

TWV/41/3

ORIGINAL: English DATE: May 8, 2007

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS GENEVA

TECHNICAL WORKING PARTY FOR VEGETABLES

Forty-First Session Nairobi, June 11 to 15, 2007

TGP DOCUMENTS

Document prepared by the Office of the Union

- 1. The purpose of this document is: to provide a brief background to the TGP documents; to report on developments concerning the TGP documents since the Technical Working Party sessions held in 2006; to provide background information to assist the TWPs in their consideration of the drafts of individual TGP documents; and to report the program for the development of TGP documents agreed by the Technical Committee.
- 2. The following abbreviations are used in this document:

CAJ: Administrative and Legal Committee

CAJ-AG: Administrative and Legal Committee Advisory Group

TC: Technical 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

TWPs: Technical Working Parties

TWV: Technical Working Party for Vegetables

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

Document reference	Title	Stage of development
TGP/0	List of TGP Documents and Latest Issue Dates	Approved (2005)
TGP/1	General Introduction With Explanations	-
TGP/2	List of Test Guidelines Adopted by UPOV	Approved (2005)
TGP/3	Varieties of Common Knowledge	responsibility of CAJ
TGP/4	Constitution and Maintenance of Variety Collections	proposed for adoption by Council in October 2007
TGP/5	Experience and Cooperation in DUS Testing	Approved (2005)
		(under revision)
TGP/6	Arrangements for DUS Testing	Approved (2005)
TGP/7	Development of Test Guidelines	Approved (2004)
TGP/8	Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability	under development
TGP/9	Examining Distinctness	proposed for adoption by Council in October 2007
TGP/10	Examining Uniformity	under development
TGP/11	Examining Stability	under development

Document reference	Title	Stage of development
TGP/12	Special Characteristics	under development
TGP/13	Guidance for New Types and Species	under development
TGP/14	Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents	under development
TGP/15	New Types of Characteristics	-

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

II. DEVELOPMENTS CONCERNING TGP DOCUMENTS

- 5. At its first session on October 20, 2006, the CAJ-AG noted that the program for the development of TGP documents agreed by the TC at its forty-second session (document TC/42/5, Annex II), proposed that a draft of TGP/3 might be considered by the CAJ-AG in 2007. At that first CAJ-AG session, the CAJ-AG concluded that it would be difficult to find agreement on any text which suggested that plant material needed to be in existence for a variety to be taken into account for distinctness. In particular, concern was raised with regard to a situation where a breeder reproduced a previous crossing program in order to "re-breed" an extinct variety. In that respect, the breeder might be considered to be the breeder of the variety and might be able to protect a previously extinct variety unless the existence of that variety was considered to be a matter of common knowledge. The CAJ-AG noted that the General Introduction already provided clear guidance with respect to the term "common knowledge". On that basis, the program of development for TGP documents set out in TC/42/5, Annex II did not anticipate any further work on TGP/3.
- 6. At its forty-third session, held in Geneva from March 26 to 28, 2007, the TC agreed that documents TGP/4/1 "Constitution and Maintenance of Variety Collections" Draft 9 and TGP/9/1 "Examining Distinctness" Draft 9, as amended by the TC at that session (see document TC/43/12 "Report on the Conclusions", paragraphs 11 and 13 respectively), should be the basis for adoption of documents TGP/4/1 and TGP/9/1 by the Council on the following basis: the changes to the text of documents TGP/4/1 Draft 9 and TGP/9/1 Draft 9 proposed by the TC at its forty-third session would be reported to the Administrative and Legal Committee (CAJ) for consideration at its fifty-fifth session, to be held in Geneva on March 29, 2007; and, subject to agreement of a common text by the TC and the CAJ, documents TGP/4/1 and TGP/9/1 would be put forward for adoption by the Council at its forty-first ordinary session, to be held in Geneva on October 25, 2007.
- 7. At its fifty-fifth session, the CAJ agreed that documents TGP/4/1 Draft 9 and TGP/9/1 Draft 9, as amended by the TC at its forty-third session, should be put forward for adoption by the Council at its forty-first ordinary session. The French, German and Spanish translations of documents TGP/4/1 Draft 9 and TGP/9/1 Draft 9, as amended by the TC at its forty-third session, will be checked by the relevant members of the Editorial Committee prior to adoption by the Council.

8. The following section presents background information for the TGP documents to be considered by the TWPs at their sessions in 2007. Whilst the TC has agreed that the revision of document TGP/7 should not start until 2008, this document also presents information on aspects of document TGP/7 where the TC has agreed that revisions may be appropriate (see document TC/43/12 "Report on the Conclusions", paragraphs 21 to 25) according to comments made by the TWPs, the Enlarged Editorial Committee (TC-EDC) and the TC.

III. DOCUMENTS TO BE CONSIDERED BY THE TECHNICAL WORKING PARTIES

9. At its thirty-ninth session (see document TC/39/16 "Report", paragraph 102), the TC confirmed that documents TGP/4, TGP/9 and TGP/10 should continue to receive the highest priority after the approval of document TGP/7. This section considers first those TGP documents with highest priority.

(a) TGP documents to which the TC has given highest priority

TGP/10 "Examining Uniformity"

10. Document TGP/10/1 Draft 6 was considered by the TC at its forty-third session. The TC agreed the text as presented in document TGP/10/1 Draft 7, except for the highlighted sections which represent matters on which further consideration is required. The background information concerning those matters has been summarized in the form of endnotes. Those endnotes will be deleted from the adopted version of the document. By contrast, the footnotes which appear in the document are intended to remain in the adopted version of the document.

(b) Revision of TGP documents

TGP/5 "Experience and Cooperation in DUS Testing"

- 11. At its forty-first session, the TC approved document TGP/5/1 "Experience and Cooperation in DUS Testing". The TC noted that sections 1 to 7 of document TGP/5 represented texts which were contained in the UPOV publication 644(E) "Important Texts and Documents". It observed that some of those texts had been adopted several years ago and would benefit from updating. However, it recognized that those texts represented the adopted UPOV position and also noted that UPOV publication 644(E) was no longer available and that many new members of the Union did not have easy access to those texts. Therefore, it approved Sections 1 to 7 but, in addition, agreed to develop a program for updating those sections, based on priority, in conjunction with the CAJ and Council, as appropriate.
- 12. Given the need for the CAJ to be involved in any revision of Sections 1 to 7, the CAJ was notified of developments in the TC in the oral report made by Ms. Julia Borys, Chair of the TC, at the fifty-first session of the CAJ held in Geneva on April 7, 2005. The CAJ agreed that the review of document TGP/5/1 fell within the work of the Administrative and Legal Committee Advisory Group (CAJ-AG) on the development of information materials in relation to Articles 7, 8 and 9 of the 1991 Act of the UPOV Convention. At its first session on October 20, 2006, the CAJ-AG agreed that the proposed revised Sections 1 to 7 of document TGP/5/1 should be submitted directly to the CAJ, without consideration by the

- CAJ-AG. Discussion of TGP/5 has been included on the agenda of the fifty-sixth session of the CAJ, to be held in Geneva on October 22 and 23, 2007.
- 13. The changes proposed to the current sections of TGP/5 by the TC at its forty-third session are highlighted in the documents to be considered by the TWPs, with deletions shown in strikethrough and additions shown by underlining. The background information concerning changes of a substantial nature are summarized as follows:

General

- 14. The Office of the Union (Office) has, where necessary, proposed changes for compatibility with all Acts of the UPOV Convention.
- 15. At its forty-first session, the TC proposed that suitable provisions should be made for genetically modified varieties in relevant sections. In that respect, it is recalled that the model Technical Questionnaire in document TGP/7/1: Annex 1: TG Template: Chapter 10 (see TGP/5 Section 3/1) contains a specific Technical Questionnaire for varieties covered by the relevant Test Guidelines. That model Technical Questionnaire, in Section 8, contains a request for information on whether prior authorization for release under legislation concerning the protection of the environment, human and animal health is required. No amendments have been proposed in the other sections of TGP/5.
- 16. At its forty-third session, the TC agreed to review the use of the term "official register" to reflect the fact that some authorities consider that the term "official" also covers registries for plant breeders' rights.
- 17. Subsequent to the forty-third session of the TC, the Office noted that it was necessary to clarify the use of the terms "breeder", "applicant" and "original breeder" within TGP/5 and has made proposals in the relevant sections.
 - Section 1: Model Administrative Agreement for International Cooperation in the Testing of Varieties
- 18. The following comments were made at the forty-first session of the TC:
 - (a) to review Article 6 with regard to the possibility to include the maintenance of reference collections in the main agreement rather than as a matter to be settled between the authorities by correspondence; and
 - (b) to review Article 7 with regard to the amount of 350 Swiss francs.
- 19. Article 6 has been amended in document TGP/5: Section 1/2 Draft 2, to provide the possibility of including the maintenance of reference collections in the main agreement.
- 20. At its forty-third session, the TC agreed to add an indication in the preamble that the use of the Model Administrative Agreement was not a prerequisite for international cooperation and that, for example, it was possible to purchase DUS reports without such an agreement.
 - Section 2: UPOV Model Form for the Application for Plant Breeders' Rights and Section 3: Technical Questionnaire to be Completed in Connection with an Application for Plant Breeders' Rights

- 21. At its forty-third session, the TC agreed to add a new item for indication of the UPOV code in Sections 5 and 6 of TGP/5. A corresponding item for indication of the UPOV code has also been included in the document TGP/5: Section 2/2 Draft 2.
- 22. In addition to considering the revision of the text of TGP/5 Section 2/1 "UPOV Model Form for the Application for Plant Breeders' Rights", the Office was approached by the International Seed Federation (ISF) with regard to the development of an electronic version of the model application form and technical questionnaire.
- 23. The Office received a letter from ISF on January 18, 2007, proposing that UPOV should consider the development of an electronic version of the model application form and technical questionnaire for use by members of the Union. It was noted that such an approach would allow a standard application form and technical questionnaire to be completed in a language of the applicants choice and then converted electronically to the language of the member of the Union where an application was to be made. It was suggested that the individual members of the Union could have a separate appendix containing additional questions not covered by the standard application form and technical questionnaire, although ISF suggested that such appendices should be minimized. ISF clarified that the intention was to make the forms available for use by members of the Union as they considered appropriate.
- 24. The Office received a letter from the International Community of Breeders of Asexually Reproduced Ornamental and Fruit-Tree Varieties (CIOPORA) on January 19, 2007, supporting the proposal made by ISF. It requested, in addition, that any initiative should not lead to a result that application forms which were short and simple would become more complex. The Office also received a letter from the European Seed Association (ESA) on January 30, 2007, expressing its support for the proposal made by ISF.
- 25. In agreement with the TC Chairperson, ISF was invited to make a presentation on its proposal at the forty-third session of the TC. The TC thanked the ISF for its presentation and noted that a copy of the presentation would be posted on the ISF website (http://www.worldseed.org/pdf/UPOV_model_form.pdf). The TC noted that any developments should take into account the initiatives by a number of the members of the Union to develop on-line application facilities. The Vice Secretary-General welcomed the initiative of ISF and looked forward to investigating ways in which this matter could be taken forward in the most appropriate and beneficial way, within UPOV's resources. In that respect, the Vice Secretary-General informed the TC that, at its fifty-fifth session, to be held in Geneva on March 29, 2007, the CAJ would be considering the possibility to invite ISF to make a similar presentation to the CAJ in October 2007.
- 26. At its fifty-fifth session, the CAJ agreed to extend an invitation to members of the Union and ISF to present their experiences and initiatives for the development of electronic application forms and technical questionnaires at the fifty-sixth session of the CAJ. Members of the Union wishing to make presentations on this matter have been invited to inform the Office of the Union by September 1, 2007 (circular E-475, sent to representatives of the Council and copied to the members of the CAJ and TC).

Section 4: UPOV Model Form for the Designation of the Sample of the Variety

- 27. At its forty-third session, the TC agreed to clarify that the form was not intended for official registration (national list) purposes and proposed to review the use of the term "official registration" (see general comment concerning TGP/5 above)
 - Section 5: UPOV Request for Examination Results and UPOV Answer to the Request for Examination Results
- 28. At its forty-first session, it was proposed that, in TGP/5: Section 5, consideration should be given to amending the wording in the "UPOV Answer to the Request for Examination Results", paragraphs 5 and 6, to reflect the possibility for invoicing to be made directly to breeders.
- 29. UPOV Request for Examination Results: at its forty-third session, the TC agreed to add a new item for indication of the UPOV code, to include an option for "applicant" in item 9 and to add a new item to indicate to where the invoice should be sent.
- 30. UPOV Answer to the Request for Examination Results: at its forty-third session, the TC agreed to provide an option in item 5 for the invoice to be sent to a relevant party other than the applicant
 - Section 6: UPOV Report on Technical Examination and UPOV Variety Description
- 31. UPOV Report on Technical examination: at its forty-third session, the TC agreed to add a new item to indicate the UPOV code.
- 32. UPOV Variety Description: at its forty-third session, the TC agreed to add a new item to indicate the UPOV code, to include an option for photographs to be provided and to consider whether to add a section specifying the varieties included in the DUS test
 - Section 7: UPOV Interim Report on Technical Examination
- 33. At its forty-third session, the TC agreed to include the possibility to attach an annex to report on problems.
 - Section 10: Notification of Additional Characteristics
- 34. The approval of document TGP/5/1 "Experience and Cooperation in DUS Testing" by the TC at its forty-first session was made on the basis that, with regard to Section 10/1, there would be a review of the notification of additional characteristics on the UPOV website after three years of operation. At its forty-second session, the TC agreed that the review of Section 10/1 should be undertaken in parallel with the revisions of Sections 1 to 7.
- 35. At its forty-third session, the TC noted that no additional characteristics had been notified to the Office of the Union, but considered that the system was very useful and agreed to retain Section 10 in document TGP/5.

Possible New Section: Examples of Contracts / Agreements between Authorities and Breeders

- 36. During its consideration of document TGP/4/1 Draft 7, the TWA discussed the text which proposed that "in the particular case of parent lines submitted as a part of the examination of a candidate hybrid variety, living plant material should only be made available to other variety collectors in such a way that the legitimate interests of the breeder would be safeguarded." In that respect, it proposed that UPOV might develop a model contract / agreement between authorities and breeders for inclusion in document TGP/5 as a part of the revision of that document (see document TWA/35/12 "Report", paragraph 26).
- 37. At its at its fifty-fourth session, held in Geneva on October 16 and 17, 2006, the CAJ considered the TWA proposal for UPOV to develop a model contract / agreement between authorities and breeders. It agreed that it would be more appropriate to seek to provide examples of contracts / agreements between authorities and breeders in document TGP/5. The indication that UPOV would seek to provide, in document TGP/5, examples of contracts / agreements between authorities and breeders was reflected in document TGP/4/1 Draft 9, Section 3.1.2.2.2.
- 38. At its forty-third session, the TC noted the invitation for members of the Union to provide examples of contracts / agreements between authorities and breeders for inclusion in a new section of TGP/5. The Delegation of the European Community indicated that it had agreements on the transfer of material between authorities, which it would be willing to provide, if those agreements were considered to be relevant. A representative of ISF offered to provide examples of contracts/agreements between breeders and authorities if that information could be included in TGP/5. The Office observed that such examples should have the consent of the relevant authorities. ISF acknowledged that requirement and noted that the consent of the breeders would also be required in the case of an example agreement concerning a particular breeder.
- 39. The Office has issued an invitation to members of the Union (circular E-475, sent to representatives of the Council and copied to the members of the CAJ and TC) and to international breeders' organizations (circular E-476, sent to non-governmental organizations with observer status in the CAJ and TC) for contributions of examples of contracts / agreements between authorities and breeders for inclusion in a new section of TGP/5. The deadline for contributions was indicated as June 30, 2007.

TGP/7 "Development of Test Guidelines"

- 40. At its forty-second session, the TC agreed that the revision of document TGP/7 should start in 2008, after document TGP/9/1 had been approved by the TC and in anticipation of document TGP/14 attaining a good level of agreement. However, as explained in paragraph 8, this document also presents information on aspects of document TGP/7 where the TC has already agreed that revisions may be appropriate (see document TC/43/12 "Report on the Conclusions", paragraphs 21 to 25) according to comments made by the TWPs, the Enlarged Editorial Committee (TC-EDC) and the TC.
- 41. As a result of discussions on the draft Test Guidelines for Spinach at its meeting on January 9, 2007, the TC-EDC agreed that there should be a discussion at the forty-third session of the TC on the possibility of having Technical Questionnaire characteristics which did not have an asterisk in the Table of Characteristics. In that respect, it noted that the

following extracts from document TGP/7/1, Annex III, GN 13 "Characteristics with specific functions" allowed such an approach:

- 1. Asterisked characteristics
 - "(d) particular care should be taken before selection of disease resistance characteristics."
- 4. Relationship between Asterisked, Grouping and TQ characteristics
 - "(b) TQ characteristics selected from the Table of Characteristics should, <u>in general</u>, receive an asterisk in the Table of Characteristics and be used as grouping characteristics. TQ characteristics are not restricted to those characteristics used as grouping characteristics;" [underlining added for emphasis]

However, the TC-EDC noted that having Technical Questionnaire characteristics which did not have an asterisk in the Table of Characteristics would make the observation necessary for the applicant but not for the authority.

- 42. At its forty-third session, the TC agreed that, where information on such characteristics was to be requested in the Technical Questionnaire, such information should be requested in Section 7 of the Technical Questionnaire (Additional information which may help in the examination of the variety), rather than in Section 5 (Characteristics of the variety to be indicated). In that respect, it noted that the information in Section 7 was provided at the discretion of the breeder/applicant. The TC agreed that that approach should be considered in respect of the revision of TGP/7.
- 43. In addition, at the forty-third session of the TC, the Chairperson recalled that, during its discussions on the drafts of document TGP/7, the TC had agreed that a new section should be developed to provide guidance on the development of individual authority Test Guidelines from UPOV Test Guidelines. The TC also agreed (see document TC/43/12 "Report on the Conclusions", paragraphs 24 and 25) that the matters below should be added to those to be considered in the revision of TGP/7 and those have been included in the proposed revisions to document TGP/7/1 as set out in Annex I to this document.
 - (a) elaboration of the two uses of the grouping characteristics, i.e.

TGP/7/1, Annex I: TG Template: Chapter 5.2

- "(a) <u>to select</u>, either individually or in combination with other such characteristics, <u>varieties of common knowledge that can be excluded from the growing trial</u> used for examination of distinctness"; and
- "(b) to organize the growing trial so that <u>similar varieties are grouped together</u>".

[underlining added for emphasis];

and to consider indicating in Chapter 5.3 of the Test Guidelines for which of those purposes the grouping characteristics were intended;

- (b) the development of a simple, generalized growth stage key for use in Test Guidelines covering crops and species for which a suitable growth stage key had not been published;
- (c) in relation to the indications used in UPOV Test Guidelines for the method of observation and the type of record for the examination of distinctness (VG, VS, MG, MS), to consider revising document TGP/7/1 in line with the text adopted in document TGP/9/1 (see document TGP/9/1 Draft 9, Section 4.4); and
- (d) in relation to Section 6 "Combining observations for all characteristics" in document TGP/10, the TC agreed that it would be necessary to consider the possible inclusion of that matter in the revision of document TGP/7/1 at its next session, when the development of that section of document TGP/10 would be more advanced.

(c) Other TGP documents

44. Documents TGP/8 "Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability" Draft 6, TGP/12 "Special Characteristics" Draft 1, TGP/13 "Guidance for New Types and Species" Draft 8 and TGP/14 "Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents" Draft 2, were prepared for the TC but were not discussed in detail and the highlighting of the text in those drafts, indicating matters to be discussed, has been retained in the drafts to be considered by the TWPs at their sessions in 2007.

TGP/8 "Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability"

- 45. Document TGP/8/1 Draft 4 was considered by the TWPs at their sessions in 2006 and document TGP/8/1 Draft 5 was considered by the TC-EDC at its meeting on January 9, 2007. The TC-EDC did not have sufficient time to discuss the latter document and concluded that, in particular as a result of the substantial change in the scope and content of the TGP/8, which was reflected in the change of the title, the structure and content of TGP/8 would require substantial discussion in the TWPs in 2007. On that basis, and given the volume of the document, the TC-EDC in conjunction with the TC Chairperson, agreed that it would not be an appropriate use of UPOV's resources to translate document TGP/8/1 Draft 6 into all UPOV languages. However, it agreed that it would be useful for the proposed table of contents of document TGP/8 to be translated to enable the TC to review the planned structure and content of the document. That proposed table of contents was provided as document TC/43/5, Annex II and is reproduced as Annex II to this document.
- 46. At its forty-third session, the TC agreed to add a new section in Part II for multiple range tests, subject to models and assumptions being provided to the TWC for consideration

TGP/12 "Special Characteristics"

47. At its forty-second session, the TC considered document TGP/12 Section 1 Draft 2 "Development of Characteristics Based on a Response to an External Factor" and a subsequent draft was considered by the TWPs at their sessions in 2006. At its forty-first session, the TC considered TGP/12 Section 2/1 Draft 2 "Chemical Constituents: Protein Electrophoresis", but agreed that that section should not be adopted at that time and should be brought forward for adoption in conjunction with the other sections of TGP/12. A first draft

- of Section 3 "Examination of Combined Characteristics Using Image Analysis", was prepared for consideration by the TC-EDC at its meeting on January 9, 2007. However, there was insufficient time for discussion of the document at that meeting.
- 48. At its forty-third session, the TC agreed to add a new subsection within Section I, 2 "Disease Resistance", corresponding to the explanation in Section I, 3 "Insect Resistance" (see Section 3.2.1 "Methods") explaining that UPOV had also considered the possibility of using gene-specific molecular markers as a predictor of traditional characteristics. That new subsection is included as Section I, 2.5 in document TGP/12/1 Draft 2.

TGP/13 "Guidance for New Types and Species"

- 49. Changes to document TGP/13/1 Draft 5, agreed by the TC at its forty-second session, were incorporated into document TGP/13/1 Draft 6, which was considered by the TWPs at their sessions in 2006. The comments made by the TWPs were incorporated into document TGP/13/1 Draft 7, prepared for consideration by the TC-EDC at its meeting on January 9, 2007. The TC-EDC did not have sufficient time to consider document TGP/13/1 Draft 7.
- 50. The TC did not consider document TGP/13/1 Draft 8 in detail and made no proposals concerning the text.

TGP/14 "Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents"

- 51. Document TGP/14/1 Draft 2 was the first draft of TGP/14 to be considered by the TC. Drafts of various sections have been discussed in the TWPs, starting in 2002; however, a complete draft has not previously been considered by the TWPs. A first consolidated draft, document TGP/14/1 Draft 1, was prepared for consideration by the TC-EDC at its meeting on January 9, 2007. The TC-EDC did not have sufficient time to discuss that document and concluded that, the structure and content of TGP/14 would require substantial discussion by the TWPs at their sessions in 2007. On that basis, and given the volume of the document, the TC-EDC in conjunction with the TC Chairperson, agreed that it would not be an appropriate use of UPOV's resources to translate document TGP/14/1 Draft 2 into all UPOV languages. However, it agreed that it would be useful for the table of contents of that document to be translated to enable the TC to review the planned structure and content of the document. That proposed table of contents was provided as document TC/43/5, Annex III and is reproduced as Annex III to this document.
- 52. At its forty-third session, the TC considered the proposed structure and content of document TGP/14, as set out in document TC/43/5, Annex III (reproduced as Annex III to this document) and agreed to review the title of the section if the content extended beyond technical terms, as was the case in the terms currently included in that document.

TWV/41/3 page 12

III. PROGRAM FOR THE DEVELOPMENT OF TGP DOCUMENTS

53. At its forty-third session, the TC approved the program for the development of TGP documents as set out in document TC/43/5, Annex IV (see document TC/43/12 "Report on the Conclusions", paragraph 30), which is reproduced as Annex IV to this document. That program reflects the request of the TWA, TWF and the TWO to consider a new draft of document TGP/10/1 at their sessions in 2007.

[Annexes follow]

ANNEX I

PROPOSED REVISIONS TO TGP/7/1

Section 2: Procedure for the Introduction and Revision of UPOV Test Guidelines

2.2.4	consideration to be given to introducing deadlines for the submission of non-final draft Test Guidelines to the Technical Working Parties.
	(TWA: document TWA/34/14, paragraph 36)

New Section: Development of Individual Authority Test Guidelines from UPOV Test Guidelines

Number of Plants / Parts of Plants to be Examined

new section to be developed (see document TC/43/12 "Report on the Conclusions", paragraph 22)

Annex 1: TG Template

3.5 /

Paragraph 3.5 to be moved within Section 4.1 "Distinctness", to clarify that this section recommends the number of plants / parts of plants to be examined for distinctness. In addition, ASW 7 to be amended to the following: "ASW 7 (Chapter 3.5) – Number of plants / parts of plants to be examined Alternative 1:

Unless otherwise indicated, all observations should be made on $\{x\}$ plants or parts taken from each of $\{x\}$ plants.

Alternative 2:

Unless otherwise indicated, all observations should be made on $\{x\}$ plants or parts taken from each of $\{x\}$ plants. In the case of observations of parts of plants, the number of parts to be taken from each of the plants should be $\{y\}$."

(Mrs. Beate Rücker (Germany))

5.2,	to elaborate on the two uses of the grouping characteristics, i.e.
5.3	"(a) to select, either individually or in combination with other such characteristics, varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness"; and
	"(b) to organize the growing trial so that <u>similar varieties are grouped together</u> ". [underlining added for emphasis];
	and to consider indicating in Chapter 5.3 of the Test Guidelines for which of those purposes the grouping characteristics were intended;
	(see document TC/43/12 "Report on the Conclusions", paragraph 24(a))
6.3	Quantitative characteristics
	the Test Guidelines should explain the use of the 3, 5, 7 abbreviated notes in the 1-9 scale for quantitative characteristics.
	(TWV: document TWV/38/9, paragraph 57)

Annex 2: Additional Standard Wording (ASW) for the TG Template

ASW 4: 2(b)	(TG Template: Chapter 3.3) – Conditions for conducting the examination: Information for conducting the examination of particular characteristics: Type of observation
	TGP/7 to be amended according to the wording agreed for TGP/9.
	(see document TC/43/12 "Report on the Conclusions", paragraph 24(c))
ASW 4: 2(d)	(TG Template: Chapter 3.3) – Conditions for conducting the examination: Observation of color by eye
	to add that the color chart and the version of the color chart used should be specified with the variety description (TWF: document TWF/35/11, paragraph 54)
ASW 8:	(TG Template: Chapter 4.2) – Uniformity assessment
(GN 11)	In relation to Section 6 "Combining observations for all characteristics" in document TGP/10, the TC agreed that it would be necessary to consider the possible inclusion of that matter in the revision of document TGP/7/1 at its next session, when the development of that section of document TGP/10 would be more advanced.
	(see document TC/43/12 "Report on the Conclusions", paragraph 25)
ASW 9	to be modified because it would not be appropriate to test stability by growing a further generation for cross-pollinated varieties. Also proposed that the text " to ensure that it exhibits the same characteristics as those shown by the previous material supplied." should be amended to read " to ensure that it exhibits the same characteristics as those shown by the initial material supplied." (see document TC/42/12 "Report", paragraph 103)

ASW 16	(TG Template: Chapter 10: TQ 7.3) – Where a photograph of the variety is to be provided								
	to add text indicating that guidance would be provided by the authority to enhance the usefulness of the photograph (e.g. to include a metric scale in the picture, to define what parts of the plant should be included; light conditions, background color, etc)								
	(see document TGP/9/1 "Examining Distinctness" Draft 6, Section 2.4.2)								
New 1.	Chapter 1 of the Test Guidelines: Subject of these Test Guidelines								
	to seek to develop Additional Standard Wording (ASW) for the following situations:								
	(i) where there are separate Test Guidelines for different types of variety within the same genus/species (TWF: document TWF/35/11, paragraph 55);								
	(ii) for Test Guidelines for rootstock varieties which do not include flower or fruit characteristics (TWA: document TWA/33/16, paragraph 31);								
	(iii) for Test Guidelines covering hybrids with species / genera which are covered by other Test Guidelines (TWF: document TWF/35/11, paragraph 40).								
New 2.	Chapter 3.1								
	to provide a new Additional Standard Wording (ASW) for crops where the two independent growing cycles are recommended to be in the form of two separate plantings, e.g. "The two independent growing cycles should be in the form of two separate plantings".								
	(TWA: see proposals concerning Test Guidelines for Ryegrass TG/4/8(proj.3))								
New 3.	Chapter 8								
	to provide a standard definition of time of eating maturity.								
	(TWF: document TWF/35/11, paragraph 54).								
New 4.	<u>Chapter 8</u>								
	to consider the development of a simple, generalized growth stage key for use in Test Guidelines covering crops and species for which a suitable growth stage key had not been published								
	(see document TC/43/12 "Report on the Conclusions", paragraph 24(b))								

Annex 3: Guidance Notes (GN) for the TG Template

GN 11	see ASW 8 comments
GN 19 (3)	Numbers requirement for numbers lower than 10 to be written and higher numbers to be indicated numerically to be deleted
	(Office)

GN 20 (1)	<u>Presentation of characteristics: States of expression according to type of expression of a characteristic</u>								
	to clarify that adjectives such as moderately, medium, etc. (e.g. much smaller (1), moderately smaller (3), etc. / light green (1), medium green (2), etc.) should be used for pseudo-qualitative characteristics and for quantitative characteristics where there are one or more fixed states (Office in communication with Mrs. Elise Buitendag (South Africa), Coordinator of document TGP/7)								
GN 20	Quantitative characteristics: Explanation								
(3)	to explain that the notes for quantitative characteristics should be meaningful in relation to the range of variation of the characteristic and for the assessment of distinctness								
	(see TGP/9 "Examining Distinctness")								
GN 20	Quantitative characteristics								
(3)	to provide guidance on the use of a scale with more than 9 notes								
	(TWA: document TWA/33/16, paragraph 67).								
GN 20	3.5 "Condensed" range								
(3)	to consider accepting a 3-state range where there is no fixed point, e.g. weak/medium/strong, on the basis that the second state should read "intermediate"								
	(TC-EDC: January 2006)								
New	TG Template: Chapter 10: TQ 7 – TQ / Non-asterisked characteristics								
	With regard to Technical Questionnaire characteristics which do not have an asterisk in the Table of Characteristics (see document TC/43/5, paragraph 35) the TC agreed that where information on such characteristics was to be requested in the Technical Questionnaire, that information should be requested in Section 7 of the Technical Questionnaire (Additional information which may help in the examination of the variety), rather than in Section 5 (Characteristics of the variety to be indicated). In that respect, it noted that the information in Section 7 was provided at the discretion of the breeder/applicant.								
	(see document TC/43/12 "Report on the Conclusions", paragraph 23)								

Annex 4: Collection of Approved Characteristics

Introduction	to be clarified that characteristics contained in adopted UPOV Test Guidelines may be omitted from the "Collection of approved characteristics" (document TGP/7, Annex 4) where considered appropriate by the TC, on the basis of recommendations by the Enlarged Editorial Committee (TC-EDC)							
	(TWA: document TWA/34/14, paragraph 15)							
	to explain that the indication of the characteristic number, the method of observation, type of characteristic and the indications of (+) and (*) had been retained from the Table of Characteristics from which the characteristic had originated, but to clarify that that information might not be appropriate for other Test Guidelines							
	(TWA: document TWA/34/14, paragraph 16)							
	to explain to drafters of Test Guidelines that, for characteristics where any element of the characteristic is changed after copying from the collection, the translations into French, German and Spanish should be deleted							
	(TWV: document TWV/38/9, paragraph 40)							
Collection	examples of color characteristics developed in conjunction with TGP/14 Section 2.3: "Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents: Botanical Terms: Color" to be incorporated into TGP/7: Annex 4 "Collection of Approved Characteristics". (It was noted that that might require the organization of the TGP/7 to be modified to some extent.)							
	(TWF: document TWA/36/8, paragraph 35)							
	to consider incorporating characteristics which are used in most Test Guidelines (e.g. Leaf: length) into the electronic template. To consider developing electronic templates for variety types (e.g. seed-propagated vegetables) which would incorporate more standard characteristics for the varieties concerned							
	(TWV: document TWV/38/9, paragraph 40)							
	to consider including a collection of approved illustrations and to consider making that collection available to breeders to assist in their applications for PBR. (see also TGP/14 Section 2.1: Plant shapes)							
	(TWO: document TWO/38/12, paragraph 60)							
	to consider the development of tools such as CD-ROMs containing photographs to enhance the understanding of the characteristics used in the Test Guidelines and thereby reduce observer error							
	(TWA: document TWA/34/14, paragraph 54)							

TWV/41/3

ANNEX II

OVERVIEW OF TGP/8 "TRIAL DESIGN AND TECHNIQUES USED IN THE EXAMINATION OF DISTINCTNESS, UNIFORMITY AND STABILITY"

TABLE OF CONTENTS

INTRODUCTION

PART I: DUS TRIAL DESIGN AND DATA ANALYSIS

- 2. TRIAL DESIGN
 - 2.1 Introduction
 - 2.2 Number of growing cycles
 - 2.2.1 Introduction
 - 2.2.2 The notion of independent growing cycles
 - 2.2.3 Use of multiple locations in the examination of distinctness
 - 2.2.3.1 Purpose
 - 2.2.3.2 Use of information from multiple locations
 - 2.3 Additional Tests
 - 2.4 Type of plot for observation
 - 2.5 Organizing the growing trial layout
 - 2.5.1 Type of trial layout
 - 2.5.2 Approaches for assessment of distinctness
 - 2.5.3 Approaches for assessment of distinctness
 - 2.5.3.1 Side by side (visual) comparison
 - 2.5.3.2 Assessment of distinctness by notes/single variety records.
 - 2.5.3.3 Assessment by statistical analysis of growing trial data
 - 2.5.3.4 Trial layout for side by side (visual) comparison
 - 2.5.3.5 Trial layout for assessment of distinctness by notes/single variety records
 - 2.5.3.6 Trial layout for assessment by statistical analysis of growing trial data
 - 2.5.3.5. Reason for using statistics
 - 2.6 Trial elements
 - 2.6.1 Plots and the allocation of varieties to plots
 - 2.6.2 Plot size, shape and configuration
 - 2.6.3 Independence of plots
 - 2.6.4 The arrangement of the plants within the plot
 - 2.7 Statistical aspects of trial design
 - 2.7.1 Introduction
 - 2.7.2 The hypotheses under test
 - 2.7.3 Sources of variation
 - 2.7.4 Completely randomized design and randomized complete block design
 - 2.7.5 Randomized incomplete block designs
 - 2.7.6 Design for pair-wise comparisons between particular varieties
 - 2.7.7 The effect of sample size on precision and decision making
 - 2.7.8 The impact of precision on analyses over years or cycles
 - 2.8 Aspects of trial design of relevance when statistical analysis is not used
 - 2.8.1 Control of variation due to different observers

3. VALIDATION OF DATA AND ASSUMPTIONS

- 3.1 Introduction
- 3.2 Validation of data
- 3.3 Assumptions necessary if the data are to be statistically analyzed
 - 3.3.1 Introduction
 - 3.3.2 Independent observations
 - 3.3.3 Variance homogeneity
 - 3.3.4 Normal distributed observations
 - 3.3.5 Additivity of block and variety effects

- 3.4 Validation of assumptions necessary if the data are to be statistical analyzed
 - 3.4.1 Introduction
 - 3.4.2 Looking through the data
 - 3.4.3 Using figures

4. TYPES OF CHARACTERISTICS AND THEIR SCALE LEVELS

- 4.1 Introduction
- 4.2 Different levels to look at a characteristic
 - 4.2.1 Understanding the need for process levels
- 4.3 Types of expression of characteristics
- 4.4 Types of scales of data
 - 4.4.1 Quantitatively scaled data (metric or ordinal scaled data)
 - 4.4.1.1 Ratio scale
 - 4.4.1.2 Interval scale
 - 4.4.2 Qualitatively scaled data
 - 4.4.2.1 Ordinal scale
 - 4.4.2.2 Nominal scale
- 4.5 Scale levels for variety description
- 4.6 Relation between types of expression of characteristics and scale levels of data
- 4.7 Relation between method of observation of characteristics, scale levels of data and recommended statistical procedures

PART II: TECHNIQUES USED IN DUS EXAMINATION

1. THE METHOD OF UNIFORMITY ASSESSMENT ON THE BASIS OF OFF-TYPES

- 1.1 Fixed Population Standard
 - 1.1.1 Introduction
 - 1.1.2 Using the approach to assess uniformity in a crop
 - 1.1.3 Issues to be considered when deciding on the use of the method
 - 1.1.4 Examples
 - 1.1.5 Introduction to the tables and figures
 - 1.1.6 Detailed description of the method for one single test
 - 1.1.7 More than one single test (year)
 - 1.1.8 Detailed description of the methods for more than one single test
 - 1.1.8.1 Combined test
 - 1.1.8.2 Two-stage test
 - 1.1.8.3 Sequential tests
 - 1.1.9 Note on balancing the type I and type II errors
 - 1.1.10 Definition of statistical terms and symbols

2. LSD

THE COMBINED OVER-YEARS CRITERIA FOR DISTINCTNESS AND UNIFORMITY

- 3.1 The Combined Over-Years Distinctness Criterion (COYD)
 - 3.1.1 Summary
 - 3.1.2 Introduction
 - 3.1.3 The COYD method
 - 3.1.4 Use of COYD
 - 3.1.5 Adapting COYD to special circumstances
 - 3.1.5.1 Differences between years in the range of expression of a characteristic.
 - 3.1.5.2 Small numbers of varieties in trials: Long-Term COYD
 - 3.1.5.3 Marked year-to-year changes in an individual variety's characteristic
 - 3.1.6 Implementing COYD
 - 3.1.7 References
 - 3.1.8 COYD statistical methods
 - 3.1.8.1 Analysis of variance
 - 3.1.8.2 Modified joint regression analysis (MJRA)
 - 3.1.8.3 Comparison of COYD with other criteria
 - 3.1.9 COYD software

- 3.2 The Combined-Over-Years Uniformity Criterion (COYU)
 - 3.2.1 Summary
 - 3.2.2 Introduction
 - 3.2.3 The COYU Criterion
 - 3.2.4 Recommendations on COYU
 - 3.2.5 Mathematical details
 - 3.2.6 Early decisions for a three-year test
 - 3.2.7 Example of COYU calculations
 - 3.2.8 Implementing COYU
 - 3.2.9 COYU software
 - 3.2.9.1 DUST computer program
- 3.3 Schemes used for the application of COYD and COYU

4. PARENT FORMULA OF HYBRID VARIETIES

- 4.1 Introduction
- 4.2 Requirements of the method
- 4.3 Assessing the originality of a new parent line
- 4.4 Verification of the formula
- 4.5 Uniformity and stability of parent lines
- 4.6 Description of the hybrid

THE GAIA METHODOLOGY

- 5.1 Some reasons to sum and weight observed differences
- 5.2 Computing GAIA phenotypic distance
- 5.3 Detailed information on the GAIA methodology
 - 5.3.1. Weighting of characteristics
 - 5.3.2. Examples of use
 - 5.3.2.1 Determining "Distinctness Plus"
 - 5.3.2.2 Other examples of use
 - 5.3.3. Computing GAIA phenotypic distance
 - 5.3.4. GAIA software
 - 5.3.5 Example with Zea mays data
 - 5.3.5.1 Introduction
 - 5.3.5.2 Analysis of notes
 - 5.3.5.3 Electrophoresis analysis
 - 5.3.5.4 Analysis of measurements
 - 5.3.5.5 Measurements and 1 to 9 scale on the same characteristic
 - 5.3.6 Example of GAIA screen copy

6. EXAMINING DUS IN BULK SAMPLES

- 6.1 Introduction and abstract
- 6.2 Distinctness
- 6.3 Uniformity
 - 6.3.1 Bulking within plot
 - 6.3.2 Bulking across plots
 - 6.3.3 Taking just one bulk sample per plot

[Annex III follows]

ANNEX III

OVERVIEW OF TGP/14 "GLOSSARY OF TECHNICAL, BOTANICAL AND STATISTICAL TERMS USED IN UPOV DOCUMENTS"

Section 1: Technical Terms

Section 2: Botanical Terms

Subsection 1: INTRODUCTION

Subsection 2: SHAPES AND STRUCTURES

I: Shape

- 1. Components of shape
- 2. Developing shape-related characteristics
- 3. Shape illustrations

II: Structure

- 1. Components of structure
- 2. Developing characteristics for plant structure
- 3. Illustrations of plant structures

III: Definitions for Shape and Structure Terms

Subsection 3: COLOR

(1) Color characteristics

Part I. Introduction

Part II. Color

- 1. Components of color
- 2. Development of color characteristics
- Part III. Color distribution / pattern
 - 1. Terms used for color distribution
 - 2. Terms used for color pattern
 - 3. Development of characteristics for color distribution / pattern
 - 4. Examples of color distribution / pattern characteristics

Part IV. Literature

(2) Color names for the RHS Color Chart

- 1. Introduction
- 2. Example for the use of the UPOV Color Names in a variety description
- 3. UPOV Color Groups

Annex I: Allocation of UPOV Color Groups for each RHS Color in RHS Reference order

Annex II: RHS Colors contained in each UPOV Color Group

Section 3: Statistical Terms

INDEX OF ALL TERMS

[Annex IV follows]

TWV/41/3 ANNEX IV

							,	W. 1	2006						A.C	2007	-1.0		2008	,	
Re£	Title of document	Current approved* documents	Drafter (TWP)	Drafter (Name)	Interested Experts	TC	тс	TWV	twc	TWA	TWF	TWO	CAJ (Oct.)	TC- EDC	тс	TWPs	CAJ	TC- EDC	тс	TWPs	CAJ
rgp/0	List of TGP Documents and Latest Issue Dates	TGP/0/1 ADOPTED																			
GP/I	General Introduction with Explanations		Office				-	-	-	_	-			_		_		_		-	-
GP/2	List of Test Guidelines Adopted by UPOV	TGP/2/1 ADOPTED																			
GP/3	Varieties of Common Knowledge	C(Extr.)/19/2 Rev.	Responsibility						5 000				CAJ-AG	2000	. #7				 :	(Ame)	
rGP/4	Constitution and [Maintenance] / [Management] of Variety Collections	7				draft 5	draft 6	draft?	draft 7	draft8	draft 9 / Approve	223	draft 9 / Approve								
GP/5	Experience and Cooperation in DUS Testing												CAJAG								
30000	Model Administrative Agreement for International Cooperation in the Testing of Varieties	Section 1/1 Adopted								ĵ					Section 1/2 draft 1	Section 1/2 druft 2	Section 1/2 druft 2	Section 1/2 druft 3	Section 1/2 draft 4/ approve		Section 1/2 draft 4 approve
	UPOV Model Form for the Application for Plant Breeders' Rights	Section 2/1 Adopted													Section 2/2 draft 1	Section 2/2 draft 2	Section 2/2 draft 2	Section 2/2 draft 3	Section 2/2 draft 4/ approve		Section 2/2 draft 4 approve
	Technical Questionnaire to be Completed in Connection with an Application for Plant	Section 3/1 Adopted																	approve		арриоте
	Dreeders' Rights UPOV Model Form for the Designation of the Sample of the Variety	Section 4/1 Adopted													Section 4/2 draft 1	Section 4/2 draft 2	Section 4/2 draft 2	Section 4/2 draft 3	Section 4/2 draft 4/		Section 4/2 draft 4
	UPOV Request for Examination Results and UPOV Answer to the Request for	Section 5/1 Adopted										_			Section 5/2 draft 1	Section 5/2 draft 2	Section 5/2 draft 2	Section 5/2 draft 3	Section 5/2 draft 4/		approve Section 5/2 draft (
	Examination Results		14.									_							Section 6/2 deaft 4/		Section 6/2 draft 4
	UPOV Report on Technical Examination and UPOV Variety Description	Section 6/1 Adopted													Section 6/2 draft 1		Section 6/2 draft 2		approve Section 7/2 draft 4/		approve Section 7/2 draft 4
	UPOV Interim Report on Technical Examination	Section 7/1 Adopted													Section 7/2 draft 1	Section 7/2 draft 2	Section 7/2 draft 2	Section 7/2 draft 3	approve		approve
-	Cooperation in Examination List of Species in Which Practical Knowledge has Been Acquired or For Which	Section 8/1 Adopted						-		-											-
	National Test Childelines Have Been Established Notification of Additional Characteristics	Section 9/1 Adopted Section 10/1 Adopted													Review	Review		Review	Review		Review
	Examples of contracts / agreements between authorities and breeders	Decided for Pedoples						1							Discuss	[Druft 1]	[Draft 1]	[Druft 2]	[Draft 3]		[Druft 3]
GP/6	Arrangements for DUS Testing	TGP/6/1 ADOPTED																			
GP/7	Development of Test Guidelines	TGP/7/1 ADOPTED																		draft l revisions	
GP/8	Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability (Coordinator: (Bloc / TWC Chairperson)					draft 2	draft 3	draft 4) 	draft 5	draft 6	draft 7		draft 8	draft 9	draft 10					
GP/9	Examining Distinctness (Coordinator: Office)					draft 5	draft 6	draft 7	draft 8	draft 9 / Approve		draft 9 / Approve									
GP/10	Examining Uniformity (Coordinator: Office)	TC/33/7; TC/34/5				draft 2	draft3	draft 4	draft 5	draft 6	draft 7		draft 8	draft9/approve		draft 9 / approve					
CP/11	Examining Stability (Coordinator: Office)								-										- 12		
	Examination of Stability and "Verification"		TWV	Mr. Semon (QZ)				draft 1		***	***				***	draft 2	***	draft 3	draft 4	draft 5	draft 6
SUNCE															00,000	restrona		** xx+xx+xx			
GP/12	Special Characteristics (Coordinator: Office)					***	***	***			1775		***		draft l	draft 2	751	draft 3	draft 4 / approve	277	770
ection 1	Characteristics Expressed in Response to External Factors		-	Mr. Camlin (GB) /		draft 1	dreft 2	draft 3	***	draft 4											
ection 2	Chemical Constituents: Protein Electrophoresis		TWA	Mr. Guinrd (FR)		5			to					draft 2	1						4
ection 3	Examination of Combined Characteristics Using Image Analysis		TWC	Mr. Lew (OB)		***		***	discuss	***	***			draft 1							
GP/13	Culdance for New Types and Species (Coordinator: Mr. Kwakkanbos ((22))		TWO	Mr. Kwaldenbos (QZ)	TWA: Mr Camlin; TWF: Mr Barneloy (NZ) / Mr Barnenton-Priego (MX)	draft 4	draft 5	draft 6		draft 7	draft 8	draft 9		draft 10	draft 11 / approve		draft 11 / approv				
									_	_	_	_		draft l	draft 2	draft 3		draft 4	draft 5	draft 6	
GP/14	Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents										_										
ection 1	(Coordinator: Office) Technical Terms		Office											_							
ction 1	(Coordinator: Office)		Office		TWF: Mr. Bemaby (NZ); Mr.				344												
ction 1	(Coordinator: Office) Technical Terms		Office	Mrs Buitendag (ZA)	TWF: Mr. Barneby (NZ); Mr. Barneto-Petego (MZ); Mr. Bergamin (IT), Ms. Lean (GB): TWV: Mr. Sergio Semon (QZ); TWO: Mr. BarTel (IL); Ms. Scott (GB) + Champesons		410	draft.5	draft 5	draft 5	draft 5	draft 5									
ection 1 ection 2 2.1 & 2.2	(Coordinator Office) Technical Terms Belaras d Terms. (Coordinator Abs. Estenday (CA)				Burrientos-Friego (MX); Mr. Bergamini (IT); Ms. Lean (GB). TWV: Mr. Sergio Semon (QZ); TWO: Mr.		400	draft 5	344	draft 5											
2.1 & 2.2 2.3 & 2.3 2.3.1	(Coordinator Office) Technical Terms Bolance of Terms. (Coordinator Alte Estimatog (CA) Plant shapes (and structures)		TWF TWO	(ZA)	Burrientos-Friego (MX); Mr. Bergamini (IT); Ms. Lean (GB). TWV: Mr. Sergio Semon (QZ); TWO: Mr.	400	400		344	draft 5	dreft 5	draft 3									
ection 1 ection 2 2.1 & 2.2 2.3.1	(Coordinator Office) Technical Terms Behanical Terms. (Coordinator Alte Balanding (201) Plant shapes [and structures] Color: Color characteristics Color: Color characteristics		TWF TWO	Mr Kwakkenbos (QZ) Ms Menne (DE)	Barriento-Priego (MX); Mr. Dergamini (IT), Mr. Lean (OD). TWV: Mr. Stegio Semon (OC). TWO: Mr. Dav-Tel (IL); Mr. Scott (OD) + Charmersons		400	draft 2	draft 5	draft 5	dreft 5	draft 3									