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UPOV

TWO/XVIII/16
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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

TECHNICAL WORKING PARTY FOR ORNAMENTAL PLANTS AND FOREST TREES

Eighteenth Session
Aarslev, Denmark, June 25 to 27, 1985

REPORT

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

Opening of the Session

1. The eighteenth session of the Technical Working Party for Ornamental Plants and Forest Trees (hereinafter referred to as "the Working Party") was held in Aarslev, Denmark, from June 25 to 27, 1985. The List of Participants appears in Annex I to this report. Meetings of Subgroups on cactus, gladiolus and impatiens were held in the same place on June 24, 1985. A meeting of a Subgroup on juniperus was held at Hornum on June 24, 1985.

2. Mr. E. Poulsen, Director of the Research Centre for Horticulture of the Danish Research Service for Plant and Soil Science, welcomed the participants to his institute in Aarslev. The session was opened by Mr. B. Bar-Tel, Chairman of the Working Party.

Adoption of the Agenda

3. The Working Party unanimously adopted the agenda for its eighteenth session as reproduced in document TWO/XVIII/1, after having agreed to include at the end of item 12 the following item: "(xi) Pelargonium (zonal, ivy-leaved and their hybrids)."

Final Discussion on Draft Test Guidelines

Test Guidelines for Elatior Begonia (Revision)

4. The Working Party noted that no comments had been received so far from the professional organizations on document TG/18/2(proj.), but that on July 30, 1985, a meeting with breeders of elatior begonia was planned at the Bundessortenamt in Hanover, Federal Republic of Germany. The Working Party therefore agreed that the results of the discussions of the above-mentioned meeting would be compiled by the experts from the Federal Republic of Germany and circulated for comments via the Office of UPOV. If no serious objections to the amendments proposed during the above-mentioned meeting were raised by correspondence, the document could be sent to the Technical Committee for adoption. In the document itself, the Working Party amended only the wording of characteristic 42 to read: "Time of beginning of flowering under natural long days" and the wording of the growing conditions. In addition, the expert from the Federal Republic of Germany was to amend the drawing accompanying characteristics 31 to 36 to include the indication how the diameter of the flower had to be measured.

Test Guidelines for Streptocarpus (Revision)

5. The Working Party noted that no comments had been received from the professional organizations on the draft Test Guidelines for Streptocarpus (TG/47/3(proj.)). The Working Party agreed to send the document to the Technical Committee for final adoption after the following changes had been made in the document:

(i) In the Technical Notes, paragraph 9 should read as follows: "All observations should be made on at least 10 typical organs of 10 plants at full flowering.";

(ii) In the Table of Characteristics, in characteristics 18 and 19 and 25 and 26, the words "inner" and "outer," respectively, should be underlined and in characteristics 22 to 24, the word "and/" should be inserted before the word "or."

(iii) The wording of the Growing Conditions should be improved.

Draft Test Guidelines for Willow

6. The Working Party noted that no comments had been received from the professional organizations on the draft Test Guidelines for Willow and agreed that the document should be presented to the Technical Committee for final adoption after some further small, mainly linguistic, improvements had been made.

Draft Test Guidelines for Ling, Scotch Heather

7. The Working Party noted the comments received on the draft Test Guidelines for Heather (TG/94/1(proj.)), as reproduced in document TWO/XVIII/6, and agreed that the document could be sent to the Technical Committee for final adoption after the following changes had been made in document TG/94/1(proj.):

(i) The draft Test Guidelines should apply to "Ling, Scotch Heather/ Callune/Besenheide (Calluna vulgaris (L.) Hull.)".

(ii) Changes to be made in the Table of Characteristics:

Characteristic

1 to have the states "prostrate, decumbent, hemispherical, bushy, spiky, erect"

3 to have the states "very low, low, medium, tall, very tall"

13 to have the spelling of the example variety "Red Favorit" corrected in that characteristic and in all others where it appears

18 to have the example variety "Battle of Arnhem" corrected

(iii) In addition, the drawing for state 2 of characteristic 1 will have to be improved as well as the wording of the growing conditions.

Draft Test Guidelines for Lagerstroemia

8. The Working Party noted that no comments had been received from the professional organizations on the draft Test Guidelines for Lagerstroemia (TG/95/1(proj.)) and agreed that the document should be sent to the Technical Committee for final adoption, after having changed in the Table of Characteristics in characteristics 15 to 17 the word "inner" to "upper," in characteristic 19, the state "elliptic" to "ellipsoid" and in characteristics 21 and 22 the word "of" to "at," and after having agreed to include a drawing of the flower in the section "Explanations and Methods."

Comparison of Color Charts

9. The Working Party noted the comparison made in the Netherlands between the Horticultural Color Chart (HCC), the Royal Horticultural Society Colour Chart (RHS), the Japanese Horticultural Standard Color Chart (JHS) and the Munsell Color File (MCF), reproduced in Annex II to this report. It furthermore noted that discussions were planned in the Netherlands between the Royal Horticultural Society and the Dutch Flower Auction Society together with a painting firm and a printing firm with the view to reprint the RHS Colour Chart. The experts from the Netherlands assured the Working Party that it would be informed on the outcome of those discussions. The Working Party repeated that it fully supported the idea of reprinting the RHS Colour Chart without any changes, in view of its urgent need.

Items for the Technical Working Party on Automation and Computer Programs

10. The Working Party noted that it had no specific items to propose to the Technical Working Party on Automation and Computer Programs.

List of Reference Books and Documents

11. The Working Party supported the proposal made by the experts from the Netherlands to group the list of reference books and documents into several chapters, one chapter of general books, followed by chapters of general books

on agricultural crops, on vegetables, on ornamental plants, on fruit crops, on forest trees, followed by books on special species which would be grouped according to the Latin name of the genus and, if need be, split up furthermore by the common names. Where a book would refer to two genera, the title of the book should be repeated under the heading of each genus. The Working Party furthermore agreed to update the list of reference books and documents yearly during its sessions. Any additional information for that list should be directed to the Chairman of the Working Party.

Standard Test Guidelines

12. The Working Party noted the example for a different standard for Test Guidelines prepared by the experts from the Netherlands with respect to streptocarpus (document TWO/XVIII/3). It supported the new presentation and agreed to propose that presentation to the Technical Committee, but with the following changes:

(i) The numbering of the paragraphs which had been included by the Office of UPOV should not be continuous throughout the document but should start from zero in each of the chapters.

(ii) Contrary to the proposals made by other Technical Working Parties, the Legend should be kept at the beginning of the document as it could be expected that other information, not only referring to the Table of Characteristics, might have to be included under that chapter.

(iii) It would prefer the information on the Table of Characteristics to be placed directly before the table in all three languages to avoid it appearing on different pages.

The Working Party noted that it would have to be left to the Technical Committee to decide the date as from which all Test Guidelines should be presented in that new form.

Sanitary Status of Plant Material Sent in for Testing

13. The Working Party noted document TWO/XVIII/14 distributed during the session. It finally agreed that it was necessary to introduce more information on the sanitary status of the plant material into the Test Guidelines. It would therefore always check in future, when discussing and finalizing Test Guidelines, whether special information on the sanitary status had to be included in a given Test Guidelines document and, if necessary, would do so.

Minimum Distances Between Varieties

14. The Working Party noted the result of the discussion on minimum distances between varieties which had taken place in the Technical Committee following the discussions on the same subject in the individual Technical Working Parties, as reproduced in document TC/XX/12 Prov., paragraphs 49 and 50. It therefore did not continue discussing that subject but noted that it might come up again during the envisaged discussions with breeders on elatior begonia to be held at the end of July 1985 in Hanover, Federal Republic of Germany.

Harmonization of Test Reports, Variety Descriptions and Technical Questionnaires

15. The Working Party noted the information on the results on the discussions held in the Technical Committee during its last session as reproduced in document TC/XX/12 Prov., paragraphs 9(iii) and 24. The Working Party stressed that the planned revised form for test reports should foresee a column for remarks where additional information could be supplied for the individual characteristic.

Additional Matters Resulting from the Twentieth Session of the Technical Committee

16. The Working Party noted paragraph 16 of the draft report on the last session of the Technical Working Party (document TC/XX/12 Prov.) concerning the testing of distinctness. It accepted in general that plants which were considered an off-type inside one variety would normally--all other requirements being met--fulfill the requirement for distinctness for a new variety. There could, however, be cases where the testing authority could gain the impression that the variety was unstable and, knowing the genetics of the species concerned, it could not accept certain differences inside a variety since if tolerated they would open the way to instability in a few year's time. The Working Party agreed that all experts would check the question further in their countries and would report back to the Working Party during its next session.

17. The Working Party noted that the problem of the testing of homogeneity with respect to the selection of control varieties referred to in paragraph 18 of the draft report did not concern it since it mainly dealt with vegetatively propagated varieties.

18. The Working Party noted and agreed to the information contained in paragraph 22 of the draft report and especially to the information contained in subparagraphs (i) to (iv).

19. The Working Party noted the information contained in paragraph 31 of the draft report. It would note that information and, when finalizing first drafts for Test Guidelines or new Test Guidelines, it would always check which special organization or body was dealing with the species concerned and would invite that organization or body to present comments on the draft.

20. The Working Party noted the information contained in paragraph 36 of the draft report with respect to the presentation of papers for Working Parties.

Discussion on Working Papers on Test Guidelines

Draft Test Guidelines for Apple

21. The Working Party noted document TWF/XVI/7 together with the amendments made during the last session of the Technical Working Party for Fruit Crops, held from June 19 to 21, 1985, and reproduced in Annex III to this report. It agreed that the document be sent to the professional organizations after the following additional changes had been made:

(i) In the Technical Notes, under paragraph 5, as grouping characteristics, the following characteristics would be used for ornamental plants: characteristics 24, 28, 45, 53(b) and 78 and paragraph 10 would be amended to

read as follows: "In the case of fruit varieties and ornamental varieties, observations on the dormant one year old shoot should be made in winter on trees that have at least completed one growing season at the testing center."

(ii) Changes in the Table of Characteristics:

Characteristics

2 to have the species name "Malus floribunda" replaced by an example variety to be indicated by the experts from Denmark

52 to be placed at the end of the table after the characteristic on the time of beginning of flowering and to read: "Tree: fruit setting" with the first state to read: "none or very few"

54 to receive ornamental example varieties to be indicated by the experts from the United Kingdom

62 to receive an asterisk (*O)

69b. to be deleted

71b. to be deleted

78 to have the state "red" kept with the example variety "Profusion" for ornamental varieties

96 to have the species name "Malus robusta" replaced by "Wintergold"

22. The Working Party noted that in the Table of Characteristics several characteristics had been added which were of importance to one of the groups only, but not to the others and that it was difficult to identify those characteristics. The Technical Committee might therefore wish to search for possibilities to provide such identification, for example, by adding to the Table of Characteristics negative lists of characteristics for the three groups indicating those of the characteristics mentioned which should not be observed in a given group.

23. In addition to the normal group of professional organizations, the document should also be sent for comments to the International Registration Authority (ornamental) and to the Bund Deutscher Baumschulen.

Test Guidelines for Begonia Tuberhybrida

24. The Working Party noted document TWO/XVIII/8 and made the following main changes in that document:

(i) The document would apply to Begonia X tuberhybrida Voss., Tuberous begonia hybrids/Begonia tubéreux hybride/Knollenbegonienhybriden.

(ii) Changes made in the Technical Notes:

Technical Note

4 To be deleted as the document would apply both to vegetatively propagated varieties and to varieties propagated by seed. The exact wording has thus still to be defined.

5 The grouping characteristics to be mentioned would be the characteristics 31, 41 and 42.

9 This paragraph would refer only to vegetatively propagated varieties. For varieties propagated by seed, another paragraph would be added in which the minimum organs or plants would be 25.

(iii) Changes made in the Table of Characteristics:

Characteristics

1, 8, 10, 11, 12, 15, 18, 19, 22, 24, 31, 35, 36, 37, 38, 41, 42, 43 and 44 to receive an asterisk

10, 11 the expert from Belgium to prepare drawings

12, 13, 14 to have the word "upper" underlined

15, 16, 17 to have the word "lower" underlined

20 to have the second state read: "biserrate"

30 to have the order of the states reversed

32 to read: "Inflorescence: position relative to foliage" with the states "partly above, wholly above"

33, 34 to have the word "Pedicel" replaced by "Peduncle"

36 to 40 and 43 to 46 to have the word "Petal" replaced by "Tepal"

38 to be placed after characteristic 36 and to read: "Tepal: main color on upper side"

40 to read: "Single colored varieties only: Tepal: color of lower side of outer one (most intensive colored part)"

41 and 42 to be placed after characteristic 34

42 to read: Varieties with double flowers only: Flower: arrangement of tepals" with the states still to be defined and drawings to be prepared by the experts from Belgium

(iv) In the Technical Questionnaire, under paragraph 5, the characteristic 5.3(13) has been deleted.

Test Guidelines for Cactus

25. The Working Party noted document TWO/XVIII/2 and the report of the Subgroup which had met on June 24, 1985, and made the following main changes in that document:

(i) The document would apply to "Schlumbergera Lem. including Zygocactus K. Schum (Christmas Cactus/Cactus de Noël/Weihnachtskaktus) and Rhipsalidopsis Britt et Rose including Epiphyllopsis Berger (Easter Cactus/Cactus jonc/Osterkaktus), and their hybrids."

(ii) Changes made in the Table of Characteristics:

Characteristics

8, 9 to receive drawings indicating where these characteristics were to be observed

10, 11, 12 to be replaced by the following three characteristics:

"Phylloclade: incision of margin" with the states "crenate, serrate, dentate"

"Phylloclade: depth of incision of margin" with the states "very shallow, shallow, medium, deep, very deep"

"Phylloclade: shape of tooth" with the states "straight, curved"

15 to have the word "off" replaced by "in"

19 to have the addition reading: "of phyllocades shorter than 1 cm in length"

21 to have the word "wings" put into the singular

22, 23 to have the word "bourses" put into the singular

30, 31 to receive an asterisk

35, 47 to have the French and German translation corrected

54, 60, 61 to receive an asterisk

58 to receive the additional state "brown" before the last state

(iii) In the Technical Questionnaire under paragraph 5, the characteristics 30, 31 and 61 would be added as additional characteristics.

26. In addition to the normal group of professional organizations the document should also be sent for comments to the botanical garden "Mariner l'Apostole" in France and to the Zentralverband Gartenbau in the Federal Republic of Germany.

Test Guidelines for Chrysanthemum

27. As it had not been possible to prepare a new draft for the current session, the Working Party agreed that the expert from the United Kingdom would prepare before the end of the year a new draft which would also include remarks on why certain changes to the previous draft were proposed.

Test Guidelines for Gladiolus

28. The Working Party noted documents TWO/XVIII/9 and 10 and the report of the Subgroup which had met on June 24, 1985, and made the following main changes in document TWO/XVIII/9:

(i) Changes made in the Technical Notes:

- Under "Requirements material" the quantity of plant material should be: 30 corms of at least commercial flowering size"

- Under "Conduct of Trials" the word "protectively" should be replaced by "prophylactic"

- Under "Methods and Observations," the third paragraph should be replaced by a paragraph reading: "Unless otherwise indicated, all observations should be made on typical organs of at least 10 plants and on a flower in the position where in the inner ring of tepals the median tepal is upwards. Results from measured characteristics should be presented as the average of one measurement from each of 10 plants."

- Under "Grouping," the last sentence should read: "It is recommended that the competent authorities use the following characteristics for grouping varieties:

  " (i) Flower: size" (characteristic 11)
  "(ii) Flower: color" with the states "white, yellow, orange, pink-orange, pink, red, purple, blue, green" as used for the classification according to color groups.

(ii) Changes made in the Table of Characteristics:

Characteristics

1 to have the Notes "2, 3, 4, 5"

4 to have the states "narrow, medium, broad;" after this characteristic, the characteristics Nos. 1 and 5 of document TWO/XVIII/10 to be included, No. 1 without asterisk (*) and to read: "Leaf: anthocyanin coloration of outer side"

6 after this characteristic, a new characteristic with an asterisk to be included reading: "Spike: width at the base" with the states "narrow, medium, broad"

7 after this characteristic, characteristic 13 of document TWO/XVIII/10 to be included with the states "loose, medium, dense"

8 to be deleted and replaced by characteristic 15 of document TWO/XVIII/10 which would receive an asterisk

9, 10 to have the word "Bracts" put into the singular; thereafter characteristic 16 of document TWO/XVIII/10 to be included

10 to receive the additional state "very strong"

12 to have the wording rearranged in a way that the last three words are placed at the beginning and the characteristic reads as follows: "Lateral outer segments of perianth: shape;" a similar change to be made in the following characteristics 13 to 43

14 to have the word "folds" replaced by "undulation" and to receive the additional state "very strong"

17 to be deleted and replaced by characteristics 31, 32 and 33 of document TWO/XVIII/10

18 to have the states "white, cream, yellow, orange, pink, red, purple-red, violet-blue, dark-purple"

19 to have the words "median outer" underlined

20 after this characteristic, the characteristics 21 and 22 of document TWO/XVIII/10 to be included, characteristic 22 with the wording: "attitude of tip"

23 to read: "Median outer segment of perianth: size of macule compared to size of segment"

24 after this characteristic, the characteristics 41, 42, 43 and 45 of document TWO/XVIII/10 to be included as the alternative to this characteristic except that the word "inner" be replaced by "median" and characteristic 41 only receive an asterisk

28 to have the words "laterial inner" underlined

32 to receive the addition "compared to size of segment"

33 after this characteristic, the characteristics 41, 42, 43 and 45 of document TWO/XVIII/10 to be included as the alternative to this characteristic, only characteristic 41 with an asterisk

37 to have the words "median inner" underlined

42 to be replaced by characteristics 31, 32 and 33 of document TWO/XVIII/10, characteristic 31 with an asterisk, but all characteristics should apply to the median inner segment of the perianth

43 to have the word "outer" replaced by "inner" and to have the same states as characteristic 18

44, 45, 46 and 47 to have the word "throat" placed at the beginning to replace the word "perianth"

44 to have the additional state "very many"

45 to have the word "arrangement" replaced by "distribution"

48 to read: "Tube: length"

49, 50, 51 to have the word "Filament" placed at the beginning to replace the word "Stamen"

52, 53 to have the word "Stamen" replaced by "Anther"

53 to have the additional state "orange" inserted after the state "yellow"

54 to be deleted

55, 56, 57 to have the word "style" placed at the beginning to replace the word "ovary"

55 to have the states "white, yellow, yellow-pink, red, violet"

58 to read: "Corm: color of pericarp"

59 to read: " Corm: color of endocarp (cross-section)"

60 to read: "Time of beginning of flowering" with the additional state "very late"

Test Guidelines for Hydrangea

29. The Working Party noted document TWO/XVIII/13, distributed during the meeting. It made the following main changes in the Table of Characteristics of that document:

Characteristics

1 to read: "Plant: height (when flowering)" with the states "low, medium, high"

9 to have the states "absent or sometimes present (1), always present (2)"

12 after this characteristic, two new characteristics to be inserted reading: "Leaf blade: lobing" with the states "absent, present" and "Leaf blade: margin" with the states "entire, dentate"

14 to have the states "corymbiform, paniculate;" after this characteristic, a new characteristic to be inserted reading: "Inflorescence: shape" with the states "globular, flattened, coned"

16 to read: "Flower: diameter (flowers with large calyx only)"

17 to read: "Flower: color of sepal (time: visible stamens)" with the states to be replaced by a request to indicate the RHS Colour Chart number

18 to read: "Flower: number of sepals (flowers with large calyx only)" with the states "3 or 4, always 4, 4 or 5, 3 to 7"

19 to be divided into two characteristics, the first to read: "Flower: overlapping of sepals (flowers with large calyx only)" with the states "absent, present" and a second to read: "Flower: degree of overlapping of sepals (flowers with large calyx only)" with the states "weak, medium, strong"

20 to read: "Sepal: incisions of margin" (flowers with large calyx only)

21 to read: "Sepal: type of incisions of margin (flowers with large calyx only)" with the states"regular dentate, irregular dentate"

22 to read: "Time of beginning of flowering"

30. The experts from France would prepare a new draft supplemented by technical notes, asterisks (*), drawings, growing conditions and a Technical Questionnaire before the beginning of November and would also check whether

the length of internodes could be a new characteristic as well as the tendency to produce blue flowers under low pH.

Test Guidelines for Impatiens

31. The Working Party noted document TWO/XVIII/4 Rev. together with the result of the discussions of the Subgroup which had met on June 24, 1985. It finally agreed to the following changes to document TWO/XVIII/4 Rev.:

(i) The document would apply to Impatiens L. (Impatiens, Busy Lizzie/ Impatiente, Balsamine/Neu-Guinea-Impatiens."

(ii) Changes made in the Technical Notes:

Technical Note

1 before this paragraph, a new paragraph would be added, still to be prepared by the experts from the Federal Republic of Germany, indicating the species to which the document would apply

5 for the grouping, the same groups would be used as at present mentioned in the Technical Questionnaire under paragraph 5.4(ii). The same grouping would also be included in an Annex 2 still to be prepared.

(iii) Changes made in the Table of Characteristics:

Characteristics

1 to 4, 6, 8 to 16 to receive an asterisk

5 to 11 to have the word "Leaf" replaced by "Leaf blade"

6 to 10 to have the addition "of upper side"

8 to 10 to have the word "markings" put into the singular

11 to have the states "narrow wedge-shaped, broad wedge-shaped, rounded"

13 to receive drawings for explanation, to be prepared by the experts from the Federal Republic of Germany; after this characteristic, a new characteristic with an asterisk to be included reading: "Flower: number of colors (eye zone excluded)" with the states "one, two, three"

14 to read: "Flower: main color of upper side of petal;" after this characteristic, a new characteristic with an asterisk to be included reading: "Flower: secondary color of upper side of petal" with the request to indicate the RHS Colour Chart number

15 to receive an explanation to be included in the drawing for characteristic 13

18 to read: "Flower: color of distal part of spur"

(iv) In the Growing Conditions, the wording was slightly improved.

(v) In the Technical Questionnaire, under paragraph 5, a new characteristic on the number of colors of the flower was to replace 5.5.

32. In addition to the normal group of professional organizations, the document would also be sent for comments to the Zentralverband Gartenbau in the Federal Republic of Germany.

Test Guidelines for Juniper

33. The Working Party noted document TWO/XVIII/15 distributed during the session and including already the comments of the Subgroup on Juniper which had met at Hornum on June 24, 1985. It finally made the following main changes in that document:

(i) The document would apply to Juniperus L., Juniper/Genévrier/Wacholder.

(ii) In the Technical Notes, under paragraph 4, the characteristics 1, 17 and 18 would be indicated as grouping characteristics.

(iii) Changes made in the Table of Characteristics:

Characteristics

4	to read: "Plant: stiffness of branches" with the states "soft, medium, rigid"
6	to receive an asterisk and to have the word "Branchlets" put into the plural
7	to read: "Branchlets of first order: arrangement in the spray" with the states "planar, not planar"
11	to read: "New growth on leading shoot: distance between branchlets" with the states "small (Robusta Green), medium, large (Grey Owl)"
12, 13, 17, 18	to have the brackets deleted but the content of the bracket maintained
14, 15	to have the spelling of the example variety "Expansa Variegata" corrected
21	to have the states "light green, green, dark green, bronze green, bronze, greyish green, yellow, bluish green" with the additional example "Squamata" for bluish green
22	to have the "medium" in "medium green" deleted
24 to 31	to have the words "Non-linear" or "Linear" underlined
32, 33	to have the word "first" or "last" underlined
33	to have the same states as characteristic 32
34	to be deleted

(iv) In the Explanations and Methods, the second drawing would be replaced by another drawing to be supplied by the expert from Denmark.

34. In addition to the normal group of professional organizations the document would also be sent for comments to the Royal Horticultural Society.

Test Guidelines for Norway Spruce

35. As, in addition to the comments contained in document TWO/XVIII/5, further comments were expected on the draft Test Guidelines for Norway Spruce, the Working Party agreed to await these other comments and asked the expert from the Federal Republic of Germany to incorporate them into the document which then would form the basis of discussion during the coming session of the Working Party.

Pelargonium Grandiflorum and Pelargonium (Zonal, Ivy-leaved and their Hybrids)

36. Time did not permit discussion of the working papers on Pelargonium grandiflorum and on Pelargonium (zonal, ivy-leaved and their hybrids). The Working Party therefore agreed to discuss these two documents during its coming session.

Status of Test Guidelines

37. The Working Party agreed that the draft Test Guidelines for Streptocarpus (revision), for Willow, for Ling, Scotch Heather and for Lagerstroemia should be sent to the Editorial Committee and the Technical Committee for final adoption. The Test Guidelines for Elatior Begonia (revision) could also be sent to the Editorial Committee and the Technical Committee for final adoption if no objections were raised to the additional proposals for changes which were to be circulated for comments.

38. The Working Party agreed that the draft Test Guidelines for Apple (revision), for Cactus (Schlumbergera including Zygocactus, Rhipsalidopsis including Ephiphyllopsis, and their hybrids), for Impatiens and for Juniper should be sent to the professional organizations for comments.

39. The Working Party agreed that the draft Test Guidelines for Begonia tuberhybrida, for Chrysanthemum (revision), for Gladiolus, for Hydrangea, for Norway Spruce, for Pelargonium grandiflorum and for Pelargonium (zonal, ivy-leaved and their hybrids) would require further discussion during the coming session.

Future Program, Date and Place of Next Session

40. At the invitation of the expert from the Netherlands, the Working Party agreed to hold its nineteenth session at Wageningen, Netherlands, from July 2 to 4, 1986, with possible subgroups meeting at the same place on July 1, 1986, to advance the preparation of Test Guidelines during the meeting. [The date of the session has been changed by correspondence. It will now take place from July 16 to 18, 1986, with subgroups meeting on July 15, 1986]. It is planned that the following items will be discussed at the session:

(i) Reports on Special Developments in Plant Variety Protection (oral reports by experts)

(ii) Final Discussion on Draft Test Guidelines for:

- Apple (TG/14/3(proj.))
- Cactus
- Elatior Begonia (revision) (if not done by correspondence)
- Impatiens
- Juniper

(iii) Comparison of Color Charts

(iv) Items for the Technical Working Party on Automation and Computer Programs

(v) List of Reference Books and Documents (Chairman to collect new information)

(vi) Standard Test Guidelines

(vii) Harmonization of Test Reports, Variety Descriptions and Technical Questionnaires

(viii) Additional Matters Resulting from the Twenty-first Session of the Technical Committee

(ix) Discussion on Working Papers on Test Guidelines for:

- Alstroemeria (revision) (NL to prepare a working paper)
- Begonia Tuberhybrida (UPOV to prepare a new working paper)
- Chrysanthemum (revision) (UK to prepare a new working paper)
- Dieffenbachia (FR to prepare a working paper)
- Gladiolus (UPOV to prepare a new working paper)
- Hydrangea (FR to prepare a new working paper)
- Iris (bulbous) (IL to prepare a working paper)
- Norway Spruce (DE to prepare a new working paper)
- Pelargonium grandiflorum (TWO/XVIII/12)
- Pelargonium (zonal, ivy-leaved and their hybrids; revision) (TWO/XVIII/7)
- Pyracantha (FR to prepare a working paper)
- Rhododendron (revision) (DE to prepare a working paper)
- Rose (revision) (FR to prepare proposals for changes)
- Tulip (NL to prepare a working paper)
- Weigelia (FR to prepare a working paper)

41. The Working Party deleted from its program the previously planned work on the following species: Dahlia, Douglas Fir, Erica, Larix, Pinus nigra, Vriesea.

Any Other Business

42. Mr. Espenhain (Denmark) gave a short report on his visit to the United States of America where he had tried to acquaint himself with the testing of new varieties done by the United States of America. As it had been considered useful in Denmark to include as many species as possible in the list of species eligible for protection in order to stimulate plant breeding and as in the past years several ornamental breeders had approached the national authorities to include new species in that list, the main aim of the visit had been to collect information to help the government in its decision on whether a similar

system could also be introduced in Denmark, especially for new ornamental species.

43. In connection with the discussion on the testing of pelargonium, the Working Party discussed the question of plant variety protection and virus diseases, as mentioned in document CAJ/XV/5, where through grafting--and only through grafting--of the pelargonium variety "Mexikanerin" on another variety or vice versa the color of the petals of the other variety were influenced. It seemed that so far it was not yet clear whether the effect was caused by a virus or not. The Working Party considered that it would need more information and research on this question and that it would rediscuss the matter during its coming session. In the meantime, research should also concentrate on the stability of the new color. The Working Party agreed that as long as it was not proved that the effect was not caused by an infection the authorities should not accept new varieties which were only distinct in this feature.

Visits

44. In the afternoon of June 26, 1985, the Working Party visited the firms Bent Halby Pedersen and Thomas Frank, both at Marslev, where it saw the commercial production of ornamental pot plants and also the firm Daenfeld near Odense where it saw mainly the breeding of new ornamental varieties. In the afternoon of June 27, the Working Party visited the Institute of Glasshouse Crops, the Institute of Vegetables and the Institute of Fruit at Aarslev.

45. This report, in the absence of any suggestions for modifications, is considered as adopted, in accordance with Rule 37(5) of the Rules of Procedure of the Council.

[Three Annexes follow]

TWO/XVIII/16

ANNEX I

LIST OF PARTICIPANTS AT THE EIGHTEENTH SESSION OF THE TECHNICAL WORKING PARTY FOR ORNAMENTAL PLANTS AND FOREST TREES, AARSLEV, DENMARK, JUNE 25 TO 27, 1985

I. MEMBER STATES

BELGIUM

Mr. J. HAEGEMAN, Institute for Ornamental Plant Growing, Caritasstraat 21, 9230 Melle (tel. 091-52 10 52)

DENMARK

Mr. P.E. BRANDER, Institute for Landscaping Plants, Hornum, 9600 Aars (tel. 0045 8661333)

Mr. O.V. CHRISTENSEN, Institute of Glasshouse Crops, Kirstinebjergvej 10, 5792 Arslev (tel. 0045 9 991766)

Mr. F. ESPENHAIN, Head of Office, Plantenyhedsnaevnet, Teglvaerksvej 10, Tystofte, 4230 Skaelskoer (tel. 0045 3596141)

Mr. H.G. HANSEN, Institute of Glasshouse Crops, Kirstinebjergvej 10, 5792 Arslev

Mr. K. KRISTENSEN, Dataanalytisk Lab. Lottenborgvej 24, 2800 Lyngby (tel 02/870631)

Mr. E. POULSEN, Director, Centre of Horticulture, Kirstinebjergvej 6, 5792 Arslev

FRANCE

Mr. F. FERRERO, INRA/GEVES, Domaine la Baronne, B.P. 55, 06702 St. Laurent du Var (tel. 093 31 15 12)

GERMANY (FED. REP. OF)

Mrs. U. LOESCHER, Bundessortenamt, Osterfelddamm 80, Postfach 61 04 40, 3000 Hannover 61 (tel. 0511 5704206)

ISRAEL

Mr. B. BAR-TEL, Department of Seed Research, Agricultural Research Organization, Volcani Centre, P.O.B. 6, Bet Dagan 50250 (tel. 03/980463)

NETHERLANDS

Mr. C.J. BARENDRECHT, RIVRO, Postbus 32, 6700 AA Wageningen (tel. 08370 19110)

Mr. F. SCHNEIDER, RIVRO, Postbus 32, 6700 AA Wageningen (tel. 08370-19110)

SOUTH AFRICA

Dr. J.H. GROBLER, Counsellor (Agriculture), South African Embassy, Trafalgar Square, London, WC2N 5DP (United Kingdom) (tel. 01-930 4488)

SWEDEN

Mr. J. JOHANSSON, Swedish University of Agricultural Sciences, Department of Floriculture and Ornamental Horticulture, Box 55, 230 53 Alnarp

UNITED KINGDOM

Mr. A.J. GEORGE, Ornamental Plants Section, NIAB, Huntingdon Road, Cambridge CB3 0LE (tel. 0223-276381)

II. OFFICER

Mr. B. BAR-TEL, Chairman

III. OFFICE OF UPOV

Dr. M.-H. THIELE-WITTIG, Senior Counsellor, 34, chemin des Colombettes, 1211 Geneva 20, Switzerland (tel. 022 99 91 52)

Mr. M. TABATA, Associate Officer, 34, chemin des Colombettes, 1211 Geneva 20, Switzerland (tel. 022 99 92 97)

[Annex II follows]

TWO/XVIII/16

[Original]

ANNEX II

USEFULNESS OF COLOUR CHARTS.

The colour of flowers, leaves, fruits, tubers, bulbs and such-like, plays an important role in variety research. Especially by ornamentals the flower colour is an essential part of the determination of different cultivars. Therefore it is necessary to be able to specify and describe a colour. A way for doing this, is comparing vegetable parts with colour charts. Colour assessment occurs by the human eye. The eye captures a colour as three different independent factors: hue, brightness (lightness) and intensity (saturation). These factors are called the three colour attributes. The hue is the attribute of the visual sensation designated by blue, green, yellow, red, purple, etc. The proportion of the reflecting incident light is called brightness. The third attribute, the intensity, is the proportion of pure chromatic colour in the total sensation.

The Horticultural Colour Chart (HCC), the Royal Horticultural Society Colour Chart (RHSCC) and the Munsell Color File (MCF) are often used in practice. These three colour charts has been investigated for their usefulness together with the Japanese Horticultural Standard Color Chart (JHS). The last chart has been added in connection with the Japanese request to the members of the Union for the protection of new varieties of plants for passing judgement on it.

The RHSCC consists of four fans of white cardboard cards with four matt colours on it. The cards have been numbered from 1 up to 202, the four colours each with A, B, C and D. The cards has been sorted according to the colour groups green-yellow, yellow, yellow-orange, orange, etc.

The HCC system contains 200 whity sheets, each sheet with four matt tints of one coded colour. The colours has been arranged according to the colour circle principle with 64 full hues, to which has been added 60 lighter, 38 darker and 38 greyed hues.

The JHS has four fans, each with whity cardboard cards containing at most ten glossy colours. Each colour has a code and has been grouped according to the Munsell system. In this system the hues of the colour circle are divided into five principal classes: red (R), yellow (Y), green (G), blue (B) and purple (P), with further division into five intermediate classes: yellow-red (YR), green-yellow (GY), blue-green (BG), purple-blue (PB) and red-purple (RP). The brightness of a colour is indicated with value, of which the scale extends from theoretically pure black to a theoretically pure white. With chroma the intensity of a colour is indicated by the strength or degree of departure of a particular hue from a neutral gray of the same value. The scales of chroma depend upon the strength of the individual colour.

In addition to the fans contains the JHS also cards for each hue, reflecting the colours in relation to value and chroma.

the MCF arranges little cardboard sheets with matt colours according the Munsell system.
Also common or systematic colour names could be added to the colour codes. The HCC uses common names, like 'Primrose Yellow' and 'Crimson'. Systematic names are used for the JHS and the MCF. The systematic name consists of a fundamental colour name and a modifier. Fundamental names are mainly hue names, while modifiers express the brightness and the intensity.

Colours of the RHSCC, the HCC, the JHS and the MCF has been assessed with the help of the following material: gerbera's ligulate florets inside and outside, freesia's perianth slips inside, lilies perianth inside, and ice and butter lettuce leaves inside. The observations have been taken place indoors by daylight avoiding direct sunlight. The colour of a vegetable part and the colour chart has been compared against a white background by means of a black passe-partout. The different colours have been valued by means of the points system: 1=very bad, 2=bad, 3=moderate, 4=good and 5=very good. A two-tailed t-test with a probability of 5 % has been used for testing significant differences between valuation means of the colour charts over the total number of observations, by colour group and by type of vegetable part. There also has been looked at significance between colour groups or type of vegetable parts and a colour chart.
By the valuation has been started from the RHSCC colour arrangement with exposing the following groups: yellow-green, yellow, yellow-orange, orange, orange-red, red, red-purple, purple, violet and white.

In table 1 mentioned below the results have been summarized. The order of the valuation means of the colour charts has been indicated, taking into account the significant differences betweens the means. If the means are not significant, the order numbers have been averaged. The best mean has rank 1, the worst rank 4.
For the in this study used ornamentals the HCC proves to be the best, except for the colour group white. This group is missing in this system. The colour groups yellow-orange, orange and violet give just a very good result in the HCC. The RHSCC takes an obviously second place. The colours from the groups yellow-green and yellow of this colour chart are equivalent to those of the HCC. The score of the groups violet and white is relatively bad and have the JHS and the MCF level. Although the JHS produces the worst results over the total number of observations, by valuation of the different colour groups it is less expressed. Seven of the ten groups have the same rank as those of the MCF. The examined colours

Table 1: Overall conclusion of the four colour chart valuations.
Column A represents the order between the colour charts, 1 for the first rank up to 4 for the last rank. If the means are not significant, the order numbers have been averaged. Column B represents the means within a colour chart better or worse than the overall mean.

	RHSCC		HCC		JHS		MCF	
	A	B	A	B	A	B	A	B
Overall	2		1		4		3	
I. yellow-green	1½		1½		4		3	+
II. yellow	1½	+	1½		4		3	+
III. yellow-orange	2		1	+	3½		3½	
IV. orange	2		1	+	4		3	
V. orange-red	2		1		3½		3½	-
VI. red	2		1		3½		3½	
VII. red-purple	2		1		3½		3½	
VIII. purple	2		1		3½		3½	
IX. violet	3	-	1	+	3		3	
X. white	2	-	4	-	2		2	
Gerbera's ligulate florets inside	2		1		3½		3½	
Gerbera's ligulate florets outside	1½	+	1½		4		3	
Freesia's perianth slips inside	2		1		3½		3½	
Lilies perianth inside	1½		1½		4	-	3	

A= order; B= better (+) or worse (-) than the overall.

valued both for the JHS and the MCF worse than for the RHSCC and the HCC. Especially the colours of the orange-red group in the MCf satisfy very badly. Colours with a high intensity hardly occur. The yellow-green and yellow groups score better then the overall valuation of this colour chart.
The JHS has no extremes for any colour group. If the investigated vegetable parts are taken as startingpoint, the HCC is also the best, but the difference with the secondly placed RHSCC seems less than with the colour group as startingpoint. The JHS scores just somewhat less than the MCF. Above all the valuation for the lilies perianth inside is low. The RHSCC gives a relatively good result for the gerbera's ligulate florets outside. The large colour portion from the yellow group causes it most likely.
Only two colours of each chart syster are considered for the 5 examined ice and 21 butter lettuce cultivars. They belong to the yellow-green group. Nevertheless the eye perceives more colours. In all four colour charts the colours are mostly an approximation of the lettuce cultivar colour. The different colours between lettuce cultivars find the best expression in the experimental field. Taking of a single leave for determining the colour nullifies a part of the colour expression. If refinement of a colour chart is not desired or is impossible, valuation of colours through reference cultivars, such as is already put in practice, seems the obvious way. Last mentioned method is most appropiate, if the colour is dependent on environment factors.

The design of the colour charts is not always handy. Both the large paper sheets of the HCC and the little cardboard cards of the MCF are badly to handle. The colour sequence get lost quickly, hindering the finding of the appropriate colour. The chance of loosing colours is larger than by the RHSCC and the JHS, where the colours have been collected in fans. These fans take care of keeping the colour system well-ordered, maintaining the colours in sequence, not getting lost and easy to find by spreading the fan. The survey cards for each hue, which have been added to the JHS, simplify the looking for the with the plant material corresponding colour particularly in aid of the beginning user. Farther the limitations of the different colours can be estimated with those cards.

In the study in question only a limited number of species have been investigated, by which about 10 % of the in the colour charts occurring colours have been under discussion, while the colour valuation has been done by one observer. The value of such an inquiry could be enhanced considerably if done by more persons simultaneously. Besides it is desirable to examine different coloured plants than used now. It is to be thought of the colour groups blue, green, blue-green, brown, etc. and of very dark colours. Where the plant material concerned it is to take into account of possible environment factors, plant age and the like, which can affect the colour. It also seems better to avoid daylight variations during the observations.

Wageningen, June, 1985 (translation of the revised version of May, 1985), Anja van der Neut.

[Annex III follows]

ANNEX III

EXCERPT FROM THE DRAFT REPORT OF THE SIXTEENTH SESSION OF THE TECHNICAL WORKING PARTY FOR FRUIT CROPS, HELD IN AARSLEV, DENMARK, FROM JUNE 19 TO 21, 1985

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Test Guidelines for Apple

21. The expert from Switzerland reported on the decision of the Subgroup which had met on June 18. The discussion was based on document TWF/XVI/7. The Working Party confirmed that it would keep the previous decision to combine three groups of varieties, namely, fruit varieties, ornamental varieties and root stock varieties, in one Test Guidelines document. It was explained once more that a given expression of a characteristic would have the same value in all three groups if they were combined together in one characteristic. The Working Party agreed to make some changes to document TWF/XVI/7 and to send it to the Technical Working Party for Ornamental Plants and Forest Trees for further discussion. The main changes made were as follows:

(i) Changes made in the Technical Notes:

Technical Note

5 to make void the suggestion of deleting the last sentence and characteristic (v) and to insert the words "of fruit" between "grouping" and "varieties" in that sentence; a comparable sentence would have to be included for ornamental varieties

6 to delete the word "fruit" the second time it appears in the first sentence

7 to add the sentence "The description should be supplemented by photographs or shadowgraphs of two typical leaves (showing characteristic 38)" at the end of the paragraph;

10 the first part of the paragraph should read "In the case of fruit varieties and ornamental varieties observations of dormant one-year-old shoots should be made on trees that ..."

(ii) changes made in the Table of Characteristics:

Characteristics

12, 13, 20, 67, 91, 92, 98, 99, 100 to be deleted

1a), 4, 28, 29 39, 42, 43, 57, 58, 59, 63, 76, 77, 86, 87, 88 to have the plus (+) deleted

6, 19a), 66 71a) to have the asterisks (*) deleted

8 to receive a general asterisk "(*)"

62 to receive an asterisk for ornamental varieties "(*O)

87 to receive an additional asterisk for fruit varieties "(*F)

16, 17, 18, 19, 21, 25, 39, 51, 56, 57, 63, 68, 72, 73, 74, 78, 80, 84, 85, 86, 87, 90, 97, to have the suggestions for the deletion of example varieties revoked

4 to have the example varieties "M13, M27" (5) and "M11" (7) deleted

5 to have the example varieties "MM106" (3) and "M1, M101" (7) deleted

6 to have the example variety "Jonagold" (2) deleted

9 to have the example variety "M26" deleted

11 to have the typing of example variety "M11" (9) corrected

22 to have the word "open" inserted between "10%" and "flowers"

28, 30 to have the word "inner" replaced by the word "upper"

29 to have the word "outer" replaced by the word "lower"

39 to have the state "up-folded" deleted, to take the Notes 3, 5, 7 and to have the example variety "M.27" transferred to Note 3

40 to have the position of the states "cuspidate" and "acuminate" exchanged

43 to have the states "weak, medium, strong"

54 to be replaced by the alternative "b" on page 37 with example varieties submitted by the expert from the United Kingdom

57 to have the states "very weak, weak, medium, strong, very strong" with the example varities "Belle de Boskoop (3), Golden Delicious (5) and Red Delicious (7)"

62 to have the spelling of "calyx" corrected

72 to have the word "unevenness" replaced by "relief"

78 to have the state "red" deleted

79 to have the words "percentage" and "overall present" replaced by "amount" and "very high" respectively, and to have the example variety "Cherry Cox" deleted

82 to have the words "weak" and "strong" replaced by "low" and "high" respectively

86 to have the additional states "very soft (Astrahan (1)), very firm (9)," to have the example variety "Pfirsichroter Sommerapfel" deleted and to have the word "firmometer" replaced by "penetrometer"

97 after this characteristic, a new characteristic (97a) to be inserted reading: "Time of picking (for commercial harvest)" with the states "early, medium, late"

(iii) The characteristics 22, 31, 95, 96, 97, 97a) were placed at the end of the Table of Characteristics in the following chronological order: 96, 31, 22, 97a), 97, 95.

(iv) The experts from the United Kingdom were asked to send to the Office of UPOV the names of example varieties still outstanding in the document. The experts from Switzerland were asked to prepare the drawings for characteristics 5 and 34.

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[End of Annex III and of document]