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UPOV

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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

TECHNICAL WORKING PARTY FOR ORNAMENTAL PLANTS AND FOREST TREES

Twenty-sixth Session

Antibes, France, October 4 to 8, 1993

REPORT

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

Opening of the Session

1. The twenty-sixth session of the Technical Working Party for Ornamental Plants and Forest Trees (hereinafter referred to as "the Working Party") was held at Antibes, France, from October 4 to 8, 1993. The list of participants is given in Annex I to this report.

2. Mr. R. Brand and Mrs. M. Mistou welcomed the participants to the Experimental Unit of GEVES in Sophia-Antipolis, near Antibes, France. The session was opened by Mrs. E. Buitendag, Chairman of the Working Party.

Adoption of the Agenda

3. The Working Party unanimously adopted the agenda of its twenty-sixth session which is reproduced in document TWO/26/1, after having deleted item 11, General Test Guidelines for ornamental species, and subitems 13(vi), Kangaroo Paws and 13(xiv), Geralton Wax Flower.

Short Reports on Special Developments in Plant Variety Protection in Ornamental Plants and Forest Trees

4. The Working Party received short reports from some of the experts on recent developments in their countries. The expert from Germany reported that the opening up of the protection system to the whole plant kingdom had not had a large effect on applications in rare species. The expert from France reported on a program for the use of new technology in the identification of varieties, the development of tests, the cooperation with public collections and the creation of a service for the preliminary checking of variety denominations (see Annex II). The expert from the United Kingdom reported on a study of chrysanthemum leaves with image analysis and on the testing of four artificially genetically manipulated varieties. The expert from New Zealand reported that due to the increase in applications, more varieties presently tested on the premises of the breeder would in future have to be tested centrally.

Important Decisions Taken During the Recent Sessions of the Working Party and the Technical Committee

5. Dr. Thiele-Wittig gave a brief report on the main items discussed during the previous sessions of the Technical Committee, referring for further details to the full reports reproduced in documents TC/28/6 and CAJ/32/10- TC/29/9. The main results of the TWC will be reported upon under item 10.

Uniformity in Varieties Where Both Propagation by Seed and Vegetative Propagation Exist

6. The Working Party noted the requirement for each variety to be judged according to its method of propagation but had difficulty in fully agreeing with that requirement. It could agree with applying two different requirements on uniformity within one species, provided that it was not also possible to propagate vegetatively a given seed propagated variety (as was the case for Lobelia). The Working Party foresaw problems if that restriction was not applicable and consequently needed further study of the problem. In order to have a sound basis for discussions during the next session, it asked experts from different countries to prepare examples for different species and a recommended way of dealing with the problem. That information should be sent to the Office of UPOV by July 1, 1994, so a combined document might be prepared. The following countries and species were selected: FR: General conclusions on vegetatively propagated ornamental species, BE: Tuberous Begonia, DK: Exacum, IL: Ranunculus, NL: Bromelia and Trachelium, JP: Cyclamen, GB: Dahlia and Campanula.

Color Observations

7. The Working Party noted document TWO/26/9 and the oral report of the Subgroup Meeting on Color Measurements held at the same place in the preceeding week. The oral report was given by Mr. Thiele-Wittig and supplemented by Mr. Brand, Chairman of the Subgroup. The full report on the Subgroup Meeting is reproduced in document TWO/26/17.

8. Color measurements. The Working Party agreed to the conclusions of the Subgroup that for the moment color measurements should be only an additional tool to support visual assessment of the color. Some experts warned against the risk of finally accepting differences which could no longer be seen with the eye. It had been shown that some colors seen with the eye could not be

found by the colorimeter. The colorimeter worked well only in certain areas and certain spectra. At present, it remained difficult to perceive it as a method for distinction purposes. More study was necessary on the matching of measurements with the RHS Colour Chart. In addition, differences in measurement due to different seasons in the year, different years and different countries, needed futher study. Others stated that the differences observed were partly due to the lack of a precise protocol. Similar conclusions had also been reached in the field of electrophoresis. Therefore, it was necessary to develop and agree on a very precise protocol, to fix the sampling of data and also the application of statistics. It was important to harmonize the methods to avoid different countries going in diverging directions.

9. The Working Party finally agreed to follow the study on the spectrocolorimeter in France and to invite the experts involved to report on their progress during the next session.

10. Color groups for naming purposes. The Working Party agreed to the combined grouping for naming purposes of the Netherlands and Germany as laid down in document TWO/26/9, with the amendment of the 50 color groups proposed by the Subgroup and reproduced in Annex X to document TWO/26/17.

New Methods, Techniques and Equipment in the Examination of Varieties

11. Dr. Thiele-Wittig gave a brief report on the main items discussed during the first session of the newly established Working Group on Biochemical and Molecular Techniques and DNA Profiling in particular (BMT), referring to document BMT/1/3 and the draft report reproduced in document BMT/1/4. The Working Party asked for more information on the work of that Working Group to permit a more active participation. In addition it proposed that at least the Chairman of the TWO and the TWO experts from the country in which a BMT session took place should be invited to future sessions of the BMT Working Group so that the technical aspects and interests of the Working Party might be represented. The Working Party also asked for all experts to discuss the subject at the national level and involve themselves more in the investigations. It was important that a dialogue be initiated between crop experts and experts in the special methods.

12. Mr. Guiard (France) reported that the aim of the BMT was not to reject methods other than RFLPs and RAPD, but that at the beginning it was necessary to limit the workload and to concentrate on DNA profiling and methods enabling a genetic interpretation of the results. Methods where no genetic knowledge existed would thus not be considered at the start.

13. As no ornamental species had been included in the four species under study by the BMT in separate working units, the Working Party agreed to collect its own information on DNA methods applied to ornamental species. All experts were invited to send their information by the end of November 1993 to Mr. Brand (France) who would combine the information for presentation to the Working Party at its next session, as well as to the BMT.

14. In a survey as to whether, from a purely technical point of view, a difference in the unexpressed part of the genome should be sufficient to distinguish a new variety, the majority favored the position that such should not be the case. Only one expert stated that all characteristics leading to repeatable, reliable differences would be acceptable and that they should not be limited to the phenotype or the expressed part of the genome. He also foresaw difficulties for the courts in accepting rejection on the ground that the difference could not be attributed to the expressed part of the genome.

Others stated that, especially in ornamental species, the breeder would aim at differences that could be seen with the eye. It would be difficult to accept differences having no effect on the phenotype, which could not be recognized by the user of the variety; it would undermine the whole system of variety protection. Those methods might well be used for identification but not for distinctness purposes. Although the 1991 Act of the UPOV Convention had introduced a new criterion of essential derivation, that should not become the sole criterion. If, in future, any difference was accepted, all decisions would be brought before the courts and the offices would become pure registration offices. That was surely not intended. The Working Party would therefore closely follow the discussions in other fields as methods might develop rather quickly.

15. The Working Party supported the proposal of the Subgroup to invite the Technical Committee to study also other methods of interest in the ornamental field and especially image analysis and HPLC. It agreed to invite the experts from France, The Netherlands and the United Kingdom to prepare a short summary of their research on image analysis for distribution to the Technical Committee with the invitation to collect information of that kind from all member States (see also paragraphs 20 and 23 of document TWO/26/17).

List of Species in Which Varieties Are Tested

16. The Working Party referred to document TWO/25/8 comprising lists of species of ornamental plants tested in the UPOV member States. It furthermore noted that the Office of UPOV was not yet in the position to combine the enlarged list of species. It therefore postponed its discussions on that subject to its next session. Those countries that had not yet supplied the information were requested to do so before the end of the year.

Single versus Combined Distinctness Characteristics

17. The weather conditions (heavy rain) had not permitted studying the examples in the rose collection. Discussions were therefore postponed to the next session, for which the experts from France would prepare a document and slides by the end of June 1994.

UPOV Central Computerized Data Base

18. Mr. Thiele-Wittig reported on the history of the discussions concerning a possible UPOV central computerized data base, referring to document CAJ/32/2-TC/29/2 and Circular U 2067. He also reported on the preparation by the TWC of a format for electronic exchange of information published in national gazettes. He introduced document TWC/11/15 and explained that, although in the first instance not intended for the establishment of the UPOV data base, the document would also be applicable in its present form for that purpose, and that especially page 6 of the document took account of the special requirements. Some selected experts would apply the format to a reduced number of data at the national level, exchange those data and improve the format on the basis of the experience gained.

19. Mr. Grégoire (France) supplemented the report and especially highlighted the benefits that such a data base would bring:

(i) It would reduce the day-to-day work by providing the offices with detailed information on the situation in other member States and increase

efficiency by permitting the handling of data from other member States in electronic form from the very start.

(ii) It would provide not only the data itself but also a tool to search the data. This was important as all member States would use the same data and the same tool. The experience of WIPO with a similar tool for trademarks had proved very efficient and the same efficiency could be expected from the UPOV data base.

(iii) It would also be beneficial for UPOV: if all member States used the same data and the same tool, the incentive for UPOV membership would increase. UPOV could propose and offer a harmonized tool to breeders and other interested circles.

20. In addition, he stressed that the format developed was not only for transmitting data to the UPOV Data Base, but could also be used for other purposes such as data exchange between two member States.

21. The Working Party highlighted the fact that it was important to prepare the data base in such a way that it would also be useful for technical experts. The crop experts should have access to the prototype in order to study it and express their needs. A UPOV Data Base was especially needed in the ornamental field, as ornamental varieties were the most "international" ones, covered the largest part of the applications for variety protection and had many old varieties which had to be considered to the largest extent possible, partly because of the possible comeback of an old variety. The experts urgently needed such a data base and would welcome its rapid establishment.

Uniformity of vegetatively propagated species

22. Mr. Thiele-Wittig introduced document TWC/11/16 on the revision of paragraph 28 of the General Introduction to the Test Guidelines, dealing with the number of off-types tolerated. He explained the history and the recalculation of the tables as contained in the former document TC/XXV/8 as a result of the redefinition of the acceptance probability. The document also explained in more detail the connection between the two risks involved, i.e. the beta risk of wrongly accepting a heterogeneous variety as homogeneous and the alpha risk of wrongly rejecting a homogeneous variety as being heterogeneous. In the past, the importance of the beta risk had not been sufficiently considered, especially in the case of small samples.

23. Mr. Grégoire (France) went into further detail and explained step by step how to use it in order to find the right sample size and a balance between the alpha risk and the beta risk. Of the four parameters involved, the population standard should be fixed first, thereafter the alpha risk. The table on page 9 of document TWC/11/16 would then show the table to be used to find the number of off-types tolerated for a given sample size to be found. The drawings next to the table would then allow to find the beta risk for that sample size. Should that risk be too high, either the sample size could be increased or another table could be taken for a different alpha risk.

24. The alpha risk would normally be decided according to the experience gained in the past. It could depend on (i) economic reasons (workload), (ii) importance of the species (in less important species, higher risks might be acceptable), (iii) desired transfer from one method to another method (to avoid too drastic changes) or (iv) desired balance between alpha and beta risks.

25. Applying an alpha risk of 1% and a sample size of 20 with a population standard of 3%, the beta risk obtained was considered too high. This led the Working Party to a long discussion on whether it was at all possible to apply statistics to sample sizes of 20 or less, whether any off-type was acceptable with a sample size of 20 and whether it was at all possible to check the homogeneity of a variety with such sample sizes.

26. Mr. Grégoire insisted on the importance of applying statistics, even with small sample sizes. If the sample size could not be increased, the application would at least show the crop expert the risk that the sample size entailed and would lead him to handle the results with caution. Mr. Grégoire would circulate, via the Office of UPOV, a table which would give a better idea of the risks involved with small sample sizes. The crop experts were asked to select some practical examples of low sample sizes for certain species and contact their national statisticians in order to calculate the corresponding risks involved. The examples and calculations should then be sent before March 1994 to the Office of UPOV for distribution to the Working Party as a basis for discussions during the next session.

27. Mrs. Mistou (France) reported on problems of uniformity in vegetatively propagated roses (see Annex III) where, especially in cases of mutations, certain parts of the plant (one shoot, one flower or one petal) showed instability. This caused the experts from France some concern as in several cases that instability was observed in material that had already been granted protection in other member States and they felt under pressure to also accept it. In some cases, where results had been bought from another member State, the instability was only observed after the granting of the right.

28. All experts agreed that the examples shown would justify rejection, irrespective of what had been decided in other member States. Different climatic conditions might lead to different expressions of certain characteristics in different countries, as might a difference in the length of the test since the chances of finding instability increased with the length of the test. In tests with spring and autumn observations, most instabilities would be found in autumn; in northern countries apparently less instability was observed than in southern countries and varieties that were mutations themselves were more often affected than other varieties. The Working Party could finally but note the information and propose more contacts between experts of member States.

Cooperation with the breeder in the testing of varieties.

29. Mr. Thiele-Wittig reported on the discussions within UPOV on the amendments to the basic requirement for the acceptance of tests carried out by the breeder, referring to document CAJ/32/4-TC/29/4.

30. The expert from New Zealand reported on the testing system in his country which was a mixed system comprising certain tests being done centrally and others done on the premises of the applicant. Especially in species with few applications, the tests were done on the premises of the applicant. The observations, however, were done by the examiner or, if the testing place was too far away from the Office, by an officially designated person, who would collect the data according to instructions, leaving the decision to the examiner. With the small number of breeders and with mutual understanding, the system worked very well. In ornamental species, often only one application was made and then central testing would entail unneccessarily high costs. At present, applicants were cooperating among themselves and allowed testing of their variety on the premises of another applicant. With the increase of the

number of applications, however, testing in more and more species would have to be done centrally. In the case of testing of shrubs and woody plants on the premises of the breeder, the applicant was required to send plant material to be included in a central collection before the final granting of a right. New Zealand could only buy test results from other countries in the case of glasshouse crops; for outdoor crops the different climatic conditions would not allow the same procedure.

31. Mr. Valvassori (EC) reported that during the months June to September 1993, the Commission had adopted a first set of measures to implement Council Directive 91/682/EEC (on the marketing of ornamental plant propagating material and ornamental plants) intended for planting of ornamental plants (Elatior Begonia, Pelargonium, Chrisanthemum, Carnation, Euphorbia pulcherrima, Gerbera, Lily, Gladiolus, Narcissus, Rose and some ornamental trees):

- Commission Directive 93/49/CEE of June 23, 1993 (setting out the conditions to be met by ornamental plant propagating material and ornamental plants in accordance with Article 4 of Directive 91/682/EEC on the marketing of ornamental plant propagating material and ornamental plants)
- Commission Directive 93/63/CEE of July 5, 1993 (setting out the implementing measures concerning the supervision and monitoring of suppliers and establishments under Council Directive 91/682/EEC on the marketing of ornamental plant propagating material and ornamental plants)
- Commission Directive 93/78/CEE of September 21, 1993 (setting out additional implementing provisions for lists of varieties of propagating material and ornamental plants as kept by suppliers under Directive 91/682/EEC)
- Commission Decision Jo L 177 of July 21, 1993 (deferring, as regards the import of ornamental plant propagating material and ornamental plants from third cuntries, the date referred to in Article 16(2) of Directive 91/682/EEC).

32. These Directives refer to:

- quality conditions (genetic, plant health and external quality) to be met by the material
- monitoring by the official bodies of suppliers (persons carrying out professionally reproduction, production, preservation, protection, placing on the market of the material covered by the the scope of the Council Directive 91/682/EEC) in the framework of the "accreditation" of the suppliers (shared responsibilities between the official bodies and the suppliers)
- lists of the varieties as kept by the suppliers. It should be noted that according to Council Directive 91/682/EEC, the suppliers may market the material with reference to the variety only in three cases, i.e. varieties protected in accordance with the provisions on the protection of new varieties of plants, or officially registered, or entered in lists kept by them. The implementing measure here referred has specified varietal characteristics and their expressions on the basis of the system of description of varieties developed by UPOV.

33. Furthermore, in the same year, trials to harmonize technical methods of examination of propagating material and plants for planting have been initiated: in the Netherlands (focussed on "accreditation" of suppliers), in France (focussed on certification of fruit plants) and in Spain (focussed on citrus fruit and ornamentals). Finally, the date for the entry into force of the "equivalence" regime for material to be imported from third countries was deferred until December 31, 1993.

Discussions on Working Papers on Test Guidelines

Test Guidelines for African Violet (Revision)

34. The Working Party noted documents TWO/25/4, TWO/26/6 and TWO/26/13. It finally made the following main changes in document TWO/26/13:

(i) Subject of these Guidelines: To apply to all vegetatively propagated varieties.

(ii) Material Required: As a minimum, "20 plants with flower buds to be used as mother plants" are recommended.

(iii) Conduct of Tests: The text of paragraph 3 to be reworded without, however, changing its content.

(iv) Grouping of Varieties: Paragraph 2(iv) to be amended to include characteristic 33.

(v) Characteristics and Symbols: To have the word "preferably" included after the word "should."

(vi) Table of Characteristics:

Characteristics

14 To be deleted

15 To have the second state read "obtuse"

26 To have the wording in the states exchanged with that contained in brackets

27 To receive an asterisk

36 To have the example variety "Emi" for state 2

(vii) Technical Questionnaire: To receive in paragraph 4 an additional subparagraph reading: "Method of reproduction" with the methods "leaf cuttings, tissue culture, other."

Test Guidelines for Weigela

35. The Working Party noted document TWO/26/8 and some further changes proposed by the experts from France and made the following main changes in that document:

(i) Subject of these Guidelines: To have the authors added to the Latin names.

(ii) Conduct of Tests: To have in paragraph 3 the second and third sentence deleted.

(iii) Methods and Observations: To have in paragraph 2 the word "adult" deleted.

(vi) Table of Characteristics:

Characteristics

3 To have the third state read: "spreading"

4 To receive an asterisk

5 To have the states "ovate, elliptic, obovate"; after this characteristic, a new characteristic to be inserted reading: "Leaf blade: width," with the states "narrow, medium, broad"

7 To have the last state read: "reddish"; after this characteristic, a new characteristic to be inserted reading: "Leaf blade: undulation of margin" with the states from "absent or very weak" to "very strong"

8 To receive an asterisk

10 To have the words "absent or" deleted; before this characteristic, two new characteristics to be inserted reading: "Leaf blade: intensity of variegation" with the states from "very weak" to "very strong" and "Leaf blade: blistering" with the states "weak, medium, strong"

11 To have the asterisk and the state "corymb" deleted

12 To have the second state read: "bi-colored"

15 To have the asterisk deleted and the states read: "campanulate, funnel-shaped"

16 To be deleted

19 To have the first state read: "pointed"

20 To have the states from "absent or very weak" to "very strong"

21 To have the word "tube" added after "corolla"

24 To have the word "Plant" deleted

In addition, several example varieties were added or amended.

(v) Literature: To receive additional literature.

Test Guidelines for Pyracantha

36. The Working Party noted documents TWO/26/7 and TWO/26/10. It finally made the following main changes in document TWO/26/10:

(i) Material Required: Five plants at least 2 years old to be submitted.

(ii) Conduct of Tests: The test to include five plants.

(iii) Methods and Observations: Paragraph 2 to read: "Unless otherwise stated, all observations should be made on typical organs of 5 plants at the time of full flowering or, with respect to fruit characteristics, at full coloration of the fruit. Results from measured characteristics should be presented as the average of two measurements from each of 5 plants."

(iv) Grouping of Varieties: Characteristics 1, 23, 32 and 33 to be used for grouping.

(v) Table of Characteristics:

Characteristics

1,2,3,4,5,8,10,18,21,23,24,25,27,29,32,33 To receive an asterisk

2 To read: "Plant: growth habit" with the states "upright, compact, drooping"; after this characteristic, two new characteristics on the one-year old stem to be inserted, one on "density of spines" with the states "weak, medium, strong" and the other on "presence of hairs" with the states "absent, present"

5 To be placed after characteristic 7

9 To read: "Leaf on mature branch: shape in cross section" with the order of the states to be inversed

16 To read: "Flower: color of petal"

18 To have the word "predominant" inserted before "shape" and type 4 deleted

20 To have the first state read: "red"

22 To read: "Plant: persistence of fruit on tree"

23 To have the state "orange red" deleted

25 To read: "Fruit: opening of distal end"

26 To have the words "color of" inserted before the second "fruit"

30 To have the Notes "1, 9"

31 To have the first state read: "flexible"

33 After this characteristic, a new characteristic to be inserted reading: "Second flowering" with the states "absent, present"

(vi) Literature: To include literature indicated by the expert from France.

(vii) Technical Questionnaire: To include characteristics 1, 2, 5, 23, 32 and 33 under paragraph 5.

Test Guidelines for Gentian

37. The Working Party noted documents TWO/26/2 and TWO/26/15. It finally made the following main changes in document TWO/26/15:

(i) Subject of these Guidelines: To have the authors added to the Latin names.

(ii) Material Required: 1,000 seeds to be stated for seed propagated varieties.

(iii) Conduct of Tests: In paragraph 3, the words "three-year old seedlings" to be replaced by "two-year old plants."

(iv) Methods and Observations: To have an additional paragraph included after paragraph 1 reading: "All observations on the stem should be made on the flowering stem."

(v) Grouping of Varieties: Characteristic 2 to be included as grouping characteristic.

(vi) Table of Characteristics:

Characteristics

1 To have the states "erect, semi-erect, spreading"

2 To read: "Stem: length" with the states "short, medium, long"

4,6,7 To have the words "plant height" replaced by "its length"

8 To have the brackets deleted but the content remaining

27,28,29,30 To be limited to varieties with terminal and axillary flowers only

32 To read: "Corolla: length"

33 To have only the following two states: "campanulate(1), funnel-shaped(2)"

34 To be placed before characteristic 33

37 to 44 To be reworded to apply to:
37,40 inner side of lobes
38,41 upper part of inner side of tube
39,42 upper part of outer side of tube
43,44 outer side of tube

45 to 47 To have the words "of petal" deleted

50 To receive drawings for explanation

51 To read: "Paracorolla: shape of apex"

57 To have the word "sepal" deleted

61 To read: "Flowers remaining open under low light intensity"

(vii) Technical Questionnaire: To request statement of the method of reproduction under paragraph 4.

Test Guidelines for Limonium

38. The Working Party noted document TWO/26/14 and made the following main changes in that document:

(i) Material Required: 20 young plants of commercial standard to be submitted.

(ii) Methods and Observations: An additional paragraph to be included reading: "All observations on the leaf should be made on rosette leaves."

(iii) Grouping of Varieties: Characteristics 1, 2, 11, 12, 29 and 35 to be used for grouping.

(iv) Table of Characteristics:

Characteristics

1 To read: "Flowering stem: leaves" with the states "absent, present"

2 To be placed before characteristic 1

3 To be deleted

6 To read: "Stem: pubescence" with the words "few" and "many" to be replaced by "weak" and "strong"

7 To have "size" replaced by "width" with the correspoding states

8 To have "number" replaced by "size" with the corresponding states

9 To read: "Stem: number of laterals"

10 To read: "Stem: length of lowest lateral"

11 To read: "Stem: type of ramification"; after this characteristic, a new characteristic to be inserted reading: "Leaf: presence of petiole" with the states "absent, present"

13 To read: "Leaf: undulation of margin"

14 To have the addition: "(petiole included)"

17 To read: "Leaf: glossiness"

18 To read: "Leaf: pubescence"

20 To read: "Petiole: anthocyanin coloration"

21 To read: "Stem: attitude of laterals" and to be placed after characteristic 10

22 To have the asterisk (*) deleted, to be placed after characteristic 2 and to read: "Plant: number of flowering stems"

23 To read: "Stem: number of flowers on lowest lateral" and to be placed after characteristic 21

24 To be deleted

28 To be placed before characteristic 27

29 To have the colors "white, yellow, pink, purple, blue" for the grouping and the Technical Questionnaire

30 To have the states "less than five, five, more than five"

31 To read: "Calyx: shape viewed from above"

32,33,35 To have "Sepal" replaced by "Calyx"

35 After this characteristic, a new characteristic to be inserted reading: "Epicalyx: color" with the states "green, white, blue"

37 To read: "Time of beginning of flowering"

38 To read: "Plant: type of flowering" with the states "discontinuous, continuous"

39 to 42 To be deleted

(v) Technical Questionnaire: The grouping characteristics to be repeated under paragraph 5.

(vi) Open Items: Several characteristics (11, 12, 21, 25, 26, 31, 32) to be rediscussed during the next session. The experts from Israel to add example varieties and prepare a new draft by the end of November 1993 to be sent for comments to be supplied to UPOV by the end of July 1994.

Test Guidelines for Chrysanthemum (Revision)

39. The Working Party noted several proposals for changes in the growing conditions and the Technical Questionnaire proposed by Mrs. Scott (GB). It agreed to include most of them in the draft for revised Test Guidelines for Chrysanthemum. Mrs. Scott would prepare a complete version of that revised document by the end of March 1994.

Test Guidelines for Lavender and Lavendine

40. The Working Party noted document TWO/26/11 and made the following main changes in that document:

(i) Subject of these Guidelines: To be limited to vegetatively propagated varieties.

(ii) Material Required: 20 young plants or rooted cuttings to be submitted.

(iii) Conduct of Tests: To have one year of establishment included in paragraph 1.

(iv) Methods and Observations: To have two additional paragraphs reading: "All observations on the plant should be made in winter" and "All observations on the ear should be made on the main ear."

(v) Table of Characteristics:

Characteristics

1 To read: "Plant: size"

2 To receive drawings for explanation

5 To have the states "upright, semi-upright, spreading"

6 To have the words "of bunch" deleted

7-13 To apply to the flowering stem

7 To be split in two characteristics, one with the states "absent, present" and the other with the states from "very weak" to "very strong"

8 To include the ear

9 To exclude the ear

10 To read: "Flowering stem: length of lowest lateral excluding ear"

13 To read: "Flowering stem: rigidity of basal part" with the states "flexible, semi-flexible, rigid"

15 To be checked whether it should be deleted

17 To receive drawings and the fourth state to be checked whether it should be deleted

20 To read: "Ear: ratio length as from second whorl/number of whorls"

21 To read: "Ear: distance between first and second whorl (from base)"

22 To read: "Ear: number of flowers per ear"

25 To read: "Time of beginning of vegetative growth"

(v) Open Items: The expert from France to indicate methods for characteristics 29 to 35, literature, drawings for characteristics 2 and 17, grouping characteristics and to prepare a new document by the end of March 1994.

Test Guidelines for Kalanchoe (Revision)

41. The Working Party noted a proposal for changes in the growing conditions and the Technical Questionnaire, introduced by Mrs. Löscher (DE). After discussion of those proposals and some amendments, the Working Party agreed to the revised version as reproduced in Annex IV to this report. In view of the urgent need for changes, the Working Party agreed to send the revision in that form to the professional organizations for comments without awaiting the revision of the remaining part of the Test Guidelines for Kalanchoe.

Test Guidelines for Firelily

42. The Working Party noted document TWO/26/3 and made the following main changes in that document:

(i) Subject of these Guidelines: The experts to check the common names in the different languages.

(ii) Conduct of Tests: The growing conditions to be reworded as follows: "The tests should normally be carried out in the greenhouse with good aeration. The bulbs should be planted in pots and pots should be raised to facilitate aeration and water drainage." Planting time to remain unchanged. "Soil: A well-drained sandy soil with humus." Planting depth and density to remain unchanged. "Fertilization: Fertilizer low in introgen, high in potassium." Irrigation and bulb lifting to remain unchanged; pest control to be deleted.

(iii) Table of Characteristics:

Characteristics

1 To have the states "erect, semi-erect, spreading"

5 To read: "Leaf: torsion of spiral"

6 To have the states from "absent or very weak" to "very strong"

9 To read: "Peduncle: anthocyanin coloration" with the states "absent, present"

10 To have the first state read: "oblate"

15 To be placed before 14

20 To have the states from "absent or very weak" to "very strong"

24,30 The expert from ZA to propose states

25,26 To have the word "clearly" deleted

31,32 The expert from ZA to check if the characteristic should be deleted

34 To read: "Plant: time of appearance of leaves in relation to flowering"

35 To read: "Plant: persistance of leaves" with the states "weak, medium, strong"; thereafter, a new characteristic to be inserted reading: "Flowering season" with the states "winter, summer, indifferent"

36 To be split into winter growing and summer growing.

(iv) Technical Questionnaire: To have the part on specific use and on the bulb transferred from paragraph 4 to paragraph 7 and that on the seasonal type from paragraph 4 to paragraph 5.

(v) Open Items: The expert from ZA to clear the above open items and to prepare a new draft by the end of March 1994.

Test Guidelines for Nerine

43. The Working Party noted document TWO/26/5 and made the following main changes in that document:

(i) Subject of these Guidelines: The document to apply to all vegetatively propagated varieties of Nerine Herb. of the family Amaryllidaceae, but primarily to varieties of N. bowdenii W. Wats., N. flexuosa (Jacq.) Herb., N. sarniensis (L.) Herb. and N. undulata (L.) Herb. and their hybrids.

(ii) Conduct of Tests: The growing conditions to be amended to read as follows:

Planting: During the whole year (glasshouse)
Nerine bowdenii: preferably during the months March, April or May

Soil: Possibility of good root penetration of the soil is important, a good permeability and not too large a percentage of soil particles <16 um, 1-1.5 m3 per 100 m2 of organic material should be incorporated.

Fertilization: None

Distance between plants: ca. 120 bulbs per m2 with a bulb circumference of 12 or larger.

(iii) Methods and Observations: To have two new paragraphs inserted reading: "All observations on the flower should be made at dehiscence of the first anther." and "Unless otherwise stated, all observations on the tepal should be made on the outer tepal. All observations on the color of the tepal should be made on the inner side of the outer tepal."

(iv) Grouping of Varieties: To include the new characteristic "Plant: time of appearance of leaves in relation to flowering" as grouping characteristic and to have the definition of the main color transferred to the explanations.

(v) Table of Characteristics:

Characteristics

4 To read: "Leaf: shape of tip" with the states "acute, obtuse, rounded"

8 To have the last state read: "along the whole length"

11 To have the states "few, medium, many"

14 To receive drawings to be prepared by experts from NL

16 To have the states "short, medium, tall"

17,18 To have the words "of outer tepals" deleted

19 To read: "Tepal: position of recurved part"

23 To read: "Tepal: torsion of distal part"

24,25,28,29 To have the base, median and distal part excluded

27 To read: "Tepal: color of distal part"

29 To be placed before 26

30 To read: "Filament: length"

31 To read: "Filament: color"

32 To read: "Filament: color at base compared with main color"

33 To read: "Anther: color"

36 After this characteristic, a new characteristic to be included with the wording as mentioned under grouping of varieties (iv above) and the states "before(1), during(2), after(3)".

(vi) Technical Questionnaire: To add, under paragraph 4, the request to indicate whether reproduced by tissue culture or not and, under paragraph 5, the new grouping characteristic.

Status of Test Guidelines

44. The Working Party agreed to send the Draft Test Guidelines for African Violet (Revision), Weigela, Pyracantha, Gentiana and Nerine, as well as the growing conditions and the Technical Questionnaire for Kalanchoe (Revision) to the Professional Organizations for comments.

45. The Working Party agreed that the Test Guidelines for Limonium, Chrysanthemum (Revision), Lavender and Lavendine and Firelily (Cyrtantus) would require further discussion during its next session. Lack of time did not allow the Working Party to discuss the remaining working papers for Test Guidelines mentioned under item 13 of the Agenda.

New Chairman

46. The Working Party proposed to the Technical Committee that it recommend Mrs. Ulrike Löscher (Germany) to the Council for election as the Working Party's Chairman for the coming three years.

Future Program, Date and Place of Next Session

47. At the invitation of Australia, the Working Party agreed to hold its twenty-seventh session in Canberra, Australia, from September 26 to October 1, 1994. It was planned that the following items would be discussed during the coming session:

(i) Short reports on special developments in plant variety protection for ornamental plants and forest trees (oral reports);

(ii) Important decisions taken during the recent sessions of the Technical Working Party and the Technical Committee (reports from TWO and TC);

(iii) Final discussions on Draft Test Guidelines for
- African Violet (Revision) (TG/17/4(proj.));
- Gentiana (TG/145/1(proj.))
- Nerine (TG/146/1(proj.))
- Pyracantha (TG/147/1(proj.))
- Weigela (TG/148/1(proj.))

(iv) Color observations;

(v) New methods, techniques and equipment in the examination of varieties (information on DNA methods to be collected by France by the end of November 1993);

(vi) Lists of species in which varieties are tested (UPOV to collect updatings of document TWO/25/8 + list of existing national test guidelines);

(vii) Single versus combined distinctness characteristics (FR to prepare a document by the end of June 1994);

(viii) Central computerized data base (oral report);

(ix) Uniformity of vegetatively propagated species (examples of seed and vegetatively propagated species to be sent to the Office of UPOV by July 1, 1994; examples on different risks with low sample sizes to be sent to the Office of UPOV by the end of March 1994);

(x) Cooperation with breeders in the testing of varieties (AU to prepare a summary of the testing system in Australia by the end of the year);

(xi) Discussion on working papers on Test Guidelines for:

a) Iris (TWO/26/12)
b) Kangaroo Paws (TWO/24/3 + AU to prepare a new working paper)
c) Limonium (TWO/26/14+ IL to prepare a new working paper)
d) Chrysanthemum (Revision, TG/26/4, GB to prepare a working paper)
e) Lavender and Lavendine (TWO/26/11 + FR to prepare a working paper)
f) Kalanchoe (Revision) (DE to prepare a working paper)
g) Rhododendron (Revision) (TWO/26/16 + DE to prepare a working paper)
h) Firelily (Cyrtanthus) (TWO/26/3 + ZA to prepare a working paper)
i) Geralton Wax Flower (Chamelaucium) (AU to prepare a working paper)
j) Anthurium (Revision) (NL to prepare a working paper by the end of March 1994)
k) Serruria (ZA to prepare a working paper by the end of March 1994)
l) Thymus (FR to prepare a working paper by the end of March 1994)
m) Cymbidium (JP to prepare a working paper by the end of March 1994).

48. The Working Party noted an advance invitation to hold its 1995 session in Wageningen, Netherlands. For 1995, working papers on Ficus benjamina and Bouvardia would be prepared and for 1996, working papers on Nerium oleander and Cypressus.

Visits

49. On Wednesday morning, the Working Party visited the INRA Breeding Station at Fréjus and heard lectures on the work of the station regarding the characterization and evaluation of the genetic variability in the genus Rosa, haploidization of cultivated roses and the search for resistance, micropropagation in Anemone coronaria, on vitrovariation in Ranunculus asiaticus and on the breeding of gladiolus for winter flowering. In the course of the same morning, the Working Party also visited the firm Ottenwaelder, producing mainly green pot plants of various species but also some flowering pot plants. In the afternoon, the Working Party visited the rose breeding firm Meilland SNC and heard a lecture on their breeding program in the four main rose groups: cut flowers, garden roses, pot roses and roses for landscaping. On Thursday afternoon, the group visited the glasshouses at the station at Sophia-Antipolis where it noted the study on the development of the best climate in glasshouses and on the breeding of protea. On Friday morning, it followed a short explanation and demonstration of the study of image analysis and color measuremetns on roses at the same station.

50. This report has been adopted by correspondence.

[Four annexes follow]

TWO/26/18

ANNEX I

LIST OF PARTICIPANTS AT THE TWENTY-SIXTH SESSION OF THE TECHNICAL WORKING PARTY FOR ORNAMENTAL PLANTS AND FOREST TREES, ANTIBES, FRANCE, OCTOBER 4 TO 8, 1993

I. MEMBER STATES

BELGIUM

Jozef HAEGEMAN, Rijksstation voor Sierplantenteelt, Caritasstraat 21, B-9090 Melle (tel. 9-2521052)

CANADA

Christine IRVING, Agriculture Canada, Plant Breeders' Rights Office, Room 1121, K.W. Neatby Building, 960 Carling Ave., Ottawa, Ontario K1A OC6 (tel. 613 995-7900, fax 613 992-5219)

DENMARK

Birthe HOEGH, Afdeling for Sortsafproevning, Statens Forsoegsstation, Teglvaerksvej 10, Tystofte, 4230 Skaelskoer (tel. 45 53 59 61 41, fax 45 53 59 01 66)

FRANCE

Joël GUIARD, GEVES, La Minière, 78285 Guyancourt Cedex (tel. 30 83 35 80, fax 30833629)

Yvette DATTEE, GEVES, La Minière, 78285 Guyancourt Cedex (tel. 30 83 36 20, fax 30833629)

Richard BRAND, GEVES, B.P. 1, Les Vignères, 84300 Cavaillon (tel. 90.71.26.85, fax 90780161)

Sylvain GREGOIRE, GEVES, La Minière, 78285 Guyancourt Cedex (tel. 30833600, fax 30833629)

Lucienne POETTO, GEVES, Unité expérimentale de Sophia-Antipolis, ZAC Saint Philippe, Route des Colles, 06410 Biot (tel. 93 65 33 01, fax 93 65 33 18)

Marie-Noëlle MISTOU, GEVES, Unité expérimentale de Sophia-Antipolis, ZAC Saint Philippe, Route des Colles, 06410 Biot (tel. 93 65 33 01, fax 93 65 33 18)

Marie-Hélène GANDELIN, GEVES, Unité expérimentale de Sophia-Antipolis, ZAC Saint Philippe, Route des Colles, 06410 Biot (tel. 93 65 33 01, fax 93 65 33 18)

GERMANY

Ulrike LOESCHER, Bundessortenamt, Postfach 61 04 40, 30604 Hannover (tel. 0511/57041 or 5704210, fax 0511/563362)

ISRAEL

Baruch BAR-TEL, Plant Breeders' Rights Council, Agricultural Research Organization, Volcani Centre, P.O.B. 6, Bet Dagan 50250 (tel. and fax 00972 3 9683492)

JAPAN

Koji KANAZAWA, Examiner, Seeds and Seedlings Division, Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries, 1-2-1 Kasumigaseki, Chiyoda-ku, Tokyo (tel. 03-3591-0524, fax 03-3502-6572)

NETHERLANDS

Joost BARENDRECHT, CPRO-DLO, Postbus 16, 6700 AA Wageningen (tel. 08370-76893, fax 08370-22994)

NEW ZEALAND

Chris BARNABY, Plant Variety Rights Office, P.O. Box 24, Lincoln (tel. 64-3-3252414, fax 64-3-3252946

SOUTH AFRICA

Elise BUITENDAG, Citrus and Subtropical Fruit Research Institute, Private Bag X11208, Nelspruit 1200 (tel. 1311 52071, telex 335240 SA, fax 1311 23854)

UNITED KINGDOM

Elizabeth SCOTT, Ornamentals Section, NIAB, Huntingdon Road, Cambridge CB3 OLE (tel. 223-342399, fax 223-342229)

II. TECHNICAL EXPERTS

Jörgen H. SELCHAU, ASSINSEL, Ornamental Plants Section, c/o GPL International as, P.O. Box 29, 5200 Odense V, Denmark (tel. 45-6614-5070, fax 45-6614-5084)

III. OBSERVER ORGANIZATION

EUROPEAN ECONOMIC COMMUNITY

Marcantonio VALVASSORI, Pincipal Administrator, European Economic Community, rue de la Loi 200, VI B II.1, Loi 84 1/7, 1049 Brussels (tel. 02-295 6971, fax. 02-296 5963)

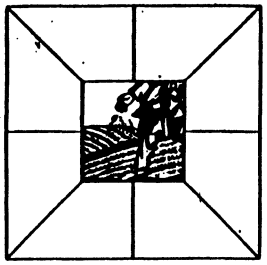
IV. OFFICER

Elise BUITENDAG, Chairman

V. OFFICE OF UPOV

Max-Heinrich THIELE-WITTIG, Senior Counsellor, 34, chemin des Colombettes, 1211 Geneva 20, Switzerland (tel. 022 7309152, telex 412 912 ompi ch, fax (041-22) 7335428)

[Annex II follows]



PRELIMINARY TESTING OF PROPOSALS FOR VARIETY DENOMINATIONS

GEVES is now able to determine with a margin of error of less than 10% the acceptability of a denomination by comparing of the proposal with denominations officially registered within the EEC and the member states of UPOV. This is possible thanks to the creation and regular updating of an international database which can be used for screening all new variety denominations.

GEVES can therefore now supply a new service: **rapid testing of different propositions for denominations prior to official application.** These tests increase the probability that the denominations proposed in the official application be accepted.

This service will be available from the *1st of September 1993* to all organisations who *have taken out a subscription* as described in the subscription form included herein.

Subscriptions should be sent to

GEVES/ La Minière
78285 GUYANCOURT Cédex
France
Tel: 33 (1) 30 83 30 00
Fax: 33 (1) 30 83 36 29

GEVES continues to manage official applications for variety denominations, and will inform the breeder of the acceptability of propositions with the usual delays through the system of publication in the official gazette.

The aim of this new service is to give assistance to subscribing organisations so that they can have an immediate reply as to the acceptability of propositions for denominations.

DATABASE OF DENOMINATIONS USED IN FRANCE.

The French database used for testing proposed denominations is constructed by GEVES from the denominations listed in:

-The French lists of species and varieties

-European community catalogues of agricultural and vegetable species

-The OECD list

-The gazettes of the services responsible for plant breeders' rights in the various member states of UPOV

The incorporation of information into the database depends on the frequency of publication of the gazettes, and the delays before they are received. For foreign gazettes only proposed denominations are incorporated into the database.

COMPARISON PROCEDURE

Spearman's rank correlation test is used for the comparison of denominations.

The number of letters in the name, and their positions are both taken into account.

Letters or groups of letters which have the same sound in French are considered to be identical, for example: AU=O, I=Y, C=SS and PH=F.

Letters forming consonant sounds are counted as a single letter.

The head of the denomination service is

Mr. Georges BREUILS,

and the address is:
GEVES
Unité expérimentale de Cavaillon
Service Dénomination
BP 1 - LES VIGNERES
84300 CAVAILLON
France

Tel : 33 90 71 26 85
Fax : 33 90 78 01 61

Anyone wishing to know the acceptability of a planned denomination should apply directly to the denomination service, by either letter or fax, including the denomination proposed and the species. GEVES will indicate as quickly as possible whether the proposition is acceptable, and if not, give reasons.

The reply is only valid for the day of the test: GEVES cannot be held responsible for the acceptability of denominations proposed in subsequent applications. The response given by GEVES does not have any bearing on the acceptability of a commercial or trade mark.

The aim of this service is to increase the likelihood of acceptance of official propositions for variety denominations, and thereby reduce both the number of propositions that have to be made, and the time required for official registration of a denomination.

VARIETY DENOMINATIONS

The denomination must be approved according to current legislation for a variety to be protected (PBR) and registered in the official national lists.

THE RECOMMENDATIONS OF UPOV

These were established in 1967 to define communal rules for inacceptability.

Genera and species considered to be closely related are grouped into classes (appendix 1) Any species not in these lists is considered independently.

The following are not acceptable as denominations:
i) designations which must remain of free use (currently used terms, logos and names of organisations)
ii) designations the free use of which may be prohibited (trademarks, names of public bodies, proper names)
iii) designations apparently attributing to a single variety a property which is common to several varieties
iv) comparative or superlative denominations
v) designations which are misleading as to the characteristics or genetic origin of a variety, or the identity of its breeder.
vi) designations which cannot be recognised, remembered or pronounced by a reasonably well-informed user
vii) designations contrary to public order and decency
viii) denominations liable to be confused with denominations already attributed to varieties of the same and/or closely related species

FRENCH RULES

The UPOV rules are applied in France with the following amendments:

i) denominations may not be more than three words long, the words must be pronounceable and may or may not have any meaning: words with no meaning may not be more than three syllables long; the denomination may be constituted of a commonly used word or a series letters (maximum of three) followed by numbers (maximum of four).

ii) different denominations may contain the same syllable or the same word followed by other words

iii) a denomination may be constructed from one or more words or numbers from an existing denomination

iv) denominations are considered to be similar if they differ by fewer than two letters of which one has a phonetic incidence. Double consonants are considered to be a single letter.

One denomination is published for one file number. At the request of the applicant the denomination can be transferred to another file until that file has been the subject of a decision (in any country) or within one year of the initial application for the denomination.

The denomination of a variety withdrawn from the official national lists or that of a variety which is no longer protected cannot be used. However, the denomination of a variety without commercial importance, which was in the official national lists for less than ten years, and was withdrawn more than five years previously, may be accepted.

OFFICIAL PROCEDURE FOR THE ACCEPTANCE OF DENOMINATIONS BY CPOV AND CTPS

In General

During the technical testing of the variety, generally during the first or second cycle, the applicant proposes a name.

GEVES screens the proposed denominations as soon as they are received to check their conformity with the UPOV recommendations and national rules.

After this initial test, the proposed denomination is registered by CTPS or CPOV and is published in the monthly gazette of CPOV either in the "proposed denominations" section for applications for plant breeders' rights, or in the "appendix: denominations proposed to the CTPS" for applications for national lists only.

Any person wishing to oppose the use of a denomination so published has two months from reception of the gazette to declare his or her reasons. This delay cannot be shortened, because official foreign organisations may be involved. It can only be derogated in exceptional cases at the instigation of the Secretary General of the CTPS or CPOV.

If no comment is received during this period, the denomination is published in the "approved denominations" section of the CPOV gazette.This gazette is edited on the 10th of each month, except August.

Thus, for an acceptable proposition, there is a delay of three to four months between the proposition and the definitive acceptance of the denomination.

Particular cases

Application for national listing associated to an application for breeder's rights
If the denomination is published with a view to protection of breeders' rights, there is no additional publication of the denomination, and the status of the denomination is that associated with plant breeders' rights.
If the denomination is filed simultaneously for plant breeders' rights and registration in the national lists, it is published for plant breeders' rights.
If the application for plant breeders' rights is after the publication of the denomination for registration in the national lists, the denomination is published in brackets in the recapitulation table of denominations submitted for plant breeders' rights. The status of the denomination remains that of being proposed for the national lists. No opposition on the basis of this second publication will be considered.

Cancellation of approval
In rare cases, and following a request from official services, approved denominations can be cancelled. Such cases appear in the section: "Approved denominations, withdrawal of approval"

Rapid procedure
In rare circumstances a rapid procedure can be initiated by the Secretary General of CPOV. The period required for approval is two weeks. This process is complex and expensive, and can only be used in exceptional cases.

PRELIMINARY EXAMINATION PROCEDURE FOLLOWING OFFICIAL APPLICATION OF THE DENOMINATION

When the proposition for the denomination is presented, the denomination service of GEVES tests its acceptability by comparison with its database before publication in the CPOV gazette (on about the 10th of each month).
If the proposition is acceptable, the denomination is immediately submitted for publication with a view to approval. The applicant is not expressly informed of the proposition's acceptability.
If the denomination is not acceptable, the denomination service of GEVES informs the applicant in writing. The grounds for rejection are given. A new proposal for a denomination is requested. The new proposal then follows the same procedure as the first proposal and is tested for acceptability before the 10th of the month following reception.
Such a series of applications can only cause delay in the granting of breeder's rights or registration of the variety in the French national lists, and consequently in the European Community catalogue. The denomination testing service proposed by GEVES can avoid this delay.

Uniformity of vegetatively propagated species

Through this item, on Tuesday, we would like to discuss about mutation on Rose : how to consider the problem of the instability of rose variety obtained from natural mutation ? Points to be considered are :

- mutants are instable in rose. It never exist stable mutant. It exist only different level of instability regarding genotypes.

- mutation can affect different organs : part of petals, petals, a single flower, a bud, a shoot, 1 or x plant. Where to fixe the tolerance of instability ?

- the mutation can be observed :
  - on first year
  - only on second year or following years (color, climbing...)
  - and desappear the next year because buds and woods have been taking out
  - these phenomenous interact on required material and duration of the DUS test.

- mutation could be :
  - a change in the genotypes
  - but also, and oftenly the "come back" to the initial parent.

On any granted variety on nurseries (so supposed to be stable), you will find mutation of the variety "to the initial parent". The genotype in multiplication is never stable : the maintener has always to select against "come back to the initial parent".

- mutants could be also very next to the initial parent, or very next between themselves. We have now in the trade, granted varieties wich could not be distinguished by grower.

All these considerations needs to be discussed and methodology of DUS test harmonised strictly for rose mutants due the international trading of this material.

If material are still in flowers, the discussion could be held after seeing material on openfield on Tuesday the 5th.

[Annex IV follows]

ANNEX IV

X. Technical Questionnaire/Questionnaire technique/Technischer Fragebogen

Reference Number
(not to be filled in by the applicant)
Référence
(réservé aux Administrations)
Referenznummer
(nicht vom Anmelder auszufüllen)

_____

_____

TECHNICAL QUESTIONNAIRE
to be completed in connection with an application for plant breeders' rights

QUESTIONNAIRE TECHNIQUE
à remplir en relation avec une demande de certificat d'obtention végétale

TECHNISCHER FRAGEBOGEN
in Verbindung mit der Anmeldung zum Sortenschutz auszufüllen

1.1 Genus/Genre/Gattung — Kalanchoë Adans

KALANCHOE
KALANCHOE
KALANCHOE

1.2 Species/Espèce/Art — .....
(Indicate species/préciser l'espèce/Art angeben)

---

2. Applicant (Name and address)/Demandeur (nom et adresse)/Anmelder (Name und Adresse)

---

3. Proposed denomination or breeder's reference
Dénomination proposée ou référence de l'obtenteur
Vorgeschlagene Sortenbezeichnung oder Anmeldebezeichnung

---

4. Information on origin, maintenance and reproduction of the variety
Renseignements sur l'origine, le maintien et la reproduction ou la multiplication de la variété
Informationen über Ursprung, Erhaltung und Vermehrung der Sorte

4.1 Origin/Origine/Ursprung

i) Seedling/Plante de semis/Sämling (indicate parent varieties/préciser les variétés parentes/Elternsorten angeben) [ ]
.....

ii) Mutation/Mutation/Mutation (indicate parent variety/préciser la variété parente/Ausgangssorte angeben) [ ]
.....

iii) Discovery/Découverte/Entdeckung (indicate where and when/préciser le lieu et la date/wo und zu welchem Zeitpunkt) [ ]
.....

4.2 Other information/Autres renseignements/Andere Informationen

---

5. Characteristics of the variety to be given (the number in brackets refers to the corresponding characteristic in the Test Guidelines; please mark the state of expression which best corresponds)

Caractères de la variété à indiquer (le chiffre entre parenthèses renvoie au caractère correspondant dans les principes directeurs d'examen; prière de marquer d'une croix le niveau d'expression approprié)

Anzugebende Merkmale der Sorte (die in Klammern angegebene Zahl verweist auf das entsprechende Merkmal in den Prüfungsrichtlinien; die Ausprägungsstufe, die der der Sorte am nächsten kommt, bitte ankreuzen)

	Characteristics Caractères Merkmale	English	français	deutsch	Example Varieties Exemples Beispielssorten	Note
5.1 (1)	Plant: height (including inflorescence) Plante: hauteur (y compris l'inflorescence) Pflanze: Höhe (einschliesslich Blütenstände)	very short	très basse	sehr niedrig	Pinky	1[ ]
		short	basse	niedrig	Lise	3[ ]
		medium	moyenne	mittel	Regulus	5[ ]
		tall	haute	hoch	Moonlight	7[ ]
		very tall	très haute	sehr hoch	Pinatubo	9[ ]
5.2 (11)	Leaf: anthocyanin coloration Feuille: pigmentation anthocyanique Blatt: Anthocyanfärbung	absent or very weak	nulle ou très faible	fehlend oder sehr gering	Moonlight	1[ ]
		weak	faible	gering	Pollux	3[ ]
		medium	moyenne	mittel	Regulus	5[ ]
		strong	forte	stark	Pinky	7[ ]
5.3(i) (27)	Corolla lobes: color of upper side Lobes de la corolle: couleur de la face supérieure Kronzipfel: Farbe der Oberseite	RHS-Colour Chart (indicate reference number)	Code RHS des couleurs (indiquer numéro de référence)	RHS-Farbkarte (Nummer angeben)		
5.3(ii)	Corolla lobes: color of upper side Lobes de la corolle: couleur de la face supérieure Kronzipfel: Farbe der Oberseite	yellow	jaune	gelb		1[ ]
		deep yellow	jaune foncé	tiefgelb		2[ ]
		orange	orange	orange		3[ ]
		red	rouge	rot		4[ ]
		purple	pourpre	purpur		5[ ]
		blue pink	rose bleu	blaurosa		6[ ]
		violet	violet	violett		7[ ]
		other color ..... (specify)	autre couleur ..... (à indiquer)	andere Farbe ..... (angeben)		8[ ]

6. Similar varieties and differences from these varieties
Variétés voisines et différences par rapport à ces variétés
Aehnliche Sorten und Unterschiede zu diesen Sorten

Denomination of similar variety	Characteristic in which the similar variety is different°)	State of expression of similar variety	State of expression of candidate variety
Dénomination de la variété voisine	Caractère par lequel la variété voisine diffère°)	Niveau d'expression pour la variété voisine	Niveau d'expression pour la variété candidate
Bezeichnung der ähnlichen Sorte	Merkmal, in dem die ähnliche Sorte unterschiedlich ist°)	Ausprägungsstufe der ähnlichen Sorte	Ausprägungsstufe der Kandidatensorte

°) In the case of identical states of expression of both varieties, please indicate the size of the difference/Au cas où les niveaux d'expression des deux variétés seraient identiques, prière d'indiquer l'amplitude de la différence/Sofern die Ausprägungsstufen der beiden Sorten identisch sind, bitte die Grösse des Unterschieds angeben.

7. Additional information which may help to distinguish the variety
Renseignements complémentaires pouvant faciliter la détermination des caractères distinctifs de la variété
Zusätzliche Informationen zur Erleichterung der Unterscheidung der Sorte

7.1 Resistance to pests and diseases
Résistances aux parasites et aux maladies
Resistenzen gegenüber Schadorganismen

7.2 Special conditions for the examination of the variety
Conditions particulières pour l'examen de la variété
Besondere Bedingungen für die Prüfung der Sorte

7.2.1 Use/Utilisation/Verwendung

- Pot plant/plante en pot/Topfpflanze
  - standing/posée/stehend [ ]
  - hanging basket/à port retombant/Ampelpflanze [ ]
- Cut flower/fleur coupée/Schnittblume [ ]

7.2.2 Other conditions (e.g. response group, pot size)/autres conditions (groupe de réponse à la photo période, taille des pots)/andere Bedingungen (z. B. Wochengruppe, Topfgrösse)

7.3 Other information
Autres renseignements
Andere Informationen

BUNDESSORTENAMT 31.08.1993

TG/78/3(rev.)
K a l a n c h o e

Growing conditions

Plant material:	40 unrooted cuttings of not induced motherplants (not induced for flowering)
Rooting:	Mid-April, covering with foil
Propagation:	First half of June, top-cuttings, covering with foil
Soil:	Substrate with good drainage and aeration, e.g. peat substrate, pH of 6 to 6.5
Potting:	First half of July, pots of 9 to 10 cm
Fertilization:	According to soil analysis
Irrigation:	Warm water (20°C), at culture start initially in the pot, later bench irrigation
Temperature:	20°C, later 18 to 19°C, same temperature during day and night
Light:	Shade as from 50-60 000 lux
Pinching of pot varieties:	Two weeks after potting
Short day treatment:	9 hours, pot varieties for at least seven weeks, cut flower varieties up to inflorescences showing color

[End of Annex and of Document]