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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS Geneva

ADMINISTRATIVE AND LEGAL COMMITTEE

Sixty-Ninth Session Geneva, April 10, 2014

REPORT ON DEVELOPMENTS IN THE TECHNICAL COMMITTEE

prepared by the Office of the Union

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The purpose of this document is to report on developments in the Technical Committee (TC) at its fiftieth session, held in Geneva from April 7 to 9, 2014, of particular relevance for matters to be considered by the Administrative and Legal Committee (CAJ) at its sixty-ninth session, to be held in Geneva on April 10, 2014. Those developments are reported in the Annex to this document. The report on all the conclusions of the TC is available in document TC/50/36 "Report on the Conclusions".

[Annex follows]

ANNEX

CONCLUSIONS OF THE TECHNICAL COMMITTEE IN RELATION TO MATTERS TO BE CONSIDERED BY THE ADMINISTRATIVE AND LEGAL COMMITTEE (CAJ)

AGENDA ITEM 5: TGP DOCUMENTS

TGP Documents (document CAJ/69/3)

Revision of TGP Documents

TGP/0: List of TGP Documents and Latest Issue Dates

1. The TC considered document TC/50/5 "TGP Documents" and noted that the Council would be invited to adopt document TGP/0/7, in order to reflect the adoption of TGP documents.

TGP/2: List of Test Guidelines Adopted by UPOV

- 2. The TC considered the revision of document TGP/2, as set out in document TC/50/5, paragraph 12, and agreed that document TGP/2 be amended to read as follows:
 - "A list and copies of adopted and published Test Guidelines can be obtained at http://www.upov.int/test_guidelines/en/".
 - TGP/5: Experience and Cooperation in DUS Testing: Section 10: Notification of Additional Characteristics
- 3. The TC considered document TC/50/15 and agreed that the guidance in document TGP/5: Section 10, should read as follows:
 - "4.2 Proposals for additional characteristics and states of expression notified to the Office of the Union by means of document TGP/5 Section 10, will be presented to the relevant Technical Working Party(ies) (TWP(s)) at the earliest opportunity with information on the extent of use of the characteristic. The characteristics will then, as appropriate, be posted on the TG Drafters' Webpage of the UPOV website (http://www.upov.int/restricted_temporary/tg/index.html) on the basis of comments made by the relevant TWP(s), and/or the TWP(s) may initiate a revision or a partial revision of the Test Guidelines concerned."

TGP/7: Development of Test Guidelines

4. The TC noted that the revisions to document TGP/7 previously agreed by the TC, as set out in document TC/50/5, Annex I, would be a basis for the adoption of document TGP/7/4 by the Council, at its forty-eighth ordinary session, subject to the following amendments:

Annex I, ASW 0	in the German version: to amend the translation of "Subject of these Test Guidelines" to read "Gegenstand dieser Prüfungsrichtlinien"
Annex I, GN 7	last paragraph to read: "In general, in the case of <i>plants</i> required only for a single growing trial (e.g. no plants required for special tests or variety collections), the number of plants requested in Chapter 2.3 often corresponds to the number of plants specified in Chapters 3.4 "Test Design" and 4.2 "Uniformity". In that respect, it is recalled the quantity of plant material specified in Chapter 2.3 of the Test Guidelines is the minimum quantity that an authority might request of the applicant. Therefore, each authority may decide to request a larger quantity of plant material, for example to allow for potential losses during establishment (see GN 7 (a))."
Annex I, GN 28, Section 3.2.2.	to read as follows: "3.2.2 Where different sets of example varieties are provided for different types of varieties covered by the same Test Guidelines, they are placed in the Table of Characteristics in the same column as normal. The sets of example varieties (e.g. winter and spring) are separated by a semicolon, and/or indicated by a key which is provided for each set and an explanation for the option chosen should be included in the legend of Chapter 6 of the Test Guidelines."

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Annex I,	4.1 Reference to Section 2 to be replaced by reference to Section 4.2
GN 28,	4.2.3 Reference to Figure 1 to be replaced by reference to Section 4.2.3
Section 4.	4.2.5 Reference to Figure 1 to be deleted
Annex I,	First sentence to read: "The taking of photographs is influenced by factors, such as light
GN 35,	conditions, quality and setting of the camera, and the background."
Introduction	

- 5. The TC noted that the French, German and Spanish translations of the original English text would be checked by the relevant members of the Editorial Committee prior to submission of the relevant drafts of TGP documents that would be presented for adoption by the Council, at its forty-eighth ordinary session.
 - (i) Revision of document TGP/7: Additional Standard Wording for Growing Cycle for Tropical Species
- 6. The TC considered document TC/50/16 and agreed with the proposed additional standard wording (ASW) for evergreen species with indeterminate growth for inclusion in document TGP/7 to read as follows:

"New (after (b)): Evergreen species with indeterminate growth

"The growing cycle is considered to be the period ranging from the beginning of development of an individual flower or inflorescence, through fruit development and concluding with the harvesting of fruit from the corresponding individual flower or inflorescence."

- (ii) Revision of document TGP/7: Indication of Growth Stage in Test Guidelines
- The TC considered document TC/50/18.
- 8. The TC agreed that document TGP/7, ASW 4, GN 24 and GN 9 should be amended to read as follows:

"ASW 4 (TG Template: Chapter 3.3) - Conditions for conducting the examination

"Information for conducting the examination of particular characteristics

"(a) Stage of development for the assessment

'The optimum stage of development for the assessment of each characteristic is indicated by a reference in the second column of the Table of Characteristics. The stages of development denoted by each reference are described in Chapter 8 [...]."

"GN 9 (TG Template: Chapter 3.3) - Growth stage key

"In some cases, where it is appropriate to provide a growth stage key for the observation of characteristics, the following is a useful guide:

'Growth stages of mono-and dicotyledonous plants - BBCH Monograph' (Federal Biological Research Centre for Agriculture and Forestry)

ISBN Number: 3-8263-3152-4

 $http://www.jki.bund.de/fileadmin/dam_uploads/_veroeff/bbch/BBCH-Skala_englisch.pdf$

"In some other cases, a simplified growth stages key might be more appropriate, such as the example in the Test Guidelines for Potato (document TG/23/6):

- "8.3 Optimal Stage of Development for the Assessment of Characteristics
- 1 = bud stage
- 2 = flowering stage
- 3 = ripening stage of tubers
- 4 = after harvest"

"GN 24 (TG Template: Chapter 7: column 2, header row 1) - Growth stage

"In some Test Guidelines, the growth stage at which the examination of the characteristic should be done is provided here. In such cases, the stages of development denoted by each reference are described in a section within Chapter 8, according to ASW 4(a)."

- (iii) Revision of document TGP/7: Providing Illustrations of Color in Test Guidelines
- 9. The TC considered document TC/50/19.
- 10. The TC agreed to include the following guidance on the risks of providing illustrations of color in Test Guidelines in document TGP/7:

"It is generally not appropriate to use illustrations of color, as such, in the Test Guidelines because the color in photographs can be affected by the technology of the camera, the facilities used to display the photograph (including printer, computer and screen) and lighting conditions under which the photograph is/was taken. Furthermore, the expression of color may vary according to the environment in which the variety is grown. For example, a photograph of a 'weak intensity' of anthocyanin coloration (or 'light intensity' of a color) observed in one environment may not represent a 'weak intensity' of anthocyanin coloration (or 'light intensity' of a color) observed in another environment."

- (iv) Revision of document TGP/7: Presence of Leading Expert at Technical Working Party Sessions
- 11. The TC considered document TC/50/20.
- 12. The TC agreed to include the following guidance on the presence of Leading Experts in Technical Working Party sessions in document TGP/7, Section 2.2.5.3:

"In order to be considered by a Technical Working Party, the Leading Expert of the draft Test Guidelines should be present at the session. Subject to approval by the Technical Working Party Chairperson, and where arranged sufficiently in advance of the session, a suitable alternative expert may act as the Leading Expert at the session, or the Leading Expert may participate by electronic means, where that enables the Test Guidelines to be considered in an effective way."

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

13. The TC noted that the revisions to document TGP/8 previously agreed by the TC, as set out in document TC/50/5, Annex II, would be a basis for the adoption of document TGP/8/2 by the Council, at its forty-eighth ordinary session subject to the following amendments:

Annex II,	to delete heading "The absolute zero point"
Part I.	to delete fleading. The absolute zero point
,	
Section	
2.3.3.6.2	
Annex II,	to correct format for case I and case II and formulas
Part I,	
Section	
2.3.3.7.3	
Annex II,	to reinsert scales to graphs and remove colors
Part I,	
Sections	
3.5.1 and	
4.2.2	
Annex II,	title to read as follows: "Cyclic planting of varieties from the variety collection to reduce
Part I,	trial size"
Section 5	 paragraph 1.1 to read as follows: "Cyclic planting of varieties from the variety
000110110	collection (established varieties) to reduce trial size is appropriate for use in
	trials where:"
	• paragraph 1.1 to introduce a last bullet point: "three independent growing cycles are
	normally grown. The guidance below is for this case. However, it may also be adapted
	for crops where two independent growing cycles are normally grown."
	• last sentence of second paragraph in 1.2 to read as follows: "If, after DUS testing, a
	variety is added to the variety collection it is allocated to a series and is cyclically
	omitted from the trial every third year."
	• paragraph 1.3, sentences 5 and 6 to read as follows: "Because of a possible lag
	between final DUS testing and the decision on the application, candidate varieties are
	kept in trial for a fourth year after the three-year test period. If a positive decision is

taken, they will become an established variety and will enter the cyclic planting system."

- note in paragraph 1.4, first sentence to read as follows: Note: if the DUSTNT software
 is used, a variety can be made to appear missing simply by removal of the variety
 from the "E file".
- paragraph 4.2.1, to remove extra dash in "t—test"
- 14. The TC noted that the French, German and Spanish translations of the original English text would be checked by the relevant members of the Editorial Committee prior to submission of the relevant drafts of TGP documents that would be presented for adoption by the Council, at its forty-eighth ordinary session.

Revision of document TGP/8: Part II: Section 10: Uniformity Assessment on the Basis of the Relative Variance Method

15. The TC considered document TC/50/23 and agreed with the proposed revision of document TGP/8, Section 10: "Uniformity Assessment on the Basis of the Relative Variance Method", as set out in document TC/50/23, Annex II.

TGP/9: Examining Distinctness

16. The TC agreed to delay the revision of document TGP/9 until 2015.

TGP/14: Glossary of Terms Used in UPOV Documents – Correction (Spanish)

17. The TC noted the correction to the Spanish version of document TGP/14: Section 2: Subsection 3: Color, paragraph 2.2.2, as set out in document TC/50/5, paragraph 22.

AGENDA ITEM 6: MOLECULAR TECHNIQUES

Molecular techniques (document CAJ/69/4)

18. The TC considered document TC/50/13.

USE OF BIOCHEMICAL AND MOLECULAR MARKERS IN THE EXAMINATION OF DISTINCTNESS, UNIFORMITY AND STABILITY (DUS)

19. The TC encouraged experts from China, the Republic of Korea and other members of the Union to make presentations at the fourteenth session of the BMT, on the use of molecular techniques to supplement the selection of similar varieties for inclusion in the growing trial, as set out in document TC/50/13, paragraph 6.

WORKING GROUP ON BIOCHEMICAL AND MOLECULAR TECHNIQUES, AND DNA-PROFILING IN PARTICULAR (BMT)

- 20. The TC noted that the fourteenth session of the BMT would be held in Seoul, the Republic of Korea, from November 10 to 13, 2014.
- 21. The TC agreed to the proposed amendment of the program of the fourteenth session of the BMT, as set out in paragraph 20 of this document.
- 22. The TC agreed to the proposed plan for the fourteenth session of the BMT to be held in conjunction with the Joint Workshop with ISTA and OECD, to be held on November 12, 2014, as set out in document TC/50/13, paragraph 21.
- 23. The TC agreed that the progress of work of the BMT and the outcomes of the Joint Workshop with ISTA and OECD should be reported to the TC at its fifty-first session.

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PRESENTATION OF INFORMATION ON THE SITUATION IN UPOV WITH REGARD TO THE USE OF MOLECULAR TECHNIQUES TO A WIDER AUDIENCE, INCLUDING BREEDERS AND THE PUBLIC IN GENERAL

- 24. The TC considered the proposed explanation of the situation in UPOV with regard to the use of molecular techniques, as set out in document TC/50/13, paragraph 26.
- 25. The TC recalled that, at its forty-ninth session, held in Geneva from March 18 to March 20, 2013, it had agreed that there was a need to provide suitable information on the situation in UPOV with regard to the use of molecular techniques to a wider audience, including breeders and the public in general. That information should explain the potential advantages and disadvantages of the techniques, and the relationship between genotype and phenotype, which lay behind the situation in UPOV (see document TC/49/41 "Report on the Conclusions").
- 26. The TC agreed that the explanation provided in document TC/50/13, paragraph 26, provided suitable information on the situation in UPOV with regard to the use of molecular techniques for breeders and persons with knowledge of DUS testing, subject to the following amendments:

Question: Does UPOV allow molecular techniques (DNA profiles) in the DUS examination?

Answer: "It is important to note that, in some cases, varieties may have a different DNA profile but be morphologically phenotypically identical, whilst, in other cases, varieties which have a large phenotypic difference may have the same DNA profile for a particular set of molecular markers (e.g. some mutations).

"In relation to the use of molecular markers that are not related to phenotypic differences, the concern is that it might be possible to use a limitless number of markers to find differences between varieties. In particular, differences could be found at the genetic level that are not reflected in morphological phenotypic characteristics.

"On the above basis, UPOV has agreed the following uses of molecular markers in relation to DUS examination:

- "(a) Molecular markers can be used as a method of examining DUS characteristics that satisfy the criteria for characteristics set out in the General Introduction if there is a reliable link between the marker and the characteristic.
- "(b) A combination of phenotypic differences and molecular distances can be used to improve the selection of varieties to be compared in the growing trial if the molecular distances are sufficiently related to phenotypic differences and the method does not create an increased risk of not selecting a variety in the variety collection which should be compared to candidate varieties in the DUS growing trial.

"The situation in UPOV is explained in documents TGP/15 'Guidance on the Use of Biochemical and Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)' and UPOV/INF/18 'Possible use of Molecular Markers in the Examination of Distinctness, Uniformity and Stability (DUS)'".

27. With regard to a wider audience, the TC agreed that the question was not framed in an appropriate way and, therefore, it would not be appropriate to seek to develop an answer to that question. The TC agreed that the question should be rephrased after clarification of the issues of interest to a wider audience.

AGENDA ITEM 7: VARIETY DENOMINATIONS

Variety denominations (document CAJ/69/5)

28. The TC considered document TC/50/14.

POSSIBLE REVISION OF DOCUMENT UPOV/INF/12 "EXPLANATORY NOTES ON VARIETY DENOMINATIONS UNDER THE UPOV CONVENTION"

- 29. The TC noted the ongoing work of the CAJ-AG concerning the development of guidance on variety denominations, as set out in paragraphs 3 to 6 of document TC/50/14.
- 30. The TC noted that the CAJ, at its sixty-ninth session to be held in Geneva on April 10, 2014, would be invited to consider whether it would be appropriate to amend document UPOV/INF/12, paragraph 2.3.3(a)(i), as set out in document TC/50/14, paragraph 7.
- 31. The TC agreed that the example "Bough" and "Bow" in document UPOV/INF/12, paragraph 2.3.3(i) should be replaced by a suitable example and further noted that the work on the possible development of a UPOV similarity search tool might be reflected in a review of document UPOV/INF/12. It also agreed that guidance on confusion for phonetic reasons should continue to be included in document UPOV/INF/12.

DEVELOPMENTS CONCERNING POTENTIAL AREAS FOR COOPERATION WITH THE IUBS COMMISSION AND THE ISHS COMMISSION

32. The TC noted the developments concerning potential areas for cooperation between the International Commission for the Nomenclature of Cultivated Plants of the International Union for Biological Sciences (IUBS Commission), the International Society for Horticultural Science Commission for Nomenclature and Cultivar Registration (ISHS Commission) and UPOV, as set out in document TC/50/14, Section III.

AGENDA ITEM 8: INFORMATION AND DATABASES

- (a) UPOV information databases (document CAJ/69/6)
- 33. The TC considered document TC/50/6.

Information on type of crop

- 34. The TC agreed to provide information on the type of crop for each UPOV code in the GENIE database, as set out in document TC/50/6, paragraph 8. It was clarified that more than one crop type could be allocated to a single UPOV Code
- 35. The TC noted that the proposed approach would enable the data in the PLUTO database to be analyzed with regard to applications filed, titles issued and titles having ceased to be in force by type of crop, whilst noting that the multiple crop types for some UPOV codes would result in some limitations in that regard.

UPOV CODE SYSTEM

- 36. The TC noted the developments concerning UPOV codes, as set out in document TC/50/6, paragraph 13.
- 37. The TC noted the plan of the Office of the Union to prepare tables of UPOV codes additions and amendments, for checking by the relevant authorities, for each of the TWP sessions in 2014, as set out in paragraph 14 of document TC/50/6.

PLUTO DATABASE

38. The TC noted the developments concerning the program for improvements to the Plant Variety Database, as reported in document TC/50/6, paragraphs 16 to 38.

SURVEY OF MEMBERS OF THE UNION ON THEIR USE OF DATABASES AND ELECTRONIC APPLICATION SYSTEMS

39. The TC noted the results of the survey of members of the Union on their use of databases for plant variety protection purposes and also on their use of electronic application systems, as presented in document TC/50/6, Annex IV.

- 40. The TC noted that the CAJ would be invited to consider the results of the survey at its sixty-ninth session, to be held in Geneva on April 10, 2014.
- (b) Exchangeable software (document CAJ/69/7)
- 41. The TC considered document TC/50/8.

PROPOSAL TO DEVELOP A NEW INFORMATION DOCUMENT

- 42. The TC agreed to propose document UPOV/INF/22 "Software and equipment used by members of the Union" for adoption by the Council at its forty-eighth ordinary session, to be held in Geneva on October 16, 2014, as set out in document TC/50/8, paragraphs 6 to 8.
- 43. The TC noted that the comments of the TC, at its fiftieth session, on the proposed new information document UPOV/INF/22, would be reported to the CAJ, at its sixty-ninth session, to be held on April 10, 2014.
- 44. Subject to adoption of document UPOV/INF/22 by the Council at its forty-eighth ordinary session, to be held in Geneva on October 16, 2014, the TC agreed to issue a circular to the designated persons of the members of the Union in the TC, inviting them to provide information regarding non-customized software and equipment used by members of the Union, as appropriate, as set out in document TC/50/8, paragraph 9.

REVIEW OF DOCUMENT UPOV/INF/16 "EXCHANGEABLE SOFTWARE"

Software proposed for inclusion in document UPOV/INF/16 "Exchangeable software"

- 45. The TC agreed to include the SIVAVE software in document UPOV/INF/16, as set out in document TC/50/8, paragraph 15.
- 46. The TC noted that a revision of document UPOV/INF/16/3 concerning the inclusion of the SIVAVE software would be presented to the CAJ, at its sixty-ninth session, to be held on April 10, 2014, and if agreed by the CAJ, would be presented for adoption by the Council at its forty-eighth ordinary session, to be held on October 16, 2014, as set out in document TC/50/8, paragraphs 16 and 17.
- 47. The TC noted that Mexico had been invited to provide further information on the SISNAVA software at the thirty-second session of the TWC.

Information on use by members

- 48. The TC approved the revision of document UPOV/INF/16 concerning the inclusion of information on the use of software by members of the Union, as set out in document TC/50/8, Annex III.
- 49. The TC noted that the comments of the TC, at its fiftieth session, concerning the use of software by members of the Union, would be reported to the CAJ at its sixty-ninth session, to be held in Geneva on April 10, 2014.

TRANSLATION OF SOFTWARE IN DOCUMENT UPOV/INF/16/3

- 50. The TC noted that an expert from France would make a presentation on the AIM software at the thirty-second session of the TWC, based on the English translation of the software, as set out in document TC/50/8, paragraph 25.
- 51. The TC noted that the translation of the user interfaces of the "Information System (IS) used for Test and Protection of Plant Varieties in the Russian Federation" software would be technically very difficult.
- 52. The TC agreed that selected screenshots in English of the software "Information System (IS) used for Test and Protection of Plant Varieties in the Russian Federation" be presented to the TWC at its thirty-second session, in order to explain how the software worked, as set out in document TC/50/8, paragraph 28.

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- (c) Electronic application systems (document CAJ/69/8)
- 53. The TC considered document TC/50/9.
- 54. The TC noted the developments concerning the development of a prototype electronic form as set out in document TC/50/9.

AGENDA ITEM 9: POSSIBLE DEVELOPMENT OF A UPOV SIMILARITY SEARCH TOOL FOR VARIETY DENOMINATION PURPOSES

Possible development of a UPOV similarity search tool for variety denomination purposes (document CAJ/69/9)

- 55. The TC noted the report concerning the possible development of a UPOV similarity search tool for variety denomination purposes provided in document TC/50/14, Section II.
- 56. The TC welcomed the establishment of a working group for the development of a UPOV similarity search tool and invited experts to contribute to its work.
- 57. The TC agreed that there were some challenges concerning linguistic and alphabet aspects which should be considered by the working group when defining the objectives of its work.

[End of Annex and of document]