingdom) Marian van Leeuwen (Netherlands)	TWO
	The TWV agreed that the section should explain that the purpose of the Technical Questionnaire characteristics was to propose characteristics to be described by the breeder.	TWV

	<p>The TWV agreed that consideration should be given to providing guidance on how to implement revisions to Test Guidelines for varieties which have completed a growing cycle under a previous version of the Test Guidelines: in general, it was noted that the same version of the Test Guidelines should be used for a variety throughout the DUS test; however, it was noted that there would be important exceptions where, for example, it was necessary to introduce new states of expression or characteristics in order to examine a particular variety.</p> <p>The TWV agreed that any further comments on the draft section should be sent to the Office of the Union by August 31, 2008.</p>	
	<p>With regard to the possibility of providing a list of experts willing to provide guidance in the development of an authority's own guidelines in the absence of UPOV Test Guidelines, the Office of the Union explained that the list of experts would not be published in document TGP/7: the Office of the Union would identify appropriate experts on a case-by-case basis and provide the contact details of relevant experts from the list.</p> <p>The TWA noted the proposal of the TWV for consideration to be given to providing guidance on how to implement revisions to Test Guidelines for varieties which have completed a growing cycle under a previous version of the Test Guidelines. In that respect it noted that any guidance would need to accommodate the different legal situations in different territories. It was agreed that it would be more appropriate to explain possible means of addressing such a situation, rather than making specific recommendations.</p> <p>The TWA agreed that it would be necessary to check whether the points raised by the TWPs should all be addressed in Section 1.2, or whether some of the issues should be dealt with under more relevant sections of TGP/7.</p>	TWA

<i>Section 2: Procedure for the Introduction and Revision of UPOV Test Guidelines</i>		
2.1.6.2 etc.	The TWF, TWO, TWV and TWA agreed to delete reference to UPOV Regional Technical Meetings.	TWF/ O/V/A
2.2.4	<p><i>(to consider whether it would be useful to make reference in document TGP/7 to the “drafters kit”, including the “Practical Guide for Drafters (Leading Experts) of UPOV Test Guidelines”, posted on the first-restricted area of the UPOV website)</i></p> <p>The TWF, TWO, TWV and TWA agreed.</p>	TWF/ O/V/A
2.2.5	<p><i>(consideration to be given to introducing deadlines for the submission of non-final draft Test Guidelines to the Technical Working Parties.)</i></p> <p>The TWF, TWO, TWV and TWA agreed that the date for the submission of draft Test Guidelines to the Office of the Union (6 weeks before the TWP session) and the guideline date for the subgroup draft to be circulated by Leading Expert (14 weeks before the TWP session) should be met by the Leading Expert. In cases where either of those dates were not met, it was agreed that the Test Guidelines should be withdrawn from the TWP agenda. The TWF, TWO, TWV and TWA agreed that that approach should be followed from their 2009 sessions. It was noted that meeting those dates would ensure that there would be sufficient time for consultation with</p>	TWF/ O/V/A

	<p>relevant colleagues prior to consideration at the TWP session and would also ensure that it would be known at least four weeks in advance if planned Test Guidelines would not be discussed at a particular session.</p> <p>The TWA noted the importance of interested experts providing comments on the interim draft.</p> <p>The TWV and TWA agreed that, where draft Test Guidelines were withdrawn from the agenda because of failure to meet the relevant dates, there should be the possibility for specific matters concerning those Test Guidelines to be discussed at the TWP session. However, in such cases, the TWA agreed that it would be necessary for a document to be provided to the Office of the Union at least 6 weeks before the meeting.</p> <p>The TWO, TWV and TWA agreed that the Office should provide the interested experts by name on the TG webpage, rather than by country / organization. The TWA agreed that each authority should identify a single expert responsible for commenting on the draft Test Guidelines, although other experts could be included on the list.</p>	
2.3.3	<p>The TWO proposed to consider whether to create the possibility for partial revision of asterisked characteristics by TC by correspondence; and/or for members of the Union to add a footnote in the DUS reports for such cases until the revision are agreed by the TC.</p> <p>The TWV did not support the partial revision of asterisked characteristics by TC by correspondence, unless there was an important need for an urgent revision. It further agreed that the dates for partial revisions should be the same as for draft Test Guidelines.</p> <p>The TWV agreed that paragraph 2.3.3 should be amended to explain that specific proposals for partial revisions of Test Guidelines should be presented in a separate document and should not be incorporated in a draft of the complete Test Guidelines, which could be misinterpreted as a full revision.</p> <p>The TWA did not support the TWO proposal to consider the possibility for partial revision of asterisked characteristics by TC by correspondence. It agreed that Section 1.2 of TGP/7 should explain the flexibility for authorities to create new characteristics and to modify existing characteristics in response to new developments. The TWA agreed that consideration should be given to revising document TGP/5 Section 10: “Notification of Additional Characteristics” to cover the notification of new states of expression. In addition, the TWA did not agree that a new state of expression for a characteristic would always be a sufficient basis for undertaking a partial revision of Test Guidelines.</p>	TWO/ V/A

*Annex 1: TG Template*

3.5 / ASW 7	<p><i>(3.5 Number of Plants / Parts of Plants to be Examined</i></p> <p><i>Paragraph 3.5 to be moved within Section 4.1 “Distinctness”, to clarify that this section recommends the number of plants / parts of plants to be examined for distinctness. In addition, ASW 7 to be amended to the following:</i></p> <p><i>“ASW 7 (Chapter 3.5) – Number of plants / parts of plants to be examined</i></p> <p><i>Alternative 1:</i></p>	TWF/ O/V/A
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	<p><i>Unless otherwise indicated, all observations should be made on {x} plants or parts taken from each of {x} plants.</i></p> <p><i>Alternative 2:</i></p> <p><i>Unless otherwise indicated, all observations should be made on {x} plants or parts taken from each of {x} plants. In the case of observations of parts of plants, the number of parts to be taken from each of the plants should be {y}.”)</i></p> <p>The TWF, TWO, TWV and TWA agreed.</p>	
4.2 / GN 11	<p><i>(to consider the possible inclusion of the matters covered in Section 6 “Combining observations for all characteristics” of document TGP/10)</i></p> <p>The TWF, TWO, TWV and TWA agreed. The TWV proposed that ASW might be developed on the basis of the Test Guidelines for carrot.</p>	TWF/ O/V/A
5.2, 5.3	<p><i>(to elaborate on the two uses of the grouping characteristics, i.e. “(a) to select, either individually or in combination with other such characteristics, <u>varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness</u>”; and “(b) to organize the growing trial so that <u>similar varieties are grouped together</u>”.</i></p> <p><i>[underlining added for emphasis];</i></p> <p><i>and to consider indicating in Chapter 5.3 of the Test Guidelines for which of those purposes the grouping characteristics were intended;)</i></p> <p>The TWF noted that those considerations were of less relevance for fruit trees and agreed to review the conclusions of the other Technical Working Parties on that matter.</p> <p>The TWO agreed that it would not be appropriate to make such an elaboration.</p> <p>The TWV agreed that consideration should be given to amending (a) to read “to select, either individually or in combination with other such characteristics, varieties of common knowledge / <u>varieties in the variety collection</u> that can be excluded from the growing trial used for examination of distinctness”; and”</p> <p>The TWA agreed that TGP/7 and the Test Guidelines should make reference to TGP/4 and TGP/9 concerning the selection and use of grouping characteristics.</p>	TWF/ O/V/A
6.3	<p><i>(<u>Quantitative characteristics</u></i></p> <p><i>the Test Guidelines should explain the use of the 3, 5, 7 abbreviated notes in the 1-9 scale for quantitative characteristics.)</i></p> <p>The TWF, TWO, TWV and TWA agreed that the Test Guidelines should explain the use of the 3, 5, 7 abbreviated notes in the 1-9 scale for quantitative characteristics. They also suggested to consider listing all 9 notes for the characteristics included in the Technical Questionnaire.</p>	TWF/ O/V/A

*Annex 2: Additional Standard Wording (ASW) for the TG Template*

ASW 1	The TWV proposed to consider developing additional standard wording	TWV/
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	<p>and/or a guidance note, for Test Guidelines where a low germination could be expected for certain types of varieties.</p> <p>The TWA noted the TWV proposal to consider developing additional standard wording and/or a guidance note, for Test Guidelines where a low germination could be expected for certain types of varieties. The TWA agreed that there was a need to avoid creating many possibilities for seed submissions to be deficient in quality.</p>	A
ASW 4: 1.	<p><i>(to review whether ASW 4(1.) “Fruit species”, and similar such explanations concerning satisfactory growing cycles, should be included in Chapter 3.1 of the Test Guidelines “Number of Growing Cycles”. It noted that a consequential change would also need to be made to GN 9)</i></p> <p>The TWF, TWO, TWV and TWA agreed.</p>	TWF/ O/V/A
ASW 4: 2(b)	<p><u><i>((TG Template: Chapter 3.3) – Conditions for conducting the examination: Information for conducting the examination of particular characteristics: Type of observation</i></u></p> <p><i>TGP/7 to be amended according to the wording agreed for TGP/9.)</i></p> <p>The TWA agreed.</p> <p>The TWF agreed and decided to introduce indications of VG, VS, MG, MS in the Test Guidelines to be prepared for its fortieth session.</p> <p>The TWO did not consider that it was necessary to introduce indications of VG, VS, MG, MS in the Test Guidelines developed by the TWO.</p>	TWF/ O/A
ASW 4: 2(d)	<p><u><i>((TG Template: Chapter 3.3) – Conditions for conducting the examination: Observation of color by eye</i></u></p> <p><i>to add that the color chart and the version of the color chart used should be specified with the variety description)</i></p> <p>The TWF, TWO and TWV agreed.</p>	TWF/ O/V
ASW 8: (GN 11)	<p><u><i>((TG Template: Chapter 4.2) – Uniformity assessment</i></u></p> <p><i>In relation to Section 6 “Combining observations for all characteristics” in document TGP/10, the TC agreed that it would be necessary to consider the possible inclusion of that matter in the revision of document TGP/7/1 at its next session, when the development of that section of document TGP/10 would be more advanced.)</i></p> <p>The TWF, TWO, TWV and TWA agreed.</p>	TWF/ O/V/A
ASW 9	<p><i>(to be modified because it would not be appropriate to test stability by growing a further generation for cross-pollinated varieties. Also proposed that the text “... to ensure that it exhibits the same characteristics as those shown by the previous material supplied.” should be amended to read “... to ensure that it exhibits the same characteristics as those shown by the initial material supplied.”)</i></p> <p><i>(to review the wording:</i></p> <p><i>“Where appropriate, or in cases of doubt, stability may be tested, either by growing a further generation, or by testing a new [seed or plant] stock to ensure that it exhibits the same characteristics as those shown by the previous material supplied.”,</i></p> <p><i>with a view to the possible deletion of “, either by growing a further generation, or” for some Test Guidelines, such as those covering synthetic</i></p>	TWF/ O/V/A

	<p><i>varieties. In that respect, it is noted that the wording in ASW 9 is reproduced from the General Introduction, Chapter 7.3.1.2 (TC-EDC at its meeting on January 8, 2008)</i></p> <p>The TWF, TWO, TWV and TWA agreed and noted that the change would need to be reflected in document TGP/11.</p>	
ASW 16	<p><i>(TG Template: Chapter 10: TQ 7.3) – Where a photograph of the variety is to be provided</i></p> <p><i>to add text indicating that guidance would be provided by the authority to enhance the usefulness of the photograph (e.g. to include a metric scale in the picture, to define what parts of the plant should be included; light conditions, background color, etc)</i></p> <p>The TWF agreed that the European Community, in collaboration with Australia, would prepare a draft text.</p> <p>The TWO agreed that the European Community, in collaboration with Australia and Canada, should prepare a draft text.</p>	TWF/ O
New 1.	<p><i>(Chapter 1 of the Test Guidelines: Subject of these Test Guidelines to seek to develop Additional Standard Wording (ASW) for the following situations:</i></p> <p><i>(i) where there are separate Test Guidelines for different types of variety within the same genus/species (TWF: doc. TWF/35/11, par. 55);</i></p> <p><i>(ii) for Test Guidelines for rootstock varieties which do not include flower or fruit characteristics (TWA: doc. TWA/33/16, par. 31);</i></p> <p><i>(iii) for Test Guidelines covering hybrids with species / genera which are covered by other Test Guidelines.)</i></p> <p>The TWF agreed that the Office of the Union should prepare suitable drafts based on the explanations used in existing Test Guidelines, e.g. Japanese Plum, Sweet and Sour Cherry and Prunus rootstocks.</p> <p>The TWO, TWV and TWA agreed with that approach.</p>	TWF/ O/V/A
New 2.	<p><i>(Chapter 3.1</i></p> <p><i>to provide a new Additional Standard Wording (ASW) for crops where the two independent growing cycles are recommended to be in the form of two separate plantings, e.g. “The two independent growing cycles should be in the form of two separate plantings”.)</i></p> <p>The TWV and TWA agreed that TGP/7 should explain that two independent growing cycles would also result from a single planting examined in two separate growing cycles.</p>	TWV/ A
New 3.	<p><i>(Chapter 8</i></p> <p><i>to provide a standard definition of time of eating maturity.)</i></p> <p>The TWF agreed that it would be appropriate to develop standard definitions for different situations and agreed that Germany would prepare draft texts.</p> <p>The TWO and TWV agreed with that approach.</p>	TWF/ O/V
New 4.	<p><i>(Chapter 8</i></p> <p><i>to consider the development of a simple, generalized growth stage key for</i></p>	TWF/ O/V/A

	<p><i>use in Test Guidelines covering crops and species for which a suitable growth stage key had not been published)</i></p> <p>The TWF and TWO agreed that there was no requirement to develop such a growth stage key for fruit crops.</p> <p>The TWV and TWA agreed that the BBCH generalized growth stage key should be considered in the next draft of TGP/7.</p>	
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*Annex 3: Guidance Notes (GN) for the TG Template*

GN 7	<p>The TWO agreed that the number of plants requested in Chapter 2.3 of the Test Guidelines should correspond to the number of plants in Chapters 3.4 and 4.2. It also agreed that TGP/7 should provide guidance on how to address “spare” plants received in excess of the minimum number of plants required for DUS test. In particular, with regard to a DUS test designed for 5 plants, it proposed that guidance on that situation might be provided in the Test Guidelines. The TWO also questioned whether DUS tests should be based on 5 plants because of the consequences for the uniformity standard if 6 plants were planted and survived.</p> <p>The TWV agreed that any guidance should reflect the need for additional plants for, e.g. disease resistance tests.</p> <p>The TWA noted the TWO proposal that the number of plants requested in Chapter 2.3 of the Test Guidelines should correspond to the number of plants in Chapters 3.4 and 4.2. The TWA agreed that any guidance should reflect the need for seed to be included in reference collections.</p>	TWO/ V/A
GN 8	<p>The TWV agreed that TGP/7 should explain that the phrase “minimum duration of test should normally be” indicated that the duration of the test could be shorter in certain cases.</p> <p>The TWA noted the TWV proposal that TGP/7 should explain that the phrase “minimum duration of test should normally be” indicated that the duration of the test could be shorter in certain cases. The TWA agreed that it was important to consider the need to develop a robust variety description.</p>	TWV/ A
GN 11	see ASW 8	
GN 19 (3)	<p><i>(Numbers</i> <i>requirement for numbers lower than 10 to be written and higher numbers to be indicated numerically to be deleted)</i></p> <p>The TWF noted that it was necessary to have a guideline for this matter, but did not have strong views on the rule.</p> <p>The TWO, TWV and TWA agreed that, in general, numerals should be used except, for example, for the states of expression in Table of Characteristics where notes were provided.</p>	TWF/ O/V/A
GN 20	<p><i>(to consider whether the revision of Test Guidelines might not fully follow the guidance on the presentation of characteristics in document TGP/7 if that would involve substantial revision of databases of variety descriptions, which would not otherwise be necessary.)</i></p> <p>The TWF, TWO, TWV and TWA agreed that the need for a substantial revision of databases of variety descriptions should not be an automatic</p>	TWF/ O/V/A

	reason not to follow the guidance in document TGP/7 and agreed that the situation needed to be considered on a case-by-case basis.	
GN 20 (1)	<p><u>(Presentation of characteristics: States of expression according to type of expression of a characteristic)</u></p> <p><i>to clarify that adjectives such as moderately, medium, etc. (e.g. much smaller (1), moderately smaller (3), etc. / light green (1), medium green (2), etc.) should be used for pseudo-qualitative characteristics and for quantitative characteristics where there are one or more fixed states)</i></p> <p>The TWF, TWO, TWV and TWA agreed that it would be helpful to provide examples in order to consider the proposal.</p>	TWF/ O/V/A
GN 20 (3)	<p><u>(Quantitative characteristics: Explanation)</u></p> <p><i>to explain that the notes for quantitative characteristics should be meaningful in relation to the range of variation of the characteristic and for the assessment of distinctness)</i></p> <p>The TWF, TWO and TWV agreed.</p> <p>The TWA agreed that GN 20(3) should make reference to TGP/9 to explain the significance of the two-note difference when constructing quantitative characteristics, whilst clarifying that varieties with the same note might be considered to be distinct in a side-by-side comparison.</p>	TWF/ O/V/A
GN 20 (3)	<p><u>(Quantitative characteristics)</u></p> <p><i>to provide guidance on the use of a scale with more than 9 notes.)</i></p> <p>The TWF, TWO, TWV and TWA agreed.</p>	TWF/ O/V/A
GN 20 (3)	<p><u>(3.5 “Condensed” range)</u></p> <p><i>to consider accepting a 3-state range where there is no fixed point, e.g. weak/medium/strong, on the basis that the second state should read “intermediate”)</i></p> <p>The TWF, TWO, TWV and TWA agreed and noted the example of overlapping of petals.</p>	TWF/ O/V/A
GN 20 (4.4.1)	The TWF, TWO, TWV and TWA agreed to delete state 2 “yellow” from the example of a qualitative characteristic	TWF/ O/V/A
GN 28	<p><i>(to discuss the inclusion of example varieties in Test Guidelines)</i></p> <p>The TWF recalled the presentation by Japan on the comparison of example varieties grown in the greenhouse and field, noting that there was good correspondence for qualitative, pseudo-qualitative and some quantitative characteristics (e.g. ratios) and suggested to concentrate discussions on those quantitative characteristics where there was less good harmonization. It suggested that Japan should be encouraged to present the results of its work on Strawberry at the other Technical Working Parties.</p> <p>The TWF agreed that, if that was not already sufficiently clear, document TGP/7 should explain that example varieties from experts in different locations should not be combined in the same characteristic, unless those example varieties were verified by the Leading Expert.</p> <p>The TWF also proposed that consideration be given to indicating the drafters of the Test Guidelines in the adopted Test Guidelines in order to provide a contact for breeders and other parties seeking assistance in</p>	TWF/ O/V/A

	<p>obtaining example varieties.</p> <p>The TWO noted that there would be general discussion on the inclusion of example varieties in UPOV Test Guidelines. It was agreed that photographs and illustrations could be a more effective way of illustrating characteristics than example varieties, which were not always readily available. With regard to the use of example varieties for the harmonization of variety descriptions, it was not known to what extent that was achieved. It was noted that a number of members of the Union did not use the example varieties included in the Test Guidelines for their own guidelines. Furthermore, for some Test Guidelines, the example varieties would not be appropriate for all regions.</p> <p>The TWO noted that the need for the inclusion of example varieties in the Test Guidelines acted as a check on the usefulness of states of expression.</p> <p>The TWO noted that some denominations in the form of numbers, which were specified in the Technical Questionnaire, were more difficult to identify because the varieties were marketed under a trade name.</p> <p>It was noted that example varieties in the authority's own guidelines were an important means for some members of the Union to check the description of varieties over time.</p> <p>The TWV supported the inclusion of example varieties in the Test Guidelines according to the existing rationale and guidance in TGP/7/1. With regard to indicating the drafters of the Test Guidelines in the adopted Test Guidelines, the TWV observed that the Test Guidelines were endorsed by all members of the Union. It noted concerns about the number of enquires which might result from publishing the drafters of the Test Guidelines and recalled that that information was available to UPOV members and observers in document TC/[44]/2.</p> <p>The TWA agreed that the expert from France should develop a document, based on GN 28, for discussion at the TWP sessions in 2009. It agreed that that document should consider the importance of regional sets of example varieties and should explain that example varieties are not necessary for all characteristics.</p> <p>The TWA agreed that a separate chapter on example varieties should be introduced in TGP/7.</p>	
GN 29	<p><i>(to consider the possibility of introducing a table of trade names associated with the denominations of the example varieties)</i></p> <p>The TWF agreed in principle, but emphasized the need to explain the risks and the need to distinguish between trade names and trademarks.</p> <p>The TWO noted that trade names might not be registered (e.g. might or might not be trademarks) and noted, in particular, that trade names are not exclusively linked to a single variety. On that basis, it agreed that it would not be appropriate to seek to develop table of trade names in Test Guidelines.</p>	TWF/ O
GN 32	<p>The TWA proposed to move “female parent” etc. under brackets and provide sufficient space for information to be written</p>	TWA
New	<p><u><i>(TG Template: Chapter 10: TQ 7 – TQ / Non-asterisked characteristics)</i></u> <i>With regard to Technical Questionnaire characteristics (e.g. some disease</i></p>	TWF/ O/V/A

*resistance characteristics) which do not have an asterisk in the Table of Characteristics (see document TC/43/5, paragraph 35) the TC agreed that where information on such characteristics was to be requested in the Technical Questionnaire, that information should be requested in Section 7 of the Technical Questionnaire (Additional information which may help in the examination of the variety), rather than in Section 5 (Characteristics of the variety to be indicated). In that respect, it noted that the information in Section 7 was provided at the discretion of the breeder/applicant.)*

The TWF agreed.

The TWO agreed that TGP/7 should explain that some TQ characteristics (e.g. plant height, plant width, time of flowering etc.) were not used for grouping, but provided important information for practical planning of the trial.

The TWO also agreed that TGP/7 should explain that the TQ characteristics should be sufficient for effective grouping of varieties, on the basis that the grouping characteristics in the Test Guidelines would be used routinely for grouping, but that for some varieties, other characteristics in the TQ would be necessary to provide effective grouping.

The TWO agreed that the standard wording in the Test Guidelines should explain that care was particularly needed for grouping with PQ and QN characteristics where the description was produced at a different location, as was the case for information provided in the TQ.

The TWV proposed to include disease resistance characteristics in Section 5 of the Technical Questionnaire, even where the characteristics did not have an asterisk in the Table of Characteristics. It noted that it would be necessary to explain that it may not be possible for breeders to conduct the tests in some territories and proposed to add a tick box to indicate where the tests had not been conducted.

The TWV considered that it would be important to explain the risk of using TQ characteristics for grouping which were not indicated as useful for grouping in the Test Guidelines.

The TWA noted that it was possible for authorities to include non UPOV TQ characteristics in their own Technical Questionnaire.

#### *Annex 4: Collection of Approved Characteristics*

Introduction	<p><i>(to be clarified that characteristics contained in adopted UPOV Test Guidelines may be omitted from the “Collection of approved characteristics” (document TGP/7, Annex 4) where considered appropriate by the TC, on the basis of recommendations by the Enlarged Editorial Committee (TC-EDC))</i></p> <p>The TWF and TWO agreed. The TWV observed that that approach was not the most elegant means of addressing problematic characteristics</p> <p><i>(to explain that the indication of the characteristic number, the method of observation, type of characteristic and the indications of (+) and (*) had been retained from the Table of Characteristics from which the characteristic had originated, but to clarify that that information might not be appropriate for other Test Guidelines)</i></p>	TWF/O/ V
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	<p><i>(to explain to drafters of Test Guidelines that, for characteristics where any element of the characteristic is changed after copying from the collection, the translations into French, German and Spanish should be deleted )</i></p> <p>The TWF, TWO and TWV agreed.</p>	
Collection	<p><i>(examples of color characteristics developed in conjunction with TGP/14 Section 2.3: “Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents: Botanical Terms: Color” to be incorporated into TGP/7: Annex 4 “Collection of Approved Characteristics”. (It was noted that that might require the organization of the TGP/7 to be modified to some extent.))</i></p> <p><i>(to consider incorporating characteristics which are used in most Test Guidelines (e.g. Leaf: length) into the electronic template. To consider developing electronic templates for variety types (e.g. seed-propagated vegetables) which would incorporate more standard characteristics for the varieties concerned)</i></p> <p>The TWV agreed that experience had demonstrated that such an approach would not be appropriate.</p> <p><i>(to consider including a collection of approved illustrations and to consider making that collection available to breeders to assist in their applications for PBR. (see also TGP/14 Section 2.1: Plant shapes))</i></p> <p><i>(to consider the development of tools such as CD-ROMs containing photographs to enhance the understanding of the characteristics used in the Test Guidelines and thereby reduce observer error)</i></p> <p>The TWF, TWO and TWV (except where indicated) agreed with the proposals above.</p>	TWF/O/ V
	<p>The TWA noted that the Office of the Union planned to develop an improved TG Template and to integrate the Collection of Approved Characteristics into that template in a user-friendly package for drafters of Test Guidelines.</p>	TWA

[End of document]