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TC/XIV/3 Rev.

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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

TECHNICAL COMMITTEE

Fourteenth Session Geneva, November 12 to 14, 1979

GENERAL INTRODUCTION TO THE TEST GUIDELINES

proposal from the Delegation of the Federal Republic of Germany

- 1. In a letter dated October 18, 1979, addressed to the Vice Secretary-General of UPOV, the Delegation of the Federal Republic of Germany presented a proposal for an amended version of the second working paper for a revised General Introduction to the Test Guidelines (TC/XIII/10, Annex).
- 2. That proposal is reproduced in Annex I to this document. Annex II contains a summary of the observations on the second working paper as time did not permit the preparation of complete translations of the whole comments. (Annex II of the German version of document TC/XIV/3 contains the full text of these observations in German.)

[Two Annexes follow]

PROPOSAL OF THE DELEGATION OF THE FEDERAL REPUBLIC OF GERMANY FOR A REVISED GENERAL INTRODUCTION TO THE GUIDELINES FOR THE CONDUCT OF TESTS FOR DISTINCTNESS, HOMOGENEITY AND STABILITY OF NEW VARIETIES OF PLANTS

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PROPOSAL OF THE DELEGATION OF THE FEDERAL REPUBLIC OF GERMANY FOR A REVISED GENERAL INTRODUCTION TO THE GUIDELINES FOR THE CONDUCT OF TESTS FOR DISTINCTNESS, HOMOGENEITY AND STABILITY OF NEW VARIETIES OF PLANTS*

A. INTRODUCTION

- 1. The International Convention for the Protection of New Varieties of Plants provides that protection shall only be granted after examination of the variety. The prescribed examination should be adapted to the special requirements of each genus or species, and must of necessity take account of any special requirements for growing the plants.
- 2. To give guidance on this adaptation UPOV has published Guidelines for the Conduct of Tests for Distinctness, Homogeneity and Stability of New Varieties of Plants. With these "Test Guidelines" as they are called in their short title member States have a common basis for the testing of varieties and the establishing of variety descriptions in a standardized form which facilitates international cooperation in examination between their authorities. The Test Guidelines are also helpful to applicants for the grant of rights by giving them information on the characteristics to be studied and on the questions which they will be asked about their varieties.
- 3. The Test Guidelines should not be considered an absolutely rigid system. There may be cases or situations which are not covered within the present framework, and these should be dealt with in a manner which is in keeping with the principles contained in the Test Guidelines. The Test Guidelines will be amended in the light of experience.
- 4. The main part of a Test Guidelines document is the Table of Characteristics. It contains the characteristics relevant for the examination and for the preparation of the variety description. In addition Technical Notes are given and Explanations and Methods are indicated. An Annex containing a Technical Questionnaire completes the Test Guidelines document. For further details, reference is made to paragraph 44 et seq. in the Chapter on Lay-out and Presentation of the Test Guidelines.
- 5. Normally, for each species separate Test Guidelines are prepared or will be prepared. If, however, in a group of species only a few characteristics differ between the species, these species are grouped together in one document. On the other hand, if within one species there are big differences with respect to certain characteristics and if it is found desirable to make use of the whole scale of a given characteristic for each group separately, separate characteristics are foreseen or will be foreseen for each group inside a species, either in one single document or, if there are too many of them, in different documents. This separation, however, is or will be possible only if the borderline between the groups can be clearly defined.

B. GENERAL CONSIDERATIONS ON EXAMINATION

- 6. According to Article 6 of the Convention, the criteria for the grant of plant breeders' rights include:
 - (i) distinctness,
 - (ii) homogeneity, and
 - (iii) stability.

These are judged on the basis of characteristics and their expressions.

The numbers of the paragraphs refer to the numbers of the corresponding paragraphs in the Annex of document TC/XIII/10.

I. CHARACTERISTICS

(a) General

- 9. The characteristics listed in the Test Guidelines are those which are considered to be important for distinguishing a variety from another and which are therefore also important for the examination of homogeneity and stability. They are not necessarily qualities which give an idea of a certain value that the variety may possess. The characteristics must be capable of precise recognition and description. The Tables of Characteristics are not exhaustive but may be completed by further characteristics if this proves to be useful.
- 10. To enable varieties to be tested and a variety description to be established, characteristics are subdivided in the Test Guidelines into their different states of expression, called in short "states," and the wording of each state is followed by a "Note." For a better definition of the states of a characteristic in the Test Guidelines, example varieties are indicated whenever possible.

(b) Qualitative and Quantitative Characteristics

- 11. The characteristics used to distinguish varieties may be either qualitative or quantitative.
- 12. "Qualitative characteristics" should be those which show discrete discontinuous states with no arbitrary limit on the number of states. Some characteristics which do not fit this definition may be handled as qualitative when the states encountered are sufficently different from one another, i.e. not all the states of a continuous variation exist in the varieties currently available.
- 13. "Quantitative characteristics" are those which are measurable on a one dimensional scale showing continuous variation from one extreme to the other. They are arbitrarily divided into a number of states for the purpose of description.
- 14. Both qualitative and quantitative characteristics may be to a greater or lesser extent subject to environmental influence which may modify the expression of genetically controlled differences. The characteristics least influenced by environment are preferred. If in certain cases the expression of one or several characteristics has been influenced more than usual by environmental factors, these findings must not be used.
- 26. As far as is useful, a new characteristic may be created by combining, if necessary, certain characteristics (for example the length/width ratio). Characteristics created in this way have to be treated in the same way as normally measured characteristics.

(c) Observations on the Characteristics

16 and 18 (in part). In order to obtain comparable results in the various member States the extent of the test (for example, size of plots, sample size, number of applications, duration of tests etc.) has to be fixed.

- 17. Qualitative characteristics are normally recorded visually, whereas quantitative characteristics can be measured; in many cases, however, a visual assessment or, if applicable, other sensory observations (for example, taste, smell) are sufficient, especially when measurements can only by made with considerable effort.
- 22. When a fixed scale is used for the observation of the qualitative or quantitative characteristics throughout the trials and over the years, the environmental influence on the varieties is reflected in the figures. Statistical operations on these figures must be preceded by a test on the properties of the scale; for example, do the observations show normal (Gaussian) distribution and, if not, why not? Especially for characteristics which have been created by combining given characteristics (see paragraph 26), the question has to be examined whether the assumptions of the statistical methods used have been fulfilled.
- 23. In so far as visual characteristics have been recorded with a scale which does not fulfill the assumptions of the usual parametric statistics, normally only non-parametric statistical procedures are applicable. The calculation of the mean value, for example, is only permitted if the Notes are taken on a graded scale which shows equal intervals throughout the scale. In the case of

non-parametric procedures it is recommended to use a scale which has been established on the basis of example varieties representative of the different levels of the characteristics. One and the same variety should then always receive the same Note and thus facilitate the interpretation of data.

- 21 (in part). In any case it is indispensable to define the characteristics in question.
- II. TESTING OF DISTINCTNESS

(a) General

- 7. According to Article 6(1)(a) of the Convention, the variety must be clearly distinguishable by one or more important characteristics from any other variety whose existence is a matter of common knowledge at the time when protection is applied for. The characteristics which permit the variety to be defined and distinguished must be capable of precise recognition and description.
- 8. The varieties with which a new variety has to be compared are the varieties whose existence is a matter of common knowledge. The first basis for comparison is normally those varieties maintained in the reference collections of the examining State.

(b) Criteria for Distinctness

18 and 16 (in part). Two varieties have to be considered distinct if the difference

- has been determined at least in one testing place
- is clear and consistent (with the same sign)
- has occurred in two consecutive, or in two out of three, growing seasons.
- 15. In the case of qualitative characteristics the difference between two varieties has to be considered clear if the respective characteristics show expressions which fall into two different states.
- 16. Otherwise the difference has to be considered clear if it occurs, for example, on the basis of the method of the Least Significant Difference, with one per cent probability of an error.

(c) Distinctness in the Case of a Normally Visually Observed Quantitative Characteristic

- 18 (in part). If a normally visually observed quantitative characteristic is the only distinguishing characteristic in relation to another variety, it should be measured, in the case of doubt, if this is possible with reasonable effort.
- 16 and 24 (in part). In any case it is recommended to make a direct comparison between two very similar varieties since direct pair-wise comparisons show the least influences. In each comparison it is acceptable to note a difference between two varieties as soon as this difference can be seen with the eye and can be measured if this can be done with reasonable effort.

The simplest criterion for establishing distinctness is that of consistent differences (differences with the same sign) in pair-wise comparisons, provided that they remain recordable in the future.

19. If the differences are always consistent and are observed on at least 8 to 10 occasions, they show the same reliability as a one per cent significance of measured characteristics based on the application of the Least Significant Difference.

(d) <u>Differences That Are Not Clear</u>

25. Cases can arise in which for two varieties differences may be observed in two or more separately assessed characteristics, each below the agreed level of significance. 29 and 30. An assessment of distinctness on the basis of a combination of data of two or several characteristics (multi-variate analysis) is considered to be not yet completely clarified. Therefore in this document it is left out of consideration. The same applies in cases where a combination is not possible.

III. TESTING OF HOMOGENEITY

(a) General

31. According to Article 6(1)(c) of the Convention, a variety must be sufficiently homogeneous, having regard to the particular features of its sexual reproduction or vegetative propagation. To be considered homogeneous, the variation shown by a variety, depending on the reproductive system of the variety and off-types due to occasional mixture, mutation or other causes, must be as limited as possible. It requires a certain tolerance which will differ according to the reproductive system of the species—vegetatively propagated, self-fertilized or cross-fertilized. The number of off-types appearing, that is, plants which differ in their expression from that of the variety, should not—unless otherwise indicated in the appropriate Test Guidelines—exceed the figures indicated below.

(b) Vegetatively Propagated Varieties and Truly Self-Pollinated Varieties

33. For vegetatively propagated varieties and truly self-pollinated varieties, the following table indicates the maximum acceptable number of off-types in samples of various sizes.

Maximum Acceptable Number of Off-Types in Samples of Various Sizes

Sample Sizes	Maximum Number of Off-Types
	0 1 2
83 - 137	3

(c) Mainly Self-Pollinated Varieties

34. Mainly self-pollinated varieties are varieties which are not fully self-pollinated but which are treated as such for testing. For these, a higher tolerance is required and the maximum number of off-types allowed in the table for vegetatively propagated varieties and for truly self-pollinated varieties are doubled.*

^{*} The Technical Committee decided that the Technical Working Parties should be requested to list, within their competence, those crops where the higher tolerance should be applied.

(d) Cross-Pollinated Varieties including Synthetic Varieties

- 35. Cross-pollinated varieties normally exhibit wider variations within the variety than vegetatively propagated or self-pollinated varieties and it is sometimes difficult to distinguish off-types. Therefore no fixed tolerance can be determined but relative tolerance limits are used through comparison with comparable varieties already known.
- 36. For <u>measured characteristics</u>, the standard deviation or variance should be used as the criterion for comparison. A variety is considered not to be homogeneous in the measured characteristic concerned if its variance exceeds 1.6 times the average of the variance of the varieties used for comparison.
- 37. Visually assessed characteristics have to be handled in the same way as those which are measured, namely, by comparing them with comparable varieties already known. The number of plants visually different from those of the variety should not significantly (95% confidence level) exceed the number found in comparable varieties already known.

(e) Hybrid Varieties

- 38. Single cross varieties have to be treated as mainly self-pollinated varieties, but a tolerance has also to be allowed for inbred plants (sibs). It is not possible to fix a percentage as the decisions differ according to the species and the breeding method. However, the percentage of sibs should not be so high as to interfere with the trials. The Technical Working Parties will fix the maximum percentage tolerated in the Test Guidelines concerned.
- 39. For double cross or three-way cross varieties, a segregation of certain characteristics is acceptable if it is in agreement with the formula of the variety. If the heredity of a characteristic is known, clear-cut segregating characteristics have to be treated as qualitative characteristics. If the described characteristic is not a clear-cut characteristic, it has to be handled as in the case of normal cross-pollinated varieties; that is to say, the homogeneity has to be compared with that of comparable varieties already known. For the tolerating of sibs, the same considerations apply as in the case of a single cross variety.

IV. TESTING OF STABILITY

- 40. According to Article 6(1)(d) of the Convention, the variety must be stable in its essential characteristics, that is to say, it must remain true to its description after repeated reproduction or propagation or, where the breeder has defined a particular cycle of reproduction or multiplication, at the end of each cycle.
- 41. It is not generally possible during a period of 2 to 3 years to perform tests on stability which lead to the same certainty as the testing of distinctness and homogeneity.
- 42. Generally, when a submitted sample has been shown to be homogeneous, the material can also be considered stable. Nevertheless, during the testing for distinctness and homogeneity, careful attention has to be paid to stability. As far as necessary, stability has to be tested by growing a further generation or new seed stock to verify that the variety corresponds in its growth to the growth of the previous material supplied.

V. REFERENCE COLLECTIONS

43. As far as is feasible or necessary in relation to the crops concerned, each country is expected to maintain, or to arrange for another country to maintain on its behalf, reference collections of viable seed or vegetative plant material of the varieties to which it has granted protection. Preferably, the reference collections should contain seed or vegetative plant material of any other varieties which are likely to be useful as a reference. Normally, seed or vegetative plant material should be obtained from the breeder, and, when it is necessary to renew the seed or plant material in stock, the new lot should be checked in a growing test before use.

C. LAYOUT AND PRESENTATION OF TEST GUIDELINES

I. ORIGINAL LANGUAGE

44. The Test Guidelines are originally drafted in one of the three working languages of UPOV (English, French and German) and adopted in that version. In the case of any discrepancy between the original text and the translations into the two other languages, the original text prevails. For this purpose, each set of Test Guidelines contains an indication of the original language in which it was drafted.

II. TECHNICAL NOTES

45. The individual Test Guidelines for a given species start with a reference to the present document, followed immediately by the so-called "Technical Notes." While the present document gives merely general recommendations and guidance applicable to all Test Guidelines—or most of them—the Technical Notes give technical recommendations and special guidance with respect to the species dealt with by the respective Test Guidelines. These recommendations refer, for example, to the quantity and quality of propagating material to be sent in, the conditions under which the tests have to be undertaken, including the size of plots and numbers of replications, the duration of the tests, the grouping of varieties in the tests, as well as some other very detailed indications as to the part of the plant on which a given characteristic has to be observed, at what time and in what manner.

III. TABLE OF CHARACTERISTICS

(a) General

46. The Table of Characteristics indicates those characteristics of a given species which should be examined and included in the description of the varieties. These are marked with an asterisk (*). It also contains additional characteristics which some of the member States consider helpful in taking the final decision on the variety. In this Table of Characteristics, a scale of possible states of expressions (so-called "states") is indicated for each characteristic. The states are accompanied by "Notes" containing code numbers which permit the computerization of variety descriptions. As far as possible, "Example Varieties" are also cited for each state. Some characteristics are marked with the sign (+), which indicates that the characteristic is illustrated by explanations and drawings or that testing methods are indicated in the chapter entitled "Explanations and Methods."

(b) Order of Characteristics

47. In the Test Guidelines, the sequence of morphological characteristics is normally arranged in the chronological order of recording, starting from the time of planting or sowing (in some cases even before) until harvest (or even after). Within this order the following subdivision of the characteristics of different organs of the plants has been adopted:

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attitude
height
length
width
size
shape
color
other details (such as surface, base and top).

48. Where applicable, distinctions are made between different stages in the life of a plant, such as dormant and growing periods, juvenile and mature stages or the grains submitted and the grains harvested from the plants obtained from the submitted material. For the different organs the following order is used:

grain (seed)
seedling
plant (e.g. attitude)
root
root system or other subterranean organs (bulb, stolon)
stem
leaf
inflorescence
flower
fruit
grain

(c) Qualitative Characteristics

49. Qualitative characteristics as well as those of the quantitative characteristics which are handled in the same way as true qualitative characteristics are classified by consecutive numbers according to the state commencing with Note 1 and with no upper limit.

Poplar: sex	of plant
dioecious female	(1)
dioecious male	(2)
monoecious unisexual	(3)
monoecious hermaphrodite	(4)

As far as it is possible to build up an order for the expressions, the small, lesser or lower expressions should be assigned the lower Note.

(d) Quantitative Characteristics

50 to 53. As a general rule, states are formed in such a way that for the weak and strong expressions a reasonable word pair is chosen, for example, "weak/ strong," "short/long," "small/large," and that these word pairs are given the Notes 3 and 7 and the word "medium" is given the Note 5. The remaining states of the scale indicated by the Notes 1 to 9 are formed according to the following example:

<u>State</u>	Note
absent or very weak	1
very weak to weak	2
weak	3
weak to medium	4
medium	. 5
medium to strong	6
strong	7
strong to very strong	8
very strong	a

- 54. For the application of the Test Guidelines to quantitative characteristics, the full scale (1 to 9) is used, even if only some of the states (for example, only 1, 3, 5, 7, 9 or 3, 5, 7) have been indicated in the Test Guidelines for reasons of simplification.
- 55. For characteristics which can also be absent, such as anthocyanin coloration, Note 1 means "absent or very weak." In alternative observations, the state "absent" is coded by Note 1 and the state "present" by Note 9. If in a characteristic it is necessary to make a distinction between complete absence and different degrees of presence, the characteristic is split in one alternative characteristic with the states "absent (1)" and "present (9)" and in another quantitative characteristic with the Notes from 1 to 9. The Note 0 has not been used in the Test Guidelines.

(e) Example Varieties

56. In the Table of Characteristics of the Test Guidelines, wherever possible example varieties are indicated or drawings prepared fixing or describing different states of expression of the different characteristics. Figures—if used at all—are used only for the first stage, to be abandoned as soon as possible. Example varieties are used only as a help. The testing would become too difficult if an example variety had to be used for each characteristic and for each state. Out of the example varieties indicated in the Test Guidelines the national authorities will choose the ones which they consider most appropriate for the solution of a given problem.

(f) $\frac{\text{Characteristics Which Should Always be Included in the Description of a}}{\text{Variety}}$

57. It may not always be necessary to use all the characteristics listed in the individual Test Guidelines to identify and describe a variety. To harmonize descriptions issued by the member States under the terms of the Convention, certain characteristics have been marked with an asterisk (*), as already mentioned above, to show that they should be used every growing period for the examination of all varieties and should always be included in the description of the variety, except when the states of expression of a preceding characteristic render this impossible. Characteristics which are not so marked have to be recorded if they are necessary to distinguish the variety under examination from another variety. The list of characteristics is not exhaustive, however, and further characteristics may be used by the examining authority if they are considered useful or necessary.

IV. EXPLANATIONS AND METHODS

58. The Table of Characteristics of the Test Guidelines is normally followed by a chapter entitled "Explanations and Methods." It contains explanations, drawings, photographs or an indication of the methods which are necessary for the understanding of the different characteristics presented in the Table of Characteristics.

V. TECHNICAL QUESTIONNAIRE

59. The Test Guidelines contain in an Annex a "Technical Questionnaire to be completed in connection with an application for plant breeders' rights." In the Technical Questionnaire, certain indications have to be given on the origin, maintenance and reproduction of the variety to help the examining authority to understand certain results obtained during the testing. Furthermore, those characteristics from the Table of Characteristics of the Test Guidelines are indicated on which information is considered necessary to enable the testing authorities to group the varieties with other varieties in such a way that the test can be conducted in a reasonable manner. In particular cases, in addition to the characteristics of the Table of Characteristics indications are also used which give valuable information on the variety (for example, for lily the Horticultural Classification of Lily for Registration). For the same purpose, the applicant is asked in another part to give an indication of the characteristic(s) by which he considers his variety to be different from the other varieties most closely resembling it. In the final part of the Technical Questionnaire, the applicant for plant breeders' rights is free to add any additional information which he may consider helpful in establishing that the variety is distinct as well as any particulars he may think useful for the testing of the variety.

ANNEX II

Summary of the Observations from the Delegation of the Federal Republic of Germany on document TC/XIII/10*

Paragraph 4: The text should be shortened.

Reason: Editorial change to make the text more concise.

Paragraph 12: In the fourth line the words "in practice" should be deleted.

Reason: Not necessary and under certain circumstances misleading.

Paragraph 13: The last sentence should be deleted as it is unnecessary here.

Paragraph 14: The third sentence should be amended.

Reason: Normally only unlimited or absolutely no use of the ob-

servations is meaningful.

Paragraph 15: Part of the sentence should be regrouped.

Reason: Clarification, no change in substance.

Paragraph 16: The first and last sentence should be combined. The rest of the paragraph should be placed at the beginning under "General" because it is applicable both to qualitative and to quantitative characteristics. (In this connection it should be stressed that in general the words "one per cent probability of an error" are used

instead of "one per cent significance.")

Heading (e): This should be amended.

Reason: Visual observation is a method, not a characteristic; therefore the text in paragraph 17 should be amended

accordingly.

Paragraph 17: The text should be amended.

Reason: Clarification; editorial change to make the text more con-

cise.

Paragraph 18: The first sentence should be amended.

Reason: According to the proposal made above for paragraph 16 to the effect that the pair-wise comparison should be mentioned already under "General," the sentence starting "It is desirable ... " can be deleted here, especially as the reference to "such varieties" at this point is

not clear.

In the last sentence the word "true" should be replaced by

"measured."

Reason: Clarification.

Paragraph 19: The second sentence should be amended.

Reason: Clarification.

Paragraph 20: This paragraph should be deleted.

Reason: The paragraph can be dispensed with here because a cor-

responding indication has already been given in the pro-

posal for paragraph 18.

^{*} Proposals already included in the text reproduced in Annex I.

Paragraph 21: This paragraph should be deleted.

Reason: The paragraph contains in the first sentence individual examples, which should not be included in general guidelines, and the remaining sentences contain general considerations, which are also out of place here and moreover are perfectly obvious.

Paragraph 23: The second and third sentences should be amended.

Reason: Editorial change to make the text more concise. In the present wording there is especially no logical connection between the first and second sentences.

Paragraph 24: The first sentence can be dispensed with here--see comments on paragraph 18; the second sentence should be amended and so also should the third sentence.

Reason (Amendment of the third sentence): editorial change without any change in substance to make the possibility of observing more objective and not too dependent on the personal opinion of the observer. The expression "following trials" in this connection could lead to misunderstandings; a more flexible wording should therefore be adopted. Apart from these changes, only editorial adaptations to the normal style of quidelines.

Paragraph 25: This paragraph should be amended.

Paragraph 26: This paragraph should be amended.

Reason (Amendments to paragraphs 25 and 26): The case of the combined characteristic (ratio between two characteristics as a new characteristic) mentioned in the second sentence of paragraph 26 of the draft should be carefully separated as a special case from the general thoughts mentioned in paragraph 25. This should become clear in the wording.

Paragraph 27: This paragraph should be deleted.

Reason: The essential content of this paragraph, which in its present form is not very clear, is already included in the proposal given above for paragraph 26.

Paragraph 28: To be deleted.

Reason: The content is already contained in the proposal for paragraph 26.

Paragraph 29: This paragraph should be amended.

Reason: Because of the reasons mentioned in connection with paragraph 25 (clear separation between the different cases of combinations), a drafting adaptation is required here.

Paragraph 30: This paragraph should be amended.

Reason: Editorial adaptation.

Paragraph 31: This paragraph should be amended with the exception of the first sentence.

Reason: Editorial amendment to make the text clearer.

Paragraph 32: This paragraph should be deleted.

Reason: The content of this paragraph, which in its present version is not very clear, is already included in the proposed paragraph 31.

Paragraph 39: In the last sentence the words "for the tolerance of sibs" should be amended to read "for tolerating sibs."

Reason: Editorial clarification.

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Paragraph 42: This paragraph should be amended with the exception of the first two sentences.

Reason: It should be made clear that it is up to the national authority to decide whether a test on stability is required for technical reasons. For the first growth normally no description is available. Therefore the concept of description should be avoided.

Paragraph 43: The first sentence should be expanded.

Paragraph 45: The last sentence should be amended.

Paragraph 46: This paragraph should be amended.

Reason: Editorial change to make the text more concise.

Paragraph 48: The text within brackets after the word "stem" should be placed one line higher up. The word "sprout" should be deleted as it would appear only in a few cases and would be unclear in this connection.

Paragraph 49: The second sentence should be deleted here and an additional sentence should be added after the example.

Reason: The example indicated is not an example of a grouping according to smaller, weaker or lower expressions. On the contrary, the order is fixed arbitrarily. With respect to qualitative characteristics, this will be necessary as a rule. The possibility of starting the grouping with a clearly smaller, weaker or lower expression is the absolute exception—for example in the case of ploidy—and can therefore remain without any indication of an example.

Paragraphs 50-53: These paragraphs should be combined.

Reason: As the attempt to give a very detailed explanation makes, in particular, paragraph 53 somewhat complex, it seems to be necessary to make the text more concise.

Paragraph 56: In the second line the words "or photographs or drawings" should be deleted.

Reason: They belong to "explanations and methods" in paragraph 58.

Paragraph 58: The second sentence should be expanded.

Reason: See comments on paragraph 56.

Paragraph 59: The fourth sentence should be amended.

Reason: Editorial clarification.

[End of Annex II and of document]