



TWF/43/33

ORIGINAL: English

DATE: July 19, 2012

## INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

## TECHNICAL WORKING PARTY FOR FRUIT CROPS

**Forty-Third Session**  
**Beijing, July 30 to August 3, 2012**

COMMENTS BY THE TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS,  
 THE TECHNICAL WORKING PARTY FOR VEGETABLES AND THE TECHNICAL WORKING PARTY  
 ON AUTOMATION AND COMPUTER PROGRAMS ON TGP DOCUMENTS

*Document prepared by the Office of the Union*

This document contains the comments made by the Technical Working Party for Agricultural Crops (TWA) at its forty-first session, held in Angers, France, from May 21 to 26, 2012, by the Technical Working Party for Vegetables (TWV) at its forty-sixth session, held near the city of Venlo, Netherlands, from June 11 to 15, 2012, and by the Technical Working Party on Automation and Computer Programs at its thirtieth session, held in Chisinau, Republic of Moldova, from June 26 to 29, 2012, on documents that will be considered by the Technical Working Party for Fruit Crops (TWF) at its forty-third session.

TGP/7: Development of Test Guidelines*(i) Summary of revisions agreed for document TGP/7 "Development of Test Guidelines"*

TGP/7/2, Annex 3: Guidance Notes (GN) for the TG Template	<p>The TWA and the TWV agreed that, as proposed in document TWA/41/11 Annex, and in document TWV/46/11 Annex, document TGP/7: GN 7 should be amended to read as follows (see document TWA/41/34 "Report", paragraph 13 and document TWV/46/41 "Report", paragraph 11):</p> <p style="margin-left: 40px;">1. <u>"GN 7 (TG Template: Chapter 2.3) – Quantity of plant material required"</u></p> <p>"The drafter of the Test Guidelines should consider the following factors when determining the quantity of material required:</p> <ul style="list-style-type: none"> <li>(i) Number of plants/ parts of plants to be examined</li> <li>(ii) Number of growing cycles</li> <li>(iii) Variability within the crop</li> <li>(iv) Additional tests (e.g. resistance tests, bolting trials)</li> <li>(v) Features of propagation (e.g. cross-pollination, self-pollination, vegetative propagation)</li> <li>(vi) Crop type (e.g. root crop, leaf crop, fruit crop, cut flower, cereal, etc.)</li> <li>(vii) Storage in variety collection</li> <li>(viii) Exchange between testing authorities</li> <li>(ix) Seed quality (germination) requirements</li> <li>(x) Cultivation system (outdoor/glasshouse)</li> <li>(xi) Sowing system</li> <li>(xii) Predominant method of observation (e.g. MS, VG)</li> </ul> <p style="text-align: center;">"In general, in the case of <i>plants</i> required only for a single growing trial</p>	TWA, TWV
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	(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."	
Proposed ASW Chapter 2.3 (minimum quantity of plant material)	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).	TWA
	With regard to the proposed Additional Standard Wording (ASW) for Chapter 2.3 (minimum quantity of plant material), the TWV agreed that in the case of vegetables Alternative 2 would be appropriate (see document TWV/46/41 "Report", paragraph 12 ):  "Alternative 2: "2.3 The minimum quantity of plant material, to be supplied by the applicant, should be: [...] , which should be supplied as a single submission."	TWV

(ii) Revision of document TGP/7: Guidance on Number of Plants to be Examined (for distinctness) (see document TWF/43/12)

*Guidance note to be included in TGP/7, Section 4.1.4*

ANNEX II		
General	The TWV agreed with the proposed guidance but highlighted that, in the case of measurements and statistical approaches, the number of plants should be the same for candidate and reference varieties (see document TWV/46/41 "Report", paragraph 15).	TWV
paragraph 3	The TWA and the TWV agreed to correct Annex II, paragraph 3 from "qualitative" to "quantitative" (see document TWA/41/34 "Report", paragraph 16 and document TWV/46/41 "Report", paragraph 14).	TWA, TWV
paragraph 4	The TWC considered the information provided in document TWC/30/12 and recommended the following changes in paragraph 4 of Annex II (see document TWC/30/41 "Report", paragraph 14 ):  - The first sentence to read: The following general principles should be taken into account; - The last sentence to read: In that case it may be possible to include in the trial a lower number of plants for varieties with a clear difference (varieties in the variety collection), provided that uniformity does not have to be assessed for these varieties.	TWC

last paragraph	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).	TWA
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(iii) *Revision of document TGP/7: Guidance for Method of Observation (see document TWF/43/13)*

*GN 25 - Recommendations for conducting the examination*

paragraph 7	<p>The TWA, TWV and TWC agreed with the proposed text for guidance on method of observation as set out in the Annex the respective above mentioned documents, and proposed to modify the text of paragraph 7 to read as follows (see documents TWA/41/34 "Report", paragraph 18, TWV/46/41 "Report", paragraph 16 and TWC/30/41 "Report", paragraph 15):</p> <p style="padding-left: 40px;">“(b) <u>Number</u></p> <p style="padding-left: 40px;">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).”</p>	TWA, TWV, TWC
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(iv) *Revision of document TGP/7: Example Varieties (see documents TWF/43/14 and TWF/43/14 Add.)*

General	<p>The TWA and the TWV supported the proposal made by the expert from New Zealand and presented by an expert from France as follows (see documents TWA/41/14 Add. and TWA/41/34 "Report", paragraph 19 and documents TWV/46/14 Add. and TWV/46/41 "Report", paragraph 17):</p> <ul style="list-style-type: none"> <li>• Leading Expert collects the example varieties proposed by the interested UPOV members with a description for each of these varieties.</li> <li>• Leading Expert compiles the proposals taking into account the number of countries in common. Request for additional information on descriptions if necessary.</li> <li>• 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.</li> <li>• Finally the subgroup decides for which characteristic the example varieties will be proposed.</li> </ul>	TWA, TWV
	The TWC understood the importance of the document and suggested to continue the work on example varieties. It underlined the relevance of example varieties for the preparation of the Technical Questionnaire by the applicant (see document TWC/30/41 "Report", paragraph 17).	TWC
	The TWC highlighted that example varieties should be well known and available on the market. For species cultivated under controlled conditions, such as ornamentals, example varieties might have worldwide importance (see document TWC/30/41 "Report", paragraph 18).	TWC

TGP/7/3, Annex 3: GN 28: 2.3	The TWV proposed to provide the minimum number of example varieties required for QN characteristics according to document TGP/7/3, Annex 3: GN 28: 2.3 "Illustration of the range of expression within the variety collection" and agreed that it would be useful to organize ring tests for calibration where appropriate (see document TWV/46/41 "Report", paragraph 18).	TWV
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(v) *Revision of document TGP/7: Providing Photographs with the Technical Questionnaire (see document TWF/43/15)*

General	<p>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)</p> <p>The TWV considered document TWV/46/15 and agreed with the conclusion of the TWA (document TWV/46/41 "Report", paragraph 19).</p>	TWA, TWC
	The TWV noted the information provided by the delegation of Japan, concerning a manual developed for the East Asia Plant Variety Protection Forum, on how to take photographs for Plant Variety Protection applications and DUS testing (see document TWV/46/41 "Report", paragraph 20).	TWV
	<p>The TWC considered document TWC/30/15 and suggested that the following sentence of the proposal for new ASW 16 at Annex should read (see document TWC/30/41 "Report", paragraph 20):</p> <p>[A photograph provided according to the specified requirements (see [authority reference to be added]) <del>in an appropriate format</del> will help the examination authority to prepare its examination of distinctness in a more efficient way, by giving a visual illustration of the candidate variety which supplements the information provided in the Technical Questionnaire. ...]</p>	TWC

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

*Revision of document TGP/8: Part I: DUS Trial Design and Data Analysis, New Section 2: Data to be recorded (document TWF/43/16)*

General	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).	TWA
	The TWV agreed with the comments of the TWA 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. The TWV also highlighted the importance of DUS expert knowledge and experience (see document TWV/46/41 "Report", paragraphs 21 and 22).	TWV

	References to TWC documents in the text should be replaced by the appropriate references, if they exist, otherwise TWC suggested to keep the reference to relevant TWC documents;	TWC
	The TWC considered document TWC/30/16 Rev. and agreed that the document should be considered for approval by the TC after the amendments as follows (see document TWC/30/41 "Report", paragraph 22):	TWC
Section 2.3.3.8.4	the word "less" should be replaced by "fewer";	TWC
Annex, Table 3	to delete "E ≥ 5" on Table 3 of Annex, ordinal scale line;	TWC
Annex, Tables 3 and 4	to be updated according to the decision of the TC on recommended degrees of freedom as proposed in documents TWC/30/22 and TWC/30/23 (at least 10, and preferably at least 20).	TWC

*Revision of document TGP/8 Part I: Trial and Design of Data Analysis, New Section: Minimizing the Variation due to Different Observers (document TWF/43/24)*

General	The TWV considered document TWV/46/24 and highlighted the importance of the calibration of the observer (see document TWV/46/41 "Report", paragraph 35).	TWV
	The TWC considered document TWC/30/24 and recommended that it should be sent for consideration by the TC for incorporation into TGP/8 after amendment in the last sentence of Section 6.1 to read "for systematic differences" (see document TWC/30/41 "Report", paragraph 23).	TWC

*Revision of document TGP/8: Part I: DUS Trial Design and Data Analysis, New Section: Reduction of Size of Trials (see document TWF/43/21)*

General	<p>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).</p> <p>The TWV considered document TWV/46/21. The TWV considered that the proposed method was useful and recommended its inclusion in document TGP/8 (see document TWA/41/34 "Report", paragraphs 29 and 30).</p> <p>The TWC agreed that the document should be considered by the TC for inclusion in the proposed new section on the reduction of the size of the trials in TGP/8 Part I (see document TWC/30/41 "Report", paragraph 26).</p>	TWA, TWV, TWC
Section 1.7	The TWC considered document TWC/30/21 Rev. and agreed that the title of section 1.7 should read "Additional technical detail and example of analysis for distinctness assessment" and to add a first sentence to read "This section is of relevance to the reader interested in technical details". Section 1.7 was proposed to become 1.6 and section on References to be renumbered as 1.7 (see document TWC/30/41 "Report", paragraph 25).	TWC

*Revision of document TGP/8: Part II: Techniques Used in DUS Examination, Section 3: The Combined-Over-Years Criteria for Distinctness (COYD) (see document TWF/43/23)*

General	<p>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).</p> <p>The TWV noted the proposal for the revision of the minimum number of degrees of freedom for distinctness. The TWV agreed with the proposal of the TWA to invite 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 TWV/46/41 “Report”, paragraph 34).</p>	TWA, TWV
	The TWC considered document TWC/30/23 and clarified that the proposal to reduce the minimum degrees of freedom provided suitable statistical methods for smaller trials, even though 20 degrees of freedom was preferable (see document TWC/30/41 “Report”, paragraph 28).	TWC
TGP/8/1, Part I: 3 Schematic 3.4 on page 39	The TWC also clarified that Schematic 3.4 on page 39 of document TGP/8/1, Part I: 3 concerned analysis and not test design and therefore it did not need to be changed. The TWC considered that this Schematic was consistent with the proposed changes in degrees of freedom (see document TWC/30/41 “Report”, paragraph 29).	TWC

*Revision of document TGP/8: Part II: Techniques Used in DUS Examination, Section 3, Subsection 3.6: Adapting COYD to special circumstances (see document TWF/43/20)*

TGP/8 Part II Section 3 Subsection 3.6	<p>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).</p> <p>The TWV considered document TWV/46/20. The TWV supported the inclusion of the proposed text as Subsection 3.6 in Section 3 of TGP/8 Part II (see document TWV/46/41 “Report”, paragraphs 26 and 27).</p> <p>The TWC agreed that the text should be included in TGP/8 Part II Section 3 as Subsection 3.6 (see document TWC/30/41 “Report”, paragraph 30).</p>	TWA, TWV, TWC
paragraph 3.6.4.2	<p>The TWV agreed that the wording of paragraph 3.6.4.2 should read “groups” instead of “grouping” in the last sentence (see document TWV/46/41 “Report”, paragraph 28).</p> <p>The TWC considered document TWC/30/20 and agreed that the wording in paragraph 3.6.4.2 should read “groups” instead of “grouping” in the last sentence (see document TWC/30/41 “Report”, paragraph 30).</p>	TWV, TWC

*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 TWF/43/22)*

General	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).	TWA, TWV
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	<p>The TWV agreed with the proposal made by the TWA, 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 TWV/46/41 "Report", paragraph 32).</p>	
	<p>The TWC considered document TWC/30/22 and clarified that the COYD method was preferable over the 2x1% method for assurance that results were consistent and repeatable, as stated under Section 3.2.3 of TGP/8, and in particular bullet point 2 (page 59) (see document TWC/30/41 "Report", paragraph 33).</p> <p style="padding-left: 40px;">"3.2.3 The main advantages of the COYD method are: (...) – it ensures that judgments about distinctness will be reproducible in other seasons; in other words, the same genetic material should give similar results, within reasonable limits, from season-to-season;"</p>	TWC

*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 TWF/43/26)*

General	<p>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", paragraph 38).</p> <p>The TWV agreed with the proposal of the TWA that Chapter 10.2 "Threshold limits for Relative Variance Method" of the Annex to document TWV/46/26 should be considered by the TWC for incorporation into document TGP/8/1 Section 10 (see document TWV/46/41 "Report", paragraph 37).</p> <p>The TWC considered document TWC/30/26. The TWC noted the comments made by the TWA and TWV and agreed that Chapter 10.2 should be incorporated in document TGP/8. It requested the drafter to prepare a new draft after checking whether the remaining sections were already covered under section 10 of the TGP/8 (see document TWC/30/41 "Report", paragraph 35).</p>	TWA, TWV, TWC
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*Revision of document TGP/8: Part II: Techniques used in DUS Examination, New Section 11: Examining DUS in Bulk Samples (see document TWF/43/28)*

General	<p>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", paragraph 40).</p> <p>The TWV agreed with the proposal of the TWA that, in relation to bulk samples, there were no specific requirements for assessment of distinctness (see document TWV/46/41 "Report", paragraph 39).</p>	TWA, TWV
	<p>The TWV proposed that the loss in comparison between individual tests and different levels of bulking should be evaluated (see document TWV/46/41 "Report", paragraph 40).</p> <p>The TWC agreed with the proposal of TWV that the loss in comparison between individual tests and different levels of bulking could be evaluated if data from bulk samples were provided (see document TWC/30/41 "Report", paragraph 38).</p>	TWV, TWC

	The TWC considered that this guidance would be useful for determination of substances content and electrophoresis and suggested that practical examples of such uses might be provided (see document TWC/30/41 "Report", paragraph 39).	TWC
New Section 11: Examining DUS in Bulk Samples	The TWC agreed the following editorial changes to the document (see document TWC/30/41 "Report", paragraph 40):	TWC
Introduction, first sentence	First sentence to replace "part" by "parts"	TWC
Introduction, last sentence	to replace "3" by "3 bulk samples"	TWC
Paragraph 2, last line	to delete "exclude" (duplicity)	TWC
Testing for uniformity	to read mean of the characteristic	TWC
Paragraph 2	to read "based on the logarithm"	TWC
Paragraph 4	to replace "have" for "has"	TWC
Paragraph 4	to replace "consequences" for "consequence"	TWC
Paragraph 4	to delete "that" (duplicity)	TWC
Paragraph 4	to read "recommended"	TWC
Page 2, second line	to read "as long as there is at least one"	TWC
Examples, first line	to read "observations"	TWC
Last paragraph	to read "random variation, the effect of ..."	TWC
Page 3, paragraph below table	to improve wording	TWC

*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 TWF/43/30)

General	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", paragraph 44).	TWA
	The TWV considered document TWV/46/30 and received a presentation made by the Office containing a summary of different approaches for transforming means into notes for variety descriptions. The TWV was informed that the summary would be presented to the TWC at its thirtieth session and that it would be further developed (see document TWV/46/41 "Report", paragraphs 43 and 44).	TWV
	The TWC noted information provided in documents TWC/30/30 and TWC/30/30 Add. and agreed that the experts from Finland, Italy and the United Kingdom would support the Office of the Union to summarize the different approaches for further developing common guidance on data processing for the assessment of distinctness and for producing variety descriptions (see document TWC/30/41 "Report", paragraph 42).  The TWC agreed that experts from the United Kingdom in cooperation with	TWC



	experts from France and Germany should conduct a practical exercise. The exercise would be to process a common data set to produce variety descriptions in order to determine the aspects in common and where there was divergence among the methods (see document TWC/30/41 "Report", paragraph 43).	
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*Revision of document TGP/8: Part II: Techniques Used in DUS Examination, New Section: Guidance of Data Analysis for Blind Randomized Trials (see document TWF/43/17)*

General	<p>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).</p> <p>The TWV considered document TWV/46/17 and agreed with the comments of the TWA expressing the importance of these blind randomized trials for the breeders and the contribution they made to the system and recommending that the work on that guidance should be continued on the basis of that document (see document TWV/46/41 "Report", paragraph 23).</p>	TWA, TWV
	The TWC agreed with the further development of the document and recommended that it should be made more general so as to apply to all possible users, e.g. to remove the mention to GEVES. The TWC requested that further clarifications be provided for paragraphs 2, 4 and 5. Further guidance provided by the document should include information on the number of replications to ensure that correct labeling of the variety by chance would not be likely (see document TWC/30/41 "Report", paragraph 45).	TWC

*Revision of document TGP/8: Part II: Techniques Used in DUS Examination, New Section: Guidance for Development of Variety Descriptions (see document TWF/43/18)*

General	<p>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", paragraph 26).</p> <p>The TWC considered document TWC/30/18 and noted that the situation described in paragraph 5 did not cover all methods used by members of the Union and should be revised. The TWC agreed to remove the references to COYD, as suggested by the TWA (see document TWC/30/41 "Report", paragraphs 49 to 51).</p>	TWA, TWC
	The TWV thanked the drafter for the work on the document but agreed that this guidance is already provided in the TGP documents and proposed not to further develop the guidance on variety descriptions. The TWV concluded that the process of preparing a variety description is largely based on the experience of the DUS expert (see document TWV/46/41 "Report", paragraph 25).	TWV

	The TWC also agreed that the paragraph 7.2 should recommend that descriptions of varieties (tested in more than one growing cycle) should be made from results obtained from the same location in order to reduce variation. The TWC agreed that this document should be further developed taking into account the comments provided by other TWPs (see document TWC/30/41 "Report", paragraphs 52 and 53).	TWC
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*Revision of document TGP/8: Part II: Techniques Used in DUS Examination", New Section: Statistical Methods for Visually Observed Characteristics (see document TWF/43/29)*

General	<p>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).</p> <p>The TWV considered that the method presented in the Annex to document TWV/46/29 was a useful alternative to the Chi-square test for independence in the contingency table and agreed to suggest that more examples and data be provided to further develop the document (see document TWV/46/41 "Report", paragraph 42).</p> <p>The TWC noted the changes introduced in document TWC/30/29 and agreed that new examples should be requested from Italy (Beetroot) and other countries for preparation of a new draft of the document for the TWPs sessions in 2013 (see document TWC/30/41 "Report", paragraph 55).</p>	TWA, TWV, TWC
Pages 3 and 4	The TWC requested the drafter to check if variety Q in the table 2, page 3, was variety T and to provide more explanations on the first paragraph of page 4 of document TWC/30/29 (see document TWC/30/41 "Report", paragraph 56).	TWC
	The TWC also requested that statistics F3 and F4 be described (see document TWC/30/41 "Report", paragraph 56).	TWC
Pages 4 and 7	The TWC agreed the following editorial changes to document TWC/30/29 (see document TWC/30/41 "Report", paragraph 58):	TWC
Heading of Annex	to read "TWC"	TWC
Page 4, first paragraph	to change "form" to read "from"	TWC
Page 4, first paragraph	to read "significantly" (in two places)	TWC
Page 4, first paragraph	to read "P-value" and "always"	TWC
Page 7	to read "varieties E and H have..."	TWC

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 TWF/43/27)*

Annex I	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).	TWA
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Annex II	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).	TWA
Annex II Definitions	The TWV proposed to amend the definitions of peduncle, pedicel, main stem, as set out in Annex II to document TWV/46/27, as follows (see document TWV/46/41 "Report", paragraph 46):	TWV
Terms	Definition / comment	
Peduncle	A stem supporting a solitary flower or fruit, or an inflorescence, or supporting an infructescence after fecundation	
Pedicel	A stem which attaches single flowers or fruits to the main stem peduncle of the inflorescence or infructescence.	
Petiole	A stalk attaching the leaf blade to the stem	
Petiolule	A stalk of any of the leaflets making up a compound leaf.	
Annex III	With regard 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).	TWA
	The TWV agreed that the duplication of characteristics should be avoided, but highlighted that ratio and shape are not always duplicated characteristics as indicated in paragraph 2.1.1 of document TGP/14/1, Section 2: Botanical Terms: Subsection 2: Shapes and Structures: I. SHAPE: 2. "Developing Shape-Related Characteristics" and could be useful in DUS examination (see document TWV/46/41 "Report", paragraph 47).	TWV
	The TWV highlighted that the use of length, width and ratio could be useful in certain cases, if appropriate (see document TWV/46/41 "Report", paragraph 48).	TWV
	With regard to revision of "components of shape: states of expression for ratios", the TWV recommended that it would be more appropriate to use the states "very low to very high" in place of "very high to very low" when considering ratio: length/width. If the characteristic ratio: length/width was presented as shape, then the states would be "very compressed to very elongated" in place of "very elongated to very compressed" (see document TWV/46/41 "Report", paragraph 49).	TWV
Annex V	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).	TWA
	The TWV agreed with the proposal of the TWA that the guidance on use of composite characteristics for determining distinctness and uniformity contained in Annex V to document TWA/41/27 was useful and recommended its inclusion in document TGP/14 (see document TWV/46/41 "Report", paragraph 50).	
	With regard to the guidance on use of composite characteristics for determining distinctness and uniformity contained in the Annex V to document TWC/30/27, the TWC suggested that the heading of the second bullet point should read "provide additional information over that of its components" (see document TWC/30/41 "Report", paragraph 60).	TWC

(ii) *Revision of Document TGP/14: Section 2: Botanical Terms, Subsection 3: Color*  
(document TWF/43/25)

General	The TWC considered document TWC/30/25 and suggested that the respective RHS colour be included in each of the photographs that were introduced in the document (see document TWC/30/41 "Report", paragraph 62).	TWC
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