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

**ENLARGED EDITORIAL COMMITTEE**  
**Geneva, January 9 and 10, 2013**

SUMMARY OF REVISIONS AGREED FOR DOCUMENT TGP/7 "DEVELOPMENT OF TEST GUIDELINES"

*Document prepared by the Office of the Union*

1. The purpose of this document is to set out proposals for the revision of document TGP/7 "Development of Test Guidelines" (document TGP/7/3) concerning the items agreed by the Technical Committee (TC) at its forty-eighth session, held in Geneva from March 26 to 28, 2012 (see document TC/48/22 "Report on the Conclusions", paragraphs 36 to 48), on the basis of the comments made by the Technical Working Parties (TWPs) at their sessions in 2012.

2. The following abbreviations are used in this document:

CAJ: Administrative and Legal Committee  
TC: Technical Committee  
TC-EDC: Enlarged Editorial Committee  
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  
TWW: Technical Working Party for Vegetables

3. The structure of this document is as follows:

I. REVISIONS ON WHICH THE TECHNICAL COMMITTEE HAS PREVIOUSLY REACHED A CONCLUSION

Coverage of Ornamental Varieties in Test Guidelines  
Selection of Asterisked Characteristics  
Quantity of Plant Material Required  
Standard References in the Technical Questionnaire  
Applications for Varieties with Low Germination  
Indication of Grouping Characteristics  
Procedure for the Development of Test Guidelines

II. REVISIONS TO BE CONSIDERED BY THE TECHNICAL COMMITTEE

Guidance on Number of Plants to be Examined (for Distinctness)  
Guidance for Method of Observation  
Example Varieties  
Providing Photographs with the Technical Questionnaire

III. NEW PROPOSAL FOR FUTURE REVISION TO BE CONSIDERED BY THE TECHNICAL COMMITTEE

*Annex: "Quantity of Plant Material Required"*

## I. REVISIONS ON WHICH THE TECHNICAL COMMITTEE HAS PREVIOUSLY REACHED A CONCLUSION

4. The TC, at its forty-eighth session held in Geneva from March 26 to 28, 2012, recalled that, at its forty-seventh session, held in Geneva from April 4 to 6, 2011, it had agreed to include the following matters in a future revision of TGP/7 "Development of Test Guidelines":

### Coverage of Types of Varieties in Test Guidelines

The addition of new Additional Standard Wording (ASW) for Chapter 1 of the Test Guidelines, as follows:

"In the case of [ornamental] [fruit] [industrial] [vegetable] [agricultural] [etc.] varieties, in particular, it may be necessary to use additional characteristics or additional states of expression to those included in the Table of Characteristics in order to examine Distinctness, Uniformity and Stability."

with an explanation in document TGP/7 that such wording should not lead to any particular conclusions as to whether other types of varieties should or should not be covered by the development of separate Test Guidelines, since that would need to be considered on a case-by-case basis (see document TC/47/26 "Report on the Conclusions", paragraph 54);

### Selection of Asterisked Characteristics

The final sentence of document TGP/7/2, GN 13.1 "Asterisked characteristics", Section 1.2, should be amended to read "The number of asterisked characteristics should, therefore, be determined by the characteristics which are required to achieve useful internationally harmonized variety descriptions". On the basis of that change, the TC agreed that the guidance provided in document TGP/7, GN 13, on the selection of asterisked characteristics was appropriate and sufficient and that it would only be necessary to ensure that the guidance was followed in the development of Test Guidelines (see document TC/47/26 "Report on the Conclusions", paragraph 59); and

### Quantity of Plant Material Required

The guidance in document TGP/7, GN 7 "Quantity of plant material required" should be extended to encourage Leading Experts to consider the quantity of plant material required in relation to the following factors (see document TC/47/26 "Report on the Conclusions", paragraph 55):

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

5. The TC, at its forty-eighth session, agreed that Additional Standard Wording (ASW) should be developed in order to provide guidance in the Test Guidelines on whether the quantity of plant material required in Chapter 2 of the Test Guidelines relates to both growing cycles in the case of Test Guidelines indicating two growing cycles (see document TC/47/26 "Report on the Conclusions", paragraph 56). The Annex to this document contains the draft for guidance "Quantity of plant material required" and proposed Additional Standard Wording (ASW), as set out in paragraph 5 of this document.

6. The TC further agreed that the guidance in document TGP/7, GN 7 should be extended to encourage Leading Experts to consider the quantity of plant material required for similar crops in order to seek consistency as far as that was appropriate. In that regard, it agreed that a summary of the following information should be prepared by the Office of the Union for all adopted Test Guidelines and made available to Leading Experts on the TG Drafters' webpage in order that information on Test Guidelines for

similar crops could be presented to the Subgroup of Interested Experts by the Leading Expert (see document TC/47/26 "Report on the Conclusions", paragraph 57):

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

(see document TC/48/22 "Report on the Conclusions", paragraph 37).

#### Standard References in the Technical Questionnaire

7. The TC, at its forty-eighth session, recalled that, at its forty-seventh session, it had agreed to delay consideration of the approach for providing standard references for the UPOV Technical Questionnaire and for the characteristics in the Test Guidelines with a view to a future revision of document TGP/7, pending the outcome of work on the Linear Blank Form for PBR Applications (see document TC/47/26 "Report on the Conclusions", paragraph 68).

#### Applications for Varieties with Low Germination

8. The TC, at its forty-eighth session, recalled that, at its forty-seventh session, it had agreed that, for the time being, no revisions should be considered for document TGP/7 in relation to applications for varieties with low germination (see document TC/47/26 "Report on the Conclusions", paragraph 58). It further recalled that it had agreed that it would not be appropriate to revise document TGP/7 in order to include an indication of grouping characteristics in the Table of Characteristics in the UPOV Test Guidelines (see documents TC/47/26 "Report on the Conclusions", paragraph 60 and TC/48/22 "Report on the Conclusions", paragraphs 38 and 39)

#### Procedure for the Development of Test Guidelines

9. The TC, at its forty-eighth session agreed that paragraphs 2.2.3.2 of document TGP/7 "Development of Test Guidelines" should read as follows (see document TC/48/22 "Report on the Conclusions", paragraph 48):

"2.2.3.2 In cases where more than one TWP has proposed the development of Test Guidelines with the same coverage, the Technical Committee will decide which TWP should be responsible for the drafting of the Test Guidelines and which other TWPs should cooperate. This will be decided on the basis of the level of experience in the TWPs concerned. In such cases, the Technical Committee will request the approval of other cooperating TWPs before a draft is submitted for adoption."

## II REVISIONS TO BE CONSIDERED BY THE TECHNICAL COMMITTEE IN 2013

#### Guidance on the Number of Plants to be Examined (for Distinctness)

10. The TC, at its forty-eighth session agreed to prepare guidance on (see document TC/48/22 "Report on the Conclusions", paragraph 40):

- (a) the number of plants in the trial;
- (b) the number of plants/parts of plants to be examined for the assessment of distinctness;
- (c) the number of plants/parts of plants for the assessment of uniformity.

11. The TC, at its forty-eighth session, under agenda item "Discussion on experiences of members of the Union on measures to improve the efficiency and effectiveness of DUS testing", discussed the number of plants to be examined on the basis of a presentation by Mrs. Beate Rucker (Germany) (see document TC/48/22 "Report on the Conclusions", paragraph 19).

12. The Chairman suggested that the following observations in the presentation would provide effective guidance and might be considered by the TWPs:

*Considerations for the number of plants to be observed for distinctness in case of QN (PQ) characteristics:*

- (i) Observation on the plot as a whole (VG/MG)
  - indicated number to be considered as minimum number
- (ii) Observation on subsample from plot (VG/MG)
  - indicated number to be considered as minimum number
- (iii) Observations on individual plants (VS/MS)
  - number of plants important for precision of record
  - specific number to be indicated

*Considerations for the number of plants for candidate varieties and varieties to be compared with*

If uniformity has not to be observed for similar varieties of common knowledge (reference varieties), it can be considered to include in the trial a lower number of plants for the reference varieties.

(see document TC/48/22 “Report on the Conclusions”, paragraph 20).

13. The TC, at its forty-eighth session, agreed that guidance for points (a) and (c) of paragraph 10, would be considered in relation to “Quantity of Plant Material Required” (see paragraph 4, above). With regard to the number of plants/parts of plants to be examined for the assessment of distinctness, the TC agreed that the information provided in the presentation by Mrs. Beate Rücker (Germany) on the number of plants to be examined, under agenda item “Discussion on experiences of members of the Union on measures to improve the efficiency and effectiveness of DUS testing” (see paragraphs 11 and 12 above), would provide a good basis for such guidance (see document TC/48/22 “Report on the Conclusions”, paragraph 41).

14. The TC, at its forty-eighth session agreed that Mrs. Beate Rücker (Germany), in conjunction with the Office of the Union, should be invited to prepare draft guidance for consideration by the TWPs in 2012, on the above basis (see document TC/48/22 “Report on the Conclusions”, paragraph 42).

15. The draft guidance on the number of plants to be examined is presented in document TC-EDC/Jan13/4 Rev. “Revision of document TGP/7: Guidance on Number of Plants to be Examined (for Distinctness)”.

#### Guidance for Method of Observation

16. The TC, at its forty-eighth session agreed that document TGP/7/2, GN 25 “Recommendations for conducting the examination” should be extended to provide guidance, by means of illustrative examples, on the appropriate type of observation for characteristics such as dates (e.g. time of flowering) and counts (e.g. number of leaf lobes), on the basis of the examples as provided in Annex II to document TC/48/18 and the comments made on those examples by the TWPs in 2010 (see document TC/47/26 “Report on the Conclusions”, paragraph 61).

17. The TC, at its forty-eighth session agreed that the Office of the Union should draft guidance on that basis, for consideration by the TWPs at their sessions in 2012 (see document TC/48/22 “Report on the Conclusions”, paragraphs 43 to 44).

18. The draft guidance on Method of Observation is presented in document TC-EDC/Jan13/5 “Revision of document TGP/7: Guidance for Method of Observation”

### Example Varieties

19. The TC, at its forty-eighth session, agreed that the experts from France should be requested to make a presentation on example varieties to the TWPs at their sessions in 2012 on the basis of the presentation made under agenda item "Discussion on experiences of members of the Union on measures to improve the efficiency and effectiveness of DUS testing" and reflecting the comments and suggestions made during the discussion (see document TC/48/22 "Report on the Conclusions", paragraph 45).

20. The proposal on example varieties is presented in document TC-EDC/Jan13/6 "Revision of document TGP/7: Example varieties".

### Providing Photographs with the Technical Questionnaire

21. The TC, at its forty-eighth session, recalled that, at its forty-seventh session, it had agreed that further consideration should be given to the nature of the guidance of the document in order to avoid setting requirements that were not realistic for breeders. It was also agreed that the relationship between the characteristics in the Technical Questionnaire and the photographs should be clarified (see document TC/47/26 "Report on the Conclusions", paragraphs 69 and 70).

22. The TC, at its forty-eighth session, agreed that a new draft of the guidance in document TC/48/18, Annex IV, reflecting the comments of the TWPs and the TC-EDC, should be prepared by the experts from the European Union, for consideration by the TWPs at their session in 2012 (see document TC/48/22 "Report on the Conclusions", paragraphs 46 and 47).

23. The draft guidance on providing photographs with the Technical Questionnaire is presented in document TC-EDC/Jan13/7 "Revision of document TGP/7: Providing Photographs with the Technical Questionnaire".

## III. NEW PROPOSALS FOR FUTURE REVISION TO BE CONSIDERED BY THE TECHNICAL COMMITTEE

### Growing Cycle

24. The TWF, at its forty-third session, agreed that information should be provided on the term "growing cycles". This should be in the form of a General Note (GN) or Additional Standard Wording (ASW). The TWF considered that the wording below is contradicting and clarification on the exact meaning should be sought.

Paragraph 3.1: "The minimum duration of test should normally be two independent growing cycles.";

Paragraph 4.1.2: "The differences observed between varieties may be so clear that more than one growing cycle is not necessary."

(see document TWF/43/38 "Report", paragraph 91)

25. At the forty-fifth session of the TWO, the expert from the European Union raised the issue of the apparent contradiction in the use of the term "growing cycles", noting that in the case of Eucalyptus, it was difficult to identify a "growing cycle". He suggested that this should be reflected in document TGP/7 in the form of a General Note (GN) or Additional Standard Wording (ASW) (see document TWO/45/37 "Report", paragraph 94).

### Source of Propagating Material

26. The TWF, at its forty-third session, requested further information on how the method of vegetative propagation (e.g. *in vitro*, hardwood or softwood cuttings) and the origin of the propagating material, taken from within the plant, might affect future plant development and characteristic expression and how this should be provided for in Test Guidelines (see document TWF/43/38 "Report", paragraph 92).

27. The TWF, at its forty-third session, agreed that the European Union would prepare a document for discussion at the TWF session in 2013 (see document TWF/43/38 "Report", paragraph 93).

28. At the forty-fifth session of the TWO, the expert from the European Union noted that further information on how the method of vegetative propagation (e.g. *in vitro*, hardwood or softwood cuttings) and the origin of the propagating material, taken from within the plant, might affect future plant development and characteristic expression and how this should be provided for in Test Guidelines (see document TWO/45/37 "Report", paragraph 94).

29. The TWO, at its forty-fifth session, noted that the European Union would prepare a document for discussion at the TWO session in 2013 (see document TWO/45/37 "Report", paragraph 96).

[Annex follows]

## ANNEX

## QUANTITY OF PLANT MATERIAL REQUIRED

[Extract from document TGP/7/2, Annex 3: Guidance Notes (GN) for the TG Template]

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

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

- “(a) Anticipated level of plant establishment, from submitted plant material, for field trials or other growing tests;
- “(b) Quantity of submitted plant material to be used for non-growing tests (e.g. erucic acid test for Rape seed);
- “(c) Quantity of submitted plant material to be used for quality checks on the submitted plant material (e.g. germination tests for seed);
- “(d) Quantity of submitted plant material to be used for reference samples;
- “(e) Rate of deterioration during storage.

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

## PROPOSED TEXT

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

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

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

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

Proposed Additional Standard Wording (ASW) considered by the TWPs at their sessions in 2012.

Alternative 1:

“2.3 The minimum quantity of plant material, to be supplied by the applicant, should be:

[...]

for each of two growing cycles”

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”

*Comments by the Technical Working Parties in 2012*

1. The TWA, at its forty-first session and the TWV, at its forty-sixth session, agreed that, as proposed in Annex to documents TWA/41/11 and TWV/46/11, document TGP/7: GN 7 should be amended to read as follows:

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

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

- (i) Number of plants/ parts of plants to be examined
- (ii) Number of growing cycles
- (iii) Variability within the crop
- (iv) Additional tests (e.g. resistance tests, bolting trials)
- (v) Features of propagation (e.g. cross-pollination, self-pollination, vegetative propagation)
- (vi) Crop type (e.g. root crop, leaf crop, fruit crop, cut flower, cereal, etc.)
- (vii) Storage in variety collection
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- (x) Cultivation system (outdoor/glasshouse)
- (xi) Sowing system
- (xii) Predominant method of observation (e.g. MS, VG)

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

(see document TWA/41/34 “Report”, paragraph 13 and TWV/46/41 “Report”, paragraph 11).

2. With regard to the proposed Additional Standard Wording (ASW) for Chapter 2.3 (minimum quantity of plant material), the TWA, at its forty-first session, 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).

3. With regard to the proposed Additional Standard Wording (ASW) for Chapter 2.3 (minimum quantity of plant material), the TWV, at its forty-sixth session near the city of Venlo, Netherlands, from June 11 to 15, 2012, agreed that in the case of vegetables Alternative 2 would be appropriate:

“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.”

(see document TWV/46/41 “Report”, paragraph 12).

4. The TWF, at its forty-third session and TWO, at its forty-fifth session, agreed that Chapter 2.3 should read:

“The minimum quantity of plant material, to be supplied by the applicant should be: [...].”

(see document TWF/43/38 “Report”, paragraph 9 and TWO/45/37 “Report”, paragraph 9).

[End of Annex and of document]