



TC/51/14 Rev.  
**ORIGINAL:** English  
**DATE:** February 27, 2015

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

**TECHNICAL COMMITTEE**

**Fifty-First Session**  
**Geneva, March 23 to 25, 2015**

REVISION OF DOCUMENT TGP/7: PLANT MATERIAL SUBMITTED FOR EXAMINATION

*Document prepared by the Office of the Union*

*Disclaimer: this document does not represent UPOV policies or guidance*

1. The purpose of this document is to report on developments concerning the possibility of providing guidance on plant material submitted for examination, for inclusion in a future revision of document TGP/7.

2. The following abbreviations are used in this document:

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
TWV:	Technical Working Party for Vegetables

3. The structure of this document is as follows:

BACKGROUND .....	1
DEVELOPMENTS IN 2014.....	2
TECHNICAL COMMITTEE .....	2
TECHNICAL WORKING PARTIES.....	2

BACKGROUND

4. The Technical Committee (TC), at its forty-ninth session held in Geneva from March 18 to 20, 2013, noted that information on the influence of the method of vegetative propagation and origin of propagating material, taken from within the plant, on future plant development and characteristic expression and how this might be addressed in Test Guidelines would be presented to the Technical Working Party for Fruit Crops (TWF) and Technical Working Party for Ornamental Plants and Forest Trees (TWO), at their sessions in 2013 by experts from the European Union (see document TC/49/41 "Report on the Conclusions", paragraph 81).

5. In response to the request of the TC, the drafter from the European Union (Mr. Jens Wegner) prepared a draft of guidance on source of propagating material, and agreed this document to be presented at all Technical Working Parties in 2013. Developments in 2013 are reported in document TC/50/17 "Revision of document TGP/7: Source of Propagating Material".

## DEVELOPMENTS IN 2014

### Technical Committee

6. The TC, at its fiftieth session, held in Geneva from April 7 to 9, 2014, considered document TC/50/17 "Revision of document TGP/7: Source of Propagating Material", including a new condensed version of the draft guidance on source of propagating material, prepared by the expert from the European Union (see document TC/50/36 "Report on the Conclusions", paragraph 43).

7. The TC, at its fiftieth session, encouraged experts to present to the TWPs, at their sessions in 2014, their experiences with regard to plant material submitted for examination, and how they had addressed the problems that could arise, which could be developed into guidance that would reflect good practice. It also agreed that the title of the document should be amended accordingly (see document TC/50/36 "Report on the Conclusions", paragraph 44).

8. On April 25, 2014, the Office of the Union, issued Circular E14/105 inviting experts to provide their experiences with regard to plant material submitted for examination, and how they had addressed the problems that could arise. Copies of presentations received in response to the Circular were posted on the relevant TWP webpages.

### Technical Working Parties

9. The TWO, TWF, TWC, TWV and TWA considered documents TWO/47/12, TWF/45/12, TWC/32/12, TWV/48/12, TWA/43/12 "Revision of document TGP/7: Plant Material Submitted for Examination" (see document TWO/47/28 "Report", paragraphs 32 and 35, document TWF/45/32 "Report", paragraphs 20 to 23, document TWC/32/28 "Report", paragraphs 64 and 65, document TWV/48/43 "Report", paragraphs 21 to 26 and document TWA/43/27 "Report", paragraphs 18 to 23 ).

10. The TWO received presentations by the experts from the European Union and the Netherlands on experiences with regard to plant material submitted for examination, and the solutions that had been developed to address problems. It noted that a copy of the presentations would be provided as an addendum to document TWO/47/12 (see document TWO/47/28 "Report", paragraph 33).

11. The TWO noted that plant material of vegetatively propagated varieties submitted for examination could be adversely affected by factors such as: transportation handling; inappropriate use of chemicals; different methods of micro-propagation; adverse effects of tissue culture, etc., resulting in variability within the material that could present problems for the examination of uniformity. The TWO observed that such problems would normally appear during the establishment phase of the variety and might, as appropriate, require a new submission of material, testing for an additional growing cycle, or rejection of the application. It clarified that such problems, which arose prior to receipt of material by the examining authority, needed to be addressed by the breeder. The TWO agreed that such problems only concerned a small proportion of plant material received for examination (see document TWO/47/28 "Report", paragraph 34).

12. The TWO agreed that authorities in charge of receiving plant material for examination should provide guidance on the requirements of material submitted such as quality and age (see document TWO/47/28 "Report", paragraph 35).

13. The TWF considered the examples presented by the experts from the European Union and Germany, on their experiences with regard to plant material submitted for examination, and the solutions that had been developed to address problems. The TWF noted in case of the examination of fruit species, the "cyclophysis" effect, which means the effect of the place where the scion is taken from within the mother plant, due to different degrees of maturity, that may have a specific impact on the expression of a particular characteristic. If, for example, graftwood material is taken from older trees of one authority's reference collection, in order to produce young trees for comparing them with the plants of a new candidate variety at same age, the fresh grafting, the scion of which represents generative but not vegetative material, subsequently needs removing their immediately occurring inflorescences. This needs to be done during the establishment period, in order to produce a proper tree, with a central leader and sufficient side shoots attached to it (see document TWF/45/32 "Report", paragraph 21).

14. The TWF noted the actions taken to avoid the influence of the method of propagation on the outcome of the DUS examination in certain crops. It was also noted that, in the case of blueberry and grapevine, plant

material resulting from meristematic tissue could not be accepted for examination due to the risk of somaclonal variation (see document TWF/45/32 "Report", paragraph 22).

15. The TWF agreed that authorities in charge of receiving plant material for examination should provide guidance on the requirements of material submitted such as quality and age (see document TWF/45/32 "Report", paragraph 23).

16. The TWC noted that the TWO, TWF, TWV and TWA would consider the presentations of experts, on their experiences with regard to plant material submitted for examination, and the solutions that had been developed to address problems, and would consider how those experiences and solutions could be developed into guidance that reflected good practice (see document TWC/32/28 "Report", paragraph 65).

17. The TWV considered the example presented by the experts from the Netherlands on their experiences with regard to plant material submitted for examination, particularly the case of vegetatively propagated leek, and the solutions that had been developed to address problems as reproduced in the addendum of document TWV/48/12 (see document TWV/48/43 "Report", paragraph 22).

18. The TWV noted the report by the expert from the European Seed Association (ESA) on a current project organized by the Community Plant Variety Office of the European Union (CPVO) on the effect of seed priming on the development of plants and if it would influence the phenotype of the plant in TG characteristics. The TWV invited the European Union to make a report on the development of this project at its forty-ninth session of the TWV (see document TWV/48/43 "Report", paragraph 23).

19. The TWV agreed that measures should be taken to ensure that the method of propagation did not influence the expression and observation of characteristics. It agreed that there was insufficient guidance for vegetable varieties at present, especially when an authority received an application for vegetatively propagated varieties in a seed-propagated species. The TWV therefore agreed that further guidance reflecting good practice should be developed (see document TWV/48/43 "Report", paragraph 24).

20. In relation to propagation of plant material for the maintenance of the variety collection, the TWV noted that, in some cases, the authority requested that the applicant submit new material, whilst in other cases the authority propagated the material itself. It recalled that TGP/11 "Examining Stability" states as follows (see document TWV/48/43 "Report", paragraph 25):

"2.2 Practical aspects to consider for the examination of stability

"Where considered appropriate, the testing of stability should be conducted by either: (i) testing a new seed or plant stock, or (ii) testing a seed or plant stock obtained from propagation of the initial sample. In the case of (i), the examination authority should request the applicant to provide the sample of plant material to be tested for stability. In the case of (ii) the propagation cycle can be undertaken by the examination authority as long as it can ensure the safety and reliability of the propagation procedure; this should nonetheless be an exceptional situation."

21. The TWV agreed that experts from France, Germany, Italy, Netherlands, United Kingdom, CropLife International, ESA and the International Seed Federation (ISF) would help the expert from the European Union to draft guidance for vegetable varieties that reflects good practice to be included in document TGP/7 as well as in document TGP/4 "Constitution and Maintenance of Variety Collections", as appropriate (see document TWV/48/43 "Report", paragraph 26).

22. The TWA received a presentation by an expert from France on problems experienced with regard to plant material submitted for examination and how they had addressed those problems as reproduced in the addendum of document TWA/43/12 (see document TWA/43/27 "Report", paragraph 19).

23. The TWA noted that the CPVO was conducting a study in collaboration with some examination offices and ESA to assess the possible effects of endophyte infection in ryegrass and tall fescue on the expression of DUS characteristics (see document TWA/43/27 "Report", paragraph 20).

24. The TWA noted the experience of Australia with plant material of sugar cane submitted for examination and the effect of different methods of propagation (cuttings and tissue culture) in the expression of some DUS characteristics, for example culm: zig-zag and bud: shape. The TWA noted that the problem had been addressed by using comparison varieties propagated by the same method for the assessment of those characteristics (see document TWA/43/27 "Report", paragraph 21).

25. The TWA noted there were many factors that could affect plant material submitted for examination and agreed that documents TG/1/3 “General Introduction to the Examination of Distinctness, Uniformity and Stability and the Development of Harmonized Descriptions of new Varieties of Plants” and TGP/9 “Examining Distinctness” provided a good basis for authorities to prevent and address most of the problems (see document TWA/43/27 “Report”, paragraph 22).

26. The TWA agreed that there would be no need to develop further guidance on plant material submitted for examination and agreed with the TWO and TWF that authorities in charge of receiving plant material for examination should provide guidance on the requirements of material submitted, for example with regard to quality and age (see document TWA/43/27 “Report”, paragraph 23).

27. *The TC is invited to:*

(a) *note the information provided in this document and;*

(b) *consider whether further guidance to that provided in documents TG/1/3 “General Introduction to the Examination of Distinctness, Uniformity and Stability and the Development of Harmonized Descriptions of new Varieties of Plants”, TGP/7 “Development of Test Guidelines” and TGP/9 “Examining Distinctness” should be developed to address issues relating to plant material submitted for examination.*

[End of document]