



TC/37/5

ORIGINAL: English

DATE: March 1, 2001

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
GENEVA

TECHNICAL COMMITTEE

Thirty-Seventh Session
Geneva, April 2 to 4, 2001

LATEST WORKING DOCUMENT FOR A NEW REVISED
“GENERAL INTRODUCTION TO THE EXAMINATION OF DISTINCTNESS,
UNIFORMITY AND STABILITY AND THE DEVELOPMENT OF HARMONIZED
DESCRIPTIONS OF NEW VARIETIES OF PLANTS” (TG/1/3)

prepared by the Office of the Union

I. BACKGROUND

1. At its thirty-sixth session, the Technical Committee (hereinafter referred to as “the Committee”) considered document TC/36/6, a draft revision of document TG/1/2, “Revised General Introduction to the Guidelines for the Conduct of Tests for Distinctness, Homogeneity and Stability of New Varieties of Plants” (hereinafter referred to as the “General Introduction”). The Committee requested that its discussions at the session should result in an amended version, to be developed by the “Enlarged Editorial Committee” (i.e. Editorial Committee enlarged by the Chairperson of the Technical Committee, and the Chairpersons of the Technical Working Parties and the Working Group on Biochemical and Molecular Techniques and DNA-profiling in Particular). This revised document (TC/36/8) was to be considered by all the Technical Working Parties during their meetings in 2000, which would result in a further version (document TC/36/9) to be presented to the Administrative and Legal Committee (CAJ) session held in Geneva in October 2000. In response to comments from the CAJ, a new draft (see document TC/37/5, Annex I) would then be produced by the Enlarged Editorial Committee and considered by the Committee and the CAJ at their next session in Geneva in April 2001, and in principle proposed for adoption by the Council at its next session in Geneva on October 25, 2001.

2. *In accordance with this schedule, the following documents are submitted for consideration by the Committee:*

TC/37/5, Annex I

3. Annex I, without the sections marked as *Explanation*, is proposed for adoption as:

TG/1/3	“Revised General Introduction to the Examination of Distinctness, Uniformity and Stability and the Development of Harmonized Descriptions of New Varieties of Plants”
--------	---

Annex I, with the sections marked as *Explanation*, is proposed for adoption as:

TGP/1	General Introduction with Explanations
-------	--

4. In addition, it will be seen from later explanations that, in parallel with the General Introduction (document TG/1/3), it will be necessary to adopt the associated TGP documents to ensure that certain current UPOV technical recommendations are not lost in the transition from TG/1/2. Although many will be subject to further revision soon, adoption of these documents will also provide the benefit of making direct reference to many established important UPOV guidelines of which inexperienced DUS examiners may otherwise be unaware (e.g. document TGP/5 “Experience and Cooperation in DUS Testing” makes reference to various UPOV model forms and agreements).

TC/37/5, Annex II

5. Annex II comprises the following drafts proposed for adoption as TGP documents:

TG/00	List of TGP Documents and Latest Issue Dates
TGP/1	See above (Annex I)
TGP/2	List of Test Guidelines Adopted by UPOV
TGP/3	Varieties of Common Knowledge
TGP/4	Management of Reference Collections
TGP/5	Experience and Cooperation in DUS Testing
TGP/6	Arrangements for DUS Testing
TGP/7	Development of Test Guidelines
TGP/8	Good Statistical Practices for DUS Testing
TGP/9	Examining Distinctness
TGP/10	Examining Uniformity
TGP/11	Examining Stability
TGP/12	Non-traditional Characteristics and Methods for DUS Testing
TGP/13	Guidance for New Types and Species
TGP/14	Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents

6. As a result of the series of consultations requested by the Committee, there have been a number of changes to the document last considered by it (document TC/36/6). Some of these changes are essentially presentational, including the elimination of duplicated text, but there has also been clarification of a number of important issues which were still under discussion at the last session of the Committee held in Geneva from April 3 to 5, 2000. Because of these changes, the Office of the Union had prepared this paper to summarize the changes that have occurred and, as appropriate, to explain the reason for these changes.

7. This summary is intended to be structured in a way which will allow it to be used as the basis for considering the draft TG/1/3 (i.e. document TC/37/5, Annex I) and the associated TGP documents (i.e. document TC/37/5, Annex II). Firstly, it considers the overall changes to the document structure, followed by a review of issues which run throughout the document. It then considers the particular changes within specific Chapters including, where appropriate, an explanation of the basis for the current versions of the associated TGP documents and why these are presented for adoption at the same time as the main document.

II. STRUCTURAL CHANGES TO THE “GENERAL INTRODUCTION”

8. Table 1 provides a comparison of the Chapter headings between documents TC/36/6 and TC/37/5, Annex I. The two changes to TC/36/6 are that Chapter 2 “Relevant Articles of the UPOV Convention” and Chapter 9 “Maintenance of Reference Collections” have been omitted.

Table 1: Comparison of Chapters in Documents TC/36/6 and TC/37/5, Annex I

Document TC/36/6	Document TC/37/5, Annex I
1. Introduction	1. Introduction
2. <i>Relevant Articles of the UPOV Convention</i>	
3. Basis for the Assessment of Distinctness, Uniformity and Stability	2. The Examination of Distinctness, Uniformity and Stability (“DUS Testing”)
4. Cooperation in Testing	3. Cooperation in DUS Testing
5. Definition and Observation of Characteristics Used in the Testing of Varieties	4. Characteristics Used in DUS Testing
6. Testing Distinctness	5. Examining Distinctness
7. Testing Uniformity	6. Examining Uniformity
8. Testing Stability	7. Examining Stability
9. <i>Maintenance of Reference Collections</i>	
10. Composition of UPOV Test Guidelines	8. Composition of Test Guidelines
11. Conduct of Testing in the Absence of UPOV Test Guidelines	9. Conduct of DUS Testing in the Absence of Test Guidelines

9. At the request of the CAJ, the General Introduction has been amended to ensure that it is applicable to all Acts of the UPOV Convention and, in particular, does not refer exclusively to the 1991 Act of the UPOV Convention. Following this decision, Chapter 2 “Relevant Articles of the UPOV Convention” has been withdrawn and, to improve the clarity, reference to all relevant articles of each Act is made at the beginning of each relevant Chapter of the General Introduction.

10. The Chapter on reference collections has been removed because there is no consensus within UPOV on the meaning of “reference collection.” Some experts believe it is the collection of all varieties of common knowledge whereas, at the other extreme, some experts believe it is made up of only those varieties which the DUS examiner has in his physical collection of plant material. Furthermore, there is no need for a definition of reference collection in order to provide satisfactory guidance in the General Introduction and there is no mention of a reference collection in the 1991 Act of the UPOV Convention.

III. GENERAL CHANGES TO THE GENERAL INTRODUCTION

(a) Acts of the Convention

11. At the request of the CAJ (see document CAJ/42/7 Prov.), the General Introduction has been amended to ensure that it is applicable to all Acts of the UPOV Convention and, in particular, does not refer exclusively to the 1991 Act.

(b) Contracting Parties

12. The term “member State” has been replaced with “Contracting Party” to provide consistency with the UPOV Convention, but also to reflect the fact that, in the future, parties to the Convention may not all be “States.”

(c) Variety Description

13. Greater clarity has been sought for the relationship between the DUS examination and variety description. Clarification is provided in the following paragraphs:

“Chapter 1: Introduction

“1. According to Article 7 of the 1961/72 and 1978 Acts and Article 12 of the 1991 Act of the UPOV Convention, protection can only be granted in respect of a new plant variety after examination of the variety has shown that it complies with the requirements for protection laid down in these Acts and, in particular, that the variety is distinct (D) from any other commonly known variety and that it is sufficiently uniform (U) and stable (S), or “DUS” in short. The examination, or “DUS Test”, is based mainly on growing tests, carried out by the authority competent for granting plant breeders' rights or by separate institutions, such as public research institutes, acting on behalf of that authority or in some cases on the basis of growing tests carried out by the breeder. The examination generates a description of the variety, using its relevant characteristics (e.g. plant height, leaf

shape, time of flowering), by which it can be defined as a variety in terms of Article 1 (vi) of the 1991 Act of the Convention.”

“Chapter 2.4: Characteristics as the Basis for Examination of DUS

“16. For any variety to be capable of protection it must first be clearly defined. Only after a variety has been defined can it be finally examined to consider if it fulfils the DUS criteria required for protection. Throughout all Acts of the UPOV Convention it has been established that a variety is defined by its characteristics and that these characteristics are therefore the basis by which a variety can be examined for DUS:

“17. The 1991 Act of the UPOV Convention makes this clear by stating in Article 1(vi) that a variety is a plant grouping which can be “defined by the expression of the characteristics resulting from a given genotype or combination of genotypes” and which can be “distinguished from any other plant grouping by the expression of at least one of the said characteristics.”

“18. Further to their use in defining a variety, characteristics are the basis for examining distinctness, uniformity and stability.”

This clarification of the importance of the variety description has also resulted in a change of title to “Revised General Introduction to the Examination of Distinctness, Uniformity and Stability and the Development of Harmonized Descriptions of New Varieties of Plants.”

(d) Essentially Derived Varieties

14. The CAJ expressed concern at references to Essentially Derived Varieties in the General Introduction and wished these to be withdrawn to make it clear that the General Introduction would not address this issue (see document CAJ/42/7 Prov.).

(e) Duplicated Text and Editorial Changes

15. Certain sections in the text of previous versions of the General Introduction were, more or less, repeated elsewhere in the document. However, during the process of revision, certain similar elements became worded in different ways which caused some confusion and, in some cases, potential conflict within the document. To avoid these problems the Office of the Union, with the agreement of the Enlarged Editorial Committee, has sought to remove all the duplicated text and instead introduce a cross reference to the relevant section elsewhere in the document, thereby ensuring that no changes are made without automatically updating all elements of the document.

16. The Office of the Union and Enlarged Editorial Committee have also revised the text in several areas to improve the clarity.

IV. CHANGES WITHIN SPECIFIC CHAPTERS

Chapter 1: Introduction / Document Title

17. The Office of the Union considered that readers unfamiliar with the UPOV system might find it difficult to go straight from the UPOV Convention to the General Introduction without a broader overview of the document in the introduction. The latest draft has attempted to address this.

Chapter 2: The Examination of Distinctness, Uniformity and Stability (“DUS Testing”)

(a) Requirement for Examination (Chapter 2.1)

18. The UPOV Convention (Article 12, 1991 Act; Article 7, 1978 Act) requires an examination of the application. This is the basis for the DUS test but in previous versions of the General Introduction there was no clear reference to the appropriate article in the UPOV Convention, unlike the specific references for distinctness, uniformity and stability. This basis for the DUS test is now made explicit in the Chapter title and text.

(b) Characteristics as the Basis for Examination of DUS (Chapter 2.4)

19. Chapter 2.4 now explains the basis in the UPOV Convention for the use of characteristics in the examination of DUS and also allows the possible consideration of aspects other than characteristics (paragraph 20).

(c) Factors Which May Affect the Expression of the Characteristics of a Variety (Chapter 2.5.3)

20. The text in this section has been expanded to ensure adequate coverage of aspects such as the occurrence of phytoplasmas in varieties submitted for examination.

Chapter 3: Cooperation in DUS Testing

21. No substantial changes.

Chapter 4: Characteristics Used in DUS Testing

(a) “Supporting Evidence”

22. The CAJ did not consider that the use of additional characteristics, in determining distinctness, to be contrary to the UPOV Convention. However, it did note that there was a need to clarify the conditions on which these additional characteristics could be used for determining distinctness and preferred to avoid the use of the phrase “supporting evidence” as this did not aid clarity. Furthermore, the use of characteristics, or way in which characteristics are used, is not acceptable if this would undermine the value of protection offered by plant breeders’ rights (see document CAJ/42/7 Prov.).

(b) Selection of Characteristics (Chapter 4.2)

23. The requirements of a characteristic have been expanded to include the requirements that it must (a) result from expression of the genotype and (b) be sufficiently consistent and repeatable in a particular environment. Specific references have been made to the UPOV Convention, where appropriate.

(c) Types of Expression of Characteristics (Chapter 4.4)

24. Chapter 4.4 has been revised to clarify the features of the three different types of characteristics. In particular, the nature of pseudo-qualitative characteristics has been elaborated and an explanation given of why the term “pseudo-qualitative” is used.

(d) Characteristics Expressed in Response to External Factors (Chapter 4.6.1)

25. This revised text is intended to clarify the eligibility of certain types of non-morphological characteristics (e.g. disease resistance) but also seeks to ensure that particular consideration is given to the possibility of variation in the examination arising from these factors.

(e) Functional Categorization of Characteristics (Chapter 4.7)

26. Discussions in the Technical Working Parties highlighted the need for this further clarification regarding the function of the different categories of characteristic (e.g. asterisk, grouping, Technical Questionnaire, etc. ...) and criteria for these functions.

Chapter 5: Examining Distinctness

(a) Requirement for Uniformity in Characteristics Used for Distinctness

27. The CAJ considered the following extract from document TC/36/9:

“For the assessment of distinctness no candidate variety can be distinguished from an existing variety solely by a characteristic that is part of the other variety but is not uniform in that variety. This principle will prevent the use of new DUS characteristics from eroding the protection of existing varieties while encouraging the improvement of existing varieties and enabling the protection of clearly distinct selections.”

28. The CAJ could not accept this principle, noting that it would cause particular difficulty for establishing distinctness from certain types of non-uniform varieties e.g. landraces. It requested that this principle be removed from all relevant parts of the General Introduction (see document CAJ/42/7 Prov.).

(b) Varieties of Common Knowledge (Chapter 5.2)

29. The working draft of document TGP/3 “Varieties of Common Knowledge” identified certain minimum key elements which determined varieties of common knowledge. There was general agreement on these minimum key elements by the CAJ, although some refinements to the wording were suggested. Given the universal agreement on these key elements within the Technical Working Parties and the CAJ it seemed appropriate to include these in the main General Introduction document, rather than await a separate TGP document. The text of Chapter 5.2 is in accordance with the CAJ position, except that one particular aspect, considered to establish common knowledge (see (d) below), has been omitted following discussions in the Enlarged Editorial Committee. The CAJ position is as follows (see document CAJ/42/7 Prov.):

Specific aspects which shall be considered to establish common knowledge include, among others:

- (a) commercialization of propagating or harvested material of the variety or publishing a detailed description;
- (b) the filing of an application for the granting of a breeder’s right or for the entering of a variety in an official register of varieties, in any country, shall be deemed to render that variety a matter of common knowledge from the date of the application, provided that the application leads to the granting of a breeder’s right or to the entering of the variety in the official register of varieties, as the case may be;
- (c) existence of living plant material in publicly accessible plant collections;
- [(d) varieties included in a collection officially used for examination of applications for plant breeders’ rights] *to be omitted from the General Introduction.*

30. Aspect (d) has been proposed for deletion because the collection should only be made up of candidates or plant material which is publicly accessible. The former is dealt with under (b) and the latter under (c). There is a danger if (d) goes beyond (b) and (c). This would allow a breeder to arrange for a variety, which has not been entered for protection, to be included in a collection envisaged in (d) and block distinctness for other varieties – thereby achieving a degree of protection without the variety becoming a matter of common knowledge in the real sense and without the cost of seeking plant breeders’ rights. Furthermore, this option may only exist for member States using an official system of examination and not for those operating a breeder based testing system. It appears that there have been cases where the inclusion of varieties in the DUS collection has been requested for this purpose. There are also practical difficulties because the “variety” would have to be characterized at significant cost – potentially at the cost of plant breeders’ rights applicants. In the light of these complications it is suggested that (d) be removed from the General Introduction and may be considered further under TGP/3 if appropriate.

(c) Measures in Addition to the Technical Examination of Distinctness (Chapter 5.3.1)

31. The following new text has been introduced to reflect the actual situation in some Contracting Parties and in particular the use of the publication of variety descriptions to reinforce the technical examination:

“It is necessary to examine distinctness against all varieties of common knowledge. However, a systematic individual comparison may not be required against those varieties of common knowledge which are within a group known to have specific expressions of characteristics reliably ensuring that such varieties will be distinct from the candidate variety. In addition, certain procedures (e.g. publication of variety descriptions) may be developed to allow such an approach in some circumstances where there cannot be absolute certainty that all the varieties within such a group will be distinct from the candidate variety but where these supplementary procedures provide an effective examination of distinctness overall. Such procedures may also be developed to address the lack of availability or accessibility of some varieties of common knowledge. Any such procedures will be set out in document TGP/9, “Examining Distinctness.”

32. This particular issue, and the general need for the publication of variety descriptions, is one which will be considered by the CAJ at its next session on April 5, 2001 (see document CAJ/43/5).

(d) The Criteria for Distinctness Using Characteristics (Chapter 5.3.3)

(i) Number of testing locations: The new text removes the need for establishing distinctness “in at least one testing place” because this would automatically preclude the possibility of establishing distinctness using two different locations, which is to be considered in document TGP/9 “Examining Distinctness.”

(ii) Consistent differences: Chapter 5.3.3.1, paragraph 67, has been elaborated to clarify the meaning of independent growing cycles in the case of perennial varieties. Paragraph 68 has also been elaborated to clarify why two independent growing cycles are not required for some varieties.

Chapter 6: Examining Uniformity

(a) Particular Features of Propagation (Chapter 6.3)

33. The new Chapter 6.3, “Particular Features of Propagation,” covering the different methods of examining uniformity, has been introduced to clarify the basis in the UPOV Convention for considering different uniformity requirements for self-pollinated, cross-pollinated and hybrid varieties.

(b) Self-Pollinated and Vegetatively Propagated Varieties (Chapter 6.3.1)

34. The references to specific standards (e.g. population standard of 1% on an acceptance probability of at least 95%) have been removed because they were considered too specific for a document intended not to need revision for several years. However, these specific standards have been transferred to TGP/10 “Examining Uniformity,” which is proposed for adoption in parallel with the General Introduction.

Chapter 7: Examining Stability

Relationship Between Stability and Uniformity (Chapter 7.3.1)

35. The text has been elaborated to clarify that the basis in which stability is inferred from uniformity is empirical, i.e. a result of experience.

Chapter 8: Composition of Test Guidelines

Scope of TGP/7 “Development of Test Guidelines”

36. The various discussions in the Technical Working Parties have resulted in the identification of several important matters to be considered for Test Guidelines. These include the procedure for introducing and for updating Test Guidelines and the development of a model Test Guidelines document. In response, it is suggested that the scope of document TGP/7 should be broadened to encompass all practical aspects relating to the development of UPOV Test Guidelines, i.e. the practical implementation of the General Introduction. It has also been observed that many of the contents of the previous Chapter on Test Guidelines were very detailed and were perhaps too restrictive for the General Introduction which is intended to be in place for many years. Consequently, all detailed aspects previously contained in this Chapter have been removed. However, they have been transferred, largely unchanged, into draft TGP/7, “Development of Test Guidelines,” which is proposed for adoption in parallel with the General Introduction, but pending the imminent development of a much more comprehensive version of this document which, it is hoped, can be presented to the Committee in April 2002.

Chapter 9: Conduct of DUS Testing in the Absence of Test Guidelines

37. No substantial changes.

V. ANY OTHER CHANGES

38. The Committee may wish to consider any other aspects of Annexes 1 and 2 of document TC/37/5 not covered above.

VI. DECISIONS TO BE TAKEN BY THE COMMITTEE

Common Knowledge

39. *The Committee is invited to consider Chapter 5.2.3, “Common Knowledge,” regarding specific aspects which shall be considered to establish common knowledge and advise if the following aspect should be omitted:*

“(d) varieties included in a collection officially used for examination of applications for plant breeders’ rights.”

Document Approval

41(a) *The Committee is invited to consider Annexes I and II and advise if the principles set out in these documents are an appropriate basis for providing technical guidance for the examination of DUS and the development of harmonized variety descriptions.*

41(b) *Subject to endorsement of paragraph 41(a), the Committee is invited to consider the following possible route to submission of a text for consideration by the UPOV Council:*

(i) invite Technical Working Parties, at their meetings in 2001, to consider Annexes I and II and advise of any proposed revisions which, along with any comments arising from the CAJ session in April 2001, will be reviewed, if necessary, at a further meeting of the Enlarged Editorial Committee, and then,

(ii) in the absence of any need for substantial revision of the documents the Committee will be invited, by correspondence, to approve submission of the documents, contained in Annexes I and II, to the UPOV Council for adoption in October 2001, or;

(iii) in the case of a need for substantial changes, the Enlarged Editorial Committee will be invited to produce a revised document for consideration at April 2002 session of the Committee.

[Annex I follows]