



TWO/46/29

ORIGINAL: English

DATE: April 26, 2013

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

Geneva

**TECHNICAL WORKING PARTY FOR ORNAMENTAL PLANTS AND FOREST TREES****Forty-Sixth Session  
Melbourne, Australia, April 22 to 26, 2013**

## REPORT

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

1. The Technical Working Party for Ornamental Plants and Forest Trees (TWO) held its forty-sixth session in Melbourne, Australia, from April 22 to 26, 2013. The list of participants is reproduced in Annex I to this report.
2. The TWO was welcomed by Ms. Fatima Beattie, Deputy Director General, IP Australia, via Webex.
3. Mrs. Andrea Menne, the former Chairperson of the TWO, thanked Australia for hosting the TWO session.
4. The session was opened by Mr. Nik Hulse (Australia), Chairman of the TWO, who welcomed the participants and made a presentation on DUS testing in Australia, a copy of which is presented in Annex II to this report.

Adoption of the Agenda

5. The TWO adopted the agenda as reproduced in document TWO/46/1 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 provided in document TWO/46/28 Prov. The TWO noted that reports submitted to the Office of the Union after April 12, 2013, would be included in the final version of document TWO/46/28.

*(b) Reports on developments within UPOV*

7. The TWO received a presentation from the Office of the Union on the latest developments within UPOV, a copy of which is provided in document TWO/46/27.

Molecular Techniques

8. The TWO noted the information provided in document TWO/46/2.
9. The TWO noted the discussion on molecular techniques at the forty-ninth session of the TC.

10. The TWO strongly agreed with the TC that there was a need to provide suitable information on the situation in UPOV with regard to the use of molecular techniques to a wider audience, including breeders and the public in general. That information should explain the relationship between genotype and phenotype and the reasons such techniques are generally not appropriate in DUS examination.

11. The TWO noted that the TC had proposed to hold a coordinated meeting of the BMT with ISO, ISTA and OECD and including breeders; and that if it was not possible to organize a coordinated meeting in 2014, a meeting of the BMT would be organized in the meantime.

#### TGP documents

12. The TWO considered developments concerning TGP documents on the basis of document TWO/46/3 Rev.

13. The TWO noted the agreement of the TC and the CAJ to submit document TGP/15/1 "Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)" for adoption by the Council, at its forty-seventh session, to be held on October 24, 2013.

14. The TWO noted the agreement of the TC and the CAJ to invite the Council to adopt document TGP/14/2 "Glossary of Terms Used in UPOV Documents" at its forty-seventh session, to be held on October 24, 2013, and noted that the Council would be invited to adopt document TGP/0/6, in order to reflect the adoption of documents TGP/15/1 and TGP/14/2.

15. The TWO noted the matters approved by the TC for a future revision of documents TGP/7, TGP/8 and TGP/9, as set out below:

#### (a) *TGP/7: Development of Test Guidelines*

- (i) *Coverage of Types of Varieties in Test Guidelines*
- (ii) *Selection of Asterisked Characteristics*
- (iii) *Standard References in the Technical Questionnaire*
- (iv) *Applications for Varieties with Low Germination*
- (v) *Procedure for the Development of Test Guidelines*
- (vi) *Quantity of Plant Material Required*
- (vii) *Minimum Quantity of Plant Material*
- (viii) *Guidance on Number of Plants to be Examined (for Distinctness)*
- (ix) *Guidance for Method of Observation*
- (x) *Example Varieties*
- (xi) *Providing Photographs with the Technical Questionnaire*
- (xii) *Duration of Test*
- (xiii) *Number of Plants Required for Description*

#### (b) *TGP/8: Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability*

##### *Part I: DUS Trial Design and Data Analysis*

- (i) *New Section 2: "Data to be recorded"*
- (ii) *New Section: "Reduction of Size of Trials"*

##### *Part II: Techniques Used in DUS Examination*

- (i) *Section 3: "The Combined-Over-Years Criteria for Distinctness (COYD)"*
- (ii) *Section 3, Subsection 3.6: "Adapting COYD to special circumstances"*
- (iii) *Section 4: "2x1% Method-Minimum Number of Degrees of Freedom for the 2x1% Method"*

#### (c) *TGP/9: Examining Distinctness*

- (i) *Guidance on Number of Plants to be Examined (for Distinctness)*
- (ii) *Providing Photographs with the Technical Questionnaire*

16. The TWO noted the agreement of the TC that a draft revision of document TGP/5 Section 10 “Notification of Additional Characteristics and States of Expression” be presented for consideration by the TC at its fiftieth session, subject to the conclusion of discussions on disclaimers on UPOV documents in the Consultative Committee.

17. The TWO also noted the matters for discussion on future revision of documents TGP/7, TGP/8 and TGP/14 that would be dealt with on the basis of documents TWO/46/9 to TWO/46/21 and TWO/46/23.

18. The TWO noted the program for the development of TGP documents, as set out in the Annex to document TWO/46/3 Rev..

*TGP/7: Development of Test Guidelines*

*(i) Revision of document TGP/7: Additional Standard Wording for Growing Cycle for Tropical Species*

19. The TWO considered document TWO/46/9, which was presented by an expert from New Zealand.

20. The TWO considered the following proposed Additional Standard Wording (ASW) for growing cycle of tropical species:

*New (after (b)): Tropical fruit species*

The growing cycle is considered to be the period ranging from the beginning of flowering of an individual flower or inflorescence, through active flowering and fruit development and concluding with fruit harvest.

21. The TWO noted that the proposed ASW provided guidance for fruit species and agreed that it was a matter for consideration by the TWF. It noted that the drafter from New Zealand would propose to the TWF that the title of the ASW should be “Fruit species with indeterminate growth”.

*(ii) Revision of document TGP/7: Source of Propagating Material*

22. The TWO considered the proposed guidance on source of propagating material, as presented in Section IV “Guidance for drafting Test Guidelines” of the Annex to document TWO/46/10. The proposed guidance was presented by an expert from the European Union.

23. The TWO agreed that it would not be appropriate to seek to insert additional standard wording on source of propagating material in the Technical Questionnaire, Section 9.2. However, the TWO noted that the document provided useful information on the effects of the source of propagating material and requested the preparation of a condensed version as a source of general guidance for drafters of Test Guidelines, for inclusion in document TGP/7.

*(iii) Revision of document TGP/7: Indication of Growth Stage in Test Guidelines*

24. The TWO considered document TWO/46/11.

25. The TWO noted that ornamental plants are usually observed at the time of full flowering and the indication of growth stages in Test Guidelines should remain optional and to be used where appropriate.

26. The TWO agreed that the Additional Standard Wording 4 (ASW 4) should be amended in order to reflect the current practice in UPOV Test Guidelines to indicate growth stages using letters, numbers or combinations of letters and numbers, to read as follows:

“The optimum stage of development for the assessment of each characteristic is indicated by a number reference in the second column of the Table of Characteristics. The stages of development denoted by each number reference are described in Chapter 8 [...].”

(iv) *Revision of document TGP/7: Providing Illustrations of Color in Test Guidelines*

27. The TWO considered document TWO/46/12.

28. The TWO agreed to propose the following guidance be included in a future revision of document TGP/7:

~~Particular caution is needed when considering the~~ It is generally not appropriate to use of illustrations of color in the Test Guidelines because the color in photographs can be affected by the technology of the camera, ~~and the facilities used to display the photograph (including printer, computer and screen, etc.) and~~ lighting conditions under which the photograph is taken. Furthermore, the expression of color may vary according to the environment in which the variety is grown. For example, a photograph of a “~~light weak~~ light weak intensity” of anthocyanin coloration provided by the Leading Expert in one UPOV member may not represent a “~~weak light~~ weak light intensity” of anthocyanin coloration in another UPOV member.”

(v) *Revision of document TGP/7: Presence of Leading Expert at Technical Working Party Sessions*

29. The TWO considered document TWO/46/13 and agreed with the proposed guidance on the presence of Leading Experts at Technical Working Party sessions, for inclusion in a future revision of document TGP/7, section 2.2.5.3, as set out below:

## “2.2.5.3 Requirements for draft Test Guidelines to be considered by the Technical Working Parties

“Unless otherwise agreed at the TWP session, or thereafter by the TWP Chairperson, the timetable for the consideration of draft Test Guidelines by the Technical Working Parties is as follows:

Action	Latest date before the TWP session
Circulation of Subgroup draft by Leading Expert:	14 weeks
Comments to be received from Subgroup:	10 weeks
Sending of draft to the Office by the Leading Expert:	6 weeks
Posting of draft on the website by the Office:	4 weeks

“In cases where *either* of the deadlines for circulation of the Subgroup draft or for the sending of the draft to the Office by the Leading Expert is not met, the Test Guidelines would be withdrawn from the TWP agenda and the Office would inform the TWP accordingly at the earliest opportunity (i.e. not later than 4 weeks before the TWP session). In those cases where draft Test Guidelines are withdrawn from the TWP agenda because of failure by the Leading Expert to meet the relevant dates, it would be possible for specific matters concerning those Test Guidelines to be discussed at the TWP session. However, to consider specific matters it would be necessary for a document to be provided to the Office at least 6 weeks before the TWP session.”

“In order to be considered by a Technical Working Party, the Leading Expert of the draft Test Guidelines should be present at the session, unless a suitable alternative expert can be arranged to act as the Leading Expert sufficiently in advance of the session, or unless the Leading Expert is able to participate by electronic means.”

*TGP/8: Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability*(i) *Revision of document TGP/8: Part I: DUS Trial Design and Data Analysis, New Section: Minimizing the Variation due to Different Observers*

30. The TWO considered document TWO/46/14.

31. The TWO proposed that experts from Australia, Germany, the Netherlands and the United Kingdom help to develop further guidance on the proposed text to be included in TGP/8 Part I: DUS Trial and Design and Data Analysis, New Section: Minimizing the Variation due to Different Observers, in a future revision of document TGP/8, with regard to guidance on PQ and QN/MG characteristics.

32. The TWO noted, however, the importance of the Test Guidelines in providing clear guidance for DUS examiners and to ensure consistency of observations.

*(ii) Revision of document TGP/8: Part II: Selected Techniques Used in DUS Examination, Section 3: Method of Calculation of COYU*

33. The TWO considered document TWO/46/15.

34. The TWO noted that:

(a) the TC had requested the TWC to continue its work with the aim of developing recommendations to the TC concerning the proposals to address the bias in the present method of calculation of COYU; and that

(b) a document on possible proposals for improvements to COYU would be prepared for the TWC session in 2013.

*(iii) Revision of document TGP/8: Part II: Selected Techniques Used in DUS Examination, New Section 10: Minimum Number of Comparable Varieties for the Relative Variance Method*

35. The TWO considered document TWO/46/16, which was presented by an expert from Australia.

36. The TWO noted the comments made by the TWPs at their sessions in 2012 and the TC, at its forty-ninth session in 2013. The TWO agreed with the proposed amendments for revision of Section 10 of document TGP/8 and the new proposed guidance in paragraphs 10.2.2 and 10.6 to specify the minimum number of comparable varieties in the relative variance method.

*(iv) Revision of document TGP/8: Part II: Selected Techniques used in DUS Examination, New Section: Examining DUS in Bulk Samples*

37. The TWO considered document TWO/46/17.

38. The TWO noted that the TC had agreed to replace the proposed text for new Section 11 “Examining DUS in Bulk Samples” in the Annex to document TC/49/28 with guidance on the use of characteristics examined on the basis of bulk samples, in order to ensure that the characteristics fulfill the basic requirements for a characteristic.

39. The TWO agreed that Leading Experts of Test Guidelines could be requested to provide data from different years to demonstrate that the expression of the characteristic is “sufficiently consistent and repeatable in a particular environment”.

*(v) Revision of document TGP/8: Part II: Selected Techniques Used in DUS Examination”, New Section: Data Processing for the Assessment of Distinctness and for Producing Variety Descriptions*

40. The TWO considered document TWO/46/18.

41. The TWO considered the developments on a practical exercise with a common data set to produce variety descriptions of self-pollinated and/or vegetatively propagated varieties, in order to determine the aspects in common and divergence between methods, with a view to developing general guidance.

42. The TWO agreed with the practical exercise and requested the development of guidance on data processing for the assessment of distinctness and for producing variety descriptions of vegetatively propagated crops.

*(vi) Revision of document TGP/8: Part II: Selected Techniques Used in DUS Examination, New Section: Guidance of Data Analysis for Blind Randomized Trials*

43. The TWO considered document TWO/46/19.

44. The TWO noted the comments made by the TWPs at their sessions in 2012 and the TC-EDC in 2013, and considered the draft new Section on “Guidance for Data Analysis for Blind Randomized Trials”.

45. The TWO noted that the draft new section related to the DUS trial design and suggested to change the title to “Draft guidance for blind randomized trials conducted by the authority or a third party”.

46. The TWO suggested that the introduction to be provided should be generic and requested the addition of an example for ornamental plants.

*(vii) Revision of document TGP/8: Part II: Selected Techniques Used in DUS Examination, New Section: Examining characteristics using image analysis*

47. The TWO considered document TWO/46/20.

48. The TWO noted the information on software and hardware used for image analysis, as set out in Annex I to document TWO/46/20.

49. The TWO noted that the AIM software for image analysis would be considered in document TWO/46/7 “Exchangeable software”.

50. The TWO noted that a draft of the new section “Examining Characteristics Using Image Analysis” for document TGP/8 would be presented to the TWC in 2013.

*(viii) Revision of document TGP/8: Part II: Selected Techniques Used in DUS Examination, New Section: Statistical methods for visually observed characteristics*

51. The TWO considered document TWO/46/23.

52. The TWO noted that:

(a) the TC had agreed that it would not be appropriate to continue the development of a section on “Statistical Methods for Visually Observed Characteristics”, unless new guidance was provided beyond the methods already provided in document TGP/8; and

(b) requested the TWC to clarify if it proposed to modify an existing method or provide a new additional method.

*TGP/14: Glossary of Terms Used in UPOV Documents*

*(i) Revision of document TGP/14: Section 2: Botanical Terms, Subsection 3: Color, Definition of "Dot"*

53. The TWO considered document TWO/46/21.

54. The TWO agreed that “dot” was a small “spot” and that only the term “spot” should be used in the future, according to the guidance provided in document TGP/14: Section 2: Botanical Terms, Subsection 3: Color. The TWO proposed that the Test Guidelines should be revised whenever the use of these terms could cause confusion.

Variety denominations

55. The TWO considered document TWO/46/4.

56. The TWO noted the developments concerning the International Commission for the Nomenclature of Cultivated Plants of the International Union for Biological Sciences (IUBS Commission) and the International Society for Horticultural Science Commission for Nomenclature and Cultivar Registration (ISHS Commission), of relevance for UPOV.

57. The TWO supported the initiatives for cooperation and harmonization between UPOV, the IUBS Commission and ISHS, including the initiative for UPOV to have observer status in the IUBS Commission.

#### Information and databases

##### *(a) UPOV information databases*

58. The TWO considered document TWO/46/5.

59. The TWO experts were invited to check the amendments to UPOV codes and the new UPOV codes or new information added for existing UPOV codes by July 31, 2013.

60. The TWO noted the developments concerning the program for improvements to the Plant Variety Database since the forty-fifth session of the TWO.

61. The TWO noted that an introduction to the PLUTO database would be included in the Preparatory Workshop of future TWP sessions.

62. The TWO noted the plans of the Office of the Union to conduct a survey of members of the Union on their use of databases for plant variety protection purposes and on their use of electronic application systems.

#### Uniformity assessment

##### *(a) Assessing uniformity by off-types on the basis of more than one sample or sub-samples*

63. The TWO considered document TWO/46/22 Rev. and noted that:

(a) the TWC had agreed that more detailed information and further analysis were needed in order to give guidance on consequences on the use of the different approaches presented in Annex I to IV of document TWO/46/22 Rev., and that France, Germany and the Netherlands would present one or more concrete situations in their countries and the statistical basis of their analysis for its next session;

(b) the TWC had agreed that the statistical basis for the acceptable number of off-types in the subsample of 20 plants used in the context of a sample size of 100 plants (situation D) would be assessed by experts from France and Germany; and

(c) with regard to the approach combining the results from two growing cycles, as set out in Annexes I and II, Situation A and B, the TC had agreed that care would be needed when considering results that were very different in each of the growing cycles, such as when a type of off-type was observed at a high level in one growing cycle and was absent in another growing cycle.

##### *(b) Testing uniformity of apple varieties arising from mutation*

64. The TWO considered document TWO/46/26, which was presented by an expert from New Zealand.

65. The TWO noted the current practice for the assessment of uniformity and stability by off-types on the basis of two samples for apple varieties originating as mutations in New Zealand.

#### Matters to be resolved concerning Test Guidelines adopted by the Technical Committee

66. There were no items to be resolved under this item.

Discussion on draft Test Guidelines

*Abelia* (*Abelia R.Br.*)

67. The subgroup discussed document TG/ABEL(proj.1) Corr., presented by Mrs. Françoise Jourdan (France) and agreed the following:

Cover page	to read in name box: <i>Abelia</i> R. Br. to read: "Abelie" for common name in German
1.	to change "BR.": to "Br."
2.3 3.4.1 4.2	to refer to: 8 plants
4.1.4	to refer to: 7 plants
5.3	to review grouping Chars.
T.o.C.	to update all example varieties to check example variety to read: "Golden Panache" instead of "Golden Panaché"
Chars. 1, 3, 31	to add (+) and illustration to be indicated as VG
Char. 2	to be indicated as VG/MG
Char. 3	to read: Plant: density to be indicated as QN
Char. 4	to check to read: Stem: color to be indicated as VG
Char. 5	to check if any deciduous species to read: Plant: persistence of foliage if retained, to move to before Char. 1
Char. 6	to consider using color groups to consider to read: Young shoot: main color to add (+) and explanation on main color
Char. 7	to check to be moved after New Char. Before Char. 10 to have states: below middle (1); at middle (2); above middle (3) to add (+) and provide illustration as a grid (TGP/14)
Chars. 8, 9, 20	to be indicated as VG/MS/MG
Chars. 7, 16, 18, 19, 21, 23, 24, 25, 27, 28, 31, 32	to be indicated as VG
New Char. before 10.	to read "Leaf blade: length/width ratio" with states: low (1); medium (2); high (3)
Char.10	to be moved after Char. 14
Chars.11	to add (+) and explanation of main color to check method for identifying main color to check whether to combine with Char. 12 and add states "light green; medium green; dark green"
Char.13	to add (+) and explanation of secondary color to check whether "distribution of secondary color"
Char.14	to check whether other patterns should be added to add (+) and explanation to read: state (1): irregular
Char.15	to be indicated as VG and QN to have states: absent or very weak (1); weak (2); medium (3); strong (4)
Char.16	to reduce to 5 notes
Char.17	to check whether to delete or to read "blistering"
Char.18	to read: Plant: floriferousness to move to end of T.o.C. to add example varieties for states 1 and 9
Char. 20	To replace with 2 x Chars. to read: Corolla: length Corolla: diameter



Chars. 21, 24	to add (+) and illustration on how to observe
Char. 23	to check whether to delete 'of margin'
Char. 25	to read: Corolla throat: hairiness of blotch to combine with Char. 26 and have states: absent or very weak (1); medium (3); strong (5)
Char. 26	to delete
New after Char. 26	to read: Corolla tube: color of outer side to have RHS Colour Chart to be indicated as VG
Chars. 27, 28	to move after Char. 31
Char. 28	to have states: white (1); yellowish (2); light purple (3)
Char. 29	to check whether to read "Calyx: color" or "Sepal: color"
Chars. 29, 30, 31	to be moved after Char. 17
Char. 30	to be indicated as VG/MG to have states: only two (1); only four (2); only 5 (3); between two and five (4)
Char. 31	to have states: ovate (1); medium elliptic (2); broad elliptic (3)
Char. 32	to read "fragrance" instead of "fragance" to reduce notes to 1, 2, 3
Char. 33	to consider to delete
Table of Chars.	to check whether all characteristics should have (*)
8.1	to delete "All" in (a) to read: (b) Observations are made on fully expanded leaves.
9	to add literature
TQ1	to add a box for species name
TQ 5	to check whether 5.2 (Char. 2) to be added as grouping characteristic to add color groups to 5.6 (Char. 22)

*Aglaonema* (*Aglaonema Schott.*)

68. The subgroup discussed document TG/AGLAO(proj.3), presented by Mr. Kenji Numaguchi (Japan) and agreed the following:

Cover page; alternative names	to check whether alternative common names in French, German and Spanish exist
5.3	to follow TGs for Heuchera to be replaced by TQ Chars.
Char. 6	to delete the second "(b)" index in duplicity
Char. 9	to have states: none (1); white (2); yellow (3); green (4); pinkish (5); reddish (6) to add example varieties
Char. 13	to be indicated as QN to read "towards"
Chars. 17, 21, 25, 29, 33, 37, 41	to add (d)
Chars. 34 to 44, 46	to delete (c)
Char. 45	to read: Leaf blade: glossiness
Char. 49	to check spelling of example variety "Lagarzy"
8.1.1 (a)	to read: Plant should be observed in active growth when the stem has 8 to 10 fully grown leaves.
8.1.1 (b)	to read: Leaf should be observed on the fourth to sixth fully grown leaf from the top of the plant
Examples 1 to 4	to remove "Ad." from tables
Example 1	to change illustration to relate to table and to check to add "yellow" as Color 1 to delete duplication of "veins" in Ad. 18

Ad.19, 23, 27, 31, 35, 39,43	to add illustration of states 3 and 4
Ad. 46	to improve illustration
Ad. 48	to have illustrations of cross sections
Ad. 49	to have "upper side"
Ad. 50	to clarify illustrations
9	to check literature and correct spelling of "Catalogue"
TQ 1	to revise order in accordance with TGP/7 (Botanical name, common name, species)
TQ 5	to revise in accordance with change to 5.3 above

*Aloe* (*Aloe L.*)

69. The subgroup discussed document TG/ALOE(proj.2), presented by Mr. Adriaan de Villiers (South Africa) and agreed the following:

Name box	to include UPOV CODE "GASAL" for <i>Aloe</i> x <i>Gasteria</i> hybrids
Alternative names	to include common name in Spanish "Sabila"
1	to check the species to be included
Char. 1, 4, 10	to add example varieties
Char. 5	to delete text within brackets
Char. 6	to be indicated as PQ
Char. 7	to add (+) and explanation on where to be observed
Char. 8	to check whether to include states (1) and (9) state (3) to read: moderately incurved state (7) to read: moderately recurved
Char. 9	to have states "strongly acute; moderately acute; slightly acute" to be indicated as PQ state (4) to read: obtuse
Char. 15	to delete "non-marginal"
Char. 16	to delete "non-marginal"
Char. 24	to be divided into two characteristics: "Shape: conical; conical-cylindrical; cylindrical; capitate to conical; corymbose-capitate" and "Ratio length-diameter"
Char. 25	to be indicated as VG
Char. 39, 40, 41	to remove underline
Char. 41	to reverse states "brown" and "red"
8.1	to read "Observations should be made when 20% of flowers are open on the terminal raceme"
Ad. 1	to change illustration to exclude inflorescence
Ad. 6	to be presented in row
Ad. 20	illustration to read same as heading of characteristic
Ad. 24	to be updated according to new characteristics
TQ 1	to be updated according to the new scope
TQ 5.2	to update order of colors according to the Characteristic in T.o.C
TQ 5.5	to be updated
TQ 5.6	to remove underline
TQ 6	according the states presented in Char. 13

\**Campanula* (*Campanula L.*)

70. The subgroup discussed document TG/CAMPA(proj.3), presented by Miss Elizabeth Scott (United Kingdom) and agreed the following:

Table of Characteristics	to check throughout all mentions to "MG/MS" to include also "VG" to add example varieties
Char. 8	to check whether to indicate to be assessed at widest point
Char. 10	state (4) to read "towards apex" (to delete "moderately")
Char. 14	to add example varieties for states (1) and (7) example variety (8) to read "Blue Rivulet" (two words)
Char. 25	to read "Only varieties with calyx: petaloid lobes present: Calyx lobe: color of outer side" to delete (+)
8.1	to check whether to have (a) or a general explanation that "observations should be made during time of full flowering; to improve explanation on main and secondary colors (according TGP/14);
Ad. 10	to adjust length of state (3) to match others
Ad. 28, 29	to add illustration on different types of flowers to change font to arial for "length" in illustration
Ad. 32	to check presentation of states (8) and (9) to check if there are varieties with partial coloration of midrib
Ad. 39, 40	to correct font in illustrations
9.	To check punctuation for first two references to add page numbering to references
TQ 6	to use example with more similar states of expression

\**Carnation* (*Dianthus L.*)

71. The subgroup discussed document TG/25/9(proj.6), presented by Ms. Katie Pont (Netherlands) and agreed the following:

Alternative names box	to read "Carnation, Clove Pink, Pink, Sweet William" in English
3.3	to check to clarify conditions for examination for the different types and ensure distinctness
5.3	to check if to have more grouping characteristics (see TQ 5)
6.4	to read "cut flower" (without hyphen)
Chars. 1 to 9	to change presentation structure with appropriate guidance on assessment of the different types of plant covered in the Test Guidelines
Char. 4	to be indicated as QN
Char. 6	to add example variety for state 1 to be indicated as QN
Char. 7	to check if example variety for state (3) should be in capital letters
Char. 9	state "horizontal" to read "flat"
Chars. 10, 15, 29, 30, 49	to check if example variety for state (7) should be in capital letters
Char. 18	to check if example variety for state (1) should be in capital letters
Char. 12	to add state "intermediate" to read "shape in cross section"
Char. 13	to check wording (hollowness/pith in cross section) to add explanation in 8.1 "to be observed between half way between nodes"
Char. 23	to check if example variety for state (9) should be in capital letters
Char. 26	to add note for state 2
Char. 33	to read "margin of lobe"
Char. 35	to clarify illustration to present the structures indicated to add intermediate state

\* Indicates possible final draft Test Guidelines

Char. 38	to delete states (1) and (9) (to be presented as (3), (5), (7))
Char. 45	to read "Petal: number of incisions of margin" with states "absent or few, medium, many"
Char. 51	to delete state "none"
Char. 52	to read "Petal: width of secondary color at margin" to have states "absent or very narrow", "narrow", "medium", "broad" to update illustrations to be indicated as QN
Char. 53	to be indicated as QN
Char. 54	to read "Petal: number of stripes as secondary color" to have states "none or very few", "few", "medium", "many" to be indicated as QN
Char. 55	to read "Petal: number of speckles as secondary color" to have same states as Char.54 to be indicated as QN
Char. 56	to read "Petal: area of secondary color as flush" to have states "absent or very small", "small", "medium", "large" Notes 1 to 4 to be indicated as QN
Char. 57	to read "Petal: size of secondary color as macule" same states as 56 to be indicated as QN
Char. 59	to add example varieties or illustrations for states (2), (3) and (4) to delete "striated" and to read "striped"
Char. 61	to check if example variety for state (2) should be in capital letters
Char. 63	to check if example variety for states (4) and (5) should be in capital letters
8.1 (c)	to be moved from 8.1 (c) to section 8.2, Ad. 22, Ad. 23
8.1 (d)	to clarify "outer third row"
8.1 (e)	to check improve wording according to TGP/14
Ad. 21	to delete the word "your"
Ad. 22	to check to have state "oblong" in middle row
Ad. 24	to check illustration of state (2) and to add explanation
Ad. 40	to include illustration of " <i>barbatus</i> " (single flower) to adjust arrows to indicate the correct size of corolla
Ad. 43	to check to replace with illustration for "type 7"
Ad. 45	to keep one illustration for each state
Ad. 65	to check to clarify illustration (to indicate shoulder present)
TQ 1	to insert a box for "species name"
TQ 5.3 ii	to include a group "purple violet"

*China Aster (Callistephus chinensis (L.) Nees)*

72. The subgroup discussed document TG/CALSP(proj.2), presented by Mr. Kenichi Atsuta (Japan) and agreed the following:

Chars. 3, 4	to add (+)
Chars. 3, 5	to add (b)
Chars.13, 21	to read "low" and "high" instead of "small" and "large"
Char. 14	to delete "of upper side"
Char. 15	to read: state (1): without ray floret
Char. 16	to delete underlined part to add state (1) "absent or very few" with example variety "Hulk"
Char. 19	to read: Outer ray floret: length
Char. 20	to read: Outer ray floret: width
Char. 21	to read: Outer ray floret: ratio length/width to add (+) and explanation
Chars. 19, 20, 21, 22, 23, 24, 25, 26, 27, 30	to add (f)

Chars. 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 30, 31	to read: "Outer ray floret" instead of "in outermost row" or "in outer rows"
Char. 22	to read: Outer ray floret: shape
Chars. 29, 37	to be indicated as "VG"
Char. 29	to read: Outer ray floret: main color of outer side
Chars. 30, 31, 32, 33, 34, 35, 36,	to read: "Inner ray floret" instead of "in innermost row" or "in inner rows"
Char. 37	to read: Inner ray floret: main color of outer side
8.1	To read: (a) Observations should be made at the time of full flowering. (c) Observations on the petiole and the leaf blade should be made on the upper side of fully developed typical leaves of the longest primary lateral shoots. (f) Outer ray floret should be observed on the ray florets in the outermost row.
Ad. 15	to improve wording for type double and type anemone-like to read: 1: without floret      flower heads with no ray floret 4: double                double flower heads where no disc is visible at any stage of flowering 5: anemone-like      flower heads with one or more rows of ray florets with a central disc of petaloid florets, which is always visible and clearly defined
Ad. 38	to check anchors on images/lines
9.	to read:      ...vol. XXIII (add space) ...Volume 1 (add space) Inoue, Y. (add space) Yashiro, Y. (add space) ... Volume 11 (add space)

*Cordyline* (*Cordyline Comm. Ex. Juss.*)

73. The subgroup discussed document TG/CORDY(proj.1), presented by Ms. Serra Kilduff (New Zealand) and agreed the following:

Cover page	to read " <i>Cordyline</i> Comm. ex. Juss." throughout
Alternative names	to read "Cordyline" in English, French, Spanish to read "Cordyline; Keulenbaum; Keulenlilie" in German
1.	to consider having separate guideline for <i>C. fruticosa</i> varieties
2.3	to read "10 plants"
3.4.1	to read "10 plants"
4.1.4	to read "9 plants"
4.2.2	to read "10 plants"
5.3	to review grouping characteristics
5.3 (e)	to check whether to replace "second color" by "secondary color"
T.o.C.	to have other asterisked characteristics
Char. 1	to be indicated as QN to consider having notes: 1, 3, 5
Char.2	to read: Plant: height of foliage to add example varieties to states (1) and (9)
Char. 4	to consider to read: "Plant: basal shoots" with states: absent (1); present (9)
Char. 5	to review the Characteristic
Char. 6	to check if necessary. If yes, to provide explanation
Char.7	to consider deleting
Char.8	to add example varieties (see Ad. 8) or consider deleting to delete state (4)
Char.9	to review Characteristic to add example varieties (see Ad. 9)
Chars. 12, 13	to provide illustration

Chars. 15 to 21	to review description of color (consider Lisbon approach) to check distribution of color and pattern
Char. 16	to read "secondary color" to add (+) and provide explanation on "young leaf"
Char. 21	to check whether to read: "throughout" instead of "entire"
Char. 23	to read: "Mature leaf: glossiness" to have notes: absent or weak (1); medium (2); strong (3)
Chars. 24, 25, 26	to consider moving to before Char. 7
Chars. 25, 27, 30	to check to add illustration
Char. 26	to improve illustrations
Chars. 27 to 32	to consider deleting all inflorescence and flower Chars.
8.1	to be completed
Ad. general	to delete names in brackets of example varieties to renumber according to respective characteristics
Ad.9	to check and add illustrations for states 1 and 7
Ad.13	to check numbering with respective characteristic (12) to check to add illustrations
Ad. 16, 20	to update explanation of main color according to TGP/14
Ad. 17, 21	to read "secondary color" instead of "second color"
Ad.18, 22	to check to add illustrations for states 3, 4, 5 and 6
9.	to be added
TQ 1.1	botanical name to read " <i>Cordylina</i> Comm ex. Juss."
TQ 5	to be reviewed with respect to 5.3 grouping characteristics

\**Cosmos* (*Cosmos Cav.*)

74. The subgroup discussed document TG/COSMOS(proj.5), presented by Mr. Takayuki Mikuni (Japan) and agreed the following:

Alternative names box	to add "Mirasol" in Spanish
2.3	to correct spelling of "propagated"
3.4.2	to delete quotation mark at end of paragraph
4.2.1	to read "seed propagated" as cross-pollinated to delete paragraph numbering "4.2.2" and "4.2.3"
Char. 10	to read "Leaf: width of terminal lobe (if present)"
Char. 12	to be moved after 14
Char. 20	to read "reflexed"
Char. 21	to delete "(straight florets excluded)" to add state (1) "absent"; and renumber (2) weak; (3) medium; (4) strong
Char. 22	to delete "(straight florets excluded)" states to become (1) none, (2) tip, (3) distal half, (4) distal three quarters, (5) entire length to review the illustrations accordingly
Chars. 26, 27	to delete (+)
Chars. 30, 31, 32	to delete (+)
Char. 32	to add explanation of tertiary color as in 8.1 (c)
8.1 (a)	to read "Observations on the leaf should be made on the leaves from the middle third of the stem."
8.1 (b)	to read "Observations on the ray floret should be made on the outermost row of ray florets."
Ad. 3	to clarify diagram to read "Primary branches should be observed on the branches indicated by arrow on the following diagram"
Ad. 23, 24	to adjust lines in illustration

Ad. 35	to read "The color of disc should be observed just before anther dehiscence for daisy type, and at the time of full flowering for anemone type".
9.	to complete literature references 2 and 3
TQ 1	to check to have boxes on "Subject of the Technical Questionnaire" according to TGP/7

*Grevillea* (*Grevillea R. Br. Corr. R. Br.*)

75. The subgroup discussed document TG/GREVI(proj.1), presented by Mr. Nik Hulse (Australia) and agreed the following:

Cover page	to consider limiting the scope of the TG to a sub-set of species to check alternative names in French, German and Spanish
T.o.C.	to check to add more (*) Chars. to check to clarify time of assessment of all characteristics (3.3 or 8.1)
Char. 1	to review states of expression and to provide clearer explanation of states
Char. 2	to be indicated as QN and to add illustration
Char. 4	to be indicated as QN
Char. 7	to read: "Young stem: presence of hairs" to check whether QL to delete if not QL
Char. 8	to read: Leaf: length of petiole
Char. 9	to read: Leaf: length of blade
Chars. 15, 16	to have notes 1, 2, 3
Char. 17	to check whether QL
New Char.	to check if any varieties with bipinnate leaves are under application, if so to have new Char. to read: Leaf: type
Char. 19	to review order of Chars. In line with TGP/7 GN26 to check if QL
Chars.21	to check whether QL to add (+) and provide illustration on how to observe
Chars. 24, 25	to check if QL and to add (+) and illustration
Char. 27	to reduce to 5 states to check to clarify where to observe
Chars. 28, 29	to check to move before Char. 26
Char. 30	to move after Char. 20
Char. 31	to add (+) and provide illustration or explanation
Char. 32	to add (+) and illustration
Char. 33	to be indicated as QN
Char. 34	to have notes 1, 2, 3
Char. 37	to provide illustrations to have state (4) "conic"
Char. 39	to have states order "white, green, yellow, orange, pink, red, black"
Char. 41	to read: Inflorescence: number of florets to check to clarify with Char. 40
Char. 43	to check to add (+) and illustration
Char. 44	to check whether to have additional state: absent or very short to consider having notes 1, 2, 3
Char. 45	to be indicated as QN to check order of Char. to add illustration to check whether QN
Char. 46	to have state (1) "yellow" and state (2) "green"
Char. 47, 54, 56, 58, 63, 66, 70	to have state (2) "yellow" and state (3) "green"
Char. 51	to check whether to delete
Char. 55	to add (+) and illustration
Char. 58	to add notes
Char. 60	to check whether QL

Char. 62	to read: Style: distribution of hair to provide example variety for state (2)
Char. 65	to invert states (1) "much longer" and (3) "same length"
Char. 67	to add (+) and illustration
Char. 68	to check whether QL
Char. 69	to add (+) and illustration
8.2	to improve illustrations throughout
Ad. 20	to check to read "broad (low)" and "narrow (high)" to add illustration for "lanceolate"
9.	to add literature
TQ 1	to add box to species name
TQ 4, 5, 6	to be prepared

\**Hosta* (*Hosta Tratt.*)

76. The subgroup discussed document TG/HOSTA(proj.7), presented by Mr. Henk de Greef (Netherlands) and agreed the following:

Cover page	to update proj. number throughout the document to proj.7
Char. 2	to be indicated as VG/MG/MS
Char. 5	to read: "Petiole: shape in cross section of inner side"
Char. 10	to delete "the" (position of broadest part) and state (1) to read "at middle"
Char. 11	state (8) to read "circular"
Char. 12	to delete example variety for state (3)
Char. 16	state (4) to read "at marginal zone"
Chars. 18 to 39	all leaf characteristics for colors 2 to 5 to read the same wording as for color 1
Chars. 46, 47, 48	to add (e)
Char. 48	to read "Bract: color of outer side"
Chars. 52, 53, 55, 57, 61	to be indicated as VG/MG/MS
Char. 54	to read "shape in lateral view"
Char. 55	to read "Corolla tube: length"
Char. 56	to read "Corolla tube: color of outer side"
Char. 58	to read "circular (8)" to add drawings for states 1 and 8
Char. 60	to correct spelling of example variety "Fragrant"
Char. 62	to read "circular (8)"
Char. 63	to add (+) and add to Ad. 49, 52, 53, 55, 57, 61
Chars. 65, 68	to be indicated as VG/MG/MS
Char. 71	to be placed after Char. 67
Table of Chars.	to add more (*) characteristics
8.1	update according to model used for describing the Lisbon approach in <i>Heuchera</i>
8.1 (e)	to read: Characteristics of the bract should be observed on the bract of the first flower in the inflorescence.
Ad.10	to delete "(1)" for state 1 and to delete "the"
Ad.11	to delete 3 <sup>d</sup> column
Ad. 12	to provide a better illustration for state (3) "truncate" (possibly Ad. 11 state (9))
Ad. 15	to delete "..., but method for the young leaf is identical" to read "In order to provide an illustration of the recording method, two worked examples are provided below. The first describes a leaf with only one color, the second a leaf with several colors." To delete sentence "Section 8.1(b) contains the instructions as to which material should be used for the observations."
Worked Example Two	Char. 24 to read "at centre"
Ad. 16, 20, 24, 28, 32	to add illustration "at margin" to explain partially at margin state (5) to read "irregular"



Ad. 17, 21, 25, 29, 33	to change illustration for state (3) "spotted" state (5) to read "marbled (grey green)"
Ad. 37	to read and have same states as Char. 37
Ad. 49, 52, 53, 55, 57, 61	to improve labeling
Ad. 51	to read: (1) Single: 6 corolla lobes; (2) Semi-double: 7 to 11 corolla lobes (3) Double: 12 or more corolla lobes
Ad. 54	to read "shape in lateral view"
Ad. 58, 62	to check to add a grid around shapes
9.	to read "P." (with dot) to read "Hostas" (without apostrophe) to read "Shadrack, M." (with dot)
TQ 1	to add a box for "species: please complete"
TQ 5.3i, 5.3ii,	to delete "color 1" and replace with "color covering the greatest surface area" to revise sequence of 5.3, 5.3i, 5.3ii (numbering only)
TQ 5.4, 5.4i, 5.4ii	to delete "color 2" and replace with "color covering the next greatest surface area"
TQ 6	to update the example used

*Lilac* (*Syringa L.*)

77. The subgroup discussed document TG/LILAC(proj.4), presented by Ms. Cui Hongxia (China) and agreed the following:

Char. 1	to be deleted
Char. 2	to delete underlined part (to read "Plant: growth habit)
Char. 4	to delete underlined part
Char. 6	to read "one-year-old shoot: color" to delete (+) and explanation to be presented in following order "grey brown, light brown, medium brown, red brown"
Char. 8	to be deleted
Char. 9	to read "Only varieties with leaf type: simple: Leaf: depth of sinus to add state (1) "absent or very shallow"
Char. 10	to read "only varieties with leaf type: simple: Leaf: number of sinuses" to have states (1) none; (2) one; (3) two; (4) more than two
Char. 11	to delete underlined part
Char. 12	to delete underlined part to add explanation "for compound leaves to be observed at terminal leaflet"
Char. 19	to check if to replace "panicles" by "raceme" to add space between "Anne" and "Tighe" to add (+) and explanation
Char. 27	to read "medium elliptic (2)"
Char. 28	to read "Edith Braun"
Char. 29	to read "Helene Agathe Keesen" (with spaces)
Char. 30	to delete state (2) and renumber following states
Char. 31	to be deleted
Char. 35	to read "Anther: color"
Char. 36	to read: "Time of beginning of flowering" (to delete "Flower") to be indicated as VG/MG
Char. 37	to be deleted
8.1	to delete the word "All" in (a) and (b)
8.1 (b)	to read "(b) Observations on the inflorescence should be made on inflorescences from the middle to upper part of the canopy <u>when 50% of the inflorescences have open flowers</u> . Observations on the floret should be made on

	florets from the middle part of panicle. Observations on the corolla lobe of double flowers should be made on the lobes of second whorl from the top of the floret.”
Ad. 11	to replace “normal” by “medium” to have states “broad ovate (1); medium ovate (2); narrow ovate (3); medium elliptic (4); narrow elliptic (5); obovate (6)” (keep images in same place) to change illustration for broad ovate
Ad. 15	to read “...before opening of florets.”
Ad. 17	to read “...should be observed from...”
Ad. 20	to delete the explanatory text and keep illustrations only
Ad. 27	to replace “normal” by “medium” to have states “medium elliptic (1); narrow elliptic (2); obovate (3)”
Ad. 32, 33	to add standard wording for main color according to TGP/14 (with darker color as main color)
Ad. 36	to read “The time of beginning of flowering is when 5% of florets on all plants are open.”
9	to check literature
TQ 1	to have three boxes: 1. Genus; 2. Botanical name; 3. Common name
TQ 5	RHS Colour Chart characteristic (as in the Table of Chars) for 5.8 (32) (Corolla lobe: main color of inner side/ RHS Colour Chart (indicate reference number)) and 5.9 (33) (Corolla lobe: secondary color of inner side/ RHS Colour Chart (indicate reference number))
TQ 5 – 5.8(32)	to correct the notes to read in sequence (1), (2)... to check spelling and spaces for the example varieties mentioned above

\**Mandevilla*

78. The subgroup discussed document TG/MANDE(proj.5), presented by Mr. Henk de Greef (Netherlands) and agreed the following:

Cover Page Name box	to read “ <i>xamabilis</i> ” (to remove space)
Alternative names box	to insert alternative names according to GENIE database to divide box after <i>Dipladenia sanderi</i> to insert space “Backh. f.)Dress” and “&Backh”
1	to read “...Woodson and <i>Mandevilla</i> ...”
T.O.C.	to check whether sufficient number of (*) characteristics
Char. 3	to be placed after 5
Char. 4	to clarify young stem
Char. 5	to clarify young stem
Char. 9	to indicate as QN not PQ
Char. 14	to read: Leaf blade: shape
Char. 16	to add example varieties
Char. 19	to add (+); to add state (1) “none” and adjust other notes accordingly
Char. 21	to check spelling of example variety “Coton Candy”
Char. 25	to add (+) and illustration to clarify the axis of observation to have notes (1), (2), (3)
Chars. 34, 35	to check whether to read “main color...”
Chars. 38, 40	to remove underline
Char. 41	to improve illustration
Chars. 42, 43	to delete underline of “outer”
Chars. 44, 45	to delete underline of “inner”
Char. 48	to add (*)
Char. 50	to delete states 1 and 9
8.1	8.1 (a) to become a general note for all characteristics to add explanation on time of observation for Chars. 4 and 5
Ad. 18, 19, 48, 49	to read “In cases where the areas are too similar to reliably...” (as TGP/14 to become a note in 8. 1 and delete Ad. 18, 19, 48, 49
Ad. 31	to indicate position of broadest part
Ad. 32	to add illustration

Ad. 41	to be placed after add 36
Ad. 47	to indicate apex in state (2)
9	to add literature details
TQ 1	to have one set of boxes for each of the two species (Botanical name; common name)
TQ 5.1	to read "Plant: number of climbing tendrils"
TQ 5.3 (48)	to add state "yellow" after "white"
7.3.1	to delete "(c) cut flower"

*Regal Pelargonium (Revision)*

79. The subgroup discussed document TG/109/4(proj.1), presented by Mrs. Andrea Menne (Germany) and agreed the following:

Cover page	to check botanical name of the hybrid (to remove space between "x" and the specific name)
1	to replace "between" by "including" to check whether GN3 applies
3.3.1	to delete second sentence
4.2.2	to read "15 plants"
Chars. 1, 3, 4, 11, 12	to check to add example varieties
Char. 9	to add (+) and explanation on how to observe in case of variegated leaves
Char. 21	to check if to add (+) and explanation
8.1	to delete "All" in 8.1, 8.1 (a) and (b) 8.1 to read "Observations should be made at the time of full flowering."
Ad. 3, 4, 5	to add another example such as state (9) in Ad.
Ad. 6	to add "the deepest sinus is observed"
Ad. 8	to add explanation on which part to observe green color on variegated leaves
Ad. 16, 17, 18	to adjust arrows
Ad.19	to read "size of central marking" and to place "marking" between arrows
Ad. 20	to check to add more illustrations
Ad. 25	to read "size of central marking"
9.	to check literature format
TQ 6	to read "short" instead of "small"

*Salvia (Salvia L.)*

80. The subgroup discussed document TG/SALVI(proj.1), presented by Mr. Tetsuya Takahashi (Japan) and agreed the following:

Cover page	to have common English name: <i>Salvia</i>
1	to specify the scope of the Test Guidelines by determining the species covered
2.3	to replace "10 rooted cuttings" by "10 plants"
4.2.3, 4.2.4	to check whether self-pollinated and/or cross-pollinated varieties
Table of Chars.	to add example varieties
Char. 2	to add (*)
Char.10	to read "low" and "high" instead of "small" and "large"
Char.12	to check whether to have separate characteristics for shape of apex and tip
Char.14	to add (+) and explanation of main color to read for state (2): medium green
Char. 16	to check whether to have separate characteristics for distribution and pattern state (3) to read "spots" and to check term for state (4) "splashed"
Char. 18	to add state (5) very dense
Char. 26	to add (+) and illustration
Char. 28	to check whether to reduce number of states or state (1) to read: absent or very weak

Char. 30	to specify whether “Floret bract” or “Peduncle bract”
Chars.32, 37, 42	to add (+) and explanation of main color
Char. 33	to read: Calyx: pubescence on outer side (check for consistency throughout T.o.C.
Chars. 37 to 45	to check whether to use “lip” or “lobe”
Chars. 38, 43	to add (+) and explanation of secondary color
Char. 41	to check whether stable characteristic
Char. 44	to read: at base (1); at margin (4)
8.1	to delete “all” to add an additional sentence to (a) to read: Observations of the leaf blade should be made on the upper side.
Ad.1	to add illustrations for states 1, 3 and 4
Ad. 2	to read: Plant height should be observed from the surface of the growing medium to the top of the plant, including inflorescence
Ad.16	to add illustrations
Ad.19	to add illustrations for states 2, 3, 4 and 5
Ad.21	to add illustrations for state 7
Ad.22	to add illustrations for state 5
Ad.25	to add illustrations for states 2, 4 and 5
Ad.27	to remove visible name labels from existing illustrations to add illustrations for states 3, 4 and 5
Ad. 41	to verify blue line indications of where to observe
Ad.45	to add illustrations for states 4 and 5
TQ 1	to insert “[to complete]” 1.2 to read: <i>Salvia</i>

*Zinnia* (*Zinnia L.*)

81. The subgroup discussed document TG/ZINNIA(proj.3), presented by Mrs. María Teresa Colinas León (Mexico) and agreed the following:

1.	to read: These Test Guidelines apply to all varieties of <i>Zinnia L.</i>
4.1.4	to read:  Unless otherwise indicated, for the purposes of distinctness for F1 hybrids, all observations on single plants should be made on 10 plants or parts taken from each of 10 plants and any other observations made on all plants in the test, disregarding any off-type plants.  Unless otherwise indicated, for the purposes of distinctness for open pollinated varieties, all observations on single plants should be made on 40 plants or parts taken from each of 40 plants and any other observations made on all plants in the test, disregarding any off-type plants.
4.2.2	to read: For open pollinated varieties, the assessment of uniformity should be according to the recommendations for cross-pollinated and hybrid varieties as appropriate, in the General Introduction.
4.2.3	to read: For the assessment of uniformity of F1 hybrids, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 10 plants, 1 off-type is allowed.
T.o.C.	to remove reference to example variety series: “Profusion”; “Sahara”; “Dreamland” and replace by single example varieties
Char.2	to be indicated as VG
Char. 3	to have states: absent or weak (1); weak (2); medium (3); strong (4); very strong (5)
Char. 6	to be indicated as QN and to add (a) to have states: towards base (1); at middle (2); towards apex (3) to check to be placed after Char. 9

Chars. 7, 8	to add example varieties to add (a)
Char. 10, 11, 12, 13,	to add (a)
Char.12	to read: Leaf: intensity of green color to have notes: very light (1); light (2); medium (3); dark (4); very dark (5)
Char. 15	to replace example variety for state (2) with "Yellow Flame"
Char. 18	to add (+) and to provide illustration to be indicated as VG/MS
Chars. 19, 20, 21	to be indicated as VG/MS and to add (c) to add example varieties
New Chars.	to insert 3 New Chars. on Ray floret (see TG/22/6 Dahlia – Chars. 38, 39, 40)
Char. 22	to add (d) and review the names of the states (see TG for Chrysanthemum, Char. 48)
Char. 23	to add (d)
Chars. 24, 25	to add (d) and (e)
Char. 25	to read: Ray floret: secondary color of inner side (if present)
Char. 24, 25, 27, 29	to correct translation standard wording for the "RHS Colour Chart" in Spanish
Char. 26	to read "Ray floret: distribution of secondary color of inner side" with states basal part (1); distal part (2); along midrib (3); throughout (4)
New Char.	to read "Ray floret: pattern of secondary color of inner side" with states: solid (1); blotches (2); stripes (3)
Char. 28	to delete
Char. 29	to read: Flower head: color of disc (if present)
8.1	to replace "all" by "Ad. 15" in (c) to renumber accordingly and update T.o.C to update text for (d) according to TGP/14
Ad. 1	to replace illustration of state (3)
Ad. 2	to update according to changes in T.o.C.
Ad.9	to invert illustrations of states (3) and (7)
Ad. 15	to add explanation to read: Single flower head: has only one row of ray florets. Semi double flower head: has more than one rows of ray florets and a visible flower head disc. Double flower head: has no flower head disc.
TQ 1	to insert box for species
TQ 1.1	text in box to read: <i>Zinnia</i> L.
TQ 4	to check whether to use example 1 or 2 from the TG Template
TQ 4.2.1 to 4.2.3	to delete series for vegetative propagation
TQ 5.4	to add Char. 25 and update as in the Table of Characteristics
TQ 6	to add an example

#### Recommendations on draft Test Guidelines

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

82. The TWO agreed that the following draft Test Guidelines should be submitted to the TC for adoption at its fiftieth session, to be held in Geneva in March 2014, on the basis of the following documents and the comments in this report:

Subject	Relevant document
China Aster ( <i>Callistephus chinensis</i> (L.) Nees)	TG/CALSP(proj.2)
Hosta ( <i>Hosta</i> Tratt.)	TG/HOSTA(proj.7)
Lilac ( <i>Syringa</i> L.)	TG/LILAC(proj.4)
Mandevilla	TG/MANDE(proj.5)

(b) *Test Guidelines to be discussed at the forty-seventh session*

83. The TWO agreed to discuss the following draft Test Guidelines at its forty-seventh session:

<i>Abelia</i> ( <i>Abelia</i> R.Br.)
<i>Aglaonema</i> Schott.
Aloe
<i>Campanula</i> L.
<i>Calibrachoa</i> L. (Revision)
<i>Cordyline</i> ( <i>Cordyline</i> Comm. Ex. Juss.)
<i>Cosmos</i> ( <i>Cosmos</i> Cav.)
Carnation ( <i>Dianthus</i> L.) (Revision)
Freesia (Revision)
<i>Grevillea</i> ( <i>Grevillea</i> R. Br. Corr. R. Br.)
Petunia (Revision)
<i>Plectranthus</i> L'Hér.
Regal Pelargonium (Revision)
<i>Salvia</i> ( <i>Salvia</i> L.)
<i>Zinnia</i> L.

84. The leading experts, interested experts and timetables for the development of the Test Guidelines are set out in Annex III.

#### Guidance for drafters of Test Guidelines

85. The TWO considered document TWO/46/24.

86. The TWO noted the information provided in the TG Drafters' webpage of the UPOV website, including the Revised Practical Guide for Drafters (Leading Experts) of UPOV Test Guidelines.

87. The TWO noted the difficulties experienced in using the TG Template available on UPOV website and proposed to include a demonstration of its use during the Preparatory Workshop. The TWO requested to have a short document with the standard wording applicable for the types of Test Guidelines discussed in each TWP.

88. The TWO noted the plan for the development of a prototype web-based TG Template for testing by interested experts by the end of 2013. It was noted that the template would provide sufficient flexibility for drafters of Test Guidelines to introduce proposals that were not covered by existing standard wording and would retain flexibility in the structure for further development of Test Guidelines by UPOV members.

89. The TWO noted that a file "Summary information on quantity of plant material required on adopted Test Guidelines" was available on the TG Drafters' webpage of the UPOV website.

#### Information and databases (continued)

(b) *Variety description databases*

90. The TWO considered documents TWO/46/6 and TWO/46/25.

91. The TWO noted the developments on variety description databases.

92. The TWO requested an expert from Australia to lead an initial study on the viability of the development of a database for a crop of interest to the TWO, in a similar way to the database being developed for Pea, which would be presented at the forty-seventh session of the TWO. The TWO recognized the need to clearly define the scope and objectives in developing such a database. Experts from the European Union and the Netherlands would participate in the initial study.

93. The TWO noted the report on the Pea Database study as presented in document TWO/46/25.

94. The TWO agreed that the approach for managing variety collections as used in the Pea database provided a useful tool for the development of Test Guidelines, selection of grouping characteristics and identifying varieties that would be used in the DUS trials.

95. The TWO noted the approach for managing variety collections as presented in the Annex to document TWO/46/25.

(c) *Exchangeable software*

96. The TWO considered document TWO/46/7.

97. The TWO noted that the TC had concluded that the title of document UPOV/INF/16 "Exchangeable Software" and Section "1. Requirements for exchangeable software" should remain unchanged, but that it would be useful to develop a separate information document that would allow members of the Union to provide information on the use of non-customized software and equipment that was used by members of the Union.

98. The TWO noted that the TC had:

(a) agreed with the inclusion of "Information System (IS) used for Test and Protection of Plant Varieties in the Russian Federation" and the AIM software from France in document UPOV/INF/16;

(b) requested the Office of the Union to investigate the possibility of the translation of "Information System (IS) used for Test and Protection of Plant Varieties in the Russian Federation" into English on the basis that the Russian Federation would verify the translation provided by the Office of the Union; and

(c) requested the Office of the Union to translate the AIM software to English on the basis that France would verify the translation provided by the Office of the Union.

99. The TWO noted that the TC had agreed with the inclusion of the information regarding the use of software provided by the Czech Republic, Estonia and Vietnam, in reply to Circular E-13/023, in a revision of document UPOV/INF/16 by the Council at its forty-seventh session, to be held in Geneva on October 24, 2013.

100. The TWO noted that the TWC would be invited to consider the software proposed by Mexico for inclusion in document UPOV/INF/6 "Exchangeable software", as presented in Annex III to document TWO/46/7, at its thirty-first session, to be held in Seoul, from June 4 to 7, 2013.

(d) *Electronic application systems*

101. The TWO considered document TWO/46/8.

102. The TWO noted the developments concerning a prototype electronic form.

Experiences with new types and species

103. An expert from Australia gave a presentation on a new inter-generic hybrid variety between the Australian species *Disphyma crassifolium* ssp. *clavellatum* and the African species *Glottiphyllum longum*. A copy of the presentation will be included in document TWO/46/28.

### Date and Place of the Next Session

104. At the invitation of Kenya, the TWO agreed to hold its forty-seventh session in Nairobi, Kenya, from May 19 to 23, 2014, with the preparatory workshop on May 18, 2014.

### Chairperson

105. The TWO agreed to propose to the TC that it recommend to the Council to elect Mr. Kenji Numaguchi (Japan) as the next chairperson of the TWO.

### Future program

106. The TWO proposed to discuss the following items at its next session:

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
  - (b) Reports on developments within UPOV (oral report by the Office of the Union)
4. Molecular Techniques (document to be prepared by the Office of the Union)
5. TGP documents
6. Variety denominations (document to be prepared by the Office of the Union)
7. 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) Exchangeable software (documents to be prepared by the Office of the Union)
  - (d) Electronic application systems (document to be prepared by the Office of the Union)
8. Uniformity assessment
9. Experience with new types and species
10. Matters to be resolved concerning Test Guidelines adopted by the Technical Committee (if appropriate)
11. Discussion on draft Test Guidelines (Subgroups)
12. Recommendations on draft Test Guidelines
13. Guidance for drafters of Test Guidelines
14. Date and place of the next session
15. Future program
16. Report on the session (if time permits)
17. Closing of the session

### Visit

107. On the afternoon of April 24, the TWO visited the facilities of Grandiflora Nurseries, Australia's largest cut rose company and a breeder of new rose varieties. Mr. Christopher Prescott, a consultant qualified person (QP), accredited by the PBR office in Australia, explained his role in operating a centralized testing center for roses. He also explained the rose breeding activities being undertaken at Grandiflora Nurseries. The TWO then visited the Royal Botanic Gardens at Cranbourne where it had the opportunity to view more than 1,700 varieties of Australian native plant species on display. The TWO also visited the facilities at Ball Horticultural Company Australia (Ball Australia), a leading horticultural company with a range of ornamental and vegetable varieties. Mr. Mark Lunghusen, a consultant QP accredited by the PBR office in Australia, explained the process for undertaking DUS examination of plant varieties at Ball Australia. In particular, he explained how overseas DUS test reports are used to verify the expression of characteristics under Australian conditions.



*108. The TWO adopted this report at the close of the session.*

[Annexes follow]

ANNEX I

LIST OF PARTICIPANTS

I. MEMBERS

AUSTRALIA



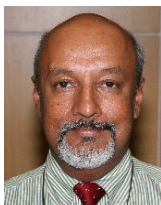
Nik HULSE, Senior Examiner, Plant Breeder's Rights Office, IP Australia,  
47 Bowes Street, Phillip ACT 2606  
(tel.: +61 2 6283 7982 fax: +61 2 6283 7999 e-mail: [nik.hulse@ipaaustralia.gov.au](mailto:nik.hulse@ipaaustralia.gov.au))



Muhammad Ali BHATTI, Examiner, Plant Breeder's Rights Office, IP Australia,  
47, Bowes Street, Woden ACT 2606  
(tel.: +61 2 6283 2801 fax: +61 2 6283 7999 e-mail: [ali.bhatti@ipaaustralia.gov.au](mailto:ali.bhatti@ipaaustralia.gov.au))



Nahida BHUIYAN (Mrs.), Examiner, Plant Breeder's Rights, IP Australia, Discovery  
House, 47, Bowes Street, PO Box 200, Woden ACT  
(tel.: +61 2 6283 7983 fax: +61 2 6283 7999  
e-mail: [nahida.bhuiyan@ipaaustralia.gov.au](mailto:nahida.bhuiyan@ipaaustralia.gov.au))



Tanvir HOSSAIN, Examiner, Plant Breeder's Rights Office, IP Australia, P.O. Box  
200, Woden ACT 2606  
(tel.: +61 2 6283 7984 fax: +61 2 6283 7999  
e-mail: [tanvir.hossain@ipaaustralia.gov.au](mailto:tanvir.hossain@ipaaustralia.gov.au))



Katte PRAKASH, Examiner, Plant Breeder's Rights Office, IP Australia, P.O. Box  
200, Woden ACT 2606  
(tel.: +61 2 62837985 fax: +61 2 6283 7999  
e-mail: [katte.prakash@ipaaustralia.gov.au](mailto:katte.prakash@ipaaustralia.gov.au))



Christopher PRESCOTT, Prescott Roses, 145 Moores Road, Clyde Victoria  
(tel.: +61 3 5998 5333 fax: +61 3 5998 5100  
e-mail: [prescottroses@bigpond.com](mailto:prescottroses@bigpond.com))

Mark LUNGHUSEN, Managing Director, Australian Horticultural Services Pty Ltd.,  
32 Hardly Street, Lilydale, Vic 3140  
(tel.: +61 3 9738 7452 e-mail: [mark@australianhorticulturalservices.com](mailto:mark@australianhorticulturalservices.com))

BRAZIL



Luiz Claudio Augusto DE OLIVEIRA, Federal Agriculture Inspector, Fiscal Federal Agropecuário, Serviço Nacional de Proteção de Cultivares (SNPC), Ministério da Agricultura, Pecuária e Abastecimento, Esplanada dos Ministérios, Bloco D, Anexo A, Sala 250, Brasília, D.F.70043-900  
(tel.: +55 61 3218 2938 fax: +55 61 3224 2842  
e-mail: luiz.oliveira@agricultura.gov.br)

CANADA



Ashley BALCHIN (Ms.), Examiner, Plant Breeders' Rights Office, Canadian Food Inspection Agency (CFIA), 59 Camelot Drive, Ottawa Ontario  
(tel.: +1 613 773 7137 fax: +1 613 773 7162 e-mail:  
ashley.balchin@inspection.gc.ca)

CHINA



ZHOU Jianren, Division Director, Office of Protection of New Varieties of Plants State Forestry Administration, P.R.C, 18 Hepingli East Street, Beijing 100714  
(tel.: +86 10-8423 9106 fax: +86 10-8423 8885/18601139661 e-mail: webmaster@cnpvp.net)



CUI Hongxia (Ms), Researcher, Beijing Botanical Garden, Institute of Botany, Chinese Academy of Sciences, Xiangshan, Beijing 100093  
(tel.: +86 10 62836037 e-mail: cuihongxia@ibcas.ac.cn)



Xuhong YANG (Mrs.), Examiner, Division for the Protection of New Varieties of Plants, Development Center for Science and Technology, Ministry of Agriculture, Room 707, Nongfeng Building No. 96, Dong San Huan Nan Lu, Chaoyang District, Beijing 100122  
(tel.: +86 10 59199393 fax: +86 10 59199393 e-mail: yxh1990@yahoo.com)

DENMARK



Lars H. JACOBSEN, Department of Food Science, Science and Technology, University of Aarhus, Kirstinebjergvej 10, DK-5792 Arslev  
(tel.: +45 8999 1900 fax: +45 8999 3496 e-mail: larsh.jacobsen@agrsci.dk)

EUROPEAN UNION



Jean MAISON, Deputy Head, Technical Unit, Community Plant Variety Office (CPVO), C.S. 10121, 49101 Angers CEDEX 02  
(tel.: +33 2 4125 6435 fax: +33 2 4125 6410 e-mail: maison@cpvo.europa.eu)



Jens WEGNER, Technical Expert for Ornamental Plants, Community Plant Variety Office (CPVO), 3, Boulevard Marechal Foch, CS 10121, 49101 Angers Cedex 02  
(tel.: +33 2 4125 6453 fax: +33 2 4125 6410 e-mail: wegner@cpvo.europa.eu)

FRANCE



Françoise JOURDAN (Mrs), *Groupe d'étude et de contrôle des variétés et des semences* (GEVES), 4790 Route des Vignerres, F-84250 Le Thor  
(tel.: +33 490 78 66 60 fax: +33 490 78 01 61  
e-mail: francoise.jourdan@geves.fr)

GERMANY



Andrea MENNE (Ms.), Head, Section DUS Testing Ornamentals, Bundessortenamt, Osterfelddamm 80, 30627 Hannover  
(tel.: +49 511 956 65723 fax: +49 511 956 65719  
e mail: andrea.menne@bundessortenamt.de)

JAPAN



Kenichi ATSUTA, Examiner, Plant Variety Protection Office, New Business and Intellectual Property Division, Food Industry Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries, 1-2-1, Kasumigaseki, Chiyoda-ku, Tokyo  
(tel: +81 3 6738 6465 fax: +81 3 3502 6572 e-mail: atsuta@affrc.go.jp)



Takayuki MIKUNI, Assistant Examiner, Plant Variety Protection Office, New Business and Intellectual Property Division, Food Industry Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries (MAFF), 1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo  
(tel.: +81 3 6738 6464 fax: +81 3 3502 6572  
e-mail: takayuki\_mikuni@nm.maff.go.jp)



Kenji NUMAGUCHI, Examiner, Plant Variety Protection Office, New Business and Intellectual Property Division, Food Industry Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries 1-2-1, Kasumigaseki, Chiyoda-ku, Tokyo  
(tel.: +81 3 6738 6449 fax: +81 3 3502 6572  
e-mail: kenji\_numaguchi@nm.maff.go.jp)



Tetsuya TAKAHASHI, Senior Staff, DUS Test Division, National Centre for Seeds and Seedlings (NCSS) 2-2 Fujimoto, Tsukuba-shi, Ibaraki-ken, Japan  
(tel.: +81 29 838 6581 fax: +81 29 8391183 e-mail: ttetuya@affrc.go.jp)

#### KENYA



Patrick MALUKU, Senior Plant Examiner, Plant Variety Protection Office, Kenya Plant Health Inspectorate Service (KEPHIS), P.O. Box 49592, 00100 Nairobi (tel.: +254 720 51 242368 fax: +254 20 353 6175 e-mail: pmaluku@kephis.org)

#### MEXICO

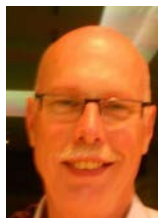


María Teresa B. COLINAS LEÓN (Mrs.), Fitotecnia, Universidad Autónoma Chapingo, Matamoros 4, San Luis Huexotla, 56220 Texcoco  
(tel.: +52 595 928 4217 fax: +52 595 952 1642 e-mail: lozcol@gmail.com)



Amando ESPINOSA-FLORES, Universidad Autónoma Chapingo, Km 38.5 Carretera México- Texcoco, Chapingo, 56230, Estado de México  
(tel.: +595 952 1500 ext. 6118 e-mail: floresamando@yahoo.com.mx)

#### NETHERLANDS



Henk J. DE GREEF, Specialist, Team DUS Ornamental & Fruit Crops, Naktuinbouw, P.O. Box 40, NL-2370 AA Roelofarendsveen  
(tel.: +31 646 713131 fax: +31 317 418094 e-mail: h.d.greef@naktuinbouw.nl)



Katie W. PONT (Miss), Team DUS Ornamental & Fruit Crops, Naktuinbouw NL, Sotaweg 22, 2371 GD Roelofarendsveen  
(tel.: +31 71 332 61 22 fax: +31 71 332 63 63 e-mail: k.pont@naktuinbouw.nl )

NEW ZEALAND



Christopher J. BARNABY, Assistant Commissioner / Principal Examiner, Plant Variety Rights Office, Intellectual Property Office of New Zealand, Private Bag 4714, Christchurch 8140  
(tel.: +64 3 9626206 fax: +64 3 9626202 e-mail: Chris.Barnaby@pvr.govt.nz)



Serra KILDUFF (Ms.), Examiner, Plant Variety Rights Office, 55, Wordsworth Street, Sydenham, Christchurch  
(tel.: +64 3 9626239 e-mail: serra.kilduff@pvr.govt.nz)

OMAN



Ahmed AL-MASKARI, Head of Crop Sciences Department, College of Agricultural and Marine Sciences, Sultan Qaboos University, Box 1453, Seeb P/C 111  
(tel.: +968 9980 9090 fax: +968 24413418 e-mail: maskri99@squ.edu.om)



Omar AL-MANTHERI, College of Agricultural and Marine Sciences, Sultan Qaboos University, Alkhod, Muscat (tel.: +968 99321887 fax: +968 24413418 e-mail: omarsaid@squ.edu.om)

REPLUBIC OF KOREA



Tae Hoon KIM, Research Scientist, Korea Forest Seed and Variety Center (KFSV), Korea Forest Service, 670-4 Suhoe-ri, Suanbo-Meon, Chungju City, Chungcheongbukdo  
(tel.: 82 43 850 3326 fax: 82 43 850 3390 e-mail: algae@forest.go.kr)



KWON Oh-woung, Senior Scientist, Korea Forest Seed and Variety Center (KFSV), Korea Forest Service, 670-4 Suhoe-ri, Suanbo, Chungju, Chungbuk 380-941  
(tel.: +82 43 850 3324 fax: +82 43 850 3390 e-mail: owkwon@forest.go.kr)



SUH Jung-Nam, Agricultural Researcher, Variety Testing Division, Korea Seed & Variety Service (KSVS), 233-1 Mangpodong, Yeongtong-gu, Suwon-si, Kyunggi-do 430-016  
(tel.: 82 31 8008 0212 fax: 82 31 203 7431 e-mail: suhjn@korea.kr)



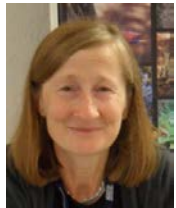
Sang-Geum LEE, Agricultural Researcher, Gyeongnam Office, Korea Seed and Variety Service (KSVS), 268-11 Pyungchon-ri, Sangnam-myun, Kyungsangnam-do, Milyang-si  
(tel.: 82 55 352 9552 fax: 82 55 353 2590 e-mail: sk81@korea.kr)

#### SOUTH AFRICA



Adriaan J. DE VILLIERS, DUS Examiner, Division of Variety Control, Directorate: Genetic Resources, National Department of Agriculture, Forestry & Fisheries, Private Bag X11, Gezina 0031  
(tel.: +27 83 4158080 e-mail: RIAANDV@daff.gov.za)

#### UNITED KINGDOM



Elizabeth M.R. SCOTT (Miss), Head of Crop Characterisation, National Institute of Agricultural Botany (NIAB), Huntingdon Road, Cambridge CB3 0LE  
(tel.: +44 1223 342399 fax: +44 1223 277602 e-mail: elizabeth.scott@niab.com)

#### VIET NAM



Thanh Minh NGUYEN, Senior Officer/Examiner, Plant Variety Protection Office (PVPO), Department of Crop Production (DCP), Ministry of Agriculture and Rural Development (MARD), Room 405 A6B, Building No. 2 Ngoc Ha Str, Ba Dinh District, Hanoi 844  
(tel.: +84 4 38435182 fax: +84 4 37342844 e-mail: minh\_pvp@yahoo.com / minhnt.nn@mard.gov.vn)

II. OBSERVERS

MALAYSIA



Adam SUPU, Assistant Director, Plant Variety Protection Registration, Department of Agriculture Malaysia, Wisma Tani, Level 7, No. 30, Precint 4, Persiaran perdana, 62624 Putrajaya  
(tel.: +603 8870 3448 fax: +603 8888 7639 e-mail: adam@doa.gov.my)

PHILIPPINES



Elvira Dapon MORALES (Ms.), Agriculturist II, Plant Variety Protection Office, National Seed Industry Council, Bureau of Plant Industry, NSQCS Building, Visayas Ave., Quezon City  
(tel.: +63 2 9292543 fax: +63 2 9292543 e-mail: elviemorales@yahoo.com)

THAILAND



Pornthep THUAMSOMBOON, Agricultural Research Officer, Plant Variety Protection Office, Plant Variety Protection Division, Department of Agriculture, 50 Phaholyothin Road, Ladyao, Chatuchak, Bangkok 10900  
(tel./fax: +66 9407214 e-mail: pornthep\_thuamsomboon@yahoo.com)



Thidakoon SAENUDOM (Ms.), Senior Agricultural Research Officer, Plant Variety Protection Office, Department of Agriculture, 50 Phahonyothin Road, Ladyao, Chatuchark, Bangkok 10900  
(tel.: +66 2 940 7214 fax: +66 2 9407214 e-mail: thidakuns@hotmail.com)

III. ORGANIZATIONS

INTERNATIONAL COMMUNITY OF BREEDERS OF ASEXUALLY REPRODUCED ORNAMENTAL AND FRUIT PLANTS (CIOPORA)



Justin CARTMEL, Tesselaar®, 327 Monbulk Road, Silvan, Victoria3795  
(tel.: +61 3 9737 9568 fax: +61 3 9737 9899 e-mail: jcartmel@tesselaar.com)



Kristin HAYTHORNE (Ms.), Tesselaar®, 327 Monbulk Road, Silvan, Victoria3795  
(tel.: +61 3 91379568 fax: +61 3 9737 9899 e-mail: khaythorne@tesselaar.com)



IV. OFFICER

CHAIRPERSON



Nik HULSE, Chairperson

V. OFFICE OF UPOV




Leontino TAVEIRA, Technical/Regional Officer (Latin America, Caribbean),  
International Union for the Protection of New Varieties of Plants (UPOV), Chemin  
des Colombettes 34, 1211 Genève 20, Suisse  
(tel.: +41 22 338 9565 fax: +41 22 733 0336 e-mail: leontino.taveira@upov.int)



Caroline ROVERE (Mrs.), Administrative Assistant, International Union for the  
Protection of New Varieties of Plants (UPOV), 34, chemin des Colombettes, 1211  
Geneva , Switzerland  
(tel.: +41 22 338 9233 fax: +41 22 733 0336 e-mail: caroline.rovere@upov.int)

[Annex II follows]



Australian Government  
IP Australia


# DUS testing in Australia

Nik Hulse, Senior Examiner, PBR

Robust intellectual property rights delivered efficiently

PATENTS  
TRADE MARKS  
DESIGNS  
PLANT BREEDER'S RIGHTS

P TM D PBR



Australian Government  
IP Australia

# DUS Testing in Australia

- *Australia has many climatic zones covering a large area*

*Strict quarantine restrictions limit movement of some plant material within Australia*

*Australia protects varieties from over 500 species from 230 genera.*

- one new species every 10 days
- one new genus every 2 weeks
- most from Australian genera
- many are first varieties of the species

Robust intellectual property rights delivered efficiently

P TM D PBR



## Approach to DUS testing

- Cost recovered
- DUS testing by others
  - Article 12 of UPOV 1991 – provisions (b) & (c)
    - (b) cause the growing of the variety or the carrying out of other necessary tests, or
    - (c) take into account the results of growing tests or other trials which have already been carried out.

Robust intellectual property rights delivered efficiently

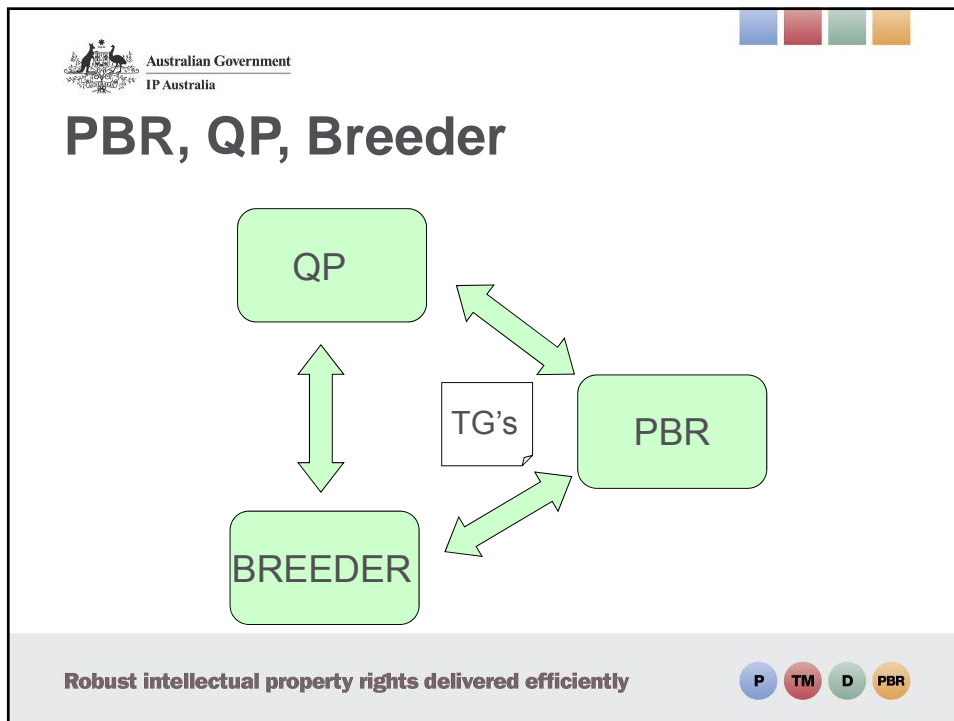
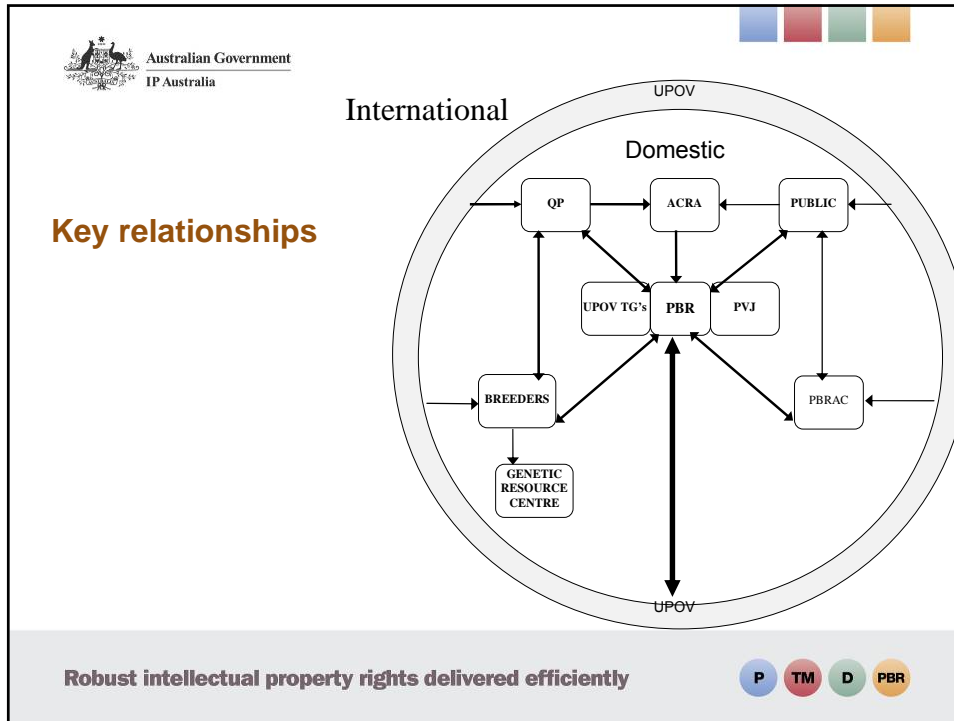


## How are DUS trials conducted?

- *The DUS trial is often conducted on the property of the Breeder (or their agents)*
  - sometimes on a third parties property (eg Centralised Testing Centre)
- *Each application is appointed a PBR accredited Qualified Person (QP) who is responsible for managing the trial, providing evidence of DUS and preparing a harmonised variety description.*
- *PBR examiners role is to undertake an independent assessment of the trial methodology and determination of distinctness.*

Robust intellectual property rights delivered efficiently



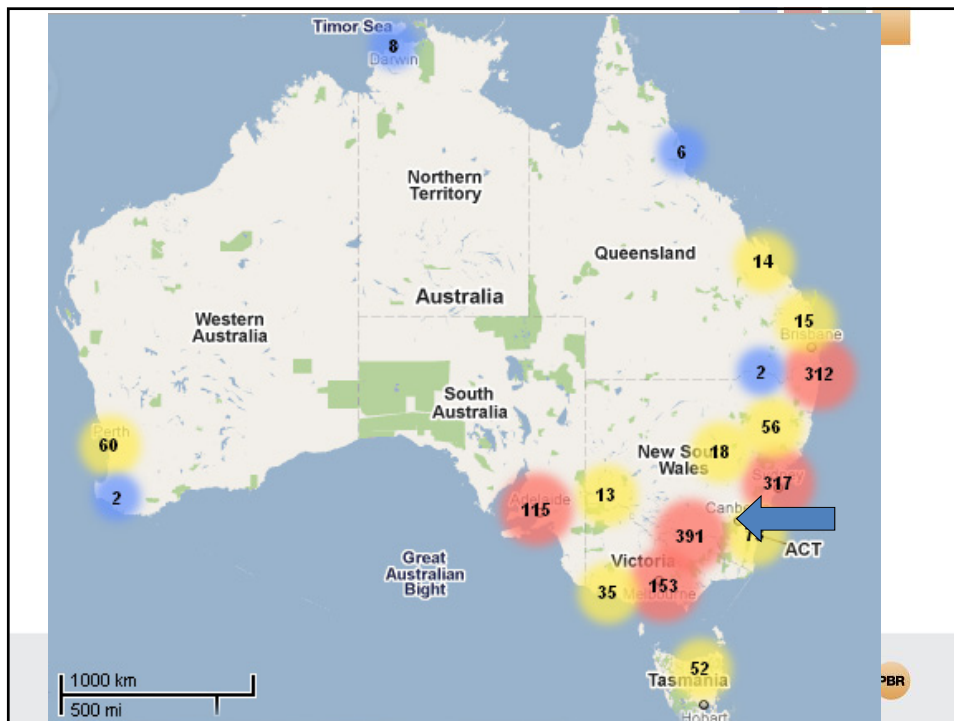


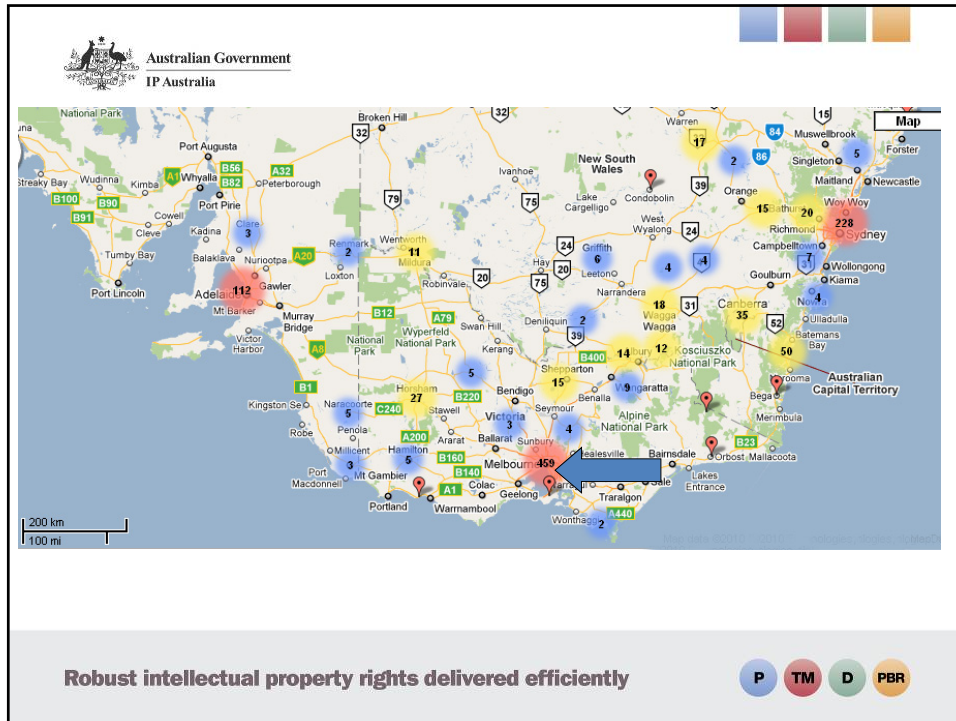


## PBR examiners

- Currently 5 examiners in the office – based in Canberra
- Travel throughout Australia to examine DUS trials
- In one trip they may examine DUS trials from very different plant types. Eg wheat, rose, pineapple

Robust intellectual property rights delivered efficiently







## Characteristics of DUS trials

- Generally small number of reference varieties
  - number of varieties included in the trial is reduced to the most similar ones

Robust intellectual property rights delivered efficiently



## How is rigour maintained?

- *QP's are trained and their work is assessed by a PBR examiner*
- *PBR examiner verifies DUS claims*
- *Variety descriptions are published and public comment invited.*
- *PBR Office has final say.*

Robust intellectual property rights delivered efficiently





## Training of QP's



**Robust intellectual property rights delivered efficiently**



**Robust intellectual property rights delivered efficiently**






 Australian Government  
IP Australia



**Robust intellectual property rights delivered efficiently**

 Australian Government  
IP Australia

## Use of Test Guidelines





- *If available UPOV Test Guideline is used*

otherwise.....

*National Descriptor is created by co-operation between the Qualified Person and the PBR Examiner*

- the breeder or other experts may also be involved.

**Robust intellectual property rights delivered efficiently**



## Co-operation with preparing Test Guidelines

- *Breeders generally have the best collections*
  - sometimes the only collections
  - provide access
- *Often DUS trials are also being conducted*
  - PBR Examiner and QP can gather information with minimal additional cost

**Robust intellectual property rights delivered efficiently**



## Knowledge and Skills

- *PBR Examiner experienced in harmonization with UPOV*
  - but may not be familiar with the species
- *QP has botanical experience with the species*
- *Breeder has knowledge of VCK and sourcing of material*
- *Other experts are consulted*
  - eg ACRA, universities, researchers, collectors, societies

**Robust intellectual property rights delivered efficiently**





 Australian Government  
IP Australia

# Thank you

 *IP Australia has achieved certification for its quality and environmental management systems.* 

© Commonwealth of Australia 2012

[www.ipaustralia.gov.au](http://www.ipaustralia.gov.au)

**P** **TM** **D** **PBR**

**PATENTS**  
**TRADE MARKS**  
**DESIGNS**  
**PLANT BREEDER'S RIGHTS**

[Annex III follows]

## LIST OF LEADING EXPERTS

**DRAFT TEST GUIDELINES TO BE SUBMITTED  
TO THE TECHNICAL COMMITTEE IN 2014**

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

**by June 7, 2013**

Species	Basic Document	Leading expert(s)	Interested experts (States/Organizations) <sup>1</sup>
China Aster ( <i>Callistephus chinensis</i> (L.) Nees)	TG/CALSP(proj.2)	Mr. Kenichi Atsuta (JP)	CN, DE, GB, MX, Office
*Hosta ( <i>Hosta</i> Tratt.)	TG/HOSTA(proj.7)	Mr. Henk de Greef (NL)	CN, GB, HU, JP, KR, NZ, QZ, UA, ZA, Office
*Lilac ( <i>Syringa</i> L.)	TG/LILAC(proj.4)	Dr. Cui Hongxia (Ms.) (CN)	CA, DE, FR, GB, JP, KR, PL, QZ, UA, Office
*Mandevilla ( <i>Mandevilla sanderi</i> (Hemsl.) Woodson; <i>Mandevilla</i> × <i>amabilis</i> (Backh. & Backh. f.) Dress)	TG/MANDE(proj.5)	Mr. Henk de Greef (NL)	AU, IL, JP, KE, NZ, QZ, ZA, Office

---

<sup>1</sup> for name of experts, see List of Participants

**DRAFT TEST GUIDELINES TO BE DISCUSSED AT TWO/47**

(\* indicates possible final draft Test Guidelines)

**New draft to be submitted to the Office of the Union  
before April 5, 2014**

**(Guideline date for Subgroup draft to be circulated by Leading Expert: February 8, 2014**

**Guideline date for comments to Leading Expert by Subgroup: March 8, 2014**

Species	Basic Document	Leading expert(s)	Interested experts (States/Organizations) <sup>2</sup>
Abelia ( <i>Abelia</i> R. BR.)	TG/ABELI(proj.1) Corr.	Mrs. Françoise Jourdan (FR)	GB, JP, KR, NZ, QZ, Office
Aglaonema ( <i>Aglaonema</i> Schott.)	TG/AGLAO(proj.3)	Mr. Kenji Numaguchi (JP)	AU, KR, NL, NZ, QZ, ZA, Office
*Aloe ( <i>Aloe</i> L.)	TG/ALOE(proj.2)	Mr. Adriaan de Villiers (ZA)	AU, CN, DE, KE, MX, NL, Office
<i>Calibrachoa</i> L. Llave & Lex. (Revision)	TG/207/1	Ms. Andrea Menne (DE)	AU, CA, JP, KR, MX, NZ, QZ, ZA, Office
*Campanula ( <i>Campanula</i> L.)	TG/CAMPA(proj.3)	Miss Elizabeth Scott (GB)	CA, CN, DK, JP, NL, NZ, QZ, ZA, Office
*Carnation ( <i>Dianthus</i> L.) (Revision)	TG/25/9(proj.6)	Mr. Henk de Greef (NL)	BG, CO, GB, IL, JP, KE, KR, MX, NZ, QZ, ZA, Office
Cordyline ( <i>Cordyline</i> Comm. ex Juss.)	TG/CORDY(proj.1)	Mr. Chris Barnaby (NZ)	AU, GB, KR, NL, QZ, ZA, Office
*Cosmos ( <i>Cosmos</i> Cav.)	TG/COSMOS(proj.5)	Mr. Takayuki Mikuni (JP)	GB, HU, KR, MX, NZ, RO, Office
<i>Freesia</i> Eckl. ex Klatt (Revision)	TG/27/6	Mr. Henk de Greef (NL)	JP, KR, QZ, ZA, Office
Grevillea ( <i>Grevillea</i> R. Br. corr. R. Br.)	TG/GREVI(proj.1)	Mr. Nik Hulse (AU)	GB, NZ, MX, Office
<i>Petunia</i> Juss. (Revision)	TG/212/1 Corr.	Ms. Andrea Menne (DE)	AU, CA, CN, JP, KR, MX, NZ, QZ, ZA, Office
<i>Plectranthus</i> L'Hér.	(new)	Mr. Adriaan de Villiers (ZA)	AU, DE, QZ, NL, Office
*Regal Pelargonium ( <i>Pelargonium grandiflorum</i> hort. non Willd.) (Revision)	TG/109/4(proj.1)	Ms. Andrea Menne (DE)	AU, CA, JP, KR, MX, QZ, ZA, Office
Salvia ( <i>Salvia</i> L.)	TG/SALVI(proj.1)	Mr. Tetsuya Takahashi (JP)	AU, CA, CN, FR, GB, IL, KR, NZ, MX, QZ, ZA, Office
Zinnia ( <i>Zinnia</i> L.)	TG/ZINNIA(proj.3)	Mr. Jose Mejía Muñoz (MX)	CN, GB, IL, JP, KR, Office

[End of Annex III and of document]

<sup>2</sup> for name of experts, see List of Participants