

Technical Working Party for Ornamental Plants and Forest Trees TWO/53/10**Fifty-Third Session**
Roelofarendsveen, Netherlands, June 7 to 11, 2021**Original:** English
Date: June 11, 2021

REPORT

adopted by the Technical Working Party for Ornamental Plants and Forest Trees

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Opening of the session

1. The Technical Working Party for Ornamental Plants and Forest Trees (TWO) held its fifty-third session, hosted by the Netherlands and organized by electronic means, from June 7 to 11, 2021. The list of participants is reproduced in Annex I to this report.
2. The session was opened by Ms. Ashley Balchin (Canada), Chairperson of the TWO, who welcomed the participants.
3. The TWO was welcomed by Mr. Marien Valstar, Senior Policy Officer, Seeds and Plant Propagation Material, Ministry of Agriculture, Nature and Food Quality, DG AGRO, the Netherlands.
4. The TWO was also welcomed by Mr. Bert Scholte, Head of Variety Testing Department, Naktuinbouw. Mr. Scholte recalled that a presentation on plant variety protection in the Netherlands had been made at the opening of the fifty-second session of the TWO, hosted by the Netherlands and organized by electronic means, in 2020. A copy of the presentation was provided in document TWO/52/11 "Report", Annex III.

Adoption of the agenda

5. The TWO adopted the agenda as reproduced in document TWO/53/1 Rev..

Short Reports on Developments in Plant Variety Protection

(a) Reports on developments in plant variety protection from members and observers

6. The TWO noted the information on developments in plant variety protection from members and observers that was provided in document TWO/53/3 Prov.. The TWO noted that reports submitted to the Office of the Union after June 2, 2020, would be included in the final version of document TWO/53/3.

(b) Reports on developments within UPOV

7. The TWO received a presentation from the Office of the Union on latest developments within UPOV, a copy of which is provided in document TWO/53/2.

Development of guidance and information materials

8. The TWO considered documents TWP/5/1 and TWO/53/9.

Program for the development of relevant guidance and information materials

9. The TWO noted the program for the development of relevant guidance and information materials, as set out in document TWP/5/1, Annexes I and II.

(a) *Information documents*

Exchange and use of software and equipment

10. The TWO considered document TWP/5/5.

Document UPOV/INF/16 “Exchangeable Software”

11. The TWO noted that the Council, at its fifty-fourth ordinary session, had adopted in the procedure by correspondence, on October 25, 2020, document UPOV/INF/16/9 “Exchangeable software”.

12. The TWO noted that the Office of the Union had issued on April 8, 2021, Circular E-21/030 inviting the designated persons of the members of the Union in the TC to provide or update information regarding the use of the software included in document UPOV/INF/16/10 Draft 1 “Exchangeable software” to the Office of the Union by May 7, 2021.

13. The TWO noted that the Office of the Union had received a proposal from China to include in document UPOV/INF/16 software “DUS Excel 2.0 - Data Analysis System for DUS Testing of Plant Varieties”.

Document UPOV/INF/22 “Software and equipment used by members of the Union”

14. The TWO noted that the Council, at its fifty-fourth ordinary session, had adopted in the procedure by correspondence, on October 25, 2020, document UPOV/INF/22/7 “Software and equipment used by members of the Union”

15. The TWO noted that the Office of the Union had issued on April 8, 2021, Circular E-21/030 inviting the designated persons of members of the Union in the TC to provide or update information in document UPOV/INF/22/8 Draft 1 “Use of software and equipment” to the Office of the Union by May 7, 2021.

16. The TWO noted that the TC, at its fifty-seventh session, would be invited to consider whether to include any proposed software or equipment in document UPOV/INF/22/8 Draft 1, on the basis of the recommendation of the TWC at its thirty-ninth session, or whether to request further guidance from other relevant bodies.

Availability of documents UPOV/INF/16 “Exchangeable software” and UPOV/INF/22 “Software and equipment used by members of the Union” in a searchable form

17. The TWO noted that the information in documents UPOV/INF/16 and UPOV/INF/22 had been made available in a searchable format on the UPOV website (see:

https://www.upov.int/it_resources/en/exchangeable_software.html and https://www.upov.int/it_resources/en/index.html).

(b) *TGP documents*

Revision of document TGP/5 “Experience and cooperation in DUS testing”, Section 6 “UPOV Report on Technical Examination and UPOV Variety Description”

18. The TWO considered document TWP/5/14.

Testing facility and location

19. The TWO agreed to amend document TGP/5 Section 6, chapters “UPOV Report on Technical Examination” and “UPOV Variety Description”, as set out in document TWP/5/14, to read as follows:

Chapter: UPOV Report on Technical Examination

13. Testing ~~station~~ facility(ies) and ~~place~~ location(s)

[...]

16. Date and document number of UPOV Test Guidelines

17. Date and/or document number of Reporting Authority’s test guidelines

Chapter: UPOV Variety Description

Item 11 to read “Testing station facility(ies) and place location(s)”

20. The TWO agreed that the term “testing facility” could better describe the situation when the authority utilizes breeders’ premises or other areas, in addition to officially run testing stations. The TWO agreed that the term “location” would not change the current requirement of providing the locality where examination was conducted.

21. The TWO noted the cross-references to “testing station” and “place” in document TGP/5 Section 6 and agreed to propose to update the document according to the new proposed wording (“Testing facility and location”) in Chapter “UPOV Variety Description”, items 16.2 and 18.

Additional information to be included in DUS test reports

22. The TWO considered the proposal to revise document TGP/5, Section 6 “UPOV Report on Technical Examination and UPOV Variety Description” to include additional information in DUS test reports. The TWO agreed with the TWV that the proposed additional information was not useful for individual DUS test reports and presented practical difficulties for reporting authorities.

23. The TWO considered whether alternative approaches to provide the desired information might be appropriate. The TWO agreed that authorities should communicate regarding varieties for inclusion in trials before commissioning examination or request further information for particular cases.

24. The TWO noted the comments from Australia and New Zealand that information on the most similar variety and differences from the candidate variety were important for utilizing existing DUS test reports. The TWO recalled that authorities were invited to provide this information in Item 16 of the “UPOV Variety Description”.

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

(i) Data Processing for the Production of Variety Descriptions for Measured Quantitative Characteristics

25. The TWO considered document TWP/5/10.

26. The TWO noted that the TC had agreed to invite the TC Chairperson in conjunction with the Office of the Union to develop proposals on next steps for developing guidance, to be presented to the TWPs and the TC at their sessions in 2021.

27. The TWO agreed with the inclusion of the guidance on “Different forms that variety descriptions could take and the relevance of scale levels” in document TGP/8 Part I Section 2 “Data to be recorded” as new Section 2.5.

28. The TWO agreed to invite members of the Union to propose the inclusion of software incorporating their methods for converting observations into notes in document UPOV/INF/16 or document UPOV/INF/22, as appropriate, with a reference to the availability of such methods in document TGP/8 Part I, new Section 2.5

(ii) The Combined-Over-Years Uniformity Criterion (COYU)

29. The TWO considered document TWP/5/11.

30. The TWO considered the proposed revision of document TGP/8, Section 9 “The Combined-Over-Years Uniformity Criterion (COYU),” on the basis of the draft presented in the Annexes to document TWP/5/11. The TWO recalled that COYU was not commonly used for ornamental plants.

31. The TWO noted the report from the United Kingdom made at the TWV, at its fifty-third session, that DUS Centers in that country would evaluate the COYU Splines software on a range of crops in 2021 and that the COYU Splines method was likely to be implemented in 2022.

32. The TWO noted that evaluation versions of software for COYU Splines in both “R” and DUSTNT software would be released in 2021. The TWO noted the expression of interest by experts from

China, Finland, France and the United Kingdom to review the COYU Splines software. The TWO noted the invitation for members to participate in a test campaign of the COYU Splines software in 2021.

33. The TWO noted the request by the TC for the TWC to prepare a report of the results of the test campaign of the COYU Splines software for consideration by the TC, at its fifty-seventh session, in conjunction with the revision of document TGP/8.

Providing information on similar varieties in the UPOV model variety description

34. The TWO received a presentation on “Providing information on similar varieties in the UPOV model variety description” by an expert from the European Union. A copy of the presentation is provided in document TWO/53/6.

35. The TWO agreed that the most distinguishing characteristics between the candidate and most similar variety(ies) should be provided in the DUS test report. The TWO agreed that no further clarification would need to be provided in UPOV guidance on this matter at this stage.

Information and databases

(a) UPOV information databases

36. The TWO considered document TWP/5/4.

GENIE database and UPOV code system

37. The TWO noted that 177 new UPOV codes had been created in 2020 and a total of 9,213 UPOV codes are included in the GENIE database.

Amending the UPOV code system to provide information on variety groups or types

38. The TWO agreed with the proposal for amending the UPOV code system to provide information on variety types, groups and denomination class, as set out in document UPOV/INF/23/1 Draft 2.

Proposals for amending UPOV codes

39. The TWO noted that none of the proposals to append information to UPOV codes in document TWP/5/4 related to ornamental plants and forest trees.

40. The TWO noted that the proposals for amending UPOV codes in the document had been made on the basis that they would be made in conjunction with the adoption of document UPOV/INF/23/1.

41. The TWO agreed that the creation of variety types or groups for ornamental plants should be considered on a crop-by-crop basis and preferably on the basis of morphological characteristics rather than variety use.

42. The TWO noted that a timetable for implementing the proposed changes would be presented to the TC for approval at its fifty-seventh session.

*UPOV code for *Dicentra* species*

43. The TWO agreed to delete the UPOV Code DICEN_SPE, as set out in document TWP/5/4, paragraph 80, as follows:

Current			Proposal		
UPOV code	Principal botanical name	Other botanical name(s)	UPOV code	Principal botanical name	Other botanical name(s)
DICEN_SPE	<i>Dicentra spectabilis</i> (L.) Lem.	<i>Lamprocapnos spectabilis</i> (L.) Fukuhara	LAMPO_SPE	<i>Lamprocapnos spectabilis</i> (L.) Fukuhara	<i>Dicentra spectabilis</i> (L.) Lem.

UPOV code for Aloe aristata

44. The TWO agreed to delete the UPOV Code ALOEE_ARI, as set out in document TWP/5/4, paragraph 84, as follows:

Current			Proposal		
UPOV code	Principal botanical name	Other botanical name(s)	UPOV code	Principal botanical name	Other botanical name(s)
ALOEE_ARI	<i>Aloe aristata</i> Haw.	<i>Aristaloe aristata</i> (Haw.) Boatwr. & J. C. Manning	ARSTL_ARI	<i>Aristaloe aristata</i> (Haw.) Boatwr. & J. C. Manning	<i>Aloe aristata</i> Haw.

TWP checking

45. The TWO noted the invitation to check the amendments, new UPOV codes or information, and UPOV codes used in the PLUTO database for the first time, as reproduced in document TWP/5/4, Annex IV and submit comments to the Office of the Union by December 31, 2021.

PLUTO database

46. The TWO noted the summary of data contributions from members of the Union to the PLUTO database from 2016 to 2020, as presented in document TWP/5/4, Annex V.

Procedures for grouping varieties using UPOV codes and relevant information sources

47. The TWO received a presentation on “Use of variety groups in the UPOV system” by an expert from the Netherlands. A copy of the presentation is provided in the annex to document TWO/53/7.

(b) Variety description databases

48. The TWO considered document TWP/5/2.

49. The TWO noted the reports made at the TWPs in 2020 on databases containing morphological and/or molecular data.

50. The TWO noted the invitation for members of the Union to report to the TWPs on work concerning the development of databases containing morphological and/or molecular data.

(c) UPOV PRISMA

51. The TWO considered document TWP/5/3 and noted the developments concerning UPOV PRISMA.

52. The TWO noted the comment from the United Kingdom that UPOV PRISMA was being used as the online system to submit application data for Plant Breeder’s Rights and National Listing in the United Kingdom.

Experiences with new types and species

53. No new experiences with new types or species were reported under this agenda item.

Molecular techniques

54. The TWO considered document TWP/5/7.

Developments at the nineteenth session of the Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular

55. The TWO noted the papers presented at the nineteenth session of the BMT, held in 2020, as set out in document TWP/5/7, paragraph 12. The TWO noted that the BMT would hold its twentieth session jointly with the TWC, during the week of September 20, 2021. The TWO noted the draft agenda for the BMT at its twentieth session, to be held in 2021, as set out in document TWP/5/7, paragraph 14.

Merger of the Working Group on Biochemical and Molecular Techniques and DNA-profiling in Particular (BMT) and the Technical Working Party on Automation and Computer Programs (TWC)

56. The TWO noted that the Council had established the Technical Working Party on Testing Methods and Techniques (TWM) encompassing the work of the TWC and BMT, to take effect from 2022. The TWO noted the terms of reference for the TWM, as reproduced in document TWP/5/7, paragraph 17.

Session to facilitate cooperation in relation to the use of molecular techniques

57. The TWO noted the information provided by participants at the nineteenth session of the BMT on their work on biochemical and molecular techniques and areas for cooperation, as reproduced in document TWP/5/7, Annex I.

Review of document UPOV/INF/17 “Guidelines for DNA-Profiling: Molecular Marker Selection and Database Construction (‘BMT Guidelines’)”

58. The TWO agreed with the revision of document UPOV/INF/17/1 on the basis of document UPOV/INF/17/2 Draft 5 and document TWP/5/7, Annex II.

Cooperation between international organizations

Inventory on the use of molecular marker techniques, by crop

59. The TWO noted that, on October 16, 2020, the Office of the Union had issued Circular E-20/189 inviting members to complete the survey on the use of molecular marker techniques, by December 15, 2020. The TWO noted that the results of the survey would be presented to the Technical Committee, at its fifty-seventh session, to be held in 2021.

Lists of possible joint initiatives with OECD and ISTA in relation to molecular techniques

60. The TWO noted that the TC, at its fifty-sixth session, had agreed that another joint OECD, UPOV, ISTA workshop on molecular techniques should be organized in the near future. The TWO noted that the TC had agreed that a joint OECD, UPOV, ISTA workshop on molecular techniques would be an opportunity to discuss the definitions used in molecular techniques with a view to their harmonization.

Joint document explaining the principal features of the systems of OECD, UPOV and ISTA

61. The TWO noted that a draft joint document explaining the principal features of the systems of OECD, UPOV and ISTA would be presented for consideration by the TC at its fifty-seventh session.

New issues arising for DUS examination

62. The TWO received a presentation on “Confidentiality & Ownership of Molecular Information” from a representative of the African Seed Trade Association (AFSTA), the Asia and Pacific Seed Association (APSA), the International Community of Breeders of Asexually Reproduced Horticultural Plants (CIOPORA), CropLife International, Euroseeds, International Seed Federation (ISF) and Seed Association of the Americas (SAA). A copy of the presentation is provided in document TWO/53/8.

63. The TWO considered the proposal to revise document TGP/5, Section 3: Model Application Form, to include a request for confidentiality of molecular information of candidate varieties as follows:

“I/We request that molecular information pertaining to the variety remains confidential and exchange to another UPOV member or examination office is subject to approval by the applicant.”

64. The TWO agreed that further discussion would be needed to find a suitable solution to address the concerns of the breeders while preventing unnecessary administrative burden for authorities.

Variety denominations

65. The TWO considered document TWP/5/6.

Possible revision of document UPOV/INF/12 “Explanatory Notes on Variety Denominations under the UPOV Convention”

66. The TWO noted the developments concerning a possible revision of document UPOV/INF/12 “Explanatory Notes on Variety Denominations under the UPOV Convention” at the CAJ, at its seventy-sixth session, by correspondence, and at its seventy-seventh session, as set out in document TWP/5/6, paragraphs 9 to 22.

Possible development of a UPOV similarity search tool for variety denomination purposes

67. The TWO noted the developments concerning a possible UPOV similarity search tool for variety denomination purposes, as set out in document TWP/5/6, paragraphs 28 to 36.

Cooperation in examination

68. The TWO considered document TWP/5/9 and received a presentation from the Office of the Union on the development of the “DUS Exchange Platform” and the “DUS Arrangement Tool”, a copy of which is provided in document TWP/5/9 Add..

69. The TWO noted that members of the Union had the possibility to update information on a person(s) to be contacted for matters concerning international cooperation in DUS examination by:

(i) updating information when invited to provide information for document TC/[xx]/4 “List of genera and species for which authorities have practical experience in the examination of distinctness, uniformity and stability”; and/or

(ii) notifying the Office of the Union by sending an e-mail to upov.mail@upov.int;

70. The TWO noted the development of a package of compatible IT tools to address the technical and related administrative concerns that prevent cooperation in DUS examination, as reported in document TWP/5/9, paragraphs 7 to 12.

71. The TWO noted the developments concerning the web-based TG template to enable the drafting individual authorities’ test guidelines (IATG) in different languages, as set out in document TWP/5/9, paragraph 13.

72. The TWO noted that the development of a platform for UPOV member databases containing variety description information would depend on UPOV members indicating which databases they would wish to share.

73. The TWO noted that machine translation technology opportunities would be pursued as a matter of priority to reduce translation costs for UPOV documents in UPOV languages and to make UPOV materials available in a wider range of languages, within available resources.

74. The TWO noted that the CAJ, at its seventy-eighth session would consider:

(i) the policy or legal barriers identified by the TC as preventing international cooperation in DUS examination and possible measures to address those barriers; and

(ii) proposals for developing guidance to encourage members of the Union, on a voluntary basis, to take-over DUS test reports when the applicants could not submit plant material due to phytosanitary or other related issues.

75. The TWO noted that the impact of the proposed plan would be assessed on the basis of the number of cooperation agreements reported by members of the Union, as presented in document C/[xx]/INF/5 “Cooperation in examination”.

Example varieties for asterisked quantitative characteristics when illustrations are provided

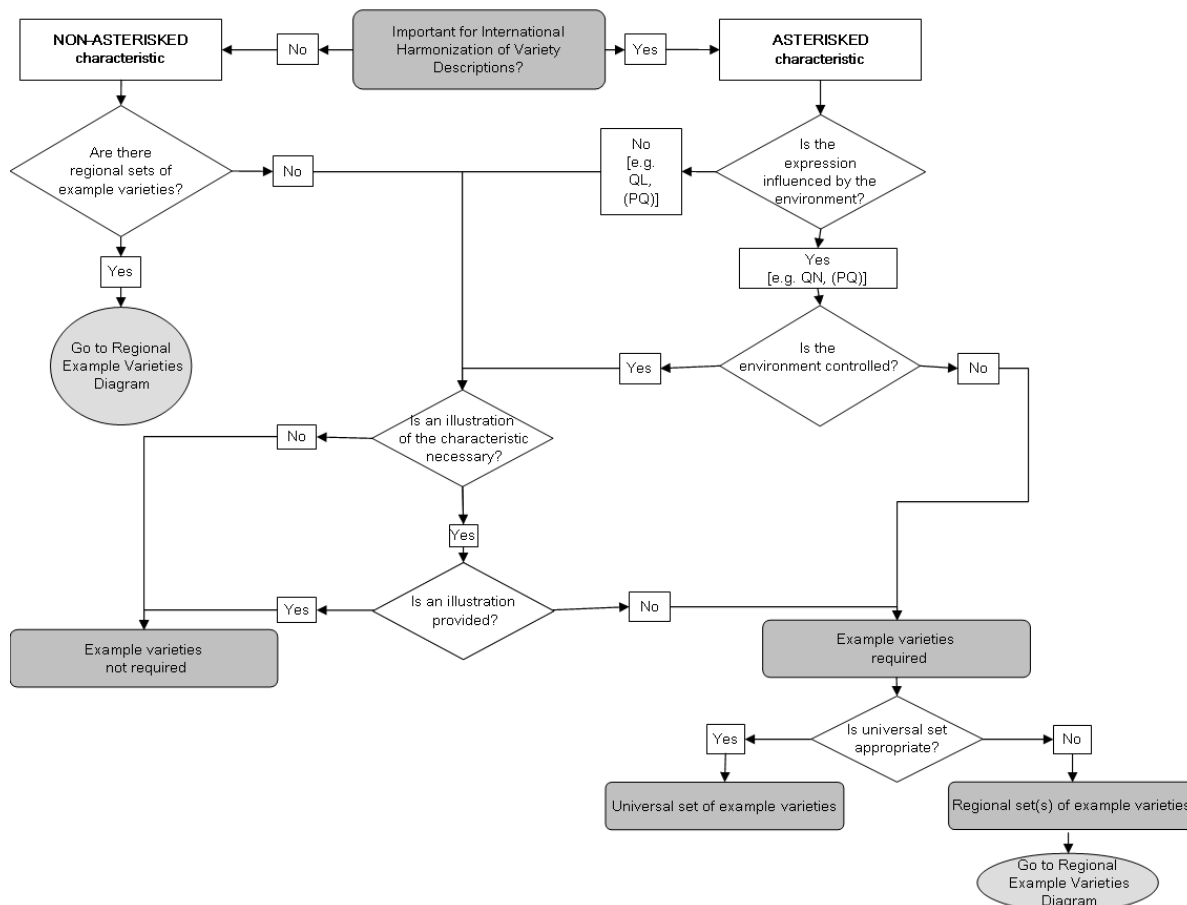
76. The TWO considered document TWO/53/5.

77. The TWO noted that current guidance in document TGP/7 GN28 paragraph 1.3 (iii) and paragraph 1.4 reads as follows:

"(iii) If a characteristic is important for the international harmonization of variety descriptions (asterisked characteristics) and is influenced by the environment (most quantitative and pseudo-qualitative characteristics) or example varieties are necessary for illustration of the characteristic (see Section 3.1) it is necessary to provide example varieties."

[...]

"1.4 The process for deciding if example varieties need to be provided for a characteristic is illustrated in the following Flow Diagram 1. [...]"



78. The TWO recalled that the flow diagram established that example varieties were not required for quantitative characteristics which were observed in a controlled environment and where an illustration was provided.

79. The TWO recalled that guidance in document TGP/7 GN28 paragraph 4.1 established the following:

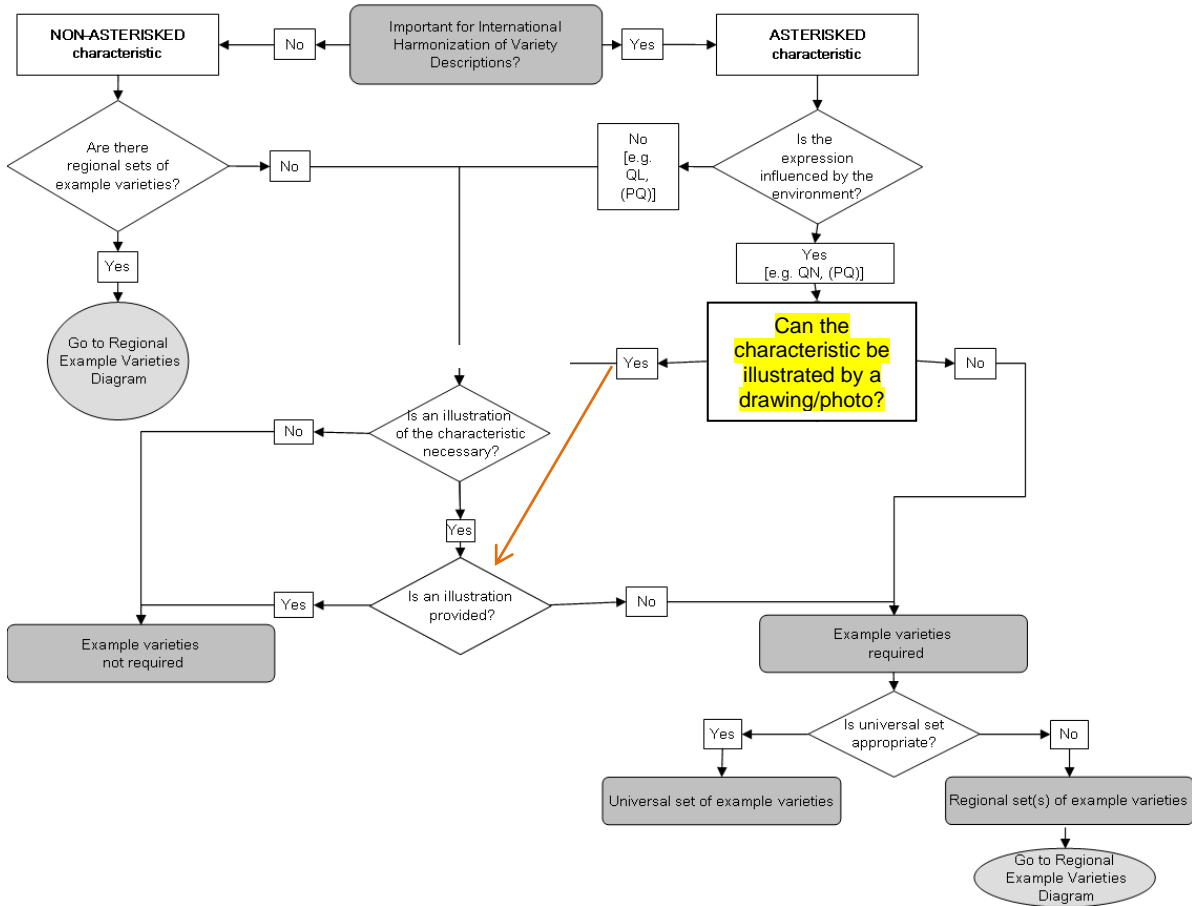
"Although example varieties have the benefit of enabling examiners to see a characteristic in "real life", in many cases the illustration of a characteristic by photographs or drawings (to be provided in chapter 8 of the Test Guidelines) may provide a clearer illustration of the characteristic. Furthermore, the difficulty in selecting suitable example varieties, which satisfy all the requirements in Section 4.2 below, means that photographs or drawings are an important alternative or addition to example varieties as a means of illustrating characteristics."

80. The TWO agreed that most quantitative and pseudo-qualitative characteristics in ornamental Test Guidelines could be illustrated by drawings or photographs and only a few required example varieties, such as height, length, width and diameter.

81. The TWO agreed to propose amending document TGP/7 GN 28, paragraph 1.3 (iii) to read as follows:

"(iii) If a characteristic is important for the international harmonization of variety descriptions (asterisked characteristics) and is influenced by the environment and cannot be illustrated by photographs or drawings in a meaningful way (most quantitative and pseudo-qualitative characteristics) or example varieties are necessary for illustration of the characteristic (see Section 3.1) it is necessary to provide example varieties."

82. The TWO agreed that Flow Diagram 1 should be amended as follows



Assessing ornamental crops using individual plant measurements (MS)

83. The TWO received the following presentations, copies of which are provided in the annexes to document TWO/53/4:

“Assessing ornamental crops using individual plant measurements (MS) – When and why we do it and how we proceed with the data”, by an expert from Germany	Annex I
“The use of MG and MS in Test Guidelines for Ornamental species”, by an expert from New Zealand	Annex II
“Assessing ornamental crops using individual plant measurements (MS) – a United Kingdom perspective”, by an expert from the United Kingdom	Annex III

84. The TWO noted that individual plant measurements (MS) were used for ornamental crops depending on the species, the type of propagation, the size of the trial and the authorities’ testing practice. The TWO agreed to invite Leading Experts of draft Test Guidelines to promote discussions on the necessity of using individual measurements for the proposed characteristics.

Increasing participation in the work of the TC and the TWPs

85. The TWO considered document TWP/5/12.

Participation at the TC and TWP meetings by electronic means

86. The TWO noted the information on participation via electronic means at the TWPs and TC in 2020 and measures to improve virtual meetings, as set out in document TWP/5/12, paragraphs 10 to 20.

Proposals to encourage participation in TWPs and TC in the future

87. The TWO considered the possible measures for physical and virtual participation at TWP meetings, as set out in document TWP/5/12, paragraph 26, and agreed as follows.

Proposal (according to paragraph 26 in document TWP/5/12)	View of the TWO	Remarks
(a) To organize Test Guidelines subgroup discussions by electronic means prior to the TWPs instead of during the TWPs. The conclusions from the subgroups would be reported to the TWP session in the same way as the current procedure.	Partially supported	- Test Guidelines subgroup discussions could be organized prior to TWPs as a valuable mean to move documents forward - The scheduling of such meetings should be carefully discussed among participants in subgroup - In-person meetings should still be used during the TWPs to discuss Test Guidelines
(b) To organize virtual preparatory workshops prior to the TWPs. Those preparatory workshops to be recorded and be made available on the UPOV website.	Supported	- The live session for questions and answers with panelists and Office of the Union is useful and should be maintained - A collection of videos could be maintained online
(c) To offer the possibility to provide comments and questions on documents in advance of the meeting.	Supported	- Comments provided in advance of the session should all be addressed, even for participants that cannot attend a physical meeting
(d) To organize electronic participation during the TWPs, using one of the following options, according to host facilities: (i) The host to provide the platform for virtual participants. (ii) The UPOV Office to provide the platform for virtual participants.	Partially supported	- Greater accessibility would be beneficial for promoting participation of experts in selected agenda items - Difficulty to find suitable time could prevent equal opportunities to participate - To consider alternating one year of physical meeting with one year of virtual meeting - Could require additional planning and costs for the host
(e) To have virtual meeting sessions for part of the day (e.g. 2 sessions of 2 hours per day) with sessions for onsite participants for the following: (i) visits to DUS trials or related facilities; (ii) Pre-organized bilateral discussions/ meetings on cooperation; (iii) Sessions to facilitate discussion on DUS examination.	Partially supported	- An opportunity to introduce new examiners to the discussions held in TWPs - The informal space provided in physical meetings is needed for discussion and participants' interaction - Visits to trials or related facilities is an important part of physical meetings

Test Guidelines

(i) *Revision of Test Guidelines*

88. The TWO considered document TWP/5/13.

89. The TWO considered the proposal for partial revision of the Test Guidelines for Rose, as set out in document TWP/5/13, paragraph 17 and Annex X. The TWO noted that the proposal added 21 to the current six characteristics in the Technical Questionnaire of the Test Guidelines.

90. The TWO agreed not to consider the addition of asterisks where the proposed TQ characteristics did not currently have an asterisk in the table of characteristics. The TWO agreed that this matter should be considered at the next full revision of the Test Guidelines for Rose.

91. The TWO agreed there was a need for further discussing the proposal for partial revision of the Test Guidelines for Rose. The TWO agreed to invite the experts that had submitted proposals (GB, JP, NZ, QZ), and other interested experts (CA, DE, NL) to organize a meeting by December 2021 to define the characteristics to be proposed for inclusion in the Technical Questionnaire.

92. The TWO agreed to invite the expert from the European Union to coordinate discussions and report conclusions from discussions at the fifty-fourth session of the TWO, including any elements of document TGP/7 that might need revising.

(ii) *Guidance for drafters of Test Guidelines*

93. The TWO considered document TWP/5/8.

94. The TWO noted that the web-based TG template and database of characteristics would be migrated to cloud servers by 2022, including an upgrade to new technologies in infrastructure and program to address issues reported by users and enabling use for drafting individual authorities' test guidelines

95. The TWO noted that the Office of the Union would issue a circular to identify requirements of UPOV members for the development of individual authorities' test guidelines using the web-based TG template.

96. The TWO noted that training on the web-based TG template could be organized via electronic means upon experts' request.

(iii) *Discussion on draft Test Guidelines*

Amaryllis (*Hippeastrum* Herb.) (Revision)

97. The subgroup discussed document TG/181/4(proj.1), presented by Ms. Katie Berbee (Netherlands), and agreed the following:

Table of Chars.	<ul style="list-style-type: none"> - to check whether all methods of observation are used for characteristics for which 3 methods are indicated - to indicate all notes for QN characteristics with abbreviated QN scale (all notes from 1 to 9 or 1 to 5) - to add example varieties - to add a new characteristic for flower or pedicel attitude (wording to be checked; see e.g. TG Lilly) - check whether "calyx" is the appropriate term ("perianth" or "flower sheath"?) (throughout the TG)
Chars. 3 to 6	to replace (a) by (c)
Chars. 23, 30	<ul style="list-style-type: none"> - to check whether two separate characteristics for pattern and distribution of secondary color are appropriate - to review wording of states (see TGP/14)
Chars. 27, 33	<ul style="list-style-type: none"> - to add state 1 "narrow elliptic" - state 2 to read "medium elliptic" - state 5 to read "medium ovate" - state 8 to read "medium obovate" - to have same order as in Char. 17
Chars. 35 to 38	to check order of characteristics
Char. 36	to read "Filament: color"
Char. 38	to read "Style: color"

8.1 (c)	to read "Observations on calyx and peduncle should be made before the flowers open."
Ad. 6	to add illustrations for states 2 and 3
Ad. 18	to replace current illustration for state 1 with improved one
TQ 1	to add 1.3 "Species (please specify)"
TQ 4.1.1	to use complete breeding scheme
TQ 5.4	to add example varieties

Anthurium (*Anthurium* Schott) (Revision)

98. The subgroup discussed document TG/86/6(proj.2), presented by Mr. Koji Nakanishi (Japan), and agreed the following:

Table of Chars.	to indicate all notes for QN characteristics with abbreviated QN scale (all notes from 1 to 9 or 1 to 5)
Char. 6	- to add example variety "RIJN200449" for state 1 - to add example variety "ANTHEPEDI" for state 2 - to add example variety "ANTHQUODO" for state 3
Char. 7	- to read "Leaf blade: shape of apex" - to add explanation that the general shape of the apex should be observed
Char. 8	- to read "Leaf blade: differentiated tip" - to add states 1 "absent", 2 "narrow acuminate", 3 "medium acuminate", 4 "broad acuminate" - to add explanation to read "to be observed excluding the general shape of apex" - to add example varieties
Char. 15	to check whether to read: "Inflorescence: position in relation to foliage"
Char. 16	to check whether to read "Inflorescence: number of spathes"
Char. 18	state 7 to read "broad"
Char. 19	to add method of observation VG
Char. 24	- to read "Spathe: differentiated tip" - to have states 1 "absent", 2 "narrow acuminate", 3 "medium acuminate", 4 "broad acuminate"
Char. 27	- to add a state (6) "at apex and along veins" - to split into one characteristic for distribution and another for pattern (spotted, irregular) to check whether to include other patterns
Char. 32	to delete "approximately" from state 2
Chars. 38, 41	state 1 to read "whitish"
Ad. 15	to improve illustration for state 1
TQ 1.3	to read "Species (please specify):"
TQ 5	to indicate all notes for QN characteristics with abbreviated QN scale (all notes from 1 to 9 or 1 to 5)
TQ 5.	For char. 5.1, 5.2, 5.4, , 5.5, all the level of expression should be mentioned
TQ 5.6 (ii), 5.7 (ii)	to add option "other (please indicate)"

*Berberis (*Berberis* L.)

99. The subgroup discussed document TG/68/4(proj.4), presented by Ms. Stéphanie Christien (France), and agreed the following:



1.	to read "These Test Guidelines apply to all varieties of <i>Berberis</i> L. excluding: <i>Berberis aquifolium</i> Pursh, <i>Berberis bealei</i> Fortune, <i>Berberis japonica</i> (Thunb.) Spreng., <i>Berberis napaulensis</i> (DC.) Spreng. <i>Berberis oiwakensis</i> (Hayata) Laferr., <i>Berberis pumila</i> Greene, <i>Berberis repens</i> Lindl. and hybrids between these species and other <i>Berberis</i> species."
5.3 (e)	to add color groups to read "with the following groups Gr. 1: green Gr. 2: yellow Gr. 3: red"

Char. 2	- to be indicated as PQ - state 1 to read "fastigiate" - state 2 to read "irregularly rounded" - state 3 to read "compact rounded"
Char. 10	- to be indicated as PQ - to add VG
Char. 18	to be indicated as QL
Char. 26	to read "Petal: main color"
Char. 27	- state 1 to read "acute" - state 3 to read "emarginate"
Char. 28	- to read "Plant: number of fruits" - to add explanation "Observations should be made on the number of fruits, independently from the number of flowers." - to add example varieties "Erecta, Golden Torch, Kobold, Orange Ice" for state 1 - to add example varieties "Orange Dream, Unique" for state 2 - to add example varieties "Forescate, Red Tears" for state 3
Char. 29	to read "Fruit: shape in lateral view"
8.1	to add general explanation "Unless otherwise indicated, observations should be made at the time of full flowering."
8.1 (a), (b), (f)	to read "Observations should be made..."
8.1 (e)	to delete first sentence "The ranking..."
Ad. 22	to update wording of states of expression to match Table of Chars.
Ad. 24	to correct spelling of "panicle"
Ad. 25	to read "Observation on the flower bud should be made on the middle third of the stem just before flower opening."
TQ 1	to add 1.3 "Species (please indicate)"
TQ 5.6 (ii), TQ 5.9 (ii)	to add option "other (please indicate)"
TQ 5.12	to add color groups "whitish, green, yellow, orange, pink, red, purple, blackish blue, other (please indicate)"

*Echinacea (*Echinacea* Moench) (Revision)

100. The subgroup discussed document TG/281/2(proj.2), presented by Ms. Hilary Papworth (United Kingdom), and agreed the following:



Cover page, 1., TQ 1	to correct spelling of botanical name: "Moench" (without full stop)
Char. 3	to remove underlining
Char. 6	to move "including petiole" as explanation to Chapter 8.2
Char. 8	to remove space before colon
Char. 12	state 2 to read "very weak to weak"
Char. 13	to add state 5 "very strong"
Char. 14	to add state 5 "very many"
Char. 30	- to delete underlining - to add new state 1 "none" - to delete state "basal half" - to add a new state "distal half" (after "basal quarter")
Char. 31	- state 4 to read "weakly recurving" - state 5 to read "strongly recurving" - update the illustration labels in Ad. 31
Char. 32	- state 3 to read "medium" - to add state 5 "very strong"
Chars. 48, 49	to read "...within disc" (delete "the")
Char. 52	- state 2 to read "weakly recurved" - state 3 to read "strongly recurved" - to update the illustration labels in Ad. 52
8.1 (a) to (c)	to read "Observations should be made..."
8.1 (d)	should read: "..., the darker color is considered ..."

8.2	to change “assessed” and “recorded” in Ads. 21, 22, 23, to “observed”
Ad. 3	to read “Should be observed as the number of flowers open at the same time on the plant.”
Ad. 17	to read “Observations should be made on the natural flower head diameter and height.”
Ad. 19	to read “Observations should be made excluding any ray florets within the disc (see characteristic 49).”
Ads. 21, 22, 23	to change “assessed” and “recorded” to “observed”
Ad. 27	- to read “Observations should be made on the quilled part of the floret, on the area facing upwards.” - text below illustrations to read “Color to be observed on this part”
Ad. 30	to be updated according to changes to Char. 30 and add illustration for new state “distal half” 
Ad. 33	to read “Observations should be made at the midpoint of the floret.”
Ad. 43	- to read “The disc diameter is observed relative to the natural flower head diameter.” - illustrations for states 3, 5 and 7 to be improved as follows: 
9.	- 1st reference to read “... Verlagsgesellschaft mbH ...” (to remove the “G” as this stands for “Gesellschaft”) - 2nd reference to read “Beschreibende Sortenliste Arznei und Gewürzpflanzen. 2002: Bundessortenamt: 161- 163” - 3rd reference to read „Foster, S. 1991: Echinacea. Nature’s immune enhancer. Healing Arts Press. Rochester, VT” - reference “Köck, O. 2001” to be completed
TQ 5.3 (ii)	to add option “other (please indicate)”
TQ 5.4 (ii)	- to add option “other (please indicate)” - to add “none” as note 1
TQ 5.7 (ii)	to add option “other (please indicate)”

*Eustoma (*Eustoma exaltatum* (L.) Salisb. ex G. Don subsp. *russellianum* (Hook.) Kartesz) (Revision)

101. The subgroup discussed document TG/197/2(proj.3), presented by Mr. Kiyofumi Nakamura (Japan), and agreed the following:

1.1	to delete “and interspecific hybrids”
1.2	to read “Guidance on the use of Test Guidelines for hybrids with other subspecies that are not explicitly covered by Test Guidelines...”
4.2.5	to read “For the assessment of uniformity of vegetatively propagated varieties, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 20 plants, 1 off-type is allowed. In the case of self-pollinated varieties of a sample size of 40 plants, 2 off-type are allowed.”
5.3 (e)	to add new group 1 “none”
Table of Chars.	to indicate all states of expression for QN characteristics where currently an abbreviated scale is used (including even notes where 1 to 9 and 1 to 5 scales are used)
Char. 5	to add asterisk

Char. 12	- to be indicated as QN with the following states and example varieties: (1) absent or weak ("Light Blue Thumb") (2) medium (3) strong ("Cherrybee")
Char. 17	to be placed after Char. 18
Char. 20	to be placed after Char. 22
Char. 23	state 2 to read "obtuse"
Char. 24	to read "Petal: recurving of margin"
Char. 26	to have states 1 to 5 "absent or very shallow; shallow; medium; deep; very deep"
Char. 27	to delete "(exclud part of base)" (it is explained in (c))
Char. 29	state 4 to read "central bar"
Char. 30	state 2 to read "flushed"
Char. 33	- to be indicated as QN with the following states and example varieties: (1) absent or weak ("Momo Sen") (2) medium (3) strong ("Cherrybee 2go")
Char. 34	to be deleted from grouping characteristics and TQ 5
8.1	to add general explanation "Unless otherwise indicated all characteristics should be observed at the time of full flowering."
8.1 (b)	to read "Observations should be made..."
Ad. 1	to delete indication of "flag leaf"
Ad. 9	to read "Observations should be made on the upper side of the leaf after removing the glaucosity."
Ad. 12	to be deleted
Ad. 23	to replace photographs with drawings: 
Ad. 26	to keep the current photos to illustrate states 1, 2 and 5; no additional photos for states 3 and 4 are required
Ad. 29	to replace illustration for state "throughout" by another with flushed or irregular pattern (the solid pattern throughout might not be considered "secondary color") 
Ad. 34	to read "The time of beginning of flowering is reached when at least 50% of plants have at least one open flower."
8.3	to be deleted
TQ 5.4, 5.5	to be presented with sub-characteristics: (i) RHS Colour Group, (ii) color groups and option "other (please indicate)"
TQ 5.5	to add a new state 1 "none"

Lavender (*Lavandula* L.) (Revision)

102. The subgroup discussed document TG/194/2(proj.1), presented by Ms. Laetitia Denecheau (European Union), and agreed the following:

1.	to delete "of the family Labiatae (Lamiaceae)"
3.1.1	to read "The minimum duration of tests should normally be one growing cycle."
3.1.2	to be deleted
4.2.2	to read "These Test Guidelines have been developed for the examination of vegetatively propagated varieties and self-pollinated seed propagated varieties. ..."
4.2.4	to read "For the assessment of uniformity of self-pollinated seed-propagated varieties, ..."

Table of Chars.	- to updated example varieties ((1) or (2)) - to add a new characteristic "Cyme: type" after Char. 20 (states 1 "single-flowered cyme" and 2 "multi-flowered cyme", QL, VG, not grouping, no *) - to add a new characteristic "Flower: length of pedicel" after Char. 13 (notes from 1 "short" to 3 "long", QN, VG/MG/MS, not grouping, no *) - check whether to add a characteristic for ratio of flowers open at the same time of the same spike ("few", "medium", "many")
Char. 1	- to check whether to add explanation - to check whether to read "Plant: type"
Char. 2	states "bushy" and "globular" to be replaced by "semi upright" and "semi upright to spreading"
Char. 5	to be moved after Char. 3
Char. 8	- to add (b) - to check whether to add new states of expression for "color of variegation" (see variety "Silver Ghost")
Char. 8 to 12	to add explanation to read "Observations should be made on fully developed leaves from the middle third of the stem" in Chapter 8.1
Char. 10	to add example variety for broader leaves
Char. 12	- to check whether to split into "absent/present" and "depth of incisions" - to check whether to be added as grouping characteristic
Char. 14	- to delete "at middle third" and move it to explanation - to check whether to reduce scale to five notes only (instead of 9)
Char. 15	to add explanation "Observations should be made on the upper third of the stem."
Char. 16	to check whether to reduce to a scale of five notes only
Chars. 16, 17, 23, 24,25, 28, 32	to update header according to new wording of Char. 1
Char. 28	to check whether to reduce scale to five notes
Char. 32	to check whether to reduce scale to five notes
Chars. 33 to 37	to delete restriction from headers
Char. 39	to change the order of the states and have "greyish" as state 1
Char. 41	to be deleted
8.1	to add a general explanation "Unless otherwise indicated all observations should be made at the time of full flowering."
8.1 (a)	to be deleted
Ad. 25	to check whether to add further explanation on assessment (e.g. illustration)
Ad. 42	to be moved to Chapter 8.1 and added to Chars. 42 and 43
9.	- to add "The Genus Lavandula" Tim Upson and Susyn Andrews published by Royal Botanic Gardens, Kew, 2004" - to add "Upson, Tim and Andrews, Susyn, 2004, "The genus Lavandula", Royal Botanic Garden, Kew." and add relevant pages
TQ 1.3	to read "Species (please indicate):"

Ling, Scots Heather (*Calluna vulgaris* (L.) Hull) (Revision)

103. The subgroup discussed document TG/94/7(proj.1), presented by Ms. Daniela Christ (Germany), and agreed the following:

Char. 25	to read "Time of beginning of flowering"
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Magnolia (*Magnolia* L.)

104. The subgroup discussed document TG/MAGNO(proj.2), presented by Ms. Yaling Wang (China), and agreed the following:

2.2	to read "The material is to be supplied in the form of grafting or cutting plants."
6.4	to combine species and example varieties (e.g. <i>Magnolia acuminata</i> "Kenneth's Delight")

Table of Chars.	- to check whether to add more (*) (currently 24 out of 60 characteristics have (*)) - to indicate all scales for QN characteristics with abbreviated scale (all notes from 1 to 9 or 1 to 5)
Char. 1	to have notes 1 and 2
Char. 2	- to read "Plant: growth type" - to have notes 1 and 2
Char. 3	- to check whether to add example varieties - to be indicated as PQ
Char. 7	- to have states 1 only one", 2 "one and two", 3 "more than two" - to be indicated as PQ
Char. 8	- to be indicated as MG/MS/VG - state 1 to read "absent or very few" - to read "Plant: formation of fruit" - first sentence to read "Observations should be made two month after flowering."
Char. 9	to add MG
Char. 10	to add MG
Char. 12	- to have 5 states "absent or very sparse, sparse, medium, dense, very dense" - to add example varieties
Char. 13	to delete "(excluding variegation)"
Char. 15	- to read "Leaf: arrangement" with the states of expression 1 "alternate" and 2 "clustered"
Char. 16	to only have states "ovate", "elliptic", "obovate" and add new char. "Leaf blade: ratio length/width"
Char. 17	to add MG
Char. 18	to add MG
Char. 19	to read attenuate (2), acute cuneate (3)
Char. 21	to be indicated as QN
Char. 24	to delete state 9
Char. 24	state 9 to be removed (covered by char. 23 and the other states of expression of char. 24)
Char. 25	to read "Only varieties with Plant: seasonality: deciduous: Leaf blade: color in autumn"
Char. 29	to check whether to read "Flower: type" or "Flower: form" (see TG Tree Peony)
Char. 30	to add MG
Char. 31	- to add MG - to add explanation
Char. 32	to add MG
Char. 34	to add explanation that texture refers to the tactile sensation of leaf, such as thickness, softness, firmness, smoothness etc.
Char. 36	to add MG
Char. 37	to add MG
Char. 38	- state 4 to read "horizontal" - to delete state 7 "twist and drooping" - to check whether to split in two characteristics to better describe petaloid tepals (e.g. attitude and curvature)
Char. 40	to add "(indicate reference number)"
Char. 42, 43	- to be revised to separate states for distribution and pattern - to check whether to improve illustrations (add photographs?)
Chars. 45, 46	to check whether to move before pattern and distribution (same for following color characteristics)
Char. 56	state 2 "before and at same time"?
Char. 59	to be indicated as QL
Char. 60	to read "Only varieties with Plant: seasonality: deciduous: Time of leaf fall (only for deciduous plants)"
Ad. 4	to read "Observations should be made at the time of first flowering"
Ad. 8	- to correct spelling of "absent" - to improve explanation to clarify state "few" (how to be observed in a single growing cycle in relation to "cannot produce fruit every year"?)
Ad. 9	to be improved (to delete the circular arrows) and replace "diameter" by "thickness"
Ad. 19	drawings "2 acute cuneate" should be "2 attenuate", "3 attenuate" should be "3 acute cuneate"
Ad. 21	to add that texture refers to the tactile sensation of leaf, such as thickness, softness, firmness, smoothness etc.
Ad. 39	to delete sentence

Ad. 47	Ad. 44 should be 42
Ad. 48	Ad. 45 should be 43
Ad. 52	Ad. 44 should be 42
Ad. 53	Ad. 45 should be 43
Ad. 60	to read "The time of leaf fall is reached when 50% of leaves on all plants have fallen."
TQ 1	to add 1.3 to read "Species (please specify)"
TQ 5	- to limit to the grouping characteristics - to indicate all scales for QN characteristics with abbreviated scale (all notes from 1 to 9 or 1 to 5)
TQ 5.6	to add levels 8 and 9
Annex	to be deleted (same information as 6.4)

Statice (*Limonium* Mill., *Goniolimon* Boiss. and *Psylliostachys* (Jaub. & Spach) Nevski) (Revision)

105. The subgroup discussed document TG/168/4(proj.2), presented by Mr. Marco Hoffman (Netherlands), and agreed the following:

Table of characteristics	- to add a new char. "Corolla: Arrangement of lobes" with states "free, touching, overlapping" - to add a new char. "Corolla: depth of incisions of the apex of corolla lobes" (QN with states "absent or shallow, medium, deep" or "Corolla: incisions of the apex of corolla lobes" (QL with states "absent, present")
Char. 3	to delete "(petiole included)" (information provided in Chapter 8)
Char. 8	to read "Leaf: degree of hairiness of upper side"
Char. 15	to read "Inflorescence: density of hairiness of peduncle"
Char. 16	to delete "(at central third)" (information provided in Chapter 8)
Char. 32	state 4 to read "no stigma or anthers present"
Ad. 19	last type to be changed to "Type VI".
9.	- 4th reference to read "Armitage, A.M. & Laushman, 2008:" - 6th reference to read "Griffiths, M. (Ed.), 1994: ..."
TQ 1.	to add line to specify the species name
TQ 5.4	- to delete repetition of "red" - to add notes - to reorder colors according to TGP/14
TQ 5.5	- to add notes - to reorder colors according to TGP/14
TQ 6	to add example

Weigela (*Weigela* Thunb.) (Revision)

106. The subgroup discussed document TG/148/3(proj.1), presented by Ms. Stéphanie Christien (France), and agreed the following:

1.	to delete "of the family <i>Caprifoliaceae</i> "
5.3 (h) to (i)	to add the following color groups: "Gr. 1: white Gr. 2: yellow Gr. 3: pink Gr. 4: red Gr. 5: violet red" (to check color; purple?)
5.3 (j) to (o)	to add the following color groups: "Gr. 1: white Gr. 2: pink Gr. 3: red Gr. 4: violet red" (to check color; purple?)
Char. 5	to be indicated as PQ
Char. 6	- state 2 to read "rounded to slightly angular" - to add illustration
Char. 10	to be indicated as PQ

Char. 12	to add illustrations showing distribution
Char. 14	to be reviewed
Char. 15	- to read "Leaf blade: depth of incisions of margin" with states absent or shallow (1), medium (2), deep (3) - to add illustration
Char. 16	- to add state 2 "flat" - to add illustration
Char. 17	- to check wording of states - to add illustrations
Char. 22	to check whether to be indicated as PQ and add one or more states of expression
Char. 23	to check whether to be indicated as QL or QN
Char. 28	- to add state 3 "central zone" - to add illustrations
Char. 31	to be reviewed (add more states)
Char. 42	to check whether to indicated as QN or QL
Char. 43	to add explanation that yellow and red can appear on the same plant
Char. 44	- to have the following states and example varieties: (1) same level (Kolmas) (2) slightly above (Olympiade) (3) strongly above (Styriaca) - to add illustration
Char. 45	to check whether this characteristic relates to the number of flowers instead of density
Char. 46	- to correct spelling of "beginning" - to add explanation "The time of beginning of flowering is reached when all plants have approximately 10% of inflorescence with open flowers." - state 8 to read "late to very late" - to be indicated as MG/VG
8.1	to add general explanation "Unless otherwise indicated all observations should be made at the time of full flowering (at least 50% of inflorescence with open flowers)."
8.1 (e)	to add a space "thesecond"
8.1 (f)	to add missing illustrations
8.1 (g)	to be deleted
8.1 (h)	to read "The predominantly present flower is the flower with the highest frequency of presence on the plant. In cases where the frequency of the predominantly present flower and the second predominantly present flower are too similar to reliably decide which has the highest presence, the flower with the darker color is considered to be the predominantly present flower."
8.1 (i)	to read "The second predominantly present flower is the flower with the second highest frequency of presence on the plant. In cases where the frequency of the second predominantly present flower and the third predominantly present flower are too similar to reliably decide which has the highest presence, the flower with the darker color is considered to be the second predominantly present flower."
TQ 1	to add "1.3 Species (please indicate)"
TQ 4.2.1	to have the following options for vegetative propagation: (a) Cuttings (b) In vitro propagation (c) Other (state method)
TQ 4.2	to delete section for hybrid varieties

*Zinnia (*Zinnia x marylandica* D. M. Spooner et al.; *Z. angustifolia* Kunth; *Z. elegans* Jacq.; *Z. haageana* Regel; *Z. peruviana* (L.) L.)

107. The subgroup discussed document TG/ZINNIA(proj.9), presented by Mr. Jose Mejía Muñoz (Mexico), and agreed the following:

Cover page	to correct spelling of Spanish names "Zinnia Naranja" and "Mal de Ojo"
3.4, 4.1.4	to split in two paragraphs (one for F1 hybrids, one for cross-pollinated varieties)

5.3	<p>to have the following grouping characteristics: Plant: growth habit (characteristic 1) Plant: height (characteristic 2) Flower head: type (characteristic 16) Ray floret: main color of inner side (characteristic 28) with the following groups: Gr. 1: white Gr. 2: green Gr. 3: yellow Gr. 4: orange Gr. 5: pink Gr. 6: red Gr. 7: purple Gr. 8: violet <u>Only varieties with Flower head: type: single or semi-double: Disc: color (characteristic 35)</u></p>																										
Table of Chars.	<p>to correct example varieties as follows:</p> <table> <thead> <tr> <th>current wording</th> <th>new wording</th> </tr> </thead> <tbody> <tr> <td>Peppermint stick</td> <td>Peppermint Stick</td> </tr> <tr> <td>Solecito</td> <td>Solcito</td> </tr> <tr> <td>Oklahoma</td> <td>Oklahoma Salmon</td> </tr> <tr> <td>Star</td> <td>Star Gold</td> </tr> <tr> <td>Short stuff coral</td> <td>Short Stuff Coral</td> </tr> <tr> <td>Lilliput salmon</td> <td>Lilliput Salmon</td> </tr> <tr> <td>Yellow flame</td> <td>Yellow Flame</td> </tr> <tr> <td>Crystal yellow</td> <td>Crystal Yellow</td> </tr> <tr> <td>Swizzle cherry ivory</td> <td>Swizzle Cherry Ivory</td> </tr> <tr> <td>Profusion knee</td> <td>Profusion Knee</td> </tr> <tr> <td>Profusion Lemon</td> <td>Profusion Lemon</td> </tr> <tr> <td>Dreamland scarlet</td> <td>Dreamland Scarlet</td> </tr> </tbody> </table>	current wording	new wording	Peppermint stick	Peppermint Stick	Solecito	Solcito	Oklahoma	Oklahoma Salmon	Star	Star Gold	Short stuff coral	Short Stuff Coral	Lilliput salmon	Lilliput Salmon	Yellow flame	Yellow Flame	Crystal yellow	Crystal Yellow	Swizzle cherry ivory	Swizzle Cherry Ivory	Profusion knee	Profusion Knee	Profusion Lemon	Profusion Lemon	Dreamland scarlet	Dreamland Scarlet
current wording	new wording																										
Peppermint stick	Peppermint Stick																										
Solecito	Solcito																										
Oklahoma	Oklahoma Salmon																										
Star	Star Gold																										
Short stuff coral	Short Stuff Coral																										
Lilliput salmon	Lilliput Salmon																										
Yellow flame	Yellow Flame																										
Crystal yellow	Crystal Yellow																										
Swizzle cherry ivory	Swizzle Cherry Ivory																										
Profusion knee	Profusion Knee																										
Profusion Lemon	Profusion Lemon																										
Dreamland scarlet	Dreamland Scarlet																										
Char. 3	state 1 to read "very sparse"																										
Char. 6	to add MG																										
Char. 7	- to add MG - state 1 to read "very narrow" (small "v")																										
Char. 8	to add MG																										
Char. 9	to have the following states and example varieties: 1 at base (Dreamland Rose) 2 at middle (Swizzle Cherry Ivory) 3 towards apex (Oklahoma Salmon)																										
Char. 11	to have states absent or weak (1), medium (2), strong (3)																										
Char. 13	state 2 to read "small to medium"																										
Char. 14	to add MG																										
Char. 15	to have the following states and example varieties: (1) below (Short Stuff Scarlet) (2) same level (Swizzle Cherry Ivory) (3) moderately above (Inca) (4) highly above (Oklahoma Salmon)																										
Char. 17	- to read " <u>Only varieties with Flower head: type: single or semi-double Flower head: Disc: type</u> " - to add (*) - to have "Crystal Yellow" as example variety for state 1 - to have "Zinderella Lilac" as example variety for state 2																										
Char. 18	- to add (*) - to add MG																										
Char. 19	- to add (*) - to add MG																										
Chars. 20, 21, 22	to add MG																										
Char. 23	- state 2 to read "weakly concave" - state 4 to read "weakly convex"																										
Char. 24	to add (*)																										
Char. 27	state 1 to read "acute"																										

Chars. 30, 33	- state 6 to read "on margin" - to add state "central bar" with example variety "SAKZIN017" with illustration from TGP/14
Char. 34	to add (+) and reference to Ad. 31 (See Ad. 31)
Chars. 35, 36	to underline "Only varieties with Flower head: type: single or semi-double:"
Char. 35	invert order of states 4 and 5 (see order of colors, TGP/14)
8.1 (a)	to read "Observations should be made..."
8.1 (b)	to read "Observations should be made on the inner side of the ray florets. For varieties with semi-double and double flower heads, observations should be made on the outermost whorl of ray florets."
Ad. 5	to read "Observations should be made at the middle third of the stem."
Ads. 8, 11, 23	to read same as the table of characteristics
Ad. 16	wording to read: "1. Single: flowers with one row of ray florets only. 2. Semi double: flowers with more than one row of ray florets and a clearly visible disc. 3. Double: flowers with no visible disc."
Ad. 19	to be deleted
Ad. 23	to read "Observations should be made in the middle of the ray floret".
Ad. 33	to delete illustrations and refer to Ad. 30 (See Ad. 30)
Ad. 35	to read "Observations should be made before dehiscence."
Ad. 36	to read "Observation should be made after the flower bud has opened, but before the disc florets begin to dehisce."
9.	format to be reviewed and references to be completed (country)
TQ 1.	to have species in alphabetical order
TQ 1.6.1	to read "Other species or interspecific hybrids (please specify):"
TQ 4.1.1	to use complete standard breeding scheme
TQ 5.5	to have the same characteristics as in document TG/ZINNIA(proj.8) in TQ 5
TQ 5.5	to add color groups (same as under grouping characteristics) and option "other (please indicate)"

(iv) *Recommendations on draft Test Guidelines*

(a) Test Guidelines to be put forward for adoption by the Technical Committee

108. The TWO agreed that the following draft Test Guidelines should be submitted to the TC for adoption at its fifty-seventh session, to be held in Geneva on October 25 and 26, 2021, on the basis of the following documents and the comments in this report:

<u>Subject</u>	<u>Basic document(s) (2021)</u>
* <i>Berberis</i> (<i>Berberis</i> L.) (Revision)	TG/68/4(proj.4)
* <i>Echinacea</i> (<i>Echinacea</i> Moench) (Revision)	TG/281/2(proj.2)
* <i>Eustoma</i> (<i>Eustoma exaltatum</i> (L.) Salisb. ex G. Don subsp. <i>russellianum</i> (Hook.) Kartesz) (Revision)	TG/197/2(proj.3)
* <i>Zinnia</i> (<i>Zinnia</i> × <i>marylandica</i> D. M. Spooner et al.; <i>Z. angustifolia</i> Kunth; <i>Z. elegans</i> Jacq.; <i>Z. haageana</i> Regel; <i>Z. peruviana</i> (L.) L.)	TG/ZINNIA(proj.9)

(b) *Test Guidelines to be discussed at the fifty-fourth session*

109. The TWO agreed to discuss the following draft Test Guidelines at its fifty-fourth session:

<u>Subject</u>	<u>Basic document(s) (2021)</u>
<i>Amaryllis</i> (<i>Hippeastrum</i> Herb.) (Revision)	TG/181/4(proj.1)
* <i>Anthurium</i> (<i>Anthurium</i> Schott) (Revision)	TG/86/6(proj.2)

Lavender (<i>Lavandula</i> L.) (Revision)	TG/194/2(proj.1)
*Ling, Scots Heather (<i>Calluna vulgaris</i> (L.) Hull) (Revision)	TG/94/7(proj.1)
Magnolia (<i>Magnolia</i> L.)	TG/MAGNO(proj.2)
<i>Oxypetalum coeruleum</i> (D. Don) Decne.	TG/OXYPE_CAE(proj.1)
Poinsettia (<i>Euphorbia pulcherrima</i> Willd. ex Klotzsch) (Revision)	TG/24/6
*Statice (<i>Limonium</i> Mill., <i>Goniolimon</i> Boiss. and <i>Psylliostachys</i> (Jaub. & Spach) Nevski) (Revision)	TG/168/4(proj.2)
Weigela (<i>Weigela</i> Thunb.) (Revision)	TG/148/3(proj.1)

110. The leading experts, interested experts and timetables for the development of the Test Guidelines are set out in Annex II to this report.

(c) *Possible Test Guidelines to be discussed in 2023*

111. The TWO agreed that it should consider the development of Test Guidelines for the following at a future session:

Eucalyptus (<i>Eucalyptus</i> L'Hér.) (Partial revision)
Gentian (<i>Gentiana</i> L.) (Revision)
Ginkgo (<i>Ginkgo biloba</i> L.)
Helleborus (<i>Helleborus</i> L.)
<i>Leucanthemum</i> Mill.
Pot Azalea (<i>Rhododendron simsii</i> Planch.) (Revision)

(d) *Participation in discussions of Test Guidelines from other TWPs*

112. The TWO agreed to propose that the following experts be added as interested experts to the following draft Test Guidelines being discussed by the Technical Working Party for Fruit Crops (TWF), subject to the deadlines agreed in document TWF/50/10 "Report", Annex IV:

Subject	Interested experts (countries/organizations) ¹
Hazelnut (<i>Corylus avellana</i> L.; <i>Corylus colurna</i> L.) (Revision)	CA, HU
Mulberry (<i>Morus</i> L.)	HU

Date and place of the next session

113. At the invitation of Germany, the TWO agreed to hold its fifty-fourth session in Hannover, Germany, from June 13 to 17, 2022.

Future program

114. The TWO agreed that documents for its fifty-fourth session should be submitted to the Office of the Union by April 29, 2022. The TWO noted that items would be deleted from the agenda if the planned documents have not reached the Office of the Union by the agreed deadline.

115. The TWO agreed to discuss the following items at its next session:

¹ for name of experts, see list of participants

1. Opening of the session
2. Adoption of the agenda
3. Short reports on developments in plant variety protection
 - (a) Reports from members and observers (written reports to be prepared by members and observers)
 - (b) Reports on developments within UPOV (document to be prepared by the Office of the Union)
4. Development of guidance and information materials (documents to be prepared by the Office of the Union)
5. Information and databases
 - (a) UPOV information databases (document to be prepared by the Office of the Union)
 - (b) Variety description databases (document to be prepared by the Office of the Union and documents invited)
 - (c) UPOV PRISMA (document to be prepared by the Office of the Union)
6. Increasing participation in the work of the TC and the TWPs (document to be prepared by the Office of the Union)
7. Cooperation in examination (document to be prepared by the Office of the Union)
8. Disease resistance in ornamental crops (document to be prepared by the Netherlands)
9. Possible developments to enable UPOV Codes to provide information on variety groups (document to be prepared by the European Union)
10. New issues arising for DUS examination (documents invited)
11. Molecular techniques (document to be prepared by the Office of the Union)
12. Variety denominations (document to be prepared by the Office of the Union)
13. Report on court cases dealing with technical matters (document invited)
14. Experiences with new types and species (oral reports invited)
15. Test Guidelines
 - (i) Guidance for drafters of Test Guidelines
 - (ii) Revision of Test Guidelines (documents to be prepared by the Office of the Union)
 - (iii) Partial revision of the Test Guidelines for Rose (Technical Questionnaire characteristics) (document to be prepared by the European Union)
 - (iv) Matters to be resolved concerning Test Guidelines adopted by the Technical Committee
 - (v) Discussion on draft Test Guidelines (Subgroups)
 - (vi) Recommendations on draft Test Guidelines
16. Date and place of the next session
17. Future program
18. Adoption of the Report on the session (if time permits)
19. Closing of the session

Virtual Technical Visit

116. On June 8, 2021, the TWO received a presentation on DUS examination of ornamental plants in the Netherlands from Mr. Marco Hoffman, Ms. Katie Berbee, Mr. Jan Jaap Stelwagen and Mr. Bert Scholte, Department Variety Testing, Naktuinbouw. The presentation included DUS examination of Phalaenopsis varieties and was followed by a session of questions and answers.

117. The TWO adopted this report at the close of its session.

[Annex I follows]

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[Annex II follows]

LIST OF LEADING EXPERTS

**DRAFT TEST GUIDELINES TO BE SUBMITTED
TO THE TECHNICAL COMMITTEE IN 2021**

All requested information to be submitted to the Office of the Union

by July 23, 2021

Species	Basic Document(s)	Leading expert(s)
* <i>Berberis</i> (<i>Berberis</i> L.) (Revision)	TG/68/4(proj.4)	Ms. Stéphanie Christien (FR)
* <i>Echinacea</i> (<i>Echinacea</i> Moench) (Revision)	TG/281/2(proj.2)	Ms. Hilary Papworth (GB)
* <i>Eustoma</i> (<i>Eustoma exaltatum</i> (L.) Salisb. ex G. Don subsp. <i>russellianum</i> (Hook.) Kartesz) (Revision)	TG/197/2(proj.3)	Mr. Kiyofumi Nakamura (JP)
* <i>Zinnia</i> (<i>Zinnia</i> × <i>marylandica</i> D. M. Spooner et al.; <i>Z. angustifolia</i> Kunth; <i>Z. elegans</i> Jacq.; <i>Z. haageana</i> Regel; <i>Z. peruviana</i> (L.) L.)	TG/ZINNIA(proj.9)	Mr. Jose Mejía Muñoz (MX)

DRAFT TEST GUIDELINES TO BE DISCUSSED AT TWO/54

(* indicates possible final draft Test Guidelines)

(Guideline date for Subgroup draft to be submitted by Leading Expert: March 4, 2022

Guideline date for comments to Leading Expert by Subgroup: April 1, 2022)

New draft to be submitted to the Office of the Union

before April 29, 2022

Species	Basic Document(s)	Leading expert(s)	Interested experts (States/Organizations) ²
Amaryllis (<i>Hippeastrum</i> Herb.) (Revision)	TG/181/4(proj.1)	Ms. Katie Berbee (NL)	CN, JP, MX, QZ, ZA, CIOFORA, Office
*Anthurium (<i>Anthurium</i> Schott) (Revision)	TG/86/6(proj.2)	Mr. Koji Nakanishi (JP)	AU, CN, MX, NL, QZ, CIOFORA, Office
Lavender (<i>Lavandula</i> L.) (Revision)	TG/194/2(proj.1)	Ms. Laetitia Denecheau (QZ)	CA, FR, GB, JP, MX, NZ, QZ, ZA, CIOFORA, Office
*Ling, Scots Heather (<i>Calluna vulgaris</i> (L.) Hull) (Revision)	TG/94/7(proj.2)	Ms. Daniela Christ (DE)	FR, GB, QZ, CIOFORA, Office
Magnolia (<i>Magnolia</i> L.)	TG/MAGNO(proj.2)	Ms. Wang Yaling (CN)	AU, CA, FR, GB, JP, KR, NZ, QZ, CIOFORA, Office
<i>Oxypetalum coeruleum</i> (D. Don) Decne.	TG/OXYPE_CAE (proj.1)	Mr. Satoshi Fujisako (JP)	NL, QZ, CIOFORA, Office
Poinsettia (<i>Euphorbia pulcherrima</i> Willd. ex Klotzsch) (Revision)	TG/24/6	Ms. Laetitia Denecheau (QZ)	CA, GB, JP, MX, QZ, CIOFORA, Office
*Statice (<i>Limonium</i> Mill., <i>Goniolimon</i> Boiss. and <i>Psylliostachys</i> (Jaub. & Spach) Nevski) (Revision)	TG/168/4(proj.2)	Mr. Marco Hoffman (NL)	JP, KR, NZ, QZ, CIOFORA, Office
Weigela (<i>Weigela</i> Thunb.) (Revision)	TG/148/3(proj.1)	Ms. Stéphanie Christien (FR)	CA, DE, GB, HU, QZ, CIOFORA, Office

DRAFT TEST GUIDELINES TO POSSIBLY BE DISCUSSED IN 2023

Species	Basic Document(s)
Eucalyptus (<i>Eucalyptus</i> L'Hér.) (Partial revision)	TG/296/1
Gentian (<i>Gentiana</i> L.) (Revision)	TG/145/2
Ginkgo (<i>Ginkgo biloba</i> L.)	New
Helleborus (<i>Helleborus</i> L.)	New
<i>Leucanthemum</i> Mill.	New
Pot Azalea (<i>Rhododendron simsii</i> Planch.) (Revision)	TG/140/4 Corr.

[End of Annex II and of document]

² for name of experts, see List of Participants.