



TWC/30/3

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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

**TECHNICAL WORKING PARTY ON AUTOMATION
AND COMPUTER PROGRAMS****Thirtieth Session****Chisinau, Republic of Moldova, June 26 to 29, 2012**

TGP DOCUMENTS

Document prepared by the Office of the Union

1. The purpose of this document is: to report on developments concerning TGP documents since the Technical Working Party (TWP) sessions held in 2011; to provide background information to assist the TWPs in their consideration of the drafts of individual TGP documents; and to present the program for the development of TGP documents agreed by the Technical Committee (TC) at its forty-eighth session, held in Geneva from March 26 to 28, 2012.

2. The following abbreviations are used in this document:

CAJ:	Administrative and Legal Committee
TC:	Technical Committee
TC-EDC:	Enlarged Editorial Committee
TWA:	Technical Working Party for Agricultural Crops
TWC:	Technical Working Party on Automation and Computer Programs
TWF:	Technical Working Party for Fruit Crops
TWO:	Technical Working Party for Ornamental Plants and Forest Trees
TWV:	Technical Working Party for Vegetables
TWPs:	Technical Working Parties

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I. BACKGROUND

3. The purpose of document TG/1/3 “General Introduction to the Examination of Distinctness, Uniformity and Stability and the Development of Harmonized Descriptions of New Varieties of Plants” (General Introduction), and the associated series of documents specifying Test Guidelines’ Procedures (TGP documents), is to set out the principles which are used in the examination of DUS. The only binding obligations for members of the Union are those contained in the UPOV Convention itself. However, on the basis of practical experience, the General Introduction and the TGP documents seek to provide general guidance for the examination of all species in accordance with the UPOV Convention. In addition, UPOV has developed “Guidelines for the Conduct of Tests for Distinctness, Uniformity and Stability” (Test Guidelines), for many individual species or other variety groupings. The purpose of those Test Guidelines is to elaborate certain of the principles contained in the General Introduction and the associated TGP documents, into detailed practical guidance for the harmonized examination of DUS and, in particular, to identify appropriate characteristics for the examination of DUS and production of harmonized variety descriptions.

4. As noted by the Chair at the fifty-fourth session of the Administrative and Legal Committee (CAJ), held in Geneva on October 16 and 17, 2006, the development of TGP documents in relation to the DUS examination may be seen as another element in the preparation of information materials concerning the UPOV Convention* and, in addition to being published in their own right, the TGP documents can be used in support of various UPOV activities. In particular, the General Introduction and the TGP documents will form the basis of an advanced module on “Examination of Applications for Plant Breeders’ Rights” for inclusion in the Distance Learning program, which the Consultative Committee has entrusted the Office of the Union to develop.

5. The situation with regard to the development of TGP documents can be summarized as follows:

Document reference	Issue	Title	Issue date
TGP/0	/4	List of TGP Documents and Latest Issue Dates	October 20, 2011
TGP/1		General Introduction With Explanations	not yet issued
TGP/2	/1	List of Test Guidelines Adopted by UPOV	April 6, 2005
TGP/3		Varieties of Common Knowledge	not yet issued [†]
TGP/4	/1	Constitution and Maintenance of Variety Collections	April 11, 2008
TGP/5		Experience and Cooperation in DUS Testing	
Introduction		Introduction	October 30, 2008
Section 1	/2	Model Administrative Agreement for International Cooperation in the Testing of Varieties	October 30, 2008
Section 2	/3	UPOV Model Form for the Application for Plant Breeders’ Rights	October 21, 2010
Section 3	/1	Technical Questionnaire to be Completed in Connection with an Application for Plant Breeders’ Rights	April 6, 2005
Section 4	/2	UPOV Model Form for the Designation of the Sample of the Variety	October 30, 2008
Section 5	/2	UPOV Request for Examination Results and UPOV Answer to the Request for Examination Results	October 30, 2008

* The CAJ, at its fifty-second session, held in Geneva on October 24, 2005, agreed an approach for the preparation of information materials concerning the UPOV Convention, as explained in paragraphs 8 to 10 of document CAJ/52/4. It also agreed the establishment of an advisory group to the CAJ (“CAJ-AG”) to assist in the preparation of documents concerning such materials, as proposed in paragraphs 11 to 14 of document CAJ/52/4 (see paragraph 67 of document CAJ/52/5, Report).

[†] At its fifty-fifth session, held in Geneva on March 29, 2007, “[t]he CAJ endorsed the conclusion of the CAJ-AG that the General Introduction already provided guidance with respect to the term ‘common knowledge’ and that it would not be appropriate, for the time being, to pursue the development of document TGP/3 ‘Varieties of Common Knowledge’” (see document CAJ/55/7, paragraph 46).

Document reference	Issue	Title	Issue date
Section 6	/2	UPOV Report on Technical Examination and UPOV Variety Description	October 30, 2008
Section 7	/3	UPOV Interim Report on Technical Examination	October 30, 2008
Section 8	/1	Cooperation in Examination	April 6, 2005
Section 9	/1	List of Species in Which Practical Knowledge has Been Acquired or for Which National Test Guidelines Have Been Established	April 6, 2005
Section 10	/2	Notification of Additional Characteristics	October 20, 2011
Section 11	/1	Examples of Policies and Contracts for Material Submitted by the Breeder	October 30, 2008
TGP/6	/1	Arrangements for DUS Testing	
Section 1	/1	Introduction	April 6, 2005
Section 2	/1	Examples of Arrangements for DUS Testing	April 6, 2005
Section 3	/1	Declaration on the Conditions for the Examination of a Variety Based on Trials Carried Out by or on behalf of the Breeder	April 6, 2005
TGP/7	/3	Development of Test Guidelines	October 20, 2011
TGP/8	/1	Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability	October 21, 2010
TGP/9	/1	Examining Distinctness	April 11, 2008
TGP/10	/1	Examining Uniformity	October 30, 2008
TGP/11	/1	Examining Stability	October 20, 2011
TGP/12	/1	Guidance on Certain Physiological Characteristics	October 22, 2009
TGP/13	/1	Guidance for New Types and Species	October 22, 2009
TGP/14	/1	Glossary of Terms Used in UPOV Documents	October 21, 2010
TGP/15		[New Types of Characteristics] [Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)]	under development

The General Introduction, approved TGP documents and adopted Test Guidelines are published on the UPOV website at http://www.upov.int/upov_collection/en/.

II. DEVELOPMENT OF TGP DOCUMENTS

TGP documents to be considered for adoption in October 2012

TGP/12 "Guidance on Certain Physiological Characteristics"

6. The Technical Committee (TC), at its forty-eighth session, held in Geneva from March 26 to 28, 2012, and the CAJ, at its sixty-fifth session, held in Geneva on March 29, 2012, agreed to propose revision of document TGP/12 "Guidance on Certain Physiological Characteristics" for adoption by the Council at its forty-fifth ordinary session, to be held in Geneva on November 1, 2012, on the basis of document TGP/12/2 Draft 2, with the amendments proposed by the TC at its forty-eighth session (see document TC/48/22 "Report on the conclusions", paragraph 68).

TGP Documents

(a) New TGP document

TGP/15 [Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)]

7. The TC, at its forty-eighth session, considered document TGP/15/1 Draft 2.

8. The TC, at its forty-eighth session, agreed with the recommendation of the TC-EDC, as set out in paragraphs 7 to 9 of document TC/48/5, that document TGP/15/1 Draft 1 should be redrafted (restructured) to provide the following:

- firstly, to present the principles, including the assumptions which provided the basis for the positive assessment of the examples in the approved models; and
- secondly, to provide practical experience in the form of examples in the implementation of the principles.

9. With regard to TGP/15/1 Draft 2, Annex I, paragraph 3(a), the representative of the International Seed Federation (ISF) questioned whether it was necessary for markers to be examined more than once on the same sample. He also suggested that paragraph 3(b) be amended to clarify that, if there was a difference between the information provided in the Technical Questionnaire and the result of the bioassay, the result of the bioassay would prevail.

10. The TC, at its forty-eighth session, agreed that, on the basis of the comments above, a new draft should be prepared by the Office of the Union in conjunction with the Chairman of the TC and the Chairman of the BMT, which would be presented to the Enlarged Editorial Committee (TC-EDC) at its meeting in January 2013 and a further draft presented to the TC at its forty-ninth session. The TC noted that the timetable for the development of document TGP/15 would be reported to the TWPs at their sessions in 2012 (see document TC/48/22 "Report on conclusions" paragraphs 31 to 35).

(b) Revision of TGP documents

TGP/7 "Development of Test Guidelines"

11. Document TWC/30/11 provides an overview of proposals for the revision of document TGP/7 "Development of Test Guidelines" (to become document TGP/7/3).

12. In order to facilitate consideration by the TWPs, certain aspects of the revision of document TGP/7 are considered further in the following documents:

"Summary of revisions proposed for document TGP/7 "Development of Test Guidelines""

- see document TWC/30/11 "Summary of revisions proposed for document TGP/7 "Development of Test Guidance""

"Guidance on Number of Plants to be Examined (for distinctness)"

- see document TWC/30/12 "Revision of document TGP/7: Number of plants to be examined (for distinctness)"

"Guidance for Method of Observation"

- see document TWC/30/13 "Revision of document TGP/7: Guidance for method of observation"

“Example Varieties”

- see document TWC/30/14 and document TWC/30/14 Add. “Revision of document TGP/7: Example Varieties”

“Providing photographs with the Technical Questionnaire”

- see document TWC/30/15 “Revision of document TGP/7: Guidance for providing photographs with the Technical Questionnaire”

The program for development of document TGP/7 is presented in the Annex and Appendix I to this document.

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

- see document TWC/30/16 “Revision of document TGP/8: Part I: DUS Trial Design and Data Analysis, New Section 2 – Data to be recorded”
- see document TWC/30/24 “Revision of document TGP/8: Part I: DUS Trial Design and Data Analysis, New Section – Minimizing the Variation due to Different Observers”
- see document TWC/30/21 “Revision of document TGP/8: Part I: DUS Trial Design and Data Analysis - Reduction of Size of Trials”
- see document TWC/30/23 “Revision of document TGP/8: Part II: Techniques Used in DUS Examination, Section 9 – The Combined-Over-Years Criteria for Distinctness (COYD)”
- see document TWC/30/20 “Revision of document TGP/8: Part II: Techniques Used in DUS Examination, Section 3, Subsection 3.6 – Adapting COYD to special circumstances”
- see document TWC/30/22 “Revision of document TGP/8: Part II: Techniques Used in DUS Examination, Section 4: 2x1% Method- Minimum Number of Degrees of Freedom for the 2x1% Method”
- see document TWC/30/26 “Revision of document TGP/8: Part II: Techniques Used in DUS Examination”, New Section 10 – Minimum Number of Comparable Varieties for the Relative Variance Method”
- see document TWC/30/28 “Revision of document TGP/8: Part II: Techniques used in DUS Examination”, New Section 11 – Examining DUS in Bulk Samples”
- see document TWC/30/30 “Revision of document TGP/8: Part II: Techniques Used in DUS Examination”, New Section: – Data Processing for the Assessment of Distinctness and for Producing Variety Descriptions”
- see document TWC/30/17 “Revision of document TGP/8: Part II: Techniques Used in DUS Examination, New Section – Guidance of Data Analysis for Blind Randomized Trials”
- see document TWC/30/18 “Revision of document TGP/8: Part II: Techniques Used in DUS Examination, New Section – Guidance for Development of Variety Descriptions”
- see document TWC/30/29 “Revision of document TGP/8: Part II: Techniques Used in DUS Examination”, New Section: – Statistical Methods for Visually Observed Characteristics”

With regard to New Section 12 – Examining Characteristics Using Image Analysis, the drafter, Mr. Gerie van der Heijden (Netherlands), has not prepared a document for consideration by the Technical Working Parties (TWPs) at their sessions in 2012, on the basis that a document will be prepared for the TWP sessions in

2013 as a result of the discussion on the replies to the questionnaire on image analysis (see document TWC/30/39).

The program for development of document TGP/8 is presented in the Annex and Appendix II to this document.

(c) *TGP/14 “Glossary of Terms Used in UPOV Documents”*

(i) *Revision of existing sections of document TGP/14*

- see document TWC/30/27 “Revision of Document TGP/14:Section 2: Botanical Terms, Subsection 2: Shapes and Structures”

(ii) *New Section for Color Characteristics*

- see document TWC/30/25 “Revision of Document TGP/14: Section 2: Botanical Terms, Subsection 3: Color”

The program for the development of document TGP/14 is presented in the Annex and the Appendix III to this document.

III. PROGRAM FOR THE DEVELOPMENT OF TGP DOCUMENTS

13. The TC, at its forty-eighth session, agreed the program for the development of TGP documents, as set out in the Annex to this document (see document TC/48/22 “Report on conclusions” paragraph 78).

[Annex follows]

TWC/30/3

ANNEX

See Excel spreadsheet.

[Appendix I follows]

TGP/7 DOCUMENTS TO BE CONSIDERED BY THE TWPS

Title of document	2012				
	TWA/41	TWV/46	TWC/30	TWO/45	TWF/43
TGP/7: DEVELOPMENT OF TEST GUIDELINES					
Summary of Revisions of proposed for document TGP/7 "Development of Test Guidelines" (Drafter: Office of the Union)	TWA/41/11	TWV/46/11	TWC/30/11		
Revision of TGP/7: Guidance on Number of Plants to be Examined (for distinctness) (Drafter: expert from Germany)	TWA/41/12	TWV/46/12	TWC/30/12		
Revision of TGP/7: Guidance for method of observation (Drafter: Office of the Union)	TWA/41/13	TWV/46/13	TWC/30/13		
Revision of TGP/7: Example Varieties (Drafter: expert from France)	TWA/41/14 TWA/14/ ADD.	TWV/46/14 TWV/46/14 ADD.	TWC/30/14 TWC/30/14 ADD.		
Providing photographs with the Technical Questionnaire (Drafter: expert from the European Union)	TWA/41/15	TWV/46/15	TWC/30/15		

[Appendix II follows]

APPENDIX II

TGP/8 DOCUMENTS TO BE CONSIDERED BY THE TWPS

Title of document	2012					2013					
	TWA/41	TWV/46	TWC/30	TWO/45	TWF/43	TC-EDC	TC/49	CAJ/67	TWPs	CAJ/68	C/47
TGP/8 PART I: DUS TRIAL DESIGN AND DATA ANALYSIS											
New Section 2 - Data to be recorded (Drafter: Mr. Uwe Meyer (Germany))	TWA/41/16	TWV/46/16	TWC/30/16			TGP/8/2 Draft 1	TGP/8/2 Draft 2	TGP/8/2 Draft 2			TGP/8/2 Draft 3 Adopted
New Section 3 - Control of variation due to different observers (Drafter: Mr. Gerie van der Heijden (Netherlands))	TWA/41/24	TWV/46/24	TWC/30/24				x		x		
New Section - Reduction of size of the Trials (Drafter: Mrs. Sally Watson (United Kingdom))	TWA/41/21 Corr.	TWV/46/21	TWC/30/21				x		x		
TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION											
Section 3 - The Combined-Over-Years Uniformity Criterion (COYD) - Minimum number of degrees of freedom for COYD (Drafter: Mrs. Sally Watson (United Kingdom)[3])	TWA/41/23	TWV/46/23	TWC/30/23				x		x		
Section 3, Subsection 3.6 - Adapting COYD to special circumstances (Drafter: Adrian Roberts (United Kingdom))	TWA/41/20	TWV/46/20	TWC/30/20				x		x		
Section 4 – 2x1 % Method - Minimum number of degrees of freedom for the 2x1% Method (Drafter: Mrs. Sally Watson (United Kingdom)[2])	TWA/41/22	TWV/46/22	TWC/30/22				x		x		
Section 5: Pearson's Chi Square Test Applied to Contingency Tables							x		x		
Section 10 – Minimum number of comparable varieties for the Relative Variance Method (Drafter: Nik Hulse (Australia))	TWA/41/26	TWV/46/26	TWC/30/26				x		x		
New Section 11 Examining DUS in bulk samples (Drafter: Mr. Kristian Kristensen (Denmark))	TWA/41/28	TWV/46/28	TWC/30/28				x		x		
New Section 12 - Examining characteristics using image analysis (Drafter: Mr. Gerie van der Heijden (Netherlands))			see document TWC/30/39				x		x		
New Section 13 – Data processing for the assessment of distinctness and for producing variety descriptions (Drafter: experts from Finland, France, Germany, Japan, Kenya and the United Kingdom)	TWA/41/30	TWV/46/30	TWC/30/30				x		x		
New Section - Guidance of data analysis for blind randomized trials (Drafter: France)	TWA/41/17	TWV/46/17	TWC/30/17				x		x		
New Section - Statistical methods for visually observed characteristics (Drafter: Denmark, France and the United Kingdom)	TWA/41/29	TWV/46/29	TWC/30/29				x		x		
New Section - Guidance for the development of variety descriptions (Drafter the Netherlands)	TWA/41/18	TWV/46/18	TWC/30/18				x		x		

APPENDIX II

TGP/8 DOCUMENTS TO BE CONSIDERED BY THE TWPS

Title of document	2012				
	TWA/41	TWV/46	TWC/30	TWO/45	TWF/43
TGP/14 "Glossary of Terms Used in UPOV Documents"					
Revision of existing sections, Section 2: Botanical Terms, Subsection 2: Shape and Structure	TWA/41/27	TWV/46/27	TWC/30/27		
New Section for Color Characteristics (Drafter: experts from Denmark, Germany United Kingdom and the Office of the Union)	TWA/41/25	TWV/46/25	TWC/30/25		

[End of Appendix III and of document]