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UPOV

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

TECHNICAL WORKING PARTY FOR VEGETABLES

Forty-Fifth Session
Monterey, United States of America
July 25 to 29, 2011

REPORT

adopted by the Technical Working Party for Vegetables

Opening of the Session

1. The Technical Working Party for Vegetables (TWV) held its forty-fifth session in Monterey, California, United States of America, from July 25 to 29, 2011. The list of participants is reproduced in Annex I to this report.

2. The TWV was welcomed by Ms. Kitisri Sukhapinda, Patent Attorney, Office of Policy and External Affairs, United States Patent and Trademark Office (USPTO) and Mr. Paul M. Zankowski, Commissioner, Plant Variety Protection Office, United States Department of Agriculture (USDA).

3. The session was opened by Mrs. Radmila Safarikova (Czech Republic), Chairperson of the TWV, who welcomed the participants.

Adoption of the Agenda

4. The TWV adopted the agenda as reproduced in document TWV/45/1 Rev..

Short Reports on Developments in Plant Variety Protection

(a) Reports on development in plant variety protection from members and observers

5. The TWV noted the information on development in plant variety protection from members and observers provided in document TWV/45/20. The TWV noted that reports submitted to the Office of the Union after July 18, 2011 would be included in an addendum to document TWV/45/20.

6. The TWV received a presentation on the intellectual property systems for the protection of plants in the United States of America, from Ms. Kitisri Sukhapinda, and an explanation of the operation of the Plant Variety Protection Act, by Mr. Paul Zankowski. Copies of those presentations are provided as Annexes II and III to this document, respectively.

(b) Reports on developments within UPOV

7. The TWV received a presentation from the Office of the Union on the latest developments within UPOV, a copy of which is attached as Annex IV to this document. The TWV agreed that, for future sessions, it would be beneficial for the report to be provided in advance of the session, thereby allowing the Office of the Union to focus on certain key elements during the presentation.

Molecular Techniques

(a) Reports on developments within UPOV

8. The TWV noted the information provided in document TWV/45/2 “Molecular Techniques”.

(b) Reports on work by members and observers

9. An expert from the Netherlands reported that experts from the Netherlands and France were planning to prepare a document for the thirteenth session of the Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular (BMT) on issues concerning the possible use of characteristic-specific molecular markers (formerly “Option 1(a)” approach) for disease resistance in vegetables. He reported that, in addition to the issues of cost and the need to establish a reliable linkage between the characteristic marker and the expression of disease resistance, epigenetic effects had been identified that meant that the expression of the gene was not always predictable. It was noted, whilst making the use of characteristic-specific molecular markers more complicated than was originally anticipated, the approach might still prove useful in the framework of DUS testing, provided all issues were taken into account in an appropriate way.

10. The TWV agreed that it would be useful for the experts from the Netherlands and France to make a presentation on issues concerning the possible use of characteristic-specific molecular markers for disease resistance in vegetables at the thirteenth session of the BMT, to be held in Brasilia, Brazil, from November 22 to 24, 2011. It agreed that it would be important for those issues to be reported to the forty-sixth session of the TWV, and subsequently to other Technical Working Parties and the Technical Committee.

TGP Documents

11. The TWV considered the TGP documents below on the basis of document TWV/45/3.

Revision of TGP documents:

TGP/7 Development of Test Guidelines

(i) Summary of revisions proposed for document TGP/7 "Development of Test Guidelines" (document TWV/45/11)

12. The TWV noted the summary of revisions proposed for document TGP/7 "Development of Test Guidelines", as set out in Part I of document TWV/45/11.

13. The TWV considered Part II of document TWV/45/11 and made the following comments:

- Guidance on the number of plants to be examined (for distinctness)

14. The TWV considered the proposal in Annex I to document TWV/45/11, prepared by an expert from Germany. It noted that the new wording proposed by the Technical Committee for Chapter 4.1.4 of Test Guidelines in document TGP/7 referred to a specified ({x}) number of plants to be examined for distinctness. In particular, it did not indicate that the number should be considered as a minimum number. In that regard, the TWV noted that it was clearly the intention for some Test Guidelines (e.g. cross-pollinated grasses) for the number of plants to represent a specific number, because of the possibility of different decisions on distinctness if a different number was used. However, in other Test Guidelines (e.g. for vegetatively propagated fruit, ornamental plants and vegetables), the number could be considered to be a minimum number without having any effect on decisions for distinctness if a larger number of plants were examined. It agreed that this issue should be considered by the Technical Committee.

- Guidance for method of observation

15. The TWV noted the background information concerning "Guidance for method of observation" as set out in document TWV/45/11, Annex II.

(ii) Providing photographs with the Technical Questionnaire

16. The TWV considered document TWV/45/12. It agreed that the status of the photographs was indicated by the proposed new text for ASW 16 (see document TWV/45/12, paragraph 3) as follows:

> "…A photograph provided according to the specified requirements (see …. [authority reference to be added]) in an appropriate format will help the examination authority to prepare its examination of distinctness in a more efficient way, by giving a visual illustration of the candidate variety which supplements the information provided in the Technical Questionnaire…"

17. The TWV agreed that it would be useful to provide a summary, in the form of a "checklist", for the photograph requirements, with the detailed information being provided in an annex.

(iii) Quantity of plant material required

18. The TWV noted the information provided in document TWV/45/17. It welcomed the summary of information to be prepared by the Office of the Union for all adopted Test Guidelines and made available to Leading Experts on the TG Drafters' webpage in order that information on Test Guidelines for similar crops could be presented to the Subgroup of Interested Experts by the Leading Expert. The TWV noted that the summary of information would also include information on distinctness and uniformity requirements.

(iv) Example varieties

19. The TWV considered document TWV/45/18.

20. The TWV noted that TGP/7 "Development of Test Guidelines", Guidance Note GN 28 states as follows:

> *"1. Purpose of example varieties*
>
> "The General Introduction (Chapter 4.3) states that "example varieties are provided in the Test Guidelines to clarify the states of expression of a characteristic." This clarification of the states of expression is required with respect to two aspects:
>
> (a) to illustrate the characteristic and/or
>
> (b) to provide the basis for ascribing the appropriate state of expression to each variety and, thereby, to develop internationally harmonized variety descriptions."

21. The TWV agreed that example varieties in the UPOV Test Guidelines could not be expected to provide internationally harmonized variety descriptions. It proposed that GN 28 be revised to explain that example varieties would be useful for: (a) members of the Union to be able to establish a range of expression for characteristics for crops and species in which they did not have experience; and (b) inclusion in the Technical Questionnaire as a basis for guidance for applicants. The TWV further agreed that it would be to discuss the role of example varieties in the Monday morning session of the Technical Committee in 2012.

(v) Procedure for the development of Test Guidelines

22. The TWV noted that document TGP/7 states as follows:

> "2.2.3.2 In cases where more than one TWP has proposed the development of Test Guidelines with the same coverage, the Technical Committee will decide which TWP should be responsible for the drafting of the Test Guidelines. This will be decided on the basis of the level of expertise in the TWPs concerned. In such cases, the Technical Committee will request the approval of all other interested TWPs before a draft is submitted for adoption."

The TWV agreed that consideration should be given, where possible, to allocate Test Guidelines to only one TWP on the basis that all TWPs would be informed on the development of all Test Guidelines and interested experts could participate in the relevant TWP.

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

23. The TWV considered document TWV/45/14 and agreed the following with regard to the development of the items covered by the annexes:

ANNEX I TGP/8 PART I: DUS TRIAL DESIGN AND DATA ANALYSIS
New Section 2 Data to be recorded

24. The TWV agreed that the information provided in document TWV/45/14, Annex I, provided valuable information that should be included in document TGP/8.

ANNEX II – TGP/8 PART I: DUS TRIAL DESIGN AND DATA ANALYSIS
New Section 3 – Control of variation due to different observers

25. The TWV agreed that the information provided in document TWV/45/14, Annex II, provided valuable information that should be included in document TGP/8.

26. With regard to the proposal of the TWC that a new version of that guidance should be prepared taking into account the information contained in document TWC/25/12 Rev. "Review of Test Design: Checking Levels of Quality (Revised)", it concluded that the volume of information provided in document TWC/25/12 Rev. would detract from the main purpose of the document and suggested that a cross-reference might be made to such information.

ANNEX III TGP/8 PART I: DUS TRIAL DESIGN AND DATA ANALYSIS
New Section 6 – Data processing for the assessment of distinctness and for producing variety descriptions

27. The TWV considered document TWV/45/14, Annex III in conjunction with Annex VIII of that document. It agreed that the information provided in Annex VIII was a very important first step in developing common guidance on data processing for the assessment of distinctness and for producing variety descriptions, but concluded that the information as presented in Annex VIII would not be appropriate for inclusion in document TGP/8. It agreed to propose that the Office of the Union be requested to summarize the different approaches set out in Annex VIII with regard to aspects in common and aspects where there was divergence. As a next step, on the basis of that summary, consideration could be given to developing general guidance.

ANNEX IV TGP/8 PART I: DUS TRIAL DESIGN AND DATA ANALYSIS
New Section – Information of good agronomic practices for DUS field trials

28. The TWV agreed on the importance of employing good agronomic practice in the conduct of DUS trials and on the need to ensure that staff had the appropriate training and

experience for conducting DUS trials. However, it concluded that it would not be desirable to seek to develop detailed guidance in document TGP/8.

ANNEX V TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
New Section after COYU – Statistical Methods for very small sample sizes

29. The TWV agreed that it was important to emphasize that, "if data are to be statistically analyzed, then the assumptions behind the theory on which the statistical methods are based must be met - at least approximately" (see document TGP/8/1: Part I: 2. VALIDATION OF DATA AND ASSUMPTIONS, Section 2.3 "Assumptions for statistical analysis and the validation of these assumptions").

30. The TWV noted the proposal made by the TWA, at its fortieth session, to amend, in the first paragraph, "two varieties different" as "two varieties distinct" as follows:

> "One of the main problems when applying a statistical test on small trials is that we do not have enough data available to limit the risk of making a wrong decision to an acceptable level. Every statistical test has a probability/risk of making wrong decisions: there is a Type I error, i.e. the risk of declaring ~~two varieties different~~ two varieties distinct where in reality they are not significantly different, and a Type II error: declaring two distinct varieties not significantly different."

31. The TWV agreed that the wording should be amended for consistency with the wording in document TGP/8/1: Part I: 1. DUS TRIAL DESIGN:

> "1.5.3.3.6.2.6 The test statistic is based on a sample of plants, trialled in a sample of growing conditions. Thus if the process were to be repeated at a different time, a different value of the test statistic would be obtained. Because of this inherent variability, there is a chance that a different conclusion is arrived at compared to the conclusion which would be reached if the trial could be repeated indefinitely. Such "statistical errors" can occur in two ways, let us first consider distinctness conclusions:
>
> > "- The conclusions based on the test statistic, i.e. from the DUS trial, is that two varieties are distinct, when they would not be distinct if the trial could be repeated indefinitely. This is known as a Type I error and its risk is denoted by α. […]"

ANNEX VI TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
New Section 11 Examining DUS in bulk samples

32. The TWV agreed that the example of sugar beet should be replaced by a crop for which there are UPOV Test Guidelines.

ANNEX VII TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
New Section 12 Examining characteristics using image analysis

33. The TWV agreed that Section 12.1 should be reworded to explain that image analysis would be an alternative method for observing a characteristic, rather than a principal method for observing a characteristic.

ANNEX VIII TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
New Section 13 Methods for data processing for the assessment of distinctness and for producing variety descriptions

(see comments for Annex III)

ANNEX IX TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
New Section - Guidance of data analysis for blind randomized trials

34. The TWV agreed that the experts from France should develop guidance on data analysis for blind randomized trials from their experience, including their use of blind randomized trials for disease resistance.

ANNEX X TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
New Section - Statistical methods for visually observed characteristics

35. The TWV agreed with the TWA proposal to modify the title of the three parts of "Section 10 – Minimum number of comparable varieties for the Relative Variance Method" as follows:

THE COMBINED OVER-YEARS METHOD FOR NOMINAL-SCALED CHARACTERISTICS

THE COMBINED OVER-YEARS METHOD FOR ORDINAL-SCALED CHARACTERISTICS

THE COMBINED OVER-YEARS METHOD FOR BINOMIAL-SCALED CHARACTERISTICS

ANNEX XI TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
New Section - Guidance for the development of variety descriptions

36. The TWV agreed that the experts from the Netherlands should draft guidance on the development of variety descriptions with information from more than one growing cycle in one location and more than one location.

ANNEX XII TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
Section 4 – 2x1 % Method - Minimum number of degrees of freedom for the 2x1% Method

37. The TWV noted that at least 10 degrees of freedom were required for the residual mean square used to estimate the standard error in the t-test in each year. The TWV proposed that further clarification was needed with regard to the significance of the wording "preferably at least 20 degrees of freedom".

ANNEX XIII TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
Section 9 - The Combined-Over-Years Uniformity Criterion (COYU) - Minimum number of degrees of freedom for COYU

38. The TWV agreed that it would be necessary to provide data in support of the proposal to reduce the minimum degrees of freedom for the varieties-by-years mean square in the COYD analysis of variance from 20 to 10.

39. The TWV agreed that the following wording in Section 3.1 “Summary of requirements for application of method” should be amended because it meant that Long-Term COYD could be used with less than 10 degrees of freedom:

> “- there should be at least 10, and preferably at least 20, degrees of freedom for the varieties-by-years mean square in the COYD analysis of variance, or if there are not, then Long-Term COYD can be used (see 3.6.2 below);”

ANNEX XIV TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
Section 10 – Minimum number of comparable varieties for the Relative Variance Method

40. The TWV noted the comments made by the TWA and TWC concerning the minimum number of comparable varieties for the Relative Variance Method.

TGP/12: Guidance on Certain Physiological Characteristics (document TWV/45/15)

41. The TWV agreed with the proposal for explanations for disease resistance characteristics in Test Guidelines and nomenclature of pathogens, as presented in the annex to document TWV/45/15, subject to the following:

2.4	to explain that the elements in bold font should not be presented in bold font in the Test Guidelines

Discussion on Draft Test Guidelines

Cassava

42. The subgroup discussed document TG/CASSAV(proj.2)(rev.), presented by Mr. Caleb Obunyali (Kenya), and agreed the following:

cover page	to read “*prepared by experts from Brazil and Kenya*”
page 2	update table of contents after the inclusion of chapter 4.1.4 “Number of Plants / Parts of Plants to be Examined” (see new 3.5 below)
2.3	to read “The minimum quantity of plant material, to be supplied by the applicant, should be: 30 cuttings, each one with a length of 20 cm with at least 5 to 8 buds.”
new 4.1.4	to insert back chapter 4.1.4 (missing in proj.2) modified as follows: “*4.1.4 Number of Plants / Parts of Plants to be Examined* Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 10 plants or parts taken from each of 10 plants and any other observations made on all plants in the test, disregarding any off-type plants.”

4.2.2	to read “For the assessment of uniformity of inbred lines, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 20 plants, one off-type is allowed.”
5.3	to delete char. 2 (a), char. 14 (g), char. 17 (h), char. 29 (k) from the list of grouping characteristics; to add chars. 16, 26 and new char. on “Branch habit” as grouping characteristics; grouping of characteristics needs to be rechecked
Table of Chars.	check order of characteristics
Char. 1	to move after Char. 15
Char. 4	to read: “Leaf: predominant shape of central lobe”; reconsider obovate states, and linear pyramidal and linear pandurate states; to check state names in TGP/14; states to correspond to illustrations in Ad. 4
Char. 6	check colors in TGP/14; keep states (3) and (4); to provide example varieties
Char. 7	to be deleted
Char. 8	to provide example varieties
Char. 9	to read: “Leaf: length of central lobe”
Char. 10	to add explanation “Leaf: length of central and unlobed part”; to check whether botanical term for unlobed part exists
Char. 11	to read: “Leaf: width of central lobe”
Char. 12	add new state “purple” with note (4)
Char. 14	check this characteristic; check example varieties (Karibuni)
Char. 15	delete state “entire and split”; notes to be (1) and (2)
Char. 16	to check and provide example varieties for cream; add state “purplish” with note (5), to add explanation; to check order of colors
Char. 17	to delete (*); check colors in TGP/14 (golden and silver are not valid colors)
Char. 18	to delete “(middle part of plant)”; to add state “purple” with note (5); to provide example varieties
Char. 19	to add illustration for state “intermediate”
Char. 20	to read: “Stem: prominence of leaf scars on nodes” and delete “(middle part of plant)”; states to be changed to “weak” (1), “medium” (2), “strong” (3)
Char. 21	to delete “(middle part of plant)”; to provide an illustration showing where to measure; to add example varieties
Char. 22	delete “of adult plants”; to add example varieties for states (4) and (5); to check order of colors; to consider combining of states (3) and (4)
Char. 23	to read “Root: peduncle”; to check whether “peduncle” is the correct term
new Char.	to add new characteristic “Root: length of peduncle”; to provide states; to be indicated as QN; to be indicated as VG/MS
Char. 24	to combine white, cream and yellow as one state “whitish”; to renumber notes accordingly to 1, 2, 3

Char. 26	to read “flesh” instead of “pulp”; to split yellow into two states: “light yellow” and “dark yellow”; renumber notes accordingly
Char. 28	to read “conical to cylindrical” instead of “conico-cylindrical”; to improve illustration with better pictures
Char. 30	to be deleted
Char. 31	to read “Root adherence of cortex to flesh”; to have states (3) “weak”, (5) “medium”, (7) “strong”; to improve explanation; to replace (b) by (c)
new Chars.	to check two new characteristics; to add example varieties and illustrations: - “Type of plant” with states “compact” (1), “opened” (2), “umbrella” (3) and “cylindrical” (4); to provide example varieties; to add illustrations - “Branch habit” with states “erect” (1), “dicotomic” (2), “tricotomic” (3), “tetracotomic” (4); to add illustration of new char.
8.1	to insert a second sentence before (a), (b) and (c) to read “All characteristics to be observed in the middle third of the plant.”; to provide example varieties; to add illustrations
8.1 (b)	to read: “(b) Observations should be made after 180 days (6 to 9 months) from planting”
Ad. 5	improve photographs
Ad. 6	to consider combining of states (3) and (4); to rename states (5) and (6)
Ad. 9 and 11	to read: Ad. 9 “Leaf: length of central lobe”, Ad. 11 “Leaf: width of central lobe”
Ad. 10	to improve illustrations; to check length or width
Ad. 21	to be deleted

Echinacea

43. The subgroup discussed document TG/ECNCE(proj.3), presented by Mrs. Radmila Safarikova (Czech Republic), in the absence of the Leading Experts from Poland and the United Kingdom, and agreed the following:

Char. 7 to 10	to add example varieties
Char. 13	to change notes to (1) to (3) or (1) to (5); to add example varieties
Char. 18	to add example varieties; to check whether states to be changed to (1) to (5) instead of (1) to (7)
Char. 20	to read “Leaf: dentation of margin” instead of “Indentations of margin”
Char. 21	to check correlation between Char. 21 and Char. 5 (see example varieties)
Char. 22	to add example varieties; to check whether to use condensed scale (1) to (3) or (1) to (5)
Char. 25	to check if indication as MS is necessary

Char. 27	to read “Flower head: relative number of ligulate ray florets”; to add example varieties
Char. 28	to read “Flower head: relative number of spatule ray florets”; to add example varieties
Char. 29	to read “Flower head: relative number of quilled ray florets”; to add example varieties
Char. 39	to add example varieties; to read “absent” or “very weak” for state (1); to consider condensed scale (1) to (5)
Char. 40	to add example varieties or change notes to (1) to (5)
Char. 41	to check if a condensed scale from (1) to (5) is more appropriate
Char. 43	to read “Dentation” instead of “Indentations”; to check example varieties
Chars. 49 and 50	to read “Ratio: height/diameter” instead of “Height diameter ratio”
Char.62	to check wording of “indentations”
Char.63 and 64	to add example varieties
Char.65	to be deleted

Endive (Revision)

44. The subgroup discussed document TG/118/5(proj.1), presented by Mrs. Marian van Leeuwen (Netherlands), and agreed the following:

Table of chars.	to replace example varieties “Nummer Vijf 2” by “Grosse bouclée 2” in all relevant characteristics
Char. 2	state (1) to add a “2” to “Grosse bouclée”
Char. 3	state (2) to read “De Louviers”
Char. 5	to add old Char. 5; FR to provide illustrations
new 5.1	to read “Plant: shape in longitudinal section”; to add (*); to delete example variety “Comet de la Loire” (state (1)); IT to provide illustrations for state (2); to add state (4) “conical”; FR to provide illustrations for state (3) and (4)
Char. 6	to be deleted
Char. 9	to read “Leaf: attitude of upper part”; FR to provide an explanation; to add (+)
Char. 10	to be deleted; to check if example varieties can be used for char. 9
Char. 12	to renumber as Char. 12.1; state (7): to delete example variety “D’été à Coeur jaune”
Char. 12.2	to add new Char. 12.2 for Cut type varieties only; FR to provide example varieties and an explanation
Char. 13	to have states (1), (3), (5) instead of (1), (2), (3)
Char. 16.3	to be deleted

Char. 16.5	to be deleted
Char. 16.6	to provide better illustrations
Char.17	to be deleted
Char.18	to read "Plain type varieties only: Leaf: undulation of margin"; FR to provide example varieties and illustrations
Char. 21	to add state (9) "very large" with example variety "Toujours Blanche"
Char. 22	to be replaced by old Char. 22
Char. 23	to re-add old Char. 23
Char. 24	to delete (*)
Char. 27	to delete (*)
Char. 29	to correct spelling of example variety "Wallonne"
Char. 30	to correct example varieties; FR to provide new example varieties
8.1	to add general explanation that all characteristics should be observed under natural growing conditions without forcing measures; to add "(d) The flower color should be observed just after opening of the flower."
Ad. 1, 2, 3	(A) (1) to read "Grosse bouclée 2 (Nummer Vijf 2): Short, broad foliage; large, full heart, with white, tightly-curled heart leaves. The leaves are slightly lobed"; (A) (2) to read "Breedblad Volhart Winter (A cœur plein): Somewhat flattened shape because the partly incurved inner leaves tend to cover the heart, thus forming quite a noticeable ball low down; the ball is broad, with crinkly leaves. The leaves are slightly lobed"; (B) (2) and (3): photographs to be provided
Ad. 5.1	Illustrations to be provided
Ad. 7.1	Illustrations to be provided
TQ Title	to delete section on hybrids
TQ 1.1	Botanical name to be completed
TQ 1.2	Common name to be completed
TQ 4.1	to be deleted
TQ 4.2	to delete Example 2 and GN 32
TQ 5.	to add "Plant: diameter" after 5.3; to add "Leaf: intensity of color" after 5.4
TQ 7.3	to delete GN 34 and ASW 16
TQ 9.3	to be deleted

French Bean (Partial revision)

45. The TWV considered document TWV/45/21, presented by Mr. François Boulineau (France), and agreed the following with regard to the proposed new wording in the annex to that document:

Char. 49	explanation to be provided according to the guidance in the annex to document TWV/45/15
Char. 50	to be deleted
Char. 51	explanation to be provided according to the guidance in the annex to document TWV/45/15
New Char.	- to be numbered as Char. 50 - to be indicated as QN - explanation to be provided according to the guidance in the annex to document TWV/45/15

46. The TWV agreed that the amended proposals should be provided to the Office of the Union by September 9, 2011, for approval by correspondence by the TWV and TWA.

Lycopersicon (excluding Lycopersicon esculentum Mill.) (Tomato rootstock)

47. The subgroup discussed document TG/TOM_ROOT(proj.1), presented by Mr. Kees van Ettekoven (Netherlands), and agreed the following:

Title	to read *"Solanum lycopersicum* L. x *Solanum habroichaites* S. Knapp & D.M. Spooner *Solanum lycopersicum* x *S. peruvianum* *Solanum lycopersicum* x *S. chesmanii"* subject to additional information from FR
Alternative names	to be adapted
1.	to add "*Solanum lycopersicum* x *S. peruvianum*" and "*Solanum lycopersicum* x *S. chesmanii*"
4.2.2	current text to be replaced by ASW relating to relative uniformity
5.3	to add char. 20 and 27; to delete (a) char. 13, (b) char. 14, (d) char. (18), (j) char. 26.1
Table of chars.	to delete example variety "RS 01648542" for all concerned characteristics
Char. 9	to read "Leaf: glossiness (as for 7)"
Char. 10	to read "Leaf: blistering (as for 7)"
Char. 13	to have states (1) flattened with example variety "He-Wolf", (2) slightly flattened with example variety "Gladiator", (3) circular with example variety "Maxifort"

Char. 14	to be indicated as MS instead of VG
Char. 18	to add state (4) “reddish” with example variety “Brigeor”
Char. 19	to be deleted
Char. 20	to have states (1) “insensitive” with example variety “Maxifort”, (2) “moderately sensitive” with example variety “Beaufort”, (3) “very sensitive” with example variety “Body”
Char. 21	to have states (1) “absent” with example variety “Bruce”, (2) “intermediate”, (3) “present” with example variety “Emperador”
Char. 22	to read “Resistance to *Verticillium* sp.”
Char. 26	to read “Resistance to Tomato Mosaic Virus (ToMV)”; to add strains 1 and 2
Char. 26.1	to delete (*)
Char. 27	to add (*)
Char. 29	to read “Resistance to Tomato Yellow Leaf Curl Virus (TYLCV)”
Char. 30	to read “Resistance to Tomato Spotted Wilt Virus (TSWV)”
new char.	to add new characteristic “Fruit: conspicuousness of meridian stripes (before maturity)”; to have states (3) “weak” with example variety “Popeye”, (5) “medium” with example variety “Body”, (7) “strong” with example variety “Vigomax”; ES to supply explanatory photographs
new char.	to add new characteristic “Time of flowering”; to have states (3) “early” with example variety “He man”, (5) “medium” with example variety “Body”, (7) “late” with example variety “Popeye”
8.2	all information concerning disease resistance to be adapted according to TWV/45 conclusions
TQ 4.1	to be deleted
TQ	to check on all remarks above
Table of chars., explanations and TQ	to check on consistency of example varieties

Parsnip (Revision)

48. The subgroup discussed document TG/218/2(proj.1) presented by Mr. Tom Christie (United Kingdom) and agreed the following:

First page	to add UPOV Code
Char. 9	to be deleted
Char. 18	state (6): to add example variety “Rotund
Char. 23	to add MS
Char. 24	to be deleted
Char. 25	to delete (*)

8.1 (a)	to read “All observations on the leaf and the leaflet should be made on fully developed plants”
Ad. 12	to add explanation that “size” refers to area/surface; existing explanation to read “Assessment should be made on the second leaflet from the bottom on one side of the midrib for each leaf recorded.”
Ad. 25	to add explanation for the case of an additional test; to define number of plants as 60
TQ Heading	to delete sentence on hybrid varieties
TQ 4.1.1	to delete (a), (b) and (c) and to put a textbox instead; to add square brackets behind “Crossing”
TQ 4.2	to delete section on hybrid varieties
TQ 7	to delete “A representative color image of the variety should accompany the Technical Questionnaire.”

Pea (Partial Revision)

49. The TWV considered document TWV/45/24, presented by Mr. François Boulineau (France), in conjunction with documents TWV/45/6 and TWV/45/13. It agreed that Mr. Boulineau should seek variety descriptions from members of the Union for the 2,400 (approximate) varieties of common knowledge that he had identified, to examine if the following characteristics were sufficiently reliable for use as grouping characteristics:

Current grouping characteristics:

Plant: anthocyanin coloration (characteristic 1)
Stem: number of nodes up to and including first fertile node (characteristic 5)
Stipule: flecking (characteristic 20)
Pod: parchment (characteristic 39)
Excluding varieties with pod parchment: entire: Pod: thickened wall (characteristic 40)
Pod: color (characteristic 43)
Immature seed: intensity of green color (characteristic 47)
Seed: type of starch grains (characteristic 49)
Seed: color of cotyledon (characteristic 52)
Only varieties with plant anthocyanin coloration present: Seed: marbling of testa (characteristic 53)
Only varieties with plant anthocyanin coloration present: Seed: violet or pink spots on testa (characteristic 54)
Seed: hilum color (characteristic 55)
Resistance to *Fusarium oxysporum* f. sp. *pisi* (characteristic 58.1)

Potential grouping characteristic:

Stem: fasciation (characteristic 3)
Stem: length (characteristic 4)
Foliage: color (characteristic 6)
Leaf: leaflets (characteristic 8)
Time of flowering (characteristic 24
Only varieties with stem fasciation absent: Plant: maximum number of flowers per node (characteristic 25)
Only varieties with plant anthocyanin coloration present: Flower: color of wing (characteristic 26)
Pod: length (characteristic 37)
Pod: width (characteristic 38)
Only varieties with Pod: thickened wall absent: Pod: shape of distal part (characteristic 41)
Pod: curvature (characteristic 42)
Only varieties with pod color green (Char. 43: state 2): intensity of green color (characteristic 44)
Excluding varieties with pod parchment: entire: Pod: suture strings (characteristic 45)
Seed: shape (characteristic 48)
Seed: weight (characteristic 57)
Resistance to *Erysiphe pisi* Syd. (characteristic 59)
Resistance to *Ascochyta pisi*, Race C (characteristic 60)

50. The TWV agreed that a circular should be prepared by Mr. Boulineau and issued by the Office of the Union to the Technical Committee representative for the following members of the Union, on the basis that they had indicated practical experience in the DUS examination of Pea:

Argentina; Austria; Bulgaria; Canada; China; Czech Republic; Denmark; Estonia; European Union (Community Plant Variety Office (CPVO)); France; Germany; Hungary; Japan; Kenya; Netherlands; New Zealand; Poland; Portugal; Republic of Korea; Republic of Moldova; Romania; Russian Federation; Slovakia; South Africa; Spain; Ukraine; United Kingdom; United States of America;

51. The TWV agreed that the contributors of variety descriptions should be invited to indicate the status of the variety descriptions provided and, in particular, if they constituted the “official” description of the variety concerned.

Pleurotus

52. The subgroup discussed document TG/PLEUR(proj.2) presented by Mr. Yong Hyun Cho (Republic of Korea) and agreed the following:

Title	to delete “*P. ferulea* Lanzi”
Botanical names	to delete “*P. ferulea* Lanzi”
Alternative names	to replace current French name by “Pleurot”

1.	to read “These Test Guidelines apply to all varieties of the genus *Pleurotus ostreatus* (Jacq.: Fr.) Kummer, *P. eryngii* (DC.: Fr.) Quél., *P. pulmonarius* (Fr.) Quél., *P. cystidiosus* O.K. Mill., *Pleurotus djamor* (Rumph. ex Fr.) Boedijn, *P. cornucopiae* (Paulet) Rolland”
3.4.1	“Each test should be designed to result in a total of at least 90 fruit bodies, which should be divided between at least 3 replicates. Only the first flush should be observed.”
4.1.4	“Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 60 fruit bodies or parts taken from each of 30 fruit bodies and any other observations made on all plants in the test, disregarding any off-type plants.”
4.2.2	“For the assessment of uniformity, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 90 fruit bodies, 3 off-types are allowed.”
Char. 2	to have states (3) “small” with example variety “Geumbit”, (5) “medium” with example varieties “HK 35” and “Suhan”, (7) “large” with example variety “Aeryni”
Char.3	to have states (1) “cylindrical” with example varieties “Geumbit” and “HK 35”, (2) “tapered shaped”, (3) “club shaped” with example variety “Aeryni”
Char. 4	example varieties to read: state (3) “HK 35”, state (5) “Chunchu”, state (7) “Suhan”
Char. 5	to read “Cap: diameter”; to have states (3) “small”, (5) “medium”, (7) “large”; to add example varieties: state (3) “Goni”, state (5) “Suhan”
Char. 6	to have states (3) “small”, (5) “medium”, (7) “large”; to have example varieties: state (3) “Goni”, state (5) “Chunchu”, state (7) “Suhan” and “Ikaros 0.9”
Char. 7	to have the following example varieties: state (1): “Nonggi’1ho”, state (2): “Goni”, state (3): “Aeryni”, state (4) “Chunchu”, state (5) “Suhan”
Char. 8	to have the follwing states and example varieties: (1) “white”, “Miso” (2) “yellow”, “Geumbit” (3) “pink”, “Noeul” (4) “brown”, “Yeoreumneutari” (5) “dark brown”, “Hosan” (6) “grey”, “Chunchu, HK 35” (7) “dark grey”, “Heuknang”
Char. 9	to read “Cap: attachment”; state (1): to add example variety “HK 35”
Char. 10	to add example varieties and illustrations
Char. 11	to have states (1) “absent or very low”, (2) “moderate”, (3) “high”; to check whether “absent” corresponds to example variety for state (1) “Spoppo”, if yes, to split in two characteristics
Char. 12	to read “Cluster formation”; to have states (1) “absent” with example variety “Yeoreumneutari“, (9) “present”; to be indicated as QL
Char. 13	to be deleted
Adds. 1, 2	to be deleted

Add. 3	to be revised and split in different optimum- and different temperature levels for growth
Add. 4	to read “Cap: appearance of inscisions”; to add (+)
Ad. 2	to improve illustrations
Ad. 3	change illustrations according to new states of expression of Char. 3
Ad. 9	to delete upper drawings

Poppy (Revision)

53. The subgroup discussed document TG/166/4(proj.1) presented by Mrs.Julia Borys (Office of Union), in the absence of the Leading Expert from Hungary, and agreed the following:

5.3(a)	to be deleted; to change numbering according to the Table of chars.
Char. 1 new	not to add to the Table of chars., only to the Chapter 7 of TQ
Char. 1	to be deleted
Char. 2	to delete (w) to identify winter type of example variety (in all Chars)
Char. 4 new	to add as Char.3 with indication PQ instead of QL
Char. 6 new	to add as Char.4
Char. 7 new	to add as Char. 5; to read “Rosette leaf: depth of lobes” with states (1) “absent or shallow”, (2) “medium”, (3) “deep”
Char. 4	to be deleted
Char. 5	to read “Main stem:length”
Char. 9 new	to be indicated as QL instead of QN
Char. 10	to read “Stem: hairiness” (as for 7)
Chars. 8, 9 and 10	to be deleted
Chars. 11 new and 2 new	to combine as Char.9; to read “Flower bud: anthocyanin coloration” with states (1) “absent”, (2) “ring around stem” (3) “bottom part towards stem end”; to be indicated as PQ and VG
Char. 16	to be indicated as PQ instead of QL
Char. 17	to be indicated as PQ instead of QL; to add example varieties for state (2)
Char. 19	to read “Petal: top of blotch”; to add (d)
Char. 20	to add (d); to add example varieties for state (9)
Char. 21	to be indicated as PQ instead of QL
Char. 22	to be indicated as PQ instead of QL; to add example varieties for state (2)

Char. 25	to provide better picture for state (3)
Char. 26	be indicated as PQ instead of QL
Char. 27	to add example varieties for states (1) and (9), otherwise to delete char.
Char. 28	to add example varieties for notes (1) and (9), otherwise to delete char.
Char. 29	states to read (1) “absent or shallow”, (3) “deep”
Char. 29 old	to be deleted
Char. 34	to be indicated as PQ instead of QL
Char. 35	to be indicated as PQ instead of QL
Char. 36	to be indicated as PQ instead of QN; to have notes (1), (2) ,(3) instead of (3), (5), (7)
Char. 37	to be indicated as QN instead of QL; to add (+)
Chars. 39 to 41	to be deleted
8.1	to delete “5” at the end of (d)
Ad. 8	to read “Main stem”; to improve illustration; to delete indication “primary, secondary and tertiary”
Ad. 25	to provide a new picture for note (3)
TQ 4	to be revised; to keep only appropriate items
TQ 5	to be revised according to the Table of chars.

Raphanus sativus L. (Revision)

54. The subgroup discussed document TG/63/7(proj.5) - TG/64/7(proj.4), presented by Mrs. Swenja Tams (Germany), and agreed the following:

Cover page	to replace French name by “Radis rave”
General remark	to rename “root” as “non-thickened root” in all relevant characteristics
5.3	to delete (b) char. 5
Char. 2.a	to be deleted
Chars. 3 and 4	to move after all leaf characteristics (after char. 13)
Char. 6.1	KR to check Asian example varieties
Char. 10	NL to provide example varieties for S-Type varieties
Char. 12 and 13	to be combined in one characteristic as a QN characteristic with 9 notes
Char. 14.2	FR and NL to provide example varieties
Char. 15.2	FR and NL to provide example varieties
Char. 19	to read “Radish: shape of apex”

Char. 20	to delete (+)
Char. 21	to add brown color; GB to provide example varieties for brown color
Char. 22	to keep characteristic
Char. 23	to be deleted
Char. 28	FR and NL to provide example varieties for states (1) to (3)
Char. 29	to be indicated as QN instead of PQ; JP and KR to check example varieties of N-Type varieties; FR and NL to check example varieties of S-Type varieties; to have states: “absent or very weak” (1) “weak” (3) “moderate” (5) “strong” (7) “very strong” (9)
8.1	to use example varieties for note (6) of Char. 28 as example variety for N-type varieties; to indicate “Flamboyant 2” as example variety for S-type varieties
8.2 (b)	to read “All observations on the leaf and the radish should be made at the time of harvest maturity depending on the type.”
Ad. 5	to read “N-Type varieties should be observed 30 days after sowing, because the characteristic might be at a later stage influenced by the position of the radish in the soil.”
Ad. 8	KR to provide better illustrations, otherwise Char. 8 to be deleted
Ad. 10	to read “Parts of the leaf blade are considered as lobes if their length is at least equivalent to the width of the leaf petiole at their point of attachment and if both notches of the blade have at least half the length of the lobe itself.”
Ad. 19	to improve drawing by adding a line
Ad. 20	to be deleted
Ad. 21	to move lower line down
Ad. 23	to be deleted
Ad. 29	to read “After having reached the harvest maturity radishes may be repeatedly harvested and cut in cross section to determine the tendency of becoming pithy. In this case, the number of days after sowing is to be recorded when 50% of the plants show this characteristic. Varieties which are very early pithy correspond to the expression very strong, varieties becoming pithy very late correspond to the expression absent or very weak.”
TQ 4.1	to read “4.1 Breeding scheme “Variety resulting from: “4.1.1 Crossing [ ] “4.1.2 Mutation [ ]

	(please state parent variety) “4.1.3 Discovery and development [ ] (please state where and when discovered and how developed) “4.1.4 Other [ ]” (please provide details)”
TQ 4.2	to read “Method of propagating the variety “(a) Self-pollination [ ] “(b) Cross-pollination (i) population [ ] (ii) synthetic variety [ ] “(c) Hybrid (i) single hybrid [ ] (ii) three-way hybrid [ ] “(d) Other [ ] (please provide details)“
TQ 5.1	to be deleted
TQ 5.3	to be deleted
TQ 5.6	to correct spelling of “anthocyanin”
TQ 5.13	to move to 5.1; to add: “Number of days to harvest maturity …….. (please complete)“
TQ 7.2	to read ” Special conditions for the examination of the variety “7.2.1 Use: – in glasshouse [ ] – in the open: spring [ ] summer [ ] autumn [ ] winter [ ]”

Shiitake

55. The subgroup discussed document TG/SHIITAKE(proj.3), presented by Mr. Hideki Maeda (Japan), and agreed the following:

General	to replace “Fruiting treatment” with “Fruit induction”
3.4.1	to read “Each test should be designed to result in a total of at least 60 bed-logs or 60 sawdust blocks, which should be divided between at least three replicates.”

4.1.4	to read “Unless otherwise indicated, for the purposes of distinctness, all observations on single fruit bodies should be made on 60 fruit bodies or parts taken from each of 60 fruit bodies and any other observations made on all fruit bodies in the test, disregarding any off-type fruit bodies.”
5.3	to delete (d)
Char. 2	to be deleted
Char. 4	to delete states (1) and (5) and to change notes to (3), (5), (7)
Char. 10	to have states (1) “concave”, (2) “flat”, (3) “round”, (4) “convex”
Char. 11	to delete states (1) and (9); to have states (3) “small”, (5) “medium”, (7) “large”
Char. 14	to have state (2) “medium” instead of “intermediate”
Char. 15	to delete (+)
Char. 20	to be indicated as QL; to delete (*); to have states (1) “separate from stipe” and (2) “attached to stipe”
Char. 25	to add example variety “JMS5K16” for state (2)
Char. 26	to delete states (1) and (9)
Char. 27	to have states (3) “small”, (5) “medium”, (7) “large”
Char. 30	state (9) to read “present”
Char. 31	state (2) to read “medium” instead of “intermediate”
Char. 35	to be deleted
Ad. 2	to be deleted
Ad. 5,6,7,8,9	to read “B: length of colony”
Ad. 36, 37	to read “Fruit induction is indispensable for the fruit body development. In the same condition, the timing of the fruiting treatment is different according to each variety clearly. In the fruiting treatment, there is water soaking treatment, water sprinkling treatment, low temperature treatment, or physical treatment etc. Any method is stimulation for the fruiting body formation. In each cultivation type (bed-log cultivation, sawdust cultivation), the fruiting treatment should be applied at the time when the symptom (e.g. appearance of primordium) of the fruiting body formation is shown. The harvesting time is considered to be a peak from which fruit bodies are harvested most.” to check the time of application of treatment and the results of application of the treatment; to improve explanation and to add schemes
TQ 4.1.1	to delete (a), (b), (c); to put a textbox and to add square brackets

Tomato (Partial Revision)

56. The TWV considered document TWV/45/25, presented by Mr. Kees van Ettekoven (Netherlands), and agreed that Annex II to that document should be amended as follows:

General	
3. Host species	to amend botanical name
4. Source of inoculum	to provide footnote with contact details
12. Interpretation of data in terms of UPOV characteristic states	to use the states "absent (1)" and "present (9)" and to explain accordingly
Other	
Ad. 47	to replace "*Verticillium dahliae*" with "*Verticillium dahliae / Verticillium albo-atrum*"(Vd/Va)
Ad. 57: 13. Critical control points	- to read "TYLCV is endemic in many tropical and subtropical areas and has a quarantine status in many countries with a temperate climate. TYLCV is on the EPPO alert list. Some TYLCV resistant varieties may be susceptible to the closely related virus Tomato yellow leaf curl Sardinia virus (TYLCSV)." - to add literature provided by Spain
Ad. 58 13. Critical control points	- to read "TSWV has a quarantine status in some countries. TSWV is transmitted by Thrips tabaci and Western flower thrips (*Frankliniella occidentalis*). Pathotype 0 is defined by its inability to break resistance in tomato varieties carrying the resistance gene Sw-5." (all remaining text and Note to be deleted) - to add literature provided by Spain

57. The TWV agreed that paragraph 1 (c) should be amended to read "gene-specific marker method for examination of resistance to Tomato Spotted Wilt Virus (TSWV) - Race 0" and paragraph 8 should be amended to read "[…] gene-specific marker method for examination to Tomato Spotted Wilt Virus (TSWV)-Race 0".

Watermelon (Revision)

58. The subgroup discussed document TG/142/5(proj.2), presented by Mrs. Marian van Leeuwen (Netherlands), and agreed the following:

3.4.3	to read "For pollination and fruit set of triploid varieties it is necessary to interplant with diploid varieties in the trial lay out so that the diploid pollenizers will be close to the triploid plants. The minimum percentage of diploid plants should not be less than 30%. When pollinators (e.g. bees, bumblebees) are used, a

	slightly lower percentage of pollenizer may be required."
Char. 1	Japan to check whether example variety "Kimiwa Red Seedless" (state (3)) still exists
Char. 2	to delete example varieties "Rocio", "Sugar Suika", "Candida"
Char. 3	to delete example varieties "Sweet Favorite", "Oasis", "Rubin", "Scarlet Trio"
Char. 5	to be deleted
Char. 6	to delete (+); to add example variety "Topgun" for state (5)
Char. 7	to delete (as for 7); to have notes (1), (2), (3) instead of (3), (5), (7)
Char. 8	to have states (1) "yellowish green", (2) "green", (3) "greyish green", (4) "bluish green" ; to have example varieties as follows: state (2) "Crimson Sweet, Yamato 3", (3) "Sugar Baby", (4) "SP 4"
Char. 9	to check example varieties of states (1) and (3)
Char. 11	to read "Leaf blade: color of veins", to indicate as QL, to have states (1) "green", (2) "yellow"; to add picture provided by JP
Char. 12	to be deleted
Char. 13	to have example varieties as follows: state (1) "Monaco, New Hampshire Midget", state (2) "Mini, Petite Perfection", state (3) "Angela", state (4) "Pasión, Sugar Baby", state (5) "Boston", state (6) "Panonia, Crimson Sweet", state (7) "Fabiola", state (8) "Jubilee", state (9) "Carolina Cross, Florida Giant, Cobb's Gem"
Char. 14	to have example varieties "Camilla" and "Kanro" for state (1)
Char. 16	to be rediscussed
Char. 17	to have example varieties "Burpee Hybrid", "Kahô", "Valdoria" for state (3) and "Cobb's Gem" for state (7)
Char. 19	to add (*); state (9) to have example varieties "Benimusume", "Resistent", "Sweet Marvel"
new char.	to add new characteristic 19.1 (without asterisk) "<u>Only varieties with fruit: ground color of skin: yellow</u>: fruit: intensity of ground color of skin" with states (1) "light", (2) "medium", (3) "dark"; JP to provide example varieties
Char. 20	to delete example variety "SP 4"
Char. 21	to move after Char. 24
Char. 22	State (3) to have example variety "Boston, state (4) to have example variety "À graine rouge a confire a chair verte"
Char. 23	to read "Fruit: width of stripes"; to have example varieties "Tiny Orchid", "Charleston Gray" for state (1)
Char. 24	to read "Fruit: intensity of main color of stripes"
Char. 25	to read "Fruit: margin of stripes"; to be indicated as QN
Char. 28	to have states (1) to (4); to add (+)

<table>
<tr><td>Char. 40</td><td>to have states (1) “absent or very weak” with example variety “Betica”, (3) “medium” with example variety “Sugar Baby”, (5) “very strong” with example varieties “Red Star” and “Romanza”</td></tr>
<tr><td>Ad. 1</td><td>to read
“Ploidy level may be detected by several methods:
a. By counting chromosomes of cells under the microscope;
b. By counting the number chloroplasts in stomatal guard cells using a leaf peel under the microscope;
c. By flow cytometry.
d. triploid varieties show a whitish seed coat without embryo.”</td></tr>
<tr><td>Ad. 6</td><td>to be deleted</td></tr>
<tr><td>Ad. 7</td><td>to add lines to photographs to indicate length and width</td></tr>
<tr><td>Ad. 16</td><td>to be rediscussed; photograph of state (3) to be replaced</td></tr>
<tr><td>Ad. 17</td><td>to replace drawings by photographs</td></tr>
<tr><td>Ad. 19</td><td>to use photographs according to table below; IT and ES to provide names of example varieties
<table>
<tr><td></td><td>photo</td><td>ex var</td></tr>
<tr><td>1</td><td>NL 1</td><td>Tiger Baby</td></tr>
<tr><td>2</td><td>IT 3</td><td>name to provide by It</td></tr>
<tr><td>3</td><td>Napsugar</td><td>Napsugar</td></tr>
<tr><td>4</td><td>NL 4</td><td>Tigre</td></tr>
<tr><td>5</td><td>Es 5</td><td>name to provide by Es</td></tr>
<tr><td>6</td><td>It 7</td><td>name to provide by It</td></tr>
<tr><td>7</td><td>ES 7 (orig. NL)</td><td>Odem</td></tr>
<tr><td>8</td><td>ES 8</td><td>name to provide by Es</td></tr>
<tr><td>9</td><td>NL 9</td><td>Augusta, Rocio</td></tr>
</table></td></tr>
<tr><td>Ad. 20</td><td>to replace the photographs for states (2), (3) and (4) by the photos provided by Spain; to delete the photograph for state (5)</td></tr>
<tr><td>Ad. 21</td><td>to take over photographs provided by ES but with notes (2), (3) and (4); to use the picture provided by NL for state (1); FR to provide picture of variety “À graine rouge à confire à chair verte” for state (5)</td></tr>
<tr><td>Ad. 22</td><td>photograph of state (4) to be replaced by a photo of “À graine rouge à confire à chair verte”</td></tr>
<tr><td>Ad. 23</td><td>illustrations adapted according to example varieties</td></tr>
<tr><td>Ad. 40</td><td>to delete illustration for state (2), illustration for state (4) to become illustration for state (5); illustration for state (5) to be deleted</td></tr>
</table>

TGP Documents (contd.)

TGP/14: Glossary of Terms Used in UPOV Documents

59. The TWV considered documents TWV/45/3, Annexes I and II and TWV/45/16.

60. The TWV endorsed the overall observations and related considerations as set out in document TWV/45/3, Annex II, concerning the use of component and composite characteristics. In particular, it noted that each case would need to be considered on its merits.

61. With regard to the use of characteristics for ratios, it confirmed that it should be possible to use states such as “high” or “low”, provided that explanations and illustrations were provided to avoid any risk of confusion. It also agreed that it should be possible to use states such as “elongated” and “compressed” for characteristics that were worded as shapes, rather than ratios.

62. The TWV considered that the new section for color characteristics should include guidance that the Test Guidelines should provide an explanation of the use of color terms that did not follow generally accepted rules, e.g. the use of “red” in onion for “purple” colors.

Variety Denominations

63. The TWV noted the information provided in document TWV/45/4.

Information and databases

(a) UPOV Information Databases

64. The TWV noted the information provided in document TWV/45/5 and noted that Annex III to that document would be provided by October 2011, with a request for comments by December 31, 2011.

(b) Variety description databases

65. The TWV considered documents TWV/45/6, TWV/45/13 and TWV/45/24, presented by Mr. François Boulineau (France), in conjunction with its discussion on the partial revision of the Test Guidelines for Pea (see paragraphs 49 to 51).

66. The TWV agreed that the first step in the possible development of a database on grouping characteristics for Pea would be to establish a suitable set of grouping characteristics, as agreed for the partial revision of the Test Guidelines for Pea.

67. The TWV was informed by Mr. Tom Christie (United Kingdom) about the European Cultivated Potato Database (ECPD) (http://www.europotato.org/menu.php), which was the result of collaboration between participants in eight European Union countries and five East European countries. The TWV noted that the database could be updated directly by each of the contributors.

(c) Exchangeable software

68. The TWV noted the information provided in document TWV/45/7. The TWV agreed that information on the cost and intellectual property rights for the Bionumerics Software for Databasing and Data Analysis should be provided. The TWV suggested that the TC should consider the type of information to be included in document INF/6.

(d) Electronic application systems

69. The TWV noted the information provided in document TWV/45/8.

70. The TWV received a presentation on "Electronic Application Systems – CPVO" by Mr. Sergio Semon, European Union provided in document TWV/45/22.

Uniformity assessment

(a) Method for calculation of COYU

71. The TWV took note of the information contained in document TWV/45/10.

(b) Assessing uniformity by off-types on the basis of more than one sample or sub-samples

72. The TWV considered document TWV/45/9.

73. The TWV noted that, in the table in paragraph 15, France should be added to the list of members of the Union that had provided information for Cauliflower in Annex IV to document TWV/45/9.

74. The TWV noted that a large proportion of information provided in the annexes to document TWV/45/9 did not correspond to the assessment of uniformity by off-types on the basis of more than one sample or sub-sample. It agreed that a summary of the information corresponding to the assessment of uniformity by off-types on the basis of more than one sample or sub-sample should be prepared by the Office of the Union in order to be able to consider the matter. It agreed that the summary should categorize the different situations where more than one sample or sub-sample were used and should also consider how the results from separate samples / sub-samples were combined for an overall assessment of uniformity of a variety.

Experiences with new types and species

75. The TWV received a presentation on "Watercress DUS Test in the United Kingdom" by Tom Christie as provided in document TWV/45/23.

Guidance for drafters of Test Guidelines

76. The Office of the Union made a presentation on guidance for drafters of Test Guidelines, a copy of which is provided as Annex V to this document.

Matters to be resolved concerning Test Guidelines adopted by the Technical Committee

77. The TWV noted that there were no matters to be resolved concerning Test Guidelines adopted by the Technical Committee.

Recommendations on draft Test Guidelines

(a) Test Guidelines to be put forward for adoption by the Technical Committee

78. The TWV agreed that the following draft Test Guidelines should be sent to the TC for adoption at its forty-seventh session, to be held in Geneva, from March 26 to 28, 2012, on the basis of the following documents and the comments in this report:

Echinacea	TG/ECNCE(proj.3)
French Bean (Partial revision)	TWV/45/21
Lycopersicon (excluding *Lycopersicon esculentum* Mill.)	TG/TOM_ROOT(proj1)
Opium/Seed Poppy (Revision)	TG/166/4(proj.1)
Parsnip (Revision)	TG/218/2(proj.1)
Raphanus sativus L. (Revision)	TG/63/7(proj.5)-TG/64/7(proj.4)
Shiitake (*Lentinula edodes*)	TG/SHIITK(proj.3)
Tomato (Partial revision)	TWV/45/25

(b) Test Guidelines to be discussed at the forty-sixth session

79. The TWV agreed to discuss the following draft Test Guidelines at its forty-sixth session:

Cassava
Coriander
Chives (Revision)
Lagenaria ciceraria Standley
Lettuce (Partial revision: *Fusarium* resistance, big vein virus)
Leaf Chicory (Revision)
Pea (Partial revision: grouping characteristics)
Pleurotus
Spinach (Partial revision: mildew resistance and possible new characteristics)
Watermelon (revision)

80. The leading experts, interested experts and timetables for the development of the Test Guidelines, are summarized in Annex VI to this document.

Date and Place of the Next Session

81. At the invitation of the Netherlands, the TWV agreed to hold its forty-sixth session near the city of Venlo, Netherlands from June 11 to 15, 2012, with the Preparatory Workshop on the Sunday, June 10, 2012.

Chairperson

82. Mrs. Radmila Safarikova was awarded a UPOV bronze medal in recognition of her chairmanship of the TWV from 2009 to 2011

Future program

83. The TWV proposed to discuss the following items at its next session:

1. Opening of the session
2. Adoption of the agenda
3. Short reports on developments in plant variety protection
   (a) Reports from members and observers (oral reports by the participants)
   (b) Reports on developments within UPOV (oral report by the Office of the Union)
4. Molecular Techniques
   (a) Reports on developments within UPOV
   (b) Reports on work by members and observers
5. TGP documents
6. Variety denominations
7. Information and databases
   (a) UPOV information databases (document to be prepared by the Office of the Union)
   (b) Variety description databases (document to be prepared by the Office of the Union)
   (c) Exchangeable software (document to be prepared by the Office of the Union)
   (d) Electronic application systems (document to be prepared by the Office of the Union)
8. Uniformity assessment
9. Experiences with new types and species (oral reports invited)

10. Database for Pea variety descriptions (document to be prepared by France)
11. Proposals for Partial Revisions / Corrections of Test Guidelines (if appropriate)
12. Matters to be resolved concerning Test Guidelines adopted by the Technical Committee (if appropriate)
13. Discussion on draft Test Guidelines (Subgroup)
14. Recommendations on draft Test Guidelines
15. Guidance for drafters of Test Guidelines
16. Date and place of the next session
17. Future program
18. Report on the session (if time permits)
20. Closing of the session

Technical Visit

84. On the afternoon of July 27, 2011, the TWV visited an iceberg lettuce field site in Spreckels, where it was welcomed by Mr. Jerry Vosti and Mr. Rick Falconer, and the U.S. Agricultural Research Station of the United States Department of Agriculture in Salinas, where it received a presentation on genetic diversity and the breeding program of lettuce in the United States, by Research Genetist Ryan J. Hayes. The TWV also visited the TAKII Seed facilities in Salinas, where the visit was guided by Mr. Rick Falconer.

85. The TWV adopted this report at the close of the session.

[Annexes follow]

TWV/45/26

ANNEX I

LIST OF PARTICIPANTS

I. MEMBERS

CHINA

WANG Liping (Mrs.), Examiner, Division for New Plant Variety Protection, Development Center for Science and Technology, Ministry of Agriculture, Dong San Huan Nan Lu 96, Nong Feng Dasha, Beijing 100125
(tel.: +86 10 59199393 fax: +86 10 59199393 e-mail: lipingw2008@yahoo.com.cn)

CZECH REPUBLIC

Radmila SAFARIKOVA (Mrs.), Head of Division, Central Institute for Supervising and Testing in Agriculture (UKZUZ), National Plant Variety Office, Hroznová 2, 656 06 Brno
(tel.: +420 543 548 221 fax: +420 543 212 440 e-mail: radmila.safarikova@ukzuz.cz)

EUROPEAN UNION

Sergio SEMON, Vegetable and Fruit Expert, Community Plant Variety Office (CPVO), 3, boulevard Maréchal Foch, B.P. 10121, 49101 Angers Cedex 02, France
(tel.: 33 241 256 434 fax: 33 241 256 410 e-mail: semon@cpvo.europa.eu)

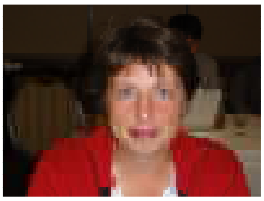
FRANCE

François BOULINEAU, DUS Coordinator, Groupe d'étude et de contrôle des variétés et des semences (GEVES), F-49250 Brion
(tel.: +33 2 41 57 23 22 fax: +33 2 41 57 46 19 e-mail: francois.boulineau@geves.fr)

Joël GUIARD, Directeur adjoint, Groupe d'étude et de contrôle des variétés et des semences (GEVES), Rue Georges Morel, BP 90024, F-49071 Beaucouzé Cedex
(tel.: +33 241 228637 fax: +33 241 228601 e-mail: joel.guiard@geves.fr)

Chrystelle JOUY Mondiere (Madame), Groupe d'étude et de contrôle des variétés et des semences (GEVES), GEVES Cavaillon, 4790 route des Vignères, 84250, Le Thor, France
(tel.: +33 4 90 78 66 64 fax: +33 4 90 78 01 61 e-mail: chrystelle.jouy@geves.fr)

GERMANY

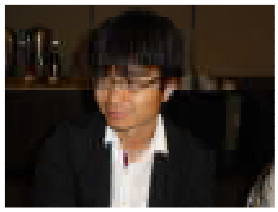


Swenja TAMS (Mrs), Referentin, Bundessortenamt, Osterfelddamm 80, 30627 Hannover
(tel.: +49 511 9566 5607 fax: +49 511 9566 9600 e-mail: Swenja.Tams@bundessortenamt.de)

ITALY

Romana BRAVI (Mrs.), National Research Institute for Food and Nutrition (I.N.R.A.N.), Loc. Corno d'Oro, S.S. 18 Km 77.700, I-84091 Battipaglia
(tel.: 39 828 309 484 fax: 39 828 302382 e-mail: r.bravi@ense.it)

JAPAN



Akihiro FURUI, Senior Staff DUS Test Division NCSS, Fujimoto 2-2 Tsukuba, Ibaraki, 305-0852
(tel.: +81-298-83-6584 e-mail: oochanh@affrc.go.jp)

Hideki MAEDA, Examiner, Plant Variety Protection Office, Intellectual Property Division, MAFF, 1-2-1, Kasumigaseki, Chiyoda-ku, Tokyo, 100-8950, Japan
(tel.: +81-3-6744-2/22 fax: +81-3-3502-6572 e-mail: hmaeda@affrc.go.jp)

KENYA

Caleb OBUNYALI, Seed Inspector, Kenya Plant Health Inspectorate Service (KEPHIS), P.O. Box 49592, 00100 Nairobi
(tel.: +254 20 3597201 mobile: +254 722 965167 e-mail: cobunyali@kephis.org)

NETHERLANDS

Kees VAN ETTEKOVEN, Head of Variety Testing, Naktuinbouw NL, Sotaweg 22, Postbus 40, NL-2370 AA Roelofarendsveen
(tel.: +31 71 332 6128 fax: +31 71 332 6565 e-mail: c.v.ettekoven@naktuinbouw.nl)

Marian A. VAN LEEUWEN (Mrs.), Team DUS Vegetable Crops, Naktuinbouw, Sotaweg 22, P.O. Box 40, NL-2370 AA Roelofarendsveen
(tel.: +31 71 332 6126 fax: +31 71 332 6363 e-mail: m.v.leeuwen@naktuinbouw.nl)

REPUBLIC OF KOREA

Yong-Hyun CHO, Agricultural Researcher, Variety Testing Division, Korean Seed and Variety Service (KSVS), 233-1 Mangpodong Yongtonggu, Suwon, 443-400 Kyunggi-do
(tel.: +82 31 8008 0213 fax: +82 31 203 7431 e-mail: cyh3327@seed.go.kr)

Sung-Ryul RYU, Research Scientist, Korea Forest Seed and Variety Center, 670-4 Suhoeri, Suanbo, Chungju, Chungbuk
(tel.: +82 43 850 3326 fax: +82 43 850 3055 e-mail: ryul25@forest.go.kr)

Seung-In YI, Plant Variety Protection Division, Korea Seed and Variety Service (KSVS), Anyang-ro 184, Anyang City , Kyunggi-do430-016
(tel.: +82 31 467 0112 fax: +82 31 467 0116 e-mail: seedin@seed.go.kr)

Oh-Woung KWON, Research Scientist, Korea Forest Seed and Variety Center, 610-4 Suhoehi, Suanbo, Chungju, Chungbuk
(tel.: +82 43 850 3330 fax: +82 43 850 3055 e-mail: owkwon@forest.go.kr)

SPAIN

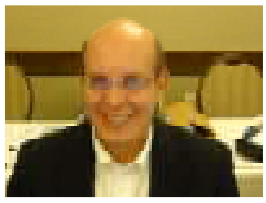
David CALVACHE QUESADA, Director del Centro de Investigación de Variedades en Valencia, Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA), c/ Joaquín Ballester No. 39, E-46009 Valencia
(tel.: +34 96 307 9604 fax: +34 96 307 9602 e-mail: oevvval@hotmail.es)

UNITED KINGDOM

Tom CHRISTIE, DUS Development Manager, Herbage & Vegetable Section, Science and Advice for Scientifc Agriculture (SASA), Roddinglaw Road, Edinburgh EH12 9FJ
(tel.: +44 1312248961 fax: +44 1312448890 e-mail: tom.christie@sasa.gsi.gov.uk)

UNITED STATES OF AMERICA

Kitisri SUKHAPINDA (Ms.), Patent Attorney, Office of Policy and External Affairs, United States Patent and Trademark Office (USPTO), Madison Building, West Wing, 600 Dulany Street, MDW 10A30, Alexandria VA 22313
(tel.: +1 571 272 9300 fax: + 1 571 273 0085 e-mail: kitisri.sukhapinda@uspto.gov)



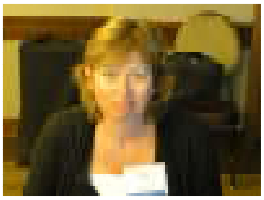
Paul M. ZANKOWSKI, Commissioner, Plant Variety Protection Office, United States Department of Agriculture (USDA), National Agricultural Library (NAL), 10301, Baltimore Ave., Beltsville MD 20705
(tel.: +1 301 504 5518 fax: +1 301 504 5291 e-mail: paul.zankowski@ams.usda.gov)

Nadine SMITH, Program Specialist, United States Patent and Trademark Office (USPTO), Global IP Academy
(tel.: 571 272 7993 e-mail: nadine.smith@uspto.gov)

II. ORGANIZATIONS

INTERNATIONAL SEED FEDERATION (ISF)

Sara BOEKE (Ms.), PVP Specialist, Monsanto Holland BV, P.O. Box 97, 6700 AB Wageningen, Netherlands
(tel.: +31 317 468428 fax: +31 317 468431 e-mail: sara.boeke@monsanto.com)



Astrid M. SCHENKEVELD (Mrs.), Specialist, Variety Registration & Protection, Rijk Zwaan Zaadteelt en Zaadhandel B.V., Postbus 40, 2678 ZG De Lier, Netherlands
(tel.: +31 174 532414 fax: +31 174 510720 e-mail: a.schenkeveld@rijkzwaan.nl)

John SCHOENECKER, Harris Moran Seed Company, International Seed Federation, 9241 Mace Blvd., Davis 95618
(tel.: +1 530 747 3225 fax: +1 530 756 1016 e-mail: j.schoenecker@hmclause.com)

Carol MILLER (Mrs.), Intellectual Property Specialist, Monsanto, 37437 State Highway 16, Woodland, California 95696 USA
(tel.: 1-530-669-6274 e-mail: carol.l.miller@monsanto.com)

CROPLIFE, Plant Related Inventions

Bruce VRANA, IP Counsel, Syngenta, Syngenta Biotechnology Inc. (SBI), RTP, N.C., US 919-597-1549
(e-mail: bruce.vrana@syngenta.com)

IV. OFFICER

Radmila Safarikova (Mrs.), Chairman

V. OFFICE OF UPOV

Peter BUTTON, Vice Secretary-General, International Union for the Protection of New Varieties of Plants (UPOV), Chemin des Colombettes 34, 1211 Genève 20, Suisse
(e-mail: peter.button@upov.int)

Julia BORYS (Mrs.), Technical Counsellor, International Union for the Protection of New Varieties of Plants (UPOV), Chemin des Colombettes 34, 1211 Genève 20, Suisse
(tel.: +41 22 338 7441 fax: +41 22 733 03 36 e-mail: Julia.Borys@upov.int)

Romy OERTEL, International Union for the Protection of New Varieties of Plants (UPOV), Chemin des Colombettes 34, 1211 Genève 20, Suisse
(tel.: +41 22 338 7293 fax: +41 22 733 0336 e-mail: Romy.Oertel@upov.int)

[Annex II follows]

Overview of Plant Protection in the United States

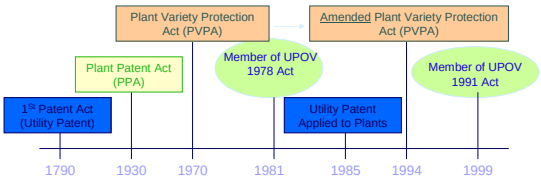
Kitisri Sukhapinda, Ph.D., JD.
Office of Policy and External Affairs
United States Patent and Trademark Office

Three Types of Protection

- Plant Patent Act
  - 35 U.S.C. §§ 161-164
- Plant Variety Protection Act
  - 7 U.S.C. §§ 2321 et seq.
- Utility Patent to a Plant
  - 35 U.S.C. §§ 111 (101, 102, 103, 112)

2

The History of Plant Variety Protection in the United States



Plant Patent Act

- 35 U.S.C. 161 states:

"Whoever invents or discovers and asexually reproduces any distinct and new variety of plant, including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber propagated plant or a plant found in an uncultivated state, may obtain a patent therefor…"

4

Requirements for Patentability

- Plant is new and distinct from other known varieties (35 U.S.C. 102, 103)
- Plant description as complete as is reasonably possible (35 U.S.C 162 and 112, relaxed enablement requirement)
- Plant has been asexually propagated
- If "discovered," plant was found in a cultivated area
- Plants discovered in the wild are excluded

5

Patentability May be Negated by:

- Lack of novelty
- Sale or public use of the plant in the U.S. more than 1 year prior to filing for U.S. patent
- Description of the plant in a printed publication, combined with public availability (anywhere) more than 1 year prior to filing for U.S. patent (In re Elsner 03-1569 (Fed. Cir. Aug 16, 2004))
- Obviousness in view of the prior art
- Edible tuber propagated plant
- Description not as complete as is reasonably possible

6

Plant Patent Representative Claim

A Petunia plant substantially as described and illustrated in the specification herein.

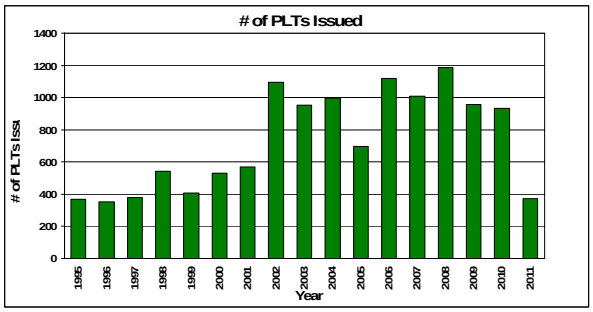
7

Plant Patent Act (PPA)

- First protection of its kind worldwide - 1930
- Relaxed enablement requirement, new matter
- Applies to asexually reproduced plants (not including edible tuber propagated plants)
- 20 year term from date of filing
- Right to exclude others from making, using, selling, offering for sale and importing the plant, or any of its parts
- Protects a single plant and asexual progeny
- Total 21,988 plant patents (as of 6/23/11)

8

Plant Patent Trends



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Plant Variety Protection Act (PVPA)

- Administered by U.S. Department of Agriculture (USDA)
- Enacted in 1970, Amended in 1994
- Plant must be New, Distinct, Uniform and Stable
- In U.S., applies only to sexually reproduced plants and tuber propagated plants
- 20-25 year protection from date of grant
- Exclude others from selling or marketing, offering for sale, multiplying, conditioning, importing, exporting and stocking the variety
- Private and non-commercial use; Research exemption (Breeding), Right to save seeds (Crop exemption)

10

Requirement for PVP

- New
  - has not been sold or otherwise disposed of for purposes of exploitation for more than one year in the United States, or more than four years in any foreign jurisdiction (six years for trees and vines).
- Distinct
  - clearly distinguishable from any other publicly known variety. Distinctness may be based on morphological, physiological, or other characteristics, including commercially valuable characteristics.

11

Requirement for PVP

- Uniform
  - any variations are describable, predictable, and commercially acceptable.
- Stable
  - the variety, when reproduced, will remain unchanged with regard to its essential and distinctive characteristics within a reasonable degree of commercial reliability.

12

Utility Patent

- Technology neutral
- 20 year protection from date of filing
- Right to exclude others from making, using, selling, offering for sale, and importing the patented plant in the granting territory
- Possible to protect a class of varieties with a specific trait, plant parts and methods of producing or using plant varieties

13

Utility Patents: History

- Diamond v. Chakrabarty, 447 U.S. 303 (1980)
  - Held living things were indeed patentable
- Ex Parte Hibberd, 227 USPQ 443 (PTO Bd. Pat. App. & Int. 1985)
  - Ruled that seeds, plant tissue cultures, and the plant itself are patentable subject matter under the utility patent statute
- J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred International, Inc., 534 U.S. 124, 60 USPQ2d 1865 (2001)
  - Held newly developed plant breeds fall within the scope of §101, and neither the PPA or PVPA limits this coverage

14

Basic Patentability Standards

- 35 USC § 101, Utility
- 35 USC § 102, Anticipation (Novelty)
- 35 USC § 103, Obviousness
- 35 USC § 112, 1st Paragraph, Written Description
- 35 USC § 112, 1st Paragraph, Enablement
- 35 USC § 112, 2nd Paragraph, Definiteness

15

Agronomic Objectives of Plant Utility Patents

- Disease and insect resistance
- Drought and salt tolerance
- Herbicide resistance
- Improvement of fruit and flower quality
- Modification of fatty acid and oil composition
- Increases in amino acids and nutrition
- Improvement of sugars and carbohydrates
- Altered morphological phenotype
- Male sterility
- Phytoremediation and heavy metal tolerance
- Production of mammalian peptides and vaccines

16

Plant Utility Patent Claims

- Variety patent applications
  - Plants
  - Plant organs or tissue, Pollen, Ovules, Tissue or cell culture, Seeds, etc.
  - Genetic modifications of the claimed variety (transgenes, mutations, etc)
  - Methods of breeding the claimed variety
- Transgenes
  - Isolated plant polynucleotides and poly peptides
  - Isolated plant regulatory elements (promoter, transcriptional elements)
  - Expression cassettes or vectors
  - Transgenic plants having novel phenotypes/products produced therefrom
- Breeding methods
- Tissue culture and transformation

17

Plant Utility Patent Representative Claims

Claim 1. Seed of plant variety NN deposited as ATCC Accession No. _____.

Claim 2. A plant grown from the seed of Claim 1.

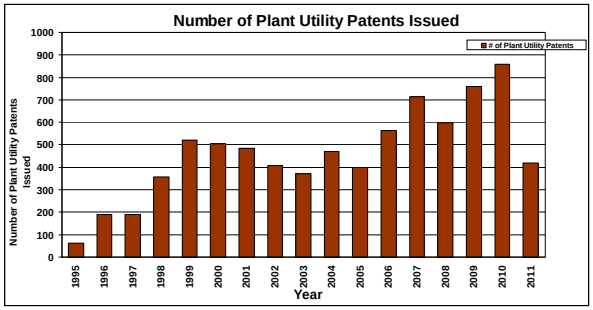
Claim 3. An isolated DNA encoding protein X.

Claim 4. A method of making a transgenic plant having phenotype Y comprising transforming a plant with said DNA of Claim 3.

Claim 5. A transgenic plant produced by the method of Claim 4.

18

Utility Patents to Plants Trend



19

Utility v. Plant Patents

Requirement or Attribute	Utility Patent (35 U.S.C. 111)	Plant Patent (35 U.S.C. 161)
Generic claim or protection possible	Yes	No – patent covers a single plant and its clones
Method claims permitted	Yes	No
Number and format of claims limited	No	Yes – one claim of prescribed format

20

Utility v. Plant Patents

Requirement or Attribute	Utility Patent (35 U.S.C. 111)	Plant Patent (35 U.S.C. 161)
Exclusions	Products of nature	Products of nature, edible tuber-propagated plants
New matter	No	New information may be added as long as it is drawn to the same plant as claimed
Invention must be novel, non-obvious	Yes	Yes

21

Utility v. Plant Patents

Requirement or Attribute	Utility Patent (35 U.S.C. 111)	Plant Patent (35 U.S.C. 161)
Invention must be "enabled"	Yes	No
Deposit of biological material required	Yes, If not enabled by being Known & Readily Available	No
Variety name required	No	Yes

22

Utility v. Plant Patents

An invention may support both a utility patent and a plant patent, so long as the subject matter protected by the two patents is not identical.

23

Utility v. Plant Patents

- Utility Patent- may be useful where invention is not limited to a particular variety or where method claims are desired
- Plant Patent- may be useful where it is difficult to meet the written description or enablement requirements of a utility patent

24

Right to Priority

- MPEP1613 Right of Priority Based upon Application for Plant Breeder's Rights
  - Pursuant to 35 U.S.C. 119(f), an application for a patent may rely upon an application for plant breeder's rights filed in a WTO member country (or in a foreign UPOV Contracting Party) for priority under 35 U.S.C. 119(a) through (c).

25

Happy 50th Anniversary UPOV!

Office of Policy and External Affairs
United States Patent and Trademark Office
www.uspto.gov

26

[Annex III follows]

ANNEX III

U.S.D.A. Plant Variety Protection

1

Overview of U.S. Plant Variety Protection Act (PVPA)

- What is Eligible for Protection?
  - Sexually (seed) reproduced
  - Tuber Propagated
  - F1 Hybrids

2

To Be Eligible for PVP a Variety Must Be:

New (available less than 1 year in the US; less than 4 years in a foreign country)

clearly Distinct from all other varieties

Uniform (all plants look alike)

Stable (reproduces true to type)

3

PVP Application Packet

- Application
  - S&T 470 form – 2 sided
  - A. Breeding History – attest to uniformity and stability
  - B. Distinctness Statement – supporting evidence
  - C. Objective Description of Variety
  - D. Additional Description (optional)
  - E. Basis of Ownership
- Seeds
  - 3,000 Seeds, >85% germination, untreated
- Fees
  - Total Current Fees for PVP Certificate:
    - $518 (Filing Fee) + $3,864 (Search/Examination Fee) with the Application
    - $768 (Certificate Fee) - when issuance is allowed
    - TOTAL = $5,150

4

PVP Application Exhibit A

How bred, OR discovered and developed

Includes:

1. Name of genetically-related starting materials, back to public or commercial lines
2. Method(s) used, steps taken, dates
3. Criteria used for selection
4. Evidence of Uniformity and Stability
5. Variant description and frequency (genetic variants; less than 5%)

5

PVP Application Exhibit B

Establishes the Distinctness of the variety

General Format:

1. Name the MOST SIMILAR comparison varieties
2. State traits and values to distinguish
3. Provide evidence:
   - ✓ Differences are clear, uniform, stable
   - ✓ 2-3 generations of statistical evidence
   - ✓ Color chart readings

6

PVP Application
Supporting Evidence

- Colors : verbal descriptions and color charts
- Shapes: verbal descriptions and photographs
- Quantitative differences: descriptive statistics and statistical analysis, replicated trials
- Diseases: disease ratings, replicated trials with resistant and susceptible comparisons
- Lab Tests: published procedures, publicly available reagents

7

PVP Application
Exhibit C – Variety Objection Description

- Describes the variety based on standard agronomic, physiological, biochemical, and morphological characters
- Example – Lettuce
  - Exhibit C
    - Plant Type
    - Seed Characteristics
    - Fourth leaf characteristics
    - Mature Leaf characteristics
    - Plant Characteristics
    - Core
    - Butt
    - Bolting Characteristics

8

PVP Application
Exhibit D

- Optional
- Includes data not otherwise reported within the application
- Examples:
  - Isozyme analysis
  - RFLP, SSRs, or other genetic fingerprinting techniques
  - Combining ability
  - Extensive statistical tables or supporting evidence

9

PVP Application
Exhibit E

- ✓ State the basis of ownership
- ✓ Explain whether the owner is eligible to apply
- ✓ State whether any other person or company has had ownership or retains rights to the variety

10

PVP Application
Flow Process

- Associate Examiner/Examiner determines:
  - ✓ if application is complete, fees paid, eligibility requirements met, if variety is new, uniform, stable, and distinct
- Quality Assurance Review
- Commissioner
  - ✓ verifies finding of examiner
  - ✓ requests certificate issuance fee
  - ✓ signs certificate
- Secretary of Agriculture
  - ✓ signs certificate

11

PVP Certificate Issued

12

PVPO Staff

1 Commissioner
6 PVP Examiners (1 QA Examiner)
3 Associate PVP Examiner
2 Information Technology Specialist
3 PVP Program Analysts
Total: 15 Full Time

13

PVP Business Process Reengineering (BPR) Project

- Goal: To streamline the process to be as efficient and effective as possible, while continuing PVPO's high standards.
- Phases:
  - I. Assess Current (As - Is) Organization (Sept 2009 – Jan 2010)
  - II. Develop To - Be Process Model (Jan 2010 – June 2010)
  - III. Implementation Planning (June 2010 – Dec 2010)

Implementation & Go Live – April 25, 2011

14

PVP Application Processing

Person Responsible	Program Analyst	Associate Examiner	Examiner	Program Analyst
Process Performed	*Receive PVP application, funds, processes preliminary applicant information*	*Conduct preliminary review of New, Distinct, Uniform, Stable & Write Preliminary Search*	*Conduct in-depth analysis of Distinctness search and confirms New, Uniform, & Stable criteria*	*Process certificate fees and certificate printing/ signature processes*

15

PVP Application Throughput Goals

	FY07	FY08	FY09	FY10
Backlog – Beginning of Year	685	742	745	856
New applications received	455	412	492	598
Certificates issued or recommended	355	402	337	263
Applications abandoned	43	52	44	89
Year End Backlog	742	745	856	1102

16

Incoming PVP Applications - Top 10 Crops

FY2010		FY2009		FY2008	
Soybean	245	Corn	175	Corn	110
Corn	160	Soy bean	74	Soybean	55
Wheat	41	Wheat	54	Wheat	48
Lettuce	21	Fescue	26	Lettuce	28
Cotton	19	Potato	26	Kentucky Bluegrass	25
Potato	15	Lettuce	23	Potato	15
Pea	11	Bean	16	Cotton	12
Sorghum	9	Cotton	15	Ryegrass	10
Bean	8	Kentucky Bluegrass	8	Oat	9
Rice	7	Rice	7	Peanut	9
Others	62	Others	68	Others	91
Total	598	Total	492	Total	412

17

Overall PVP Statistics (since 1970 as May 2011)

Total Applications Received	**11,039**
Total Certificates Issued	**8,002 (72% of all received)**
Certificates in force	**4,908 (61% of all issued)**
Total applications not issued (abandoned, withdrawn, denied)	**1,629 (15% of all received)**
Applications in Progress (include those 1) not examined, 2) recommended for PVP but not issued, or 3) somewhere in the examination process)	**1,408**

18

[Annex IV follows]

ANNEX IV

TECHNICAL WORKING PARTY FOR VEGETABLES

Forty-Fifth Session
Monterey, United States of America,

REPORT ON DEVELOPMENTS IN UPOV

July 25 to 29, 2011

2

OVERVIEW

- Membership / Examination of Laws
- Council
- Consultative Committee
- CAJ & CAJ-AG
- TC
- Other developments

3

UPOV: INDEPENDENT INTERGOVERNMENTAL ORGANIZATION

The International Convention for the Protection of New Varieties of Plants

established in 1961

The International Union for the Protection of New Varieties of Plants

Union internationale pour la protection des obtentions végétales

4

MEMBERSHIP OF UPOV

70 Members

New Members

Peru	as of Aug. 8, 2011
Former Yugoslav Republic of Macedonia	as of May 4, 2011

Laws examined	Council session	Advice
Republic of Tajikistan	October 21, 2010	Positive
Republic of Serbia	April 8, 2011	Positive

5

Members of UPOV (green) & initiating States & organizations (brown)

6

COUNCIL

7

COUNCIL

ELECTED

for a term of three years ending in 2013

Chair of the Administrative and Legal Committee
Mr. Lü Bo (China)

Vice-Chair of the Administrative and Legal Committee
Mr. Martin Ekvad (European Union)

Chair of the Technical Committee
Mr. Joël Guiard (France)

Vice-Chair of the Technical Committee
Mr. Alejandro Barrientos-Priego (Mexico)

8

Mr. Jördens Gold Medal

9

COUNCIL

INFORMATION MATERIALS ADOPTED OCTOBER 2010

Latest reference	Explanatory Notes on:
UPOV/EXN/VAR/1	Definition of Variety under the 1991 Act of the UPOV Convention
UPOV/EXN/CAL/1	Conditions and Limitations Concerning the Breeder's Authorization in Respect of Propagating Material under the UPOV Convention
	INF documents
UPOV/INF/4/1	Financial Regulations and Rules of UPOV
UPOV/INF/10/1	Internal Audit
UPOV/INF/12/3	Explanatory Notes on Variety Denominations under the UPOV Convention
UPOV/INF/15/1	Guidance for Members of UPOV on Ongoing Obligations and Related Notifications
UPOV/INF/16/1	Exchangeable Software
UPOV/INF/17/1	Guidelines for DNA-Profiling: Molecular Marker Selection and Database Construction ("BMT Guidelines")

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COUNCIL

INFORMATION MATERIALS ADOPTED (reminder)

Guidance for the preparation of laws based on the 1991 Act of the UPOV Convention (document UPOV/INF/6/1)

PART I: *EXAMPLE TEXT FOR ARTICLES*
PART II: *NOTES BASED ON INFORMATION MATERIALS*

(available in English, French, German, Spanish, Arabic, Chinese, Russian, Bahasa Indonesian)

11

COUNCIL

TGP DOCUMENTS ADOPTED OCTOBER 2010

Document reference	Issue	Title
TGP/0	/3	List of TGP Documents and Latest Issue Dates
TGP/5		Experience and Cooperation in DUS Testing:
Section 2	/3	UPOV Model Form for the Application for Plant Breeders' Rights
TGP/7	/2	Development of Test Guidelines
TGP/8	/1	Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability
TGP/14	/1	Glossary of Terms Used in UPOV Documents

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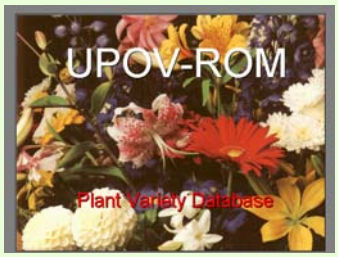
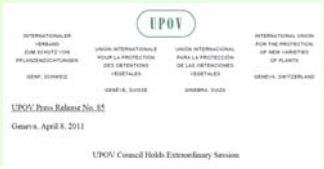
Plant Variety Database: UPOV-ROM



Annual subscription: 750 Swiss francs (CHF) plus p&p – 6 issues/year

Free to all users – later in 2011

COUNCIL



UPOV Press Release No. 85

Geneva, April 8, 2011

UPOV Council Holds Extraordinary Session

Experience of members of the Union in the Examination of New Plant Varieties

The Council welcomed the report made at the forty-seventh session of the Technical Committee, held in Geneva from April 4 to 6, 2011, that the number of genera and species for which members of the Union had practical experience in the examination of distinctness, uniformity and stability (DUS) had exceeded 2,500 in 2011. That number had increased by 19% from 2,254 in 2010, to 2,679 in 2011. The Council noted that information on members of the Union with practical experience in DUS examination was freely accessible via the GENIE database.

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CONSULTATIVE COMMITTEE

16

CONSULTATIVE COMMITTEE

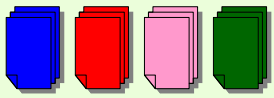
Observers

- Established a working group to review the rules concerning observers and recommend appropriate changes
- Granted observer status to:
  - Association for Plant Breeding for the Benefit of Society (APBREBES): Council, CAJ, TC, TWPs
  - European Coordination Via Campesina (ECVC): Council, CAJ, TC, TWPs
- Extended observer status to:
  - CropLife International: CAJ, TC, TWPs

17

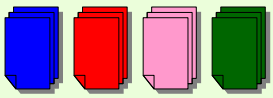
CONSULTATIVE COMMITTEE

- Established Organizing Committee for the celebration of the **Fiftieth Anniversary**
- Associated activities / developments
  - Symposium on Plant Breeding for the Future
  - restructuring of the UPOV website
  - visual presentation on UPOV website
  - new “UPOV Collection”



CONSULTATIVE COMMITTEE

UPOV Collection



(a) UPOV Convention
(b) UPOV/INF document series
(c) Explanatory notes on the UPOV Convention
(d) General Introduction
(e) TGP documents

(f) Test Guidelines (website link)
(g) UPOV Collection of Laws and Treaties (website link)
(h) List of UPOV members (website link)
(i) Addresses of Plant Variety Protection Offices (website link)
(j) UPOV Organigram (website link)
(k) Databases and information (website link)
- List of the Taxa Protected by the Members of the Union
- Cooperation in Examination
- List of Species in which practical technical knowledge has been acquired or for which National Guidelines have been established

(l) Plant Variety Database (website link)
(m) GENIE Database (website link)

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CONSULTATIVE COMMITTEE

UPOV Collection: website maintenance

- UPOV Collection on website
- Status document (c.f. document TGP/0)
- Electronic notification of updates to "subscribers"

20

CONSULTATIVE COMMITTEE

UPOV Collection: physical collection

- SET OF BINDERS with PRINTED DOCUMENTS
  - two sets per member of the Union
  - one set per observer State
  - one set per observer organization
- In the first instance only (and for new members and observers), printed versions of all documents in the "UPOV Collection", except for Test Guidelines, would be provided with the binders
- Members of the Union, observer States and observer organizations will be notified, electronically, of updates and will need to print the documents

21

ADMINISTRATIVE AND LEGAL COMMITTEE (CAJ)

22

CAJ/ CAJ-AG

OVERVIEW OF THE DEVELOPMENT OF INFORMATION MATERIALS

CAJ/63 to consider CIOPORA request to develop explanatory notes on "propagation and propagating material"

Latest reference	Explanatory Notes on:	Status
UPOV/EXN/HRV Draft 6	Acts in Respect of Harvested Material under the 1991 Act of the UPOV Convention	CAJ-AG October 2011
UPOV/EXN/BRD Draft 4	Definition of Breeder under the 1991 Act of the UPOV Convention	CAJ-AG October 2011
CAJ-AG/11/6/3	Essentially Derived Varieties under the 1991 Act of the UPOV Convention (revision)	CAJ-AG October 2011

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TECHNICAL COMMITTEE (TC)

24

TECHNICAL COMMITTEE (TC)
TGs APPROVED

NEW TEST GUIDELINES (11)	
TG/ACERO	Acerola, Barbados-cherry, West Indian-cherry
TG/AGAPA	African Lily, Agapanthus, Blue Lily, Lily of the Nile
TG/BOUGA	Bougainvillea
TG/CACAO	Cacao
TG/CAMEL	Camellia
TG/DRAGON	Dragon Fruit, Strawberry pear
TG/HIBIS	Rose-of-Sharon, shrub-althaea
TG/RUMEX	Dock, Garden sorrel, sorrel, sorrel dock, sour dock
TG/SETARIA	Foxtail Millet, Italian Millet, Hungary Millet
TG/TOREN	Bluewings, Torenia, Wishbone-flower
TG/VRIES	Vriesea

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TECHNICAL COMMITTEE (TC)
TGs APPROVED

REVISIONS OF TEST GUIDELINES (8)	
TG/44/11	Tomato
TG/51/7	Gooseberry
TG/52/6	Red and White Currant
TG/56/4	Almond
TG/57/7	Flax, Linseed
TG/84/4	Japanese Plum
TG/99/4	Olive
TG/184/4	Cardoon, Globe Artichoke, Cardoon
PARTIAL REVISIONS OF TEST GUIDELINES (2)	
TG/13/10 Rev. (TC/47/2, TC/47/24)	Lettuce
TG/55/7 Rev. (TC/47/2, TC/47/24)	Spinach

TECHNICAL COMMITTEE (TC)
TGs APPROVED

98. The TC agreed that the wording of document TGP/7/2, as adopted by the Council at its forty-fourth ordinary session, held in Geneva on October 21, 2010, with regard to Chapter 4.1.4 should not be followed in the Test Guidelines to be adopted at its forty-seventh session. It agreed that the Test Guidelines to be adopted by the TC should incorporate the amended wording for Chapter 4.1.4, as follows:

Alternative 1: "Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on {x} plants or parts taken from each of {x} plants and any other observations made on all plants in the test, disregarding any off-type plants."

Alternative 2: "Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on {x} plants or parts taken from each of {x} plants and any other observations made on all plants in the test, disregarding any off-type plants. In the case of observations of parts taken from single plants, the number of parts to be taken from each of the plants should be {y}."

99. The TC noted that the Council, at its forty-fifth ordinary session to be held on October 20, 2011, would need to adopt the revised text for document TGP/7 before the Test Guidelines could be adopted. Therefore, it agreed to adopt the Test Guidelines subject to the Council adopting the necessary revision to document TGP/7.

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TECHNICAL COMMITTEE (TC)
TGs adopted

Test Guidelines for Mandarins (Citrus; Group 1) (document TG/201/1) to be referred back to the TWF for further consideration

Test Guidelines for Canna (document TG/CANNA(proj.7)) and Eucalyptus (document TG/EUCAL(proj.6)) be referred back to the TWO for further consideration.

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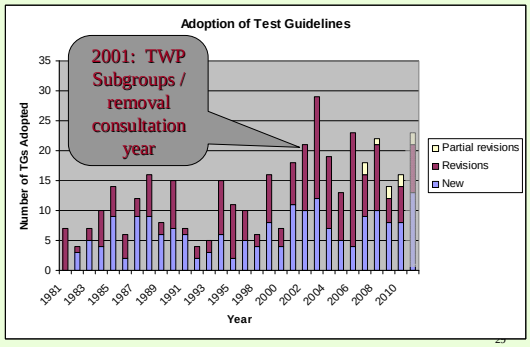
Adoption of Test Guidelines



TECHNICAL COMMITTEE

April sessions: 2002-2011

Monday	Tuesday	Wednesday	Thursday	Friday
TC-EDC	TC	TC	CAJ	CC
TC	TC	TC	CAJ	Council

30

TECHNICAL COMMITTEE

April sessions: 2012

Monday	Tuesday		Friday
TC discussion	C		CC
TC	TC	TC / CAJ	Council

Experiences of members of the Union in measures to improve the efficiency and effectiveness of DUS testing

31

TECHNICAL COMMITTEE (TC)

In considering how to improve the effectiveness of the TC work, the following measures were agreed:

(a) to display documents under consideration at the session on the screen in the language of the original document.

(b) to add an indication in document reference of the language.

(c) to consider ways of improving the quality of draft Test Guidelines submitted by the TWPs for adoption to the TC. In that regard, the TC noted the importance of all necessary information being provided by the Leading Expert by the specified date, the importance of the role of the TWP chairpersons and the importance of posting the draft Test Guidelines on the UPOV website sufficiently in advance of the TC-EDC meeting in order that comments could be made before the TC-EDC meeting.

(d) The TC-EDC to hold a two-day meeting in January.

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GENIE Database

Protection offered by UPOV members

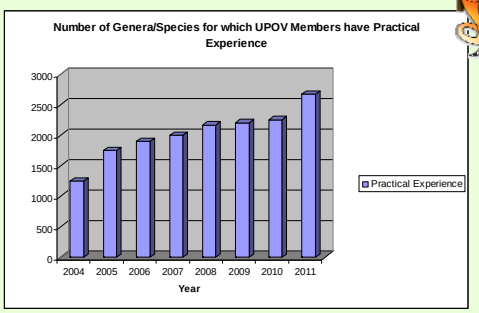
DUS information

- UPOV Test Guidelines
- practical experience (UPOV members)
- cooperation in DUS examination

Variety denomination related information

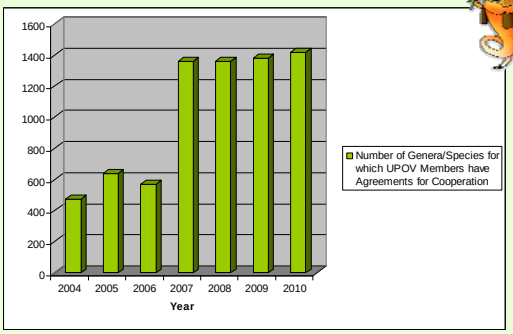
33

Practical Experience

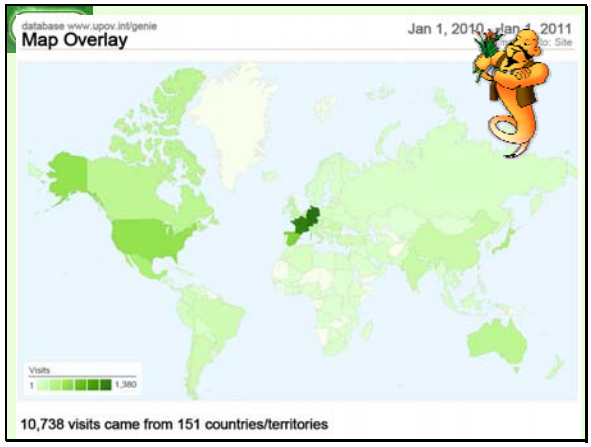


34

Cooperation



35



TWC Webcast

GoToMeeting

Date	Time	Title
Tuesday, June 7	11.00-12.45	Image Analysis
	14.00–15.30	UPOV Information Databases
	16.00-17.30	Molecular Techniques
Wednesday, June 8	09.00-10.30	Variety Descriptions and Distinctness
	11.00-12.45	Variety Descriptions and Distinctness/ Visually Observed Characteristics
	14.00–15.30	TGP/8
	16.00-17.30	TGP/8
Thursday, June 9	09.00-10.30	TGP/5, 7, 11, 12, 14
	11.00-12.45	Developments on COY
	14.00-15.30	Statistical Methodologies

37

Broader items

TC/47/26
page 16

Preparatory workshops

92. The TC considered document TC/47/10.

93. The TC noted the report of the preparatory workshops held in 2010 and agreed the proposed program for 2011. It agreed that consideration should be given to the inclusion of items for molecular techniques, essentially derived varieties, variety identification and the relationship between the UPOV Convention and other international treaties.

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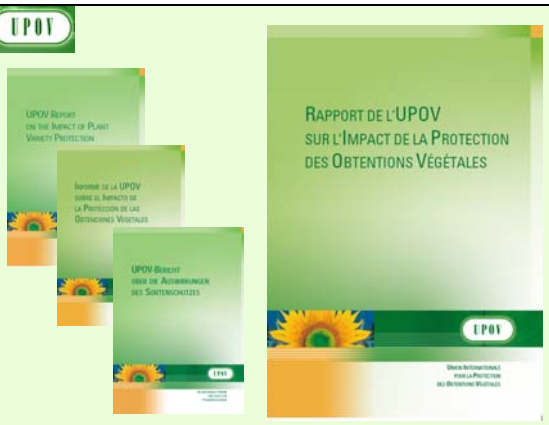
OTHER DEVELOPMENTS

39



DECLARATION FROM THE SECOND WORLD SEED CONFERENCE

Spanish, Chinese, Russian and Arabic to follow

41

Second World Seed Conference

"Follow-up"

... proposal for the five organizations to work together in selected countries to provide an example of how to put in place a framework to encourage the development of new varieties and deliver high quality seed for farmers

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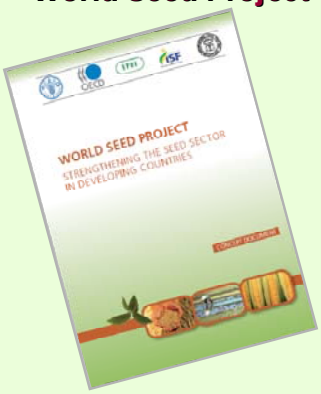
World Seed Project



43

Seminar on PVP & Technology Transfer: the Benefits of Public-Private Partnership

April 11-12, 2011

Closing remarks by the Chairs

http://www.upov.int/en/documents/pp_seminar_april_2011/upov_sem_ge_11_1_rev.html

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Use of Plant Variety Protection by National Research Centers

Chair: Enriqueta Molina Conclusions – Session 1

Plant Variety Protection:

- Promotes private sector involvement in research and development
- A tool for technology transfer
- Provides a legal framework for financial investment
- Encourages innovation in breeding aims, particularly for the development of new or niche markets
- Focuses investment on meeting the needs of farmers and consumers

Chair: Enriqueta Molina

1. Ryudai Oshima, NARO
2. Jenn James, Grasslanz
3. Shadrack R. Moephuli, ARC
4. Filipe de Moraes Teixeira, EMBRAPA
5. Yves Lespinasse, INRA

Technology Transfer by the Private Sector

Chair: Kitisri Sukhapinda Conclusions – Session 2

Private sector:

- An effective means of delivering varieties to farmers
- Assessment of the market potential of varieties
- Link between public research and the needs of farmers
- Provides a channel for income for public sector research
- Facilitates strategic associations and coordinated technology transfer

Chair: Kitisri Sukhapinda

1. Willi Wicki , DSP
2. Barry Barker, Masstock Arable
3. Diego Risso, URUPOV
4. Evans Sikinyi, KY

International Research Centers

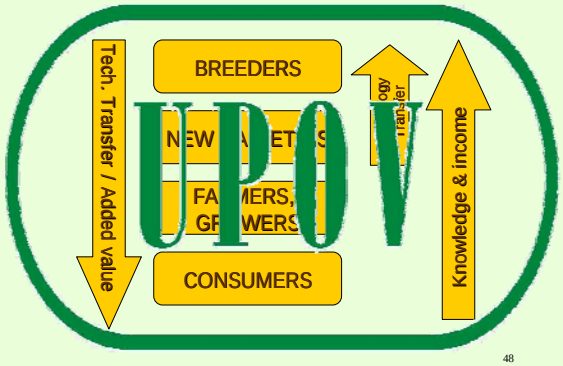
Chair: David Boreham Conclusions – Session 3

- PVP provides a mechanism to facilitate dissemination of varieties to farmers: open access does not ensure widespread dissemination or use
- PVP provides a system to increase availability of varieties suited to farmers' needs
- PVP provides incentives for SME's, particularly local breeders and seed distributors
- The breeders' exemption provides a mechanism to facilitate access to germplasm
- The use of PVP is consistent with the ITPGRFA and SMTA

Chair: David Boreham

1. Lloyd Le Page, CGIAR
2. Ruaraidh Sackville Hamilton, IRRI
3. Ian Barker, Syngenta

SUMMARY



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[Annex V follows]

ANNEX V

TEST GUIDELINES FOR ADOPTION BY THE TECHNICAL COMMITTEE

2.2.6 STEP 6 Submission of Draft Test Guidelines by the Technical Working Party

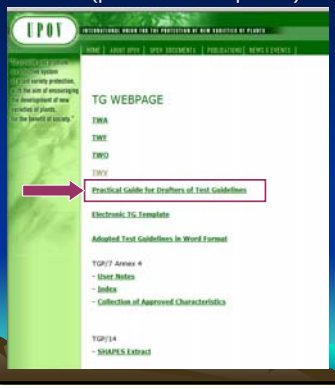
Once the TWP has agreed to submit particular draft Test Guidelines to the Technical Committee, **the Office will prepare the necessary documents (i.e. the Leading Expert should NOT prepare a new draft TG)**

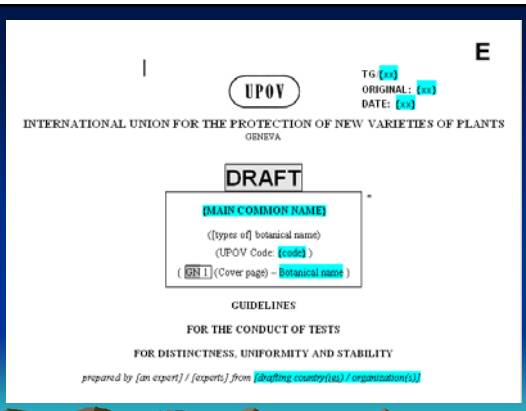
Where the amendments requested by the TWP require **further information** to be provided to the Office by the Leading Expert, this should be provided **within six weeks of the TWP session**, or according to a deadline agreed by the Chairperson of the TWP in conjunction with the Office. If specified by the TWP, this information must first be agreed by all interested experts. …

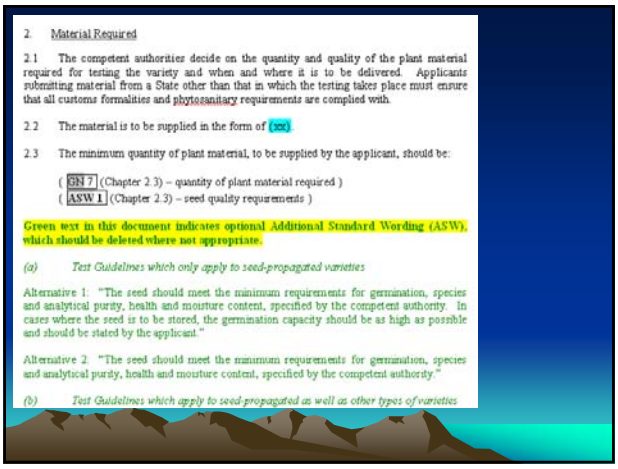
TEST GUIDELINES FOR THE NEXT TWP SESSION

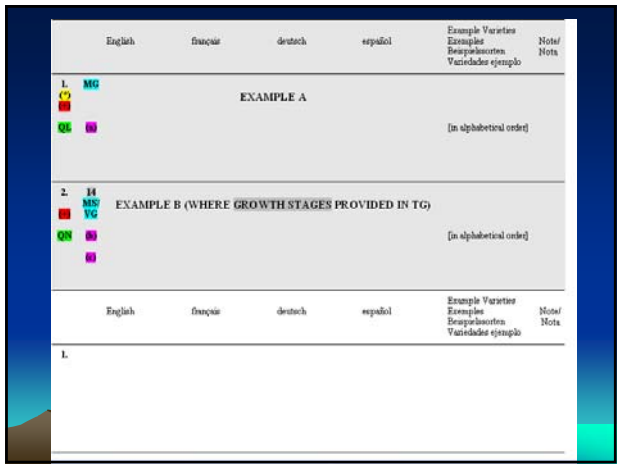
TG Drafters' Webpage

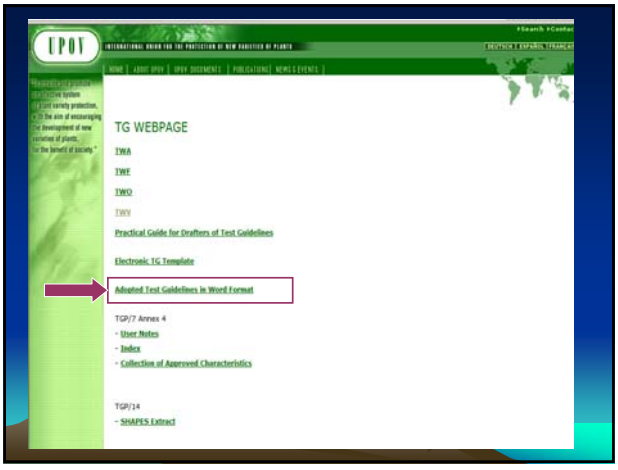
(password required)

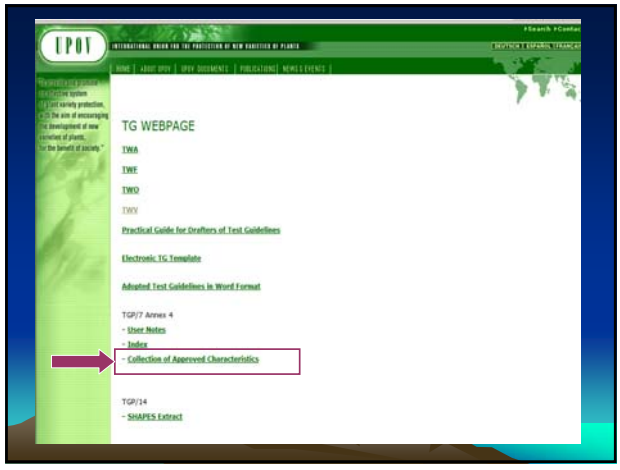





2. Material Required
2.1 The competent authorities decide on the quantity and quality of the plant material required for testing the variety and when and where it is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must ensure that all customs formalities and phytosanitary requirements are complied with.
2.2 The material is to be supplied in the form of [SDC].
2.3 The minimum quantity of plant material, to be supplied by the applicant, should be:
(QN 7) (Chapter 2.3) – quantity of plant material required)
(ASW 1) (Chapter 2.3) – seed quality requirements)
Green text in this document indicates optional Additional Standard Wording (ASW), which should be deleted where not appropriate.
(a) Test Guidelines which only apply to seed-propagated varieties
Alternative 1: "The seed should meet the minimum requirements for germination, species and analytical purity, health and moisture content, specified by the competent authority. In cases where the seed is to be stored, the germination capacity should be as high as possible and should be stated by the applicant."
Alternative 2: "The seed should meet the minimum requirements for germination, species and analytical purity, health and moisture content, specified by the competent authority."
(b) Test Guidelines which apply to seed-propagated as well as other types of varieties


English
français
deutsch
español
Example Varieties
Exemples
Beispielsorten
Variedades ejemplo
Note/
Nota
EXAMPLE A
[in alphabetical order]
EXAMPLE B (WHERE GROWTH STAGES PROVIDED IN TG)
[in alphabetical order]


UPOV
TG WEBPAGE
TWA
TWF
TWO
TWV
Practical Guide for Drafters of Test Guidelines
Electronic TG Template
Adopted Test Guidelines in Word Format
TGP/7 Annex 4
- User Notes
- Index
- Collection of Approved Characteristics
TGP/14
- SHAPES Extract


UPOV
TG WEBPAGE
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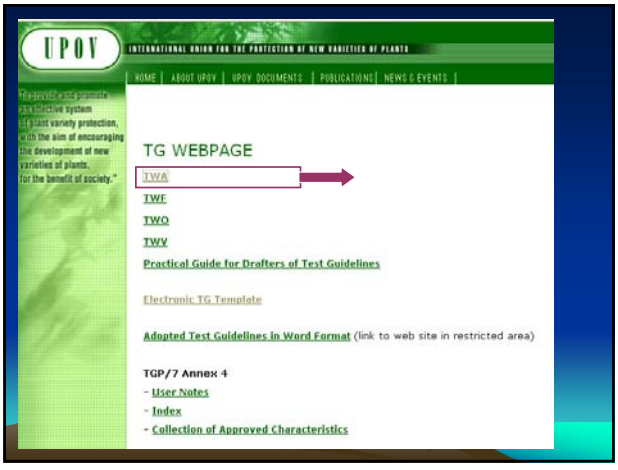
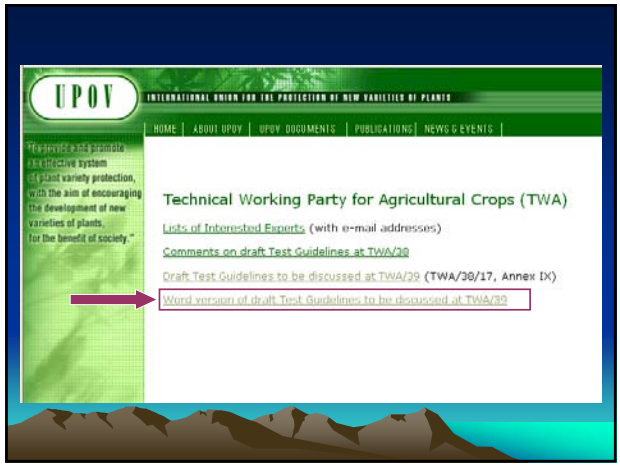
- SHAPES Extract


UPOV
INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
HOME | ABOUT UPOV | UPOV DOCUMENTS | PUBLICATIONS | NEWS & EVENTS
TG WEBPAGE
TWA
TWF
TWO
TWV
Practical Guide for Drafters of Test Guidelines
Electronic TG Template
Adopted Test Guidelines in Word Format (link to web site in restricted area)
TGP/7 Annex 4
- User Notes
- Index
- Collection of Approved Characteristics


UPOV
INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
HOME | ABOUT UPOV | UPOV DOCUMENTS | PUBLICATIONS | NEWS & EVENTS
Technical Working Party for Agricultural Crops (TWA)
Lists of Interested Experts (with e-mail addresses)
Comments on draft Test Guidelines at TWA/39
Draft Test Guidelines to be discussed at TWA/39 (TWA/38/17, Annex IX)
Word version of draft Test Guidelines to be discussed at TWA/39

[Annex VI follows]

ANNEX VI

LIST OF LEADING EXPERTS

DRAFT TEST GUIDELINES TO BE SUBMITTED TO THE TECHNICAL COMMITTEE IN 2012

All requested information to be submitted to the Office of the Union

before September 23, 2011

Species	Basic Document	Leading expert(s)	Interested experts (State / Organization)[1]
Echinacea	TG//ECNCE(proj.3)	Mr. Marcin Krol (PL) / Ms. Elizabeth Scott (GB) (TWO)	TWV, TWO, Office
French Bean (Partial revision: diseases)	TG/12/9 and TWV/45/21	Mr. Francois Boulineau (FR)	TWV, TWA, Office
Lycopersicon (excluding Lycopersicon esculentum Mill.)	TG/TOM-ROOT(proj.1)	Mr. Kees van Ettekoven (NL)	ES, FR, IT, JP, QZ, ISF[2], Office
Opium/Seed Poppy (Revision) if Leading Expert agrees	TG/166/4(proj.1)	Mrs. Marianna Feher (HU)	CZ, PL,QZ, ISF, Office
Parsnip (Revision)	TG/218/2(proj.1)	Mr. Tom Christie (GB)	CZ, DE, NL, QZ, ISF[2], Office
Raphanus sativus L. (Revision)	TG/63/7(proj.4) – TG/64/7(proj.3)	Mrs. Swenja Tams (DE)	CN, CZ, ES, FR, GB, HU IT, JP, KR, NL, PL, QZ, , ZA, ISF[2,] Office
Shiitake (*Lentinula edodes*)	TG/SHIITK(proj.2)	Mr. Hideki Maeda (JP)	HU, KR, QZ, UA, ISF[2], Office
Tomato (Partial Revision)	TG/44/11 TWV/45/25	Mr. Kees van Ettekoven (NL)	AZ, BG, BR, CA, CN, CZ, DE, ES, FR, HU, IL, IT, JP, KR, MD, NL, NZ, PL, PT, PY, RO, RU, SK, TN, UA, ZA, ISF[2], Office

[1] for name of experts, see List of Participants (Annex I)

[2] To be sent to ISF Office

DRAFT TEST GUIDELINES TO BE DISCUSSED AT TWV/46
(* indicates possible final draft Test Guidelines)

New draft to be submitted to the Office of the Union

by April 27, 2012

(Guideline date for Subgroup draft to be circulated by Leading Expert: (March 2, 2012)
Guideline date for comments to Leading Expert by Subgroup: (March 30, 2012)

Species	Basic Document	Leading expert(s)	Interested experts (State / Organization)[2]
*Cassava (*Manihot esculenta* Crantz.)	TG/CASSAV (proj.2)	Mr. Caleb Obunyali (KE) / Mr. Fabricio Santana Santos (BR)	TWA, CO, JP, ISF[2], Office
Chives (Revision)	TG/198/1	Mr.Kees van Ettekoven (NL)	CZ, DE, FR, IT, QZ, ISF[2], Office
Coriander (*Coriandrum sativum* L.)	TG/CORIA(proj.2)	Mr. Ricardo Zanatta Machado (BR)	DE, FR, HU, NL, PL, QZ, ZA, ISF[2], Office
*Endive (Revision)	TG/118/5(proj.1)	Mrs. Marian van Leeuwen (NL)	FR, IT, QZ, ISF[2], Office
Lagenaria ciceraria	New	Mrs.Christelle Jouy (FR)	KR, NL, QZ, ISF[2], Office
Leaf Cichory Revision)	TG/154/3	Mr.Pascal Coquin (FR)	IT, NL, QZ, ISF[2], Office
*Lettuce (Partial revision: disease resistance)	TG/13/11	Mr.Akihiro Furui (JP)	CN, CZ, DE, ES, FR, IT, KR, NL, QZ, ISF[2], Office
Pea (Partial revision: grouping characteristics)	TG/7/10, TWV/44/33	Mr. Francois Boulineau (FR)	TWA, AR, AU, BG, CA, CN, CZ, DE, DK, EE, ES, FR, GB, HU, JP, KE, KR, MD, NL, NZ, PL, PT, QZ, RO, RU, SK, UA, US, ZA, Office
**Pleurotus*	TG/PLEUR(proj.2)	Mr. Yong-Hyun Cho (KR)	BE, HU, JP, QZ, ISF[2], Office
*Spinach (Partial revision)	TG/55/7	Mr. Kees van Ettekoven (NL)	CZ, DE, FR, JP, QZ, US, ISF[2], Office
*Watermelon (Revision)	TG/142/5(proj.2)	Mrs. Marian van Leeuwen (NL)	BG, BR, CN, ES, FR, HU, IT, JP, KR, QZ, SK, ISF[2], Office

[End of Annex VI and of document]

[2] To be sent to ISF Office