Technical Committee TC/61/3

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MATTERS ARISING FROM THE TECHNICAL WORKING PARTIES

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EXECUTIVE SUMMARY

- 1. This document compiles matters not expressly covered by specific agenda items arising from the 2025 sessions of the Technical Working Party for Ornamental Plants and Forest Trees (TWO)¹, Technical Working Party for Vegetables (TWV)², Technical Working Party on Testing Methods and Techniques (TWM)³, Technical Working Party for Agricultural Crops (TWA)⁴ and Technical Working Party for Fruit Crops (TWF)⁵.
- 2. This document is presented in two sections. The first section, "Matters for information and for a possible decision to be taken by the Technical Committee (TC)", identifies matters which may require a decision to be taken by the TC. The Office of the Union (Office) has highlighted aspects where the TC may wish to take a decision by introducing a proposed decision paragraph. The second section, "Matters for information", is provided for the information of the TC but does not require decisions at this stage.
- 3. The TC is invited to:
 - (a) consider the proposal from the TWV for a survey among UPOV members on whether additional characteristics not included in Test Guidelines could constitute a barrier to taking over test reports, as set out in paragraphs 10 and 11 of this document.; and
 - (b) note developments in the TWPs concerning:
 - (i) Disease resistance characteristics;
 - (ii) Characteristics observed in one growing cycle in DUS testing where the minimum duration of tests should normally be two independent growing cycles;
 - (iii) Uniformity assessment of characteristics not listed in test guidelines:
 - (iv) Report on court cases dealing with technical matters: Allium cepa L. "SK20";
 - (v) Information databases: The value and reliability of botanical names in ornamentals;
 - (vi) Software and statistical analysis methods for DUS examination;
 - (vii) Phenotyping and image analysis;
 - (viii) Variety collections: Variety collection of fruit crops in Ukraine;
- 4. Discussions on "Number of growing cycles and concluding examination of fruit crops" (TWF) are reported in document SESSIONS/2025/2 "Development of Guidance and information Materials".
- 5. The following abbreviations are used in this document:

TC: Technical Committee

TWA: Technical Working Party for Agricultural Crops

TWF: Technical Working Party for Fruit Crops

¹ TWO, at its fifty-seventh session, held in Roelofarendsveen, the Netherlands (Kingdom of the), from March 31 to April 3, 2025.

² TWV, at its fifty-ninth session, held via electronic means, from May 5 to 8, 2025.

³ TWM, at its third session, held in Beijing, China, from April 28 to May 1, 2025.

⁴ TWA, at its fifty-fourth session, held in Arusha, United Republic of Tanzania, from May 19 to 22, 2025.

⁵ TWF, at its fifty-sixth session, held in Bursa, Türkiye, from June 23 to 26, 2025.

TWM: Technical Working Party on Testing Methods and Techniques
TWO: Technical Working Party for Ornamental Plants and Forest Trees

TWPs: Technical Working Parties

TWV: Technical Working Party for Vegetables

6. The structure of this document is as follows:

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MATTERS FOR INFORMATION AND FOR A POSSIBLE DECISION TO BE TAKEN BY THE TECHNICAL COMMITTEE (TC)

Survey proposal: barriers to taking over test reports: additional characteristics not included in Test Guidelines

Background

- 7. The TWV⁶ received a presentation "Revision of the disease resistance characteristics in the EU", from an expert from the European Union. A copy of the presentation is provided in document TWV/59/10.
- 8. The TWV noted the invitation from the European Union for UPOV members to join the regional working groups established to discuss disease resistance characteristics in French Bean, Cucumber, Melon, Pepper, Tomato and Tomato Rootstocks. The TWV noted that interested experts should contact the Community Plant Variety Office of the European Union (CPVO) for further information.
- 9. The TWV noted the comments made by the representative of the International Seed Federation (ISF) that characteristics used at national or regional level and not included in UPOV Test Guidelines ("additional characteristics") could constitute a barrier to taking over test reports, although no such cases had been reported.
- 10. The TWV noted the report from Germany that additional characteristics not included in Test Guidelines were considered when deciding to takeover test reports on a case-by-case basis using similar criteria for all characteristics, including disease resistances.

Proposal

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⁶ TWV, fifty-ninth session, see document TWV/59/19 "Report", paragraphs 16 to 21

- 11. The TWV agreed to propose a survey among UPOV members on whether additional characteristics not included in UPOV Test Guidelines could constitute a barrier to takeover test reports, for instance disease resistance characteristics, in particular when they provided the basis for distinctness from the most similar variety.
- 12. The TWV agreed that the survey should provide the context of discussions, including that disease resistance characteristics in UPOV Test Guidelines were not being assessed by all UPOV members. The TWV agreed that the survey should include questions, such as:
 - Whether UPOV members would take-over test reports in case distinctness had been established based on an additional characteristic not included in the UPOV Test Guidelines:
 - Whether there was a difference on decisions to take-over test reports based on whether the additional characteristic was a disease resistance characteristic.
 - 13. The TC is invited to consider the proposal from the TWV for a survey among UPOV members on whether additional characteristics not included in Test Guidelines could constitute a barrier to taking over test reports, as set out in paragraphs 10 and 11 of this document.

MATTERS FOR INFORMATION

Disease resistance characteristics

Disease resistance characteristics in Test Guidelines

- 14. The TWV considered document TWV/59/11 "Disease resistance characteristics in Test Guidelines" 7.
- 15. The TWV agreed to invite UPOV members' reports on additional characteristics in DUS examination, including disease resistance characteristics. The TWV agreed to invite leading experts to organize intersessional meetings of the subgroups of interested experts to advance discussions on partial revisions of Test Guidelines.
- 16. The TWV noted there were different capabilities among UPOV members for assessing disease resistance characteristics and agreed this provided challenges for their use in DUS examination and international harmonization.

Resistance to Cucumber green mottle mosaic virus (CGMMV)

- 17. The TWV⁸ considered the partial revision of the Test Guidelines for Cucumber for inclusion of the characteristic "Resistance to Cucumber green mottle mosaic virus (CGMMV)", which had been put forward for adoption by the Technical Committee in 2024 (document TWV/58/6) and referred back to the TWV. The TWV noted that the characteristic had been introduced in the test guidelines of the European Union in 2025 (documents TG/61/7 Rev. 3 and TWV/59/12).
- 18. The TWV agreed that the characteristic should be revised using a scale of three notes (QN) [instead of QL: "absent"/"present"].
- 19. The TWV considered the use of a qualitative (QL) scale of notes for the characteristic CGMMV, which was expressed with a continuous range of symptoms. The TWV agreed there was no clear gap between the states of expression "absent / present".
- 20. The TWV considered the recommendation made by the Enlarged Editorial Committee (TC-EDC) to use a quantitative (QN) scale for the characteristic (e.g. three notes). The TWV noted the explanation from France and the Netherlands (Kingdom of) that no robust threshold control variety had been identified to enable defining the cut-off point for a third state of expression, other than absent / present.

⁷ TWV, fifty-ninth session, see document TWV/59/19 "Report", paragraphs 13 to 15

 $^{^{8}}$ TWV, fifty-ninth session, see document TWV/59/19 "Report", paragraphs 47 to 57

- 21. The TWV noted that the requirement for example varieties in the case of QN characteristics with "1-5" / "1-3" scales was to provide example varieties for at least <u>two</u> states of expression (see: document TGP/7 "Development of Test Guidelines", GN 28, Sec. 2.4). The TWV agreed that only two example varieties would be required for disease resistance characteristics with three states of expression.
- 22. The TWV discussed the borderline between two states of expression around the threshold control and the difference required to demonstrate a clear difference between two varieties close to the borderline (e.g. high end of "absent" and low end of "present"). The TWV noted the experience from France on the use of statistical analysis to establish distinctness between varieties in this situation.
- 23. The TWV agreed that the approach for QN disease resistance characteristics using threshold controls would be suitable for the assessment of distinctness on side-by-side comparisons, with the use of statistical analysis when required. The TWV agreed that the approach would not be suitable for grouping varieties based on variety descriptions.
- 24. The TWV noted the use of disease resistance characteristics for grouping varieties and agreed that the use of a qualitative scale (QL) for a quantitative (QN) characteristic addressed borderline varieties the same as consecutive notes in QN scales (e.g. notes 1/9 = 1/2 or 2/3).
- 25. The TWV discussed the assessment of uniformity of QN disease resistance characteristics described as QL and the possibility of having plants from the same variety in classes from different states of expression. The TWV noted the explanation from France that uniformity assessment considered the distribution of plants across classes and off-types plants outside the expected range of distribution.
- 26. The TWV discussed general matters applying to quantitative disease resistance characteristics and agreed to invite the Netherlands (Kingdom of) to identify aspects in UPOV guidance that could be amended to reflect the particular features of quantitative disease resistance characteristics, such as procedures to address borderline varieties.
- 27. The TWV noted the comment from Japan that future discussions on disease resistance characteristics would benefit from the participation of legal experts, such as UPOV member representatives at the Administrative and Legal Committee (CAJ).

<u>Characteristics observed in one growing cycle in DUS testing where the minimum duration of tests should normally be two independent growing cycles</u>

- 28. At their sessions in 2025, the TWV and TWA received a presentation on "Characteristics observed in one growing cycle in DUS testing where the minimum duration of tests should normally be two independent growing cycles" from an expert from the European Union. The presentation is provided in documents $\overline{\text{TWV}/59/9}$ and $\overline{\text{TWA}/54/3}$.
- 29. The TWV considered whether the standard wording in UPOV Test Guidelines should be amended to clarify that certain characteristics could be assessed in one growing cycle only. The TWV noted the reports from Japan and Kenya on how the guidance was interpreted in those countries. The TWV agreed that the guidance provided flexibility for examination to be concluded after one growing cycle, in case a reliable result could be achieved or to conduct additional growing cycles, in case required.
- 30. The TWA agreed that the guidance in document 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 in the Test Guidelines provided sufficient flexibility for authorities to decide when two growing cycles would be required for the expression of characteristics to be considered sufficiently consistent and repeatable in a particular environment.

Uniformity assessment of characteristics not listed in test guidelines

- 31. The TWO considered document TWO/57/7 "Proposal for a revision of documents TGP/9/2 (Examining Distinctness) and TGP/10/2 (Examining Uniformity)" and agreed that it would not be necessary to amend guidance in documents TGP/9 and TGP/10 to clarify the possibility to use additional characteristics for DUS examination in addition to those in the UPOV Test Guidelines. The TWO recalled guidance in document TG/1/3 "General Introduction to the Examination of Distinctness, Uniformity and Stability and the Development of Harmonized Descriptions of New Varieties of Plants" (the "General Introduction"), paragraph 4.2.3, that states:
 - "4.2.3 [...] The characteristics included in the individual Test Guidelines are not necessarily exhaustive and may be expanded with additional characteristics if that proves to be useful and the characteristics meet the conditions set out above." [basic requirements that a characteristic should fulfill before it is used for DUS testing]
- 32. The TWO considered the assessment of additional characteristics not included in the UPOV Test Guidelines, as set out in document TWO/57/7, and whether it would be appropriate for such characteristics to be assessed for uniformity only and not for distinctness. The TWO recalled that the UPOV Convention requires that a variety be examined for compliance with the conditions of distinctness, uniformity and stability and agreed that any additional characteristic would be subject to the same legal basis.

Report on court cases dealing with technical matters: Allium cepa L. "SK20"

- 33. The TWO, TWV and TWF received a presentation from the European Union on the court case "Allium cepa L. 'SK20", as provided in documents <a href="https://documents.org/learning/lea
- 34. The TWO considered the proposal in document TWO/57/4 for variety descriptions to reduce the information provided on characteristics in which the candidate was distinct from the similar variety and agreed that information on the most relevant characteristics should be provided in the report on technical examination.
- 35. The TWV discussed the use of additional characteristics not included in test guidelines and noted one of the reasons provided by the Court that characteristics in the variety description were "not intended to reflect the expression of all characteristics resulting from the variety genotype but only certain characteristics which suffice to demonstrate compliance with the distinctness requirement."
- 36. The TWV considered the proposal in document TWV/59/8 for variety descriptions to reduce the information provided on characteristics in which the candidate was distinct from the similar variety and agreed there were different views on the matter in the different Technical Working Parties (TWPs).
- 37. The TWF discussed the number of characteristics in Test Guidelines and agreed there should be a balance between having a sufficient number of characteristics that allowed describing the variety while focusing on the characteristics most useful for distinctness.
- 38. The TWF welcomed the initiative to present a court case dealing with technical matters and agreed to invite similar presentations in future.

Information databases: The value and reliability of botanical names in ornamentals

- 39. The TWO¹⁰ received a presentation on "The value and reliability of botanical names in ornamentals" from an expert from the Netherlands (Kingdom of). The presentation is provided in document TWO/57/8.
- 40. The TWO noted the report in document TWO/57/8 that unprecise taxonomical information provided by applicants could have administrative consequences for international cooperation and granting breeders rights.
- 41. The TWO agreed that breeders could have difficulty providing precise taxonomical information for certain ornamental plants, in particular those with complex taxonomy. The TWO agreed that, in such cases,

⁹ Allium cepa L. "SK20": see documents TWO/57/10 "Report", paragraphs 16 and 17; TWV/59/19 "Report', paragraphs 10 to 12; and TWF/56/7 "Report", paragraphs 8 to 10

¹⁰ See document TWO/57/10 "Report", paragraphs 30 to 33

the selection of similar varieties should consider the entire genus to avoid missing varieties for comparison in the growing trial.

42. The TWO considered the proposal in document TWO/57/8 for using group classification in case of ornamental plants with complex taxonomy and agreed that the approach should be considered on a case-by-case basis.

Software and statistical analysis methods for DUS examination

Development of big data platform for DUS examination

- 43. The TWM¹¹ received a presentation from Mr. Kun Yang (China) on "Development of big data platform for DUS examination", a copy of which is reproduced in document TWM/3/19.
- 44. The TWM noted the software used for management of DUS trial data, including data management, statistical and image analysis. The TWM noted the plans for further developing the platform and invited the expert from China to report developments at its fourth session.

Grading criteria of Anthurium DUS quantitative characteristics by multiple comparison

- 45. The TWM¹² received a presentation from Ms. Yunxia Chu (China) on "Grading criteria of Anthurium DUS quantitative characteristics by multiple comparison", a copy of which is provided in document TWM/3/12.
- 46. The TWM noted the possibility of reducing the error rate in the analysis of measured quantitative characteristics in Anthurium by the multiple comparisons method.

COYU development update 2025

- 47. The TWM¹³ received a presentation from Ms. Trudyann Kelly (United Kingdom) on "COYU development update 2025", a copy of which is provided in document TWM/3/5.
- 48. The TWM received an update on the implementation of the combined over years uniformity criterion with Splines (COYUs). The TWM noted that the analysis had been developed and tested in DUSTNT and R software and that the software would be updated following feedback from test users (Finland, Netherlands (Kingdom of the), and United Kingdom). The TWM noted that the software would be made available to UPOV members and invited the United Kingdom to provide an update on the software, the experience of implementation in United Kingdom, and guidance on how to manage extrapolation within COYU, at its next session.

Phenotyping and image analysis

A new perspective on the DUS test of eggplant fruit color based on lab color parameters

- 49. The TWM¹⁴ received a presentation from Ms. Yiying Zhang (China) on "A new perspective on the DUS test of eggplant fruit color based on lab color parameters", a copy of which is provided in document <u>TWM/3/13</u>.
- 50. The TWM noted that the Test Guidelines for Eggplant were being revised and invited Ms. Zhang to present the analysis of fruit skin color to the subgroup of experts, at the next session of the TWV.

Length data collection device pro

51. The TWM¹⁵ received a presentation from Ms. Shan Lu (China) on "Length data collection device pro", a copy of which is provided in document TWM/3/14.

¹¹ TWM, third session, see document TWM/3/29 "Report", paragraphs 8 and 9

¹² TWM, third session, see document TWM/3/29 "Report", paragraphs 10 and 11

¹³ TWM, third session, see document TWM/3/29 "Report", paragraphs 12 and 13

¹⁴ TWM, third session, see document TWM/3/29 "Report", paragraphs 14 and 15

¹⁵ TWM, third session, see document TWM/3/29 "Report", paragraphs 16 and 17

52. The TWM noted that members and observers interested in the data collection device could contact the expert from China for further information and collaboration.

Variety collections: Variety collection of fruit crops in Ukraine

- 53. The TWF¹⁶ received a presentation "Variety Collection of Fruit Crops in Ukraine" by an expert from Ukraine. A copy of the presentation is provided in document $\frac{\text{TWF}/56/5}{\text{C}}$.
- 54. The TWF noted the procedures for DUS examination, including cooperation with breeders. The TWF noted the report from Ukraine on the challenges for breeders to describe varieties, which would be addressed in the future with further support for cooperation in DUS examination.
- 55. The TWF noted that Ukraine provided access to the national plant variety database, which included variety descriptions (available at: http://sort.sops.gov.ua/search/search).

[End of document]

¹⁶ TWF, fifty-sixth session, see document TWF/56/7 "Report", paragraphs 20 to 22