



TWC/28/36

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**INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS**  
GENEVA

**TECHNICAL WORKING PARTY ON AUTOMATION AND  
COMPUTER PROGRAMS**

**Twenty-Eighth Session**  
**Angers, France, June 29 to July 2, 2010**

REPORT

*adopted by the  
Technical Working Party on Automation and Computer Programs*

Opening of the Session

1. The Technical Working Party on Automation and Computer Programs (TWC) held its twenty-eighth session in Angers, France, from June 29 to July 2, 2010. The list of participants is reproduced in Annex I to this report.
2. The session was opened by Mr. Gerie van der Heijden (Netherlands), Chairperson of the TWC, who welcomed the participants.
3. The TWC was welcomed by Bart Kiewiet, President, Community Plant Variety Office of the European Union (CPVO), who made a presentation on the Community Plant Variety System. A copy of his presentation is provided in Annex II to this document.

### Adoption of the Agenda

4. The TWC adopted the revised agenda as reproduced in document TWC/28/1 Rev., according to the order of agenda items agreed at the session.

### Short Reports on Developments in Plant Variety Protection

#### *(a) Reports from members and observers*

5. The expert from Australia reported that, that the number of applications for new varieties received at that date in the 2009/2010 financial year was over 300 and the total for the year was likely to be similar to the numbers received in previous years (more than 320). He explained that around 20% of the applications received were in agricultural species, 60% in ornamental species and over 15% in fruit species. Applications for new species for which there was no DUS experience in any UPOV member authority continued to be around 20 to 30 per year; mostly ornamental varieties. Work was continuing on the development and testing of 'Evoock', a software tool to filter and compare variety description information to assist in the selection of similar varieties of common knowledge to be included in the DUS trial. The information was sourced from a back-end database and used previously entered information on states of expression for characteristics from the relevant UPOV Test Guidelines or National descriptor. Since 2005, all variety description information was being entered into that system. A project to enter description information prior to 2005 was continuing and was around 50% complete. The project was estimated to be completed by 2012. He further reported that work had begun on the development of a comprehensive electronic case management system to manage the flow of an application at every stage. He explained that it was a long-term project, which was in the scoping phases at that time, that also involved other areas of the agency. It was likely to impact on some existing plant breeder's right (PBR) systems but should allow some opportunity for improvement and development and it would be a number of years before implementation.

6. The expert from the Colombia reported that Colombia has received a total of 1486 applications. The most important species under protection in Colombia were rose (47.07%), Chrysanthemum (12.26%), Carnation (11.04%), Alstroemeria (9.83%), rice (3.70%), Cotton (2.29%). With respect to the origin of the applications, the most important for Colombia were Netherlands (40%), Germany (16.03%), France (11%), United States of America (9.48%), Colombia (8.35%), Italy (4.92) and Israel (3.7%). She added that Colombia has granted certificates for a total of 910 varieties and that Colombia carried out DUS testing for rice, soybean, cotton, sugarcane, garlic, grass and tobacco

7. The expert from the Czech Republic reported that image analysis was being used in the Czech Republic for oilseed rape and peas.

8. The expert from Denmark reported that image analysis had been used for certain years in Denmark, and this year would be for cereals. It had proved useful to reduce the number of errors in observations. He also reported that they were working on regrouping some field crops.

9. The expert from the CPVO reported that, in 2009, the Office had received 2,755 applications for Community plant variety rights (CPVR), a decrease of 8% from the previous year. Since the end of March 2010, the CPVO was able to offer to applicants the possibility

of e-filing, which enabled them to file an application for Community rights on-line via a secured site. For the time being, that was possible for 5 species and it was the intention to enlarge the list of species as soon as possible. The system had recently been presented to National authorities of European Union (EU) Member States with the aim of investigating possibilities to share the system. At a later stage, the system might also be shared with UPOV members. With respect to cooperation between EU member States' authorities and UPOV, the CPVO had put in place, several years previously, a centralized database of variety denominations. In addition to the possibility for National EU authorities to use that database for the testing of similarity of denomination proposals, since February 2010, the Office produced an "advice" on the suitability of a proposed variety denomination, if such a request for advice had been received from an EU authority. The CPVO had developed recently the following IT projects: since November 2009, original documents of the registers of applications and varieties granted Community plant variety rights were deemed to be electronic. That had major consequences on the way of working of the CPVO, willing to exchange experience with interested offices in this respect. Since January 1, 2010, the bimonthly gazette was being published electronically and stakeholders were informed by e-mail. There was a project of e-subscription to the e-gazette. An on-line application system was launched in March 2010 and the publication of variety descriptions granted community plant variety rights on the public web site of the Office was planned to be implemented before the end of 2010. Following the implementation of the "one key, several doors" principle, whereby DUS test reports produced by any authority in the EU are accepted for listing or protection purposes throughout the Community, an independent technical audit of the CPVO was set up in September 2008. The first quality audits commenced in spring 2010.

10. The expert from Finland reported that the Law on Plant Breeder's Rights had been renewed and entered into force from the beginning of 2010. The major change was that the Finnish Food Safety authority "Evira" had become the official registration authority in Finland, and had become responsible for the reception of applications, the publication and registration of new varieties. He added that there were also changes in the organization of Evira, as a result of the incorporation of plant breeder's rights, which was under the Administrative Department of Legal Affairs.

11. An expert from France reported that, during 2010, the testing station had relocated from La Minière to L'Anjouère and that the GAIA software was being revised.

12. An expert from Germany reported that they had started to use the CPVO denomination database and that a project for document management was under development.

13. The expert from Hungary reported that 600 applications for agricultural crops had been filed, of which 200 were for maize varieties, and 150 applications for horticultural crops. He added that they were starting the use of the GAIA software. In February, Hungary had been audited by the CPVO.

14. The expert from Italy reported that plant breeder's rights were within the responsibility of the Ministry of Economy and Development and that the first PBR legislation was passed in 1974 and that it had been modified since that time. In 2009, 105 applications had been filed, 75% of which were for agricultural crops, in particular wheat and barley.

15. An expert from Japan reported that, in 2009, 1138 applications had been filed, which represented an 18% decrease with respect to 2008. 320 applications, 28% of the total, were foreign applications. 1,501 breeder's rights had been granted during 2009, which represented

an increase of 21% with respect to 2008. During the period 1978 to 2009, a total of 24,484 applications had been filed and a total of 18,743 titles had been granted. In September 2009, there was a change in the Government in Japan. The new cabinet evaluated the electronic application systems from the point of view of cost-effectiveness, as a result of which the electronic application system for PBR had been cancelled due to the low cost-effectiveness. He reported on the Variety registration Pre-Examination Image Contents Systems (PICS). PICS was developed in 2008 and contained two main databases on plant varieties: the image database and a database with administrative and legal information, such as variety denomination, commercial name, registration number, etc. He explained that PICS was accessible to any person through internet. The user could select flower color, then enter the species, and images and data could be searched, including the variety description. At the moment they were in the process of collecting image data and information was requested to the public.

16. An expert from Kenya reported that, in 2009, around 100 applications had been filed, and that a total of 1,300 applications had been filed in Kenya since the introduction of PBR. He reported on the creation of a project for databases and explained that the management of the Kenya Plant Health Inspectorate Service (KEPHIS) had changed recently.

17. An expert from the Netherlands reported that, during the previous two years a lot of work had been done on a totally new IT system for Naktuinbouw Varieties & Trials. He explained that it had been a bigger undertaking than anticipated, because three existing systems were replaced by a complete new one. In particular, the migration of all data from the existing systems into the new system had been problematic because of data overlap. The new IT system would provide access to the applicants to check the progress of the applications. The publication of photos and descriptions of varieties was anticipated at a later stage. He added that there was ongoing work on the maintenance of variety description databases and that DNA databases of potato and Phalaenopsis were operational, which had proved to be very helpful in the management of variety collections. The expert reported that, in 2010, Naktuinbouw had passed the company wide ISO 9001 audit and also the ISO 17020 audit on DUS testing on the 17 main species, which gave them confidence for the coming CPVO audit. In 2010, Naktuinbouw had started with a system to carry out two independent growing cycles in one calendar year. The previous week, the two-week PVP course in Wageningen had been completed. The course was attended by 23 participants from 18 countries. He recalled the possibility to have an internship at Naktuinbouw, where an expert could work alongside the Naktuinbouw staff. The internship had been a success and, in 2010, an expert from Canada and an expert from Poland had each spent 3 weeks at Naktuinbouw and 2 more experts were expected to participate during 2010. With respect to cooperation, he reported on cooperation projects with China, Vietnam and Indonesia. He concluded by reporting that its image analysis module was being modified and, once finished, would be reported to the TWC; and that cooperation with the CPVO for the use of the variety database, as well as the on-line application system had been initiated.

18. An expert from Poland reported on the use of image analysis in oilseed rape. He reported that a workshop on statistics for variety testing had been held in Poland. He also reported on a workshop on plant variety protection, organized in cooperation with the European Union and UPOV, which had been held in the Research Centre for Cultivar Testing (COBORU). 60 participants from 16 countries had attended the workshop in COBORU.

19. Experts from the Republic of Korea reported that, since the beginning of 2010 until May 31, 316 applications had been filed, of which 263 were electronic applications. The

electronic application system had been launched in June 2005. During 2009, 72% of applications had been received using that system. The total number of applications and plant breeder's granted was 4,786 and 3,065 respectively, since the PVP system had been implemented in 1997. All plant genera and species had become protectable from May 2009, with the exception of strawberry, raspberry, blueberry, cherry, tangerine, and seaweed. The Korea Seed & Variety Service (KSVS) had started to add images of ornamental varieties with variety denominations in the official gazette of KSVS homepage. He added that, in 2009, the thirty-eighth session of the TWA had been held in Seoul, Republic of Korea, from August 31 to September 4. Before the TWA session, on August 28, 2009, an international symposium on "The Impact of PVP System" had been held with 9 speakers from Argentina, Australia, Canada, China, European Union, Japan, Kenya and Poland, as well as the Republic of Korea. The third session of the East Asia Plant Variety Protection Forum and International Seminar had been held in Seoul, from April 28 to April 30, 2010.

20. An expert from the United Kingdom reported that they continued to use the cyclical planting of the reference collection of herbage crops. She added that recently an audit by CPVO had been conducted.

*(b) Reports on developments within UPOV*

21. The TWC received an oral report from the Office of the Union (Office) on latest developments within UPOV, a copy of which is provided as Annex III to this document.

Molecular Techniques

22. The TWC received a report on developments within UPOV concerning molecular techniques, on the basis of document TWC/28/2.

23. With regard to methods for analysis of molecular data (see document TWC/28/2, paragraph 62), experts from France and the Netherlands offered to present information on the processing and use of molecular data at the twenty-ninth session of the TWC. The TWC agreed that other experts should be encouraged to present information on the methods that they used for analysis of molecular data.

TGP Documents

24. The TWC considered the TGP documents below in conjunction with document TWC/28/3.

*(a) New TGP documents:*

*TGP/11 Examining Stability*

25. The TWC considered document TGP/11/1 Draft 8 and the comments made by the Technical Working Party for Agricultural Crops (TWA), at its thirty-ninth session, held in Osijek, Croatia, from May 24 to 28, 2010, as set out in document TWC/28/3, paragraph 10.

26. With regard to the TWA proposal in document TWC/28/3, paragraph 10, the TWC proposed that the final sentence of Section 2.3.3.1 be amended to read “The candidate parent line variety is declared stable if at least 5 ear-rows conform to the plot”. The TWC also suggested that it might be appropriate to consider adding examples for vegetable, fruit and/or ornamental crops.

*(b) Revision of TGP documents:*

*TGP/5 Experience and Cooperation in DUS Testing, Section 10: “Notification of Additional Characteristics”*

27. The TWC noted the developments reported in document TWC/28/10

*TGP/7 Development of Test Guidelines*

28. The TWC considered the following items in conjunction with document TWC/28/3:

*(i) Coverage of ornamental varieties in Test Guidelines (document TWC/28/11)*

29. The TWC considered document TWC/28/11 and suggested that consideration might be given to whether the asterisked characteristics would necessarily be appropriate for types of varieties for which additional characteristics would be needed beyond those included in the Test Guidelines.

*(ii) Quantity of plant material required*

30. The TWC considered document TWC/28/12.

31. The TWC noted that the Section 4.1.2 of document TGP/7/2 Draft 5 specified that the “quantity of plant material specified in Chapter 2.3 of the Test Guidelines is the minimum quantity that an authority might request of the applicant. Therefore, each authority may decide to request a larger quantity of plant material, for example to allow for potential losses during establishment, or for a standard sample (see GN 7 “Quantity of plant material required”).”.

*(iii) Applications for varieties with low germination*

32. The TWC noted the information presented in document TWC/28/13.

*(iv) Number of plants to be considered for distinctness*

33. The TWC considered document TWC/28/14.

34. The TWC proposed that consideration be given to developing guidance on:

*(a) how to select the plants to be examined for distinctness from within the trial;*

- (b) the minimum number of plants of candidate varieties required to be able complete the trial, i.e. the minimum number of plants required to examine distinctness and uniformity;
- (c) the number of plants required for varieties of common knowledge (reference varieties) to be compared with the candidate varieties; and
- (d) whether, for Test Guidelines with a small number of plants in the DUS trial (e.g. Grapevine), all the plants of the candidate variety might be examined, disregarding any off-type plants, irrespective of the minimum number to be examined. Thus, in the case of grapevine, all 8 plants of candidate varieties might be examined (or 7 if one plant was an off-type).

(v) *Selection of asterisked characteristics*

35. The TWC noted the proposals set out in document TWC/28/15.

(vi) *Indication of grouping characteristics*

36. The TWC noted the proposals set out in document TWC/28/16.

(vii) *Guidance for type of observation*

37. The TWC noted the explanation presented in document TWC/28/17.

(viii) *Example varieties*

38. The TWC considered document TWC/28/18 and proposed to amend the wording as follows:

“7. The conditions can be listed as follows:

“(a) Example varieties must be well-known across the member States, [...];

[...]

“(d) Considering a set of example varieties for a characteristic, the rank of each example variety [...]”

39. The TWC noted that a set of example varieties for North East Asia had been published on the UPOV website as an Annex to the Test Guidelines for Rice.

(ix) *Providing photographs with the Technical Questionnaire*

40. The TWC considered document TWC/28/19 and made the following comments:

paragraph 9	- to revise the first sentence to refer only to aspects affecting the image
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	<p>captured by the photograph and to introduce a separate sentence to address aspects affecting the reproduction of the image (e.g. resolution of the screen on which the image is viewed)</p> <p>- to replace “an imprecise picture” with “such factors”</p>
paragraph 9 (vi)	<p>to modify the final sentence to apply to situations other than flower color in ornamental plants and to consider adding the possibility of using a standard color check chart , instead of the RHS Colour Chart</p>
paragraph 9 (vii)	<p>- to replace “and not reflect light” to “should not have a shiny surface”, for example</p> <p>- to add an explanation that there should be uniform light distribution over the object to be photographed, and to give examples of how that might be achieved, e.g. by a light tent</p>

(x) *Standard references in the Technical Questionnaire*

41. The TWC considered document TWC/28/8.

42. The TWC noted that it would be a matter for breeders to indicate the usefulness of standard references for UPOV Technical Questionnaires (TQs). However, it saw the benefits of having a standard reference for items in the TQ, particularly for authorities where applications forms could not be made available in multiple languages. In that regard, it noted that the inclusion of a standard reference in an authority’s TQ would be considerably more straightforward than translating those documents into other languages. It also noted that the growing diversity of languages and alphabets within UPOV meant that the use of the references by only some authorities might still bring substantial benefits.

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

43. The TWC considered document TWC/28/20 and agreed the following with regard to the development of the items covered by the annexes:

TGP/8 PART I: DUS TRIAL DESIGN AND DATA ANALYSIS

*Annex I*

*New Section 2 - Data to be recorded ( Drafter: Mr. Uwe Meyer (Germany))*

The TWC considered that a DUS expert should be identified to assist Mr. Meyer in the redrafting of the section in order to ensure that it would be accessible to DUS experts

*Annex II*

*New Section 3 - Control of variation due to different observers (Drafter: Mr. Gerie van der Heijden (Netherlands))*

Mr. van der Heijden reported that he had discussed the section with Mr. Henk Bonthuis, (Netherlands) and they would seek to develop a draft text for

consideration by the TWPs in 2011.

*Annex III*

*New Section 6 – Data processing for the assessment of distinctness and for producing variety descriptions (Drafters: experts from Finland, France, Germany, Japan, Kenya and the United Kingdom)*

The TWC considered document TWC/28/32 “Principles Lying Behind the Methods Described in TGP/8 Part II for Producing Variety Descriptions”, prepared by Mrs. Sally Watson (United Kingdom) and Mr. Sami Markkanen (Finland).

The TWC agreed that the Office of the Union should develop the section by making reference to TGP/9 “Examining Distinctness” and “New Section 2 - Data to be recorded (Drafter: Mr. Uwe Meyer (Germany))”.

The TWC noted that this section would need to be considered in conjunction with the development of the New Section 13 of PART II of TGP/8 “Methods for data processing for the assessment of distinctness and for producing variety descriptions: (Drafters: experts from Finland, France, Germany, Japan, Kenya and the United Kingdom)”

*Annex IV*

*New Section – Information of good agronomic practices for DUS field trials (Drafter to be agreed)*

The TWC noted that, at the thirty-ninth session of the TWA, held in Osijek, Croatia, from May 24 to 28, 2010, Mrs. Anne Weitz (European Union) had offered to act as a drafter of this section, and Argentina and France had offered to contribute.

TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION

*Annex V*

*New Section after COYU – Statistical Methods for very small sample sizes (Drafter Mr. Gerie van der Heijden (Netherlands))*

The TWC agreed that Mr. van der Heijden (Netherlands) would contact Mr. Chris Barnaby (New Zealand) to seek clarification on the purpose of this section and to seek examples of situations where guidance was needed. On the basis of those discussions, an introduction would be added to the text.

*Annex VI*

*Section 4 – 2x1 % Method - Minimum number of degrees of freedom for the 2x1% Method (Drafter to be agreed)*

The TWC agreed that Mrs. Sally Watson (United Kingdom) would draft a general explanation of the rationale for indicating “at least 10 degrees of freedom and preferably at least 20 degrees of freedom” for both the 2x1% Method and COYD.

*Annex VII*

*Section 9 - The Combined-Over-Years Uniformity Criterion (COYU) - Minimum number of degrees of freedom for COYU (Drafter to be agreed)*

(see also comments to Annex VI above)

The TWC agreed that reference to “COYU” should be changed to “COYD”

### *Annex VIII*

*Section 10 – Minimum number of comparable varieties for the Relative Variance Method (Drafter: Mr. Nik Hulse (Australia)).*

The TWC noted that a proposal would be prepared for discussion by the TWPs in 2011.

### *Annex IX*

*New Section 11 Examining DUS in bulk samples: (Drafter: Mr. Kristian Kristensen (Denmark))*

The TWC agreed that Mr. Kristian should provide an introduction to this section explaining the reasons for bulking of samples and the consequences of bulking for DUS examination.

### *Annex X*

*New Section 12 - Examining characteristics using image analysis (Drafter: Mr. Gerie van der Heijden (Netherlands))*

The TWC considered that, before developing this section further, it would be useful to review information on the use of image analysis by UPOV Members.

Experts from Australia, Czech Republic, Denmark, Finland, France, Germany, the Netherlands, Poland and the United Kingdom would make 15 minute presentations on their use of image analysis at the twenty-ninth session of the TWC.

The TWC noted that those presentations might also be considered in relation to exchangeable software.

### *Annex XI*

*New Section 13 - Methods for data processing for the assessment of distinctness and for producing variety descriptions (Drafters: experts from Finland, France, Germany, Japan, Kenya and the United Kingdom)*

(see also comments on Annex III)

The TWC considered Annex XI in conjunction with the following documents:

TWC/28/24 “Handling measured quantitative characteristics for vegetable and herbage crops tested in the United Kingdom”, prepared by Mrs. Sally Watson (United Kingdom)

The TWC noted that paragraph 7 should be amended to read “For vegetable crops excluding potato method (b) is used to divide the range of expression into states and notes, and for herbage crops method (a) is used.”

The TWC agreed that the notes should be amended to 1-5, instead of 1, 3, 5, 7, 9.

Mr. Markkanen (Finland) explained that the system used by Finland appeared to be based on the same principles as those used in the DUSTNT package and explained that, if that proved to be the case, Finland would consider using the DUSTNT package and would withdraw its method from the collection of

methods in Annex XI

TWC/28/32 “Principles Lying Behind the Methods Described in TGP/8 Part II for Producing Variety Descriptions”, prepared by Mrs. Sally Watson (United Kingdom) and Mr. Sami Markkanen (Finland)

TWC/28/33 “Use of linear regression for the description of herbage crops tested in France” prepared by Mr. Vincent Gensollen (France)

As a next step in preparing a section for TGP/8, the TWC agreed that the TWC should receive a 10-minute overview of each of the methods presented in document TWC/28/20, Annex XI and also the presentations by Argentina, Germany, Japan and the Republic of Korea at the DUS seminar, held in Geneva in March 2010. The TWC would then analyse the similarities and differences in those proposals and would seek to identify methods that would serve as models and that would be available to UPOV members in the form of exchangeable software. As a possible future step, the TWC could consider whether it would be appropriate to compare results from common data sets.

*Annex XII*

*New Section - Guidance of data analysis for blind randomized trials (Drafter to be agreed)*

The TWC noted that at the thirty-ninth session of the TWA, it was agreed that France would provide an example.

*Annex XIII*

*New Section - Statistical methods for visually observed characteristics (Drafter to be agreed)*

The TWC noted that this subject would be discussed under agenda item 12 “Statistical methods for visually observed characteristics” (document TWC/28/29)

*Annex XIV*

*New Section - Guidance for the development of variety descriptions with information from more than one growing cycle in one location, and more than one location*

The TWC agreed that Mr. van der Heijden (Netherlands) would consider whether it would be possible to present a report on developments in the Netherlands

44. The TWC noted that, subsequent to the twenty-eighth session of the TWC, there had been some changes to certain sections in the version of document TGP/8/1 that was put forward for adoption by the Council and agreed that the TWC should review those sections at its twenty-ninth session.

*TGP/12: Guidance on Certain Physiological Characteristics*

45. The TWC noted the proposals set out in document TWC/28/21.

*TGP/14: Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents**(i) Revision of existing sections*

46. The TWC considered document TWC/28/ 22.

47. The TWC agreed that the first sentence of paragraph 8 should read “The ratio length/width (width/length) is a tool to describe a component of shape.”. It also noted that any characteristics that were considered for distinctness would also need to be examined for uniformity. The TWC agreed that it should consider the results of this analysis at its twenty-ninth session.

*(ii) New section for color characteristics*

48. The TWC considered document TWC/28/ 23 and made the following comments:

<u>PART II: COLOR</u>	
2.1 Components of Color	to be amended to explain that, as and where appropriate, UPOV Test Guidelines may use a characteristic to describe “color” in relation to hue, saturation and brightness (three dimensions), but may also, for example, develop separate characteristics for “color” in two dimensions and a separate characteristic for “intensity of color”.
<u>PART III: COLOR DISTRIBUTION / PATTERN</u>	
3.1 General: The use of Number of Colors	- to indicate the difficulties in obtaining an objective and consistent assessment of number of colors - to delete “does not” at end of paragraph

Development of COY*(a) COYU: possible proposals for improvements to COYU*

49. The TWC considered document TWC/28/27, presented by Mr. Kristian Kristensen (Denmark). Mr. Kristensen proposed to carry out a survey to obtain data on the relationship between uniformity and expression of characteristics for different crops in order to determine if linear or quadratic adjustments would be suitable to correct the biases. He would then consider the implementation of the improved method.

50. The TWC noted that experts from Germany, Netherlands, Poland and United Kingdom would send information of averages and standard deviations to Mr. Kristensen for analysis and encouraged other experts to send such information to Mr. Kristensen.

*(b) A comparison of COYU and a method based on Bennett’s Test for coefficients of variation*

51. The TWC considered document TWC/28/26, presented by Mr. Wiesław Pilarczyk (Poland). He explained that the objective of the document was to explore the possibility of

using a simpler method than COYU to assess uniformity, and to establish the circumstances when such a method could be used. He recalled that COYU used the standard deviation as the measurement of uniformity, whilst Bennett's used the coefficient of variation. With regard to paragraph 24 of the document, Mr. Pilarczyk noted that the second sentence should read "The Bennett's test accepted more candidate varieties". He explained that the results were more concordant than appeared in the document because the data set, which focused on varieties with small means and large standard deviations, was not typical. He noted that the method might be appropriate for ratio scale data, but not for other types of data. Mr. Pilarczyk reported that he would like to replace the McNemar's test by the f test when uniformity of candidate varieties was tested in a future document.

52. The TWC agreed that a new document be prepared for the next session.

*(c) A rationale for excluding varieties of common knowledge from the second growing cycle when COYD is used*

53. The TWC noted the report provided in document TWC/28/30, as presented by Mr. Adrian Roberts (United Kingdom). The TWC noted that Mr. Roberts was planning to investigate the importance of variance heterogeneity and possible modification of the method to allow for it.

#### Statistical methods for visually observed characteristics

54. The TWC considered document TWC/28/29, presented by Mr. Kristian Kristensen (Denmark), on the basis of a presentation, a copy of which is provided in document TWC/28/29 Add..

55. It was suggested that it might be useful to make the analysis using programs other than SAS. An expert from France agreed to investigate whether someone in his country would be able to translate the method to R. An expert from United Kingdom offered to do this for the program GenStat.

56. The TWC agreed that separate chapters for ordinal and nominal data (including binominal data) be prepared for the next version of the document.

#### Combination of morphological distance (GAIA) with genotypic distance in the framework on "Management of the Reference Collection"

57. The TWC considered document TWC/28/28.

58. The TWC noted that the scores for expert notes were based on a global assessment and, therefore, would not necessarily correspond to a particular GAIA value, which was calculated on the basis of a sum of weighted values for differences for individual characteristics. The TWC considered that it might be interesting to provide a graph to show the relationship between the expert notes and GAIA. It also agreed that it would be interesting to analyze more pairs of similar varieties, i.e. pairs that had expert notes of 1 and 3.

Study on grass reference collections in different locations

59. The TWC considered document TWC/28/31, introduced by Mr. Gerie van der Heijden (Netherlands). He explained that the objective of the document was to explore possibilities to reduce the size of the field tests and therefore to reduce the cost of the trials, by using data from other locations or countries. He noted that there were no plans to continue investigations into the Sun / satellite approach outlined in the document.

Variety Denominations

60. The TWC received a presentation from Mrs. Carole Bonneau (CPVO) on the CPVO “Centralised database of variety denominations”, and a presentation by Patrick Lecoq on the CPVO system of variety denomination checking, copies of which are provided as document TWC/28/35, Annex I and Annex II, respectively.

61. The TWC noted that the CPVO system of variety denomination checking did not seek to take into account phonetics in its assessment of similarity of denominations.

62. The TWC noted the information provided in document TWC/28/4.

Exchangeable software

63. The TWC considered document TWC/28/7, and UPOV/INF/Software Draft 3.

64. The TWC heard that the English translation of the user guide for Sirius was being prepared by the Office of the Union and would be checked by the experts from France. The interface would then be completed, with a view to making an English version available at the beginning of 2011.

65. Following the presentations by Mrs. Bonneau and Mr. Lecoq, in relation to variety denominations (see above), Mr. Carlos Godinho, Vice-President of the CPVO, invited the TWC to consider including the CPVO Centralised Database of Variety Denominations in document UPOV/INF/Software. He explained that the database would be made available to all UPOV members and would enable them to use the CPVO variety denomination checking tool in conjunction with all data in the CPVO Centralised Database of Variety Denominations. He also clarified that the algorithm for the variety denomination checking tool would also be accessible in conjunction with the CPVO Centralised Database of Variety Denominations, for UPOV members wishing to develop that tool for use in their own databases.

66. The TWC noted the benefits that could be achieved from harmonization in the checking of variety denominations and agreed that the CPVO Centralised Database of Variety Denominations and the CPVO algorithm for variety denomination checking should be proposed for inclusion in document UPOV/INF/Software.

67. The TWC received a presentation from Mrs. Laura Naie on the electronic office management systems deployed by CPVO, a copy of which is provided as document TWC/28/35, Annex III. Mr. Godinho (CPVO) offered the assistance of CPVO to any UPOV member wishing to benefit from the experiences of CPVO in developing their

system and suggested that consideration might be given to how that offer might be reflected in document UPOV/INF/Software, or elsewhere.

#### Electronic application systems

68. The TWC received a presentation from Mr. Marc Rouillard (CPVO) on the CPVO Online Application system, a copy of which is provided in document TWC/28/35, Annex IV.

69. The TWC recalled that it had considered the inclusion of standard references for the Technical Questionnaire, as set out in document TWC/28/8, under agenda item 5 (b) “Revision of TGP Documents”. In relation to Proposal 2 “Use of information provided in an electronic version of the UPOV Model Application Form and UPOV Model TQ”, the TWC noted paragraph 54, which explained that the Administrative and Legal Committee (CAJ) had concluded that it would be beneficial to await developments concerning the possibility of the CPVO online application system being made available to members of the Union.

#### UPOV Information Databases

70. The TWC noted the information provided in document TWC/28/5.

#### Variety description databases

71. The TWC noted the information provided in document TWC/28/6.

#### Data loggers

72. The TWC noted the information provided in document TWC/28/34 and agreed that a circular should be sent by Office of the Union, inviting further entries in advance of the twenty-ninth session of the TWC.

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

73. The TWC noted the report on developments concerning the questionnaire on off-types, as set out in document TWC/28/9.

#### Document TGP/8 Draft 15

74. The TWC agreed that, in document TGP/8/1 Draft 15: PART II: 5: Pearson’s Chi-Square Test Applied to Contingency Tables, Section 5.5 (4) should be amended to read:

“(4) Always use Yates Correction for determining the chi-square test with only one degree of freedom.”

Database for researching TWC working documents

75. The TWC participants were provided by the expert from Germany with the latest edition of the “Database to research TWC working documents”, as prepared by Mr. Thomas Drobek (Germany).

76. The TWC agreed that there could be benefits in making UPOV session documents available in Word format, in addition to pdf format.

Future Program, Date and Place of the Next Session

77. The TWC agreed to hold its twenty-ninth session in Geneva, Switzerland, from June 7 to 10, 2011, with the preparatory workshop on June 6. During the twenty-ninth session, the TWC planned to discuss the following items:

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 (document to be prepared by the Office of the Union and documents invited)
5. TGP documents
6. Information and databases
  - (a) UPOV information databases (document to be prepared by the Office of the Union and documents invited)
  - (b) Variety description databases (document to be prepared by the Office of the Union and documents invited)
  - (c) Exchangeable software (document to be prepared by the Office of the Union and documents invited)
  - (d) Electronic application systems (document to be prepared by the Office of the Union and documents invited)
7. Variety denominations (document to be prepared by the Office of the Union)
8. Image analysis (papers invited)
9. Data loggers (document to be prepared by the Office of the Union)
10. Assessing uniformity by off-types on the basis of more than one sample or sub-samples (document to be prepared by the Office of the Union)

11. Development of COY
  - (a) COYU: possible proposals for improvements to COYU (document to be prepared by Denmark and United Kingdom)
  - (b) A comparison of COYU and a method based on Bennett's Test for coefficients of variation (document to be prepared by Poland)
  - (c) A rationale for excluding varieties of common knowledge from the second growing cycle when COYD is used (document to be prepared by United Kingdom)
  - (d) Use of COYD when varieties are grouped (document to be prepared by United Kingdom)
12. Statistical methods for visually observed characteristics (document to be prepared by Denmark and documents invited)
13. Database for researching TWC documents (CD to be prepared by Germany)
14. Date and place of the next session
15. Future program

78. To facilitate planning for webcasting of the session, the TWC agreed to the draft schedule, as set out in Annex IV, whilst noting that it might be subject to some variation prior to its finalization for issuing with the invitation to the session.

#### Chairperson

79. The TWC agreed to propose to the TC that it recommend to the Council to elect Mr. Sami Markkanen (Finland) as the next chairperson of the TWC.

#### Visit

80. On the afternoon of July 1, the TWC visited the testing station of L'Anjouère of the *Groupe d'Études et de contrôle des Variétés et des Semences* (GEVES).

*81. The TWC adopted this report at the close of the session.*

[Annexes follow]

ANNEX I

I. MEMBERS

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Gerie VAN DER HEIJDEN

III. OFFICE OF UPOV

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[Annex II follows]

Presentation made by Mr. Bart Kiewiet, President,  
Community Plant Variety Office (CPVO), European Community



# The Community Plant Variety Protection System

**Bart Kiewiet**, President Community Plant Variety Office  
28 June 2010

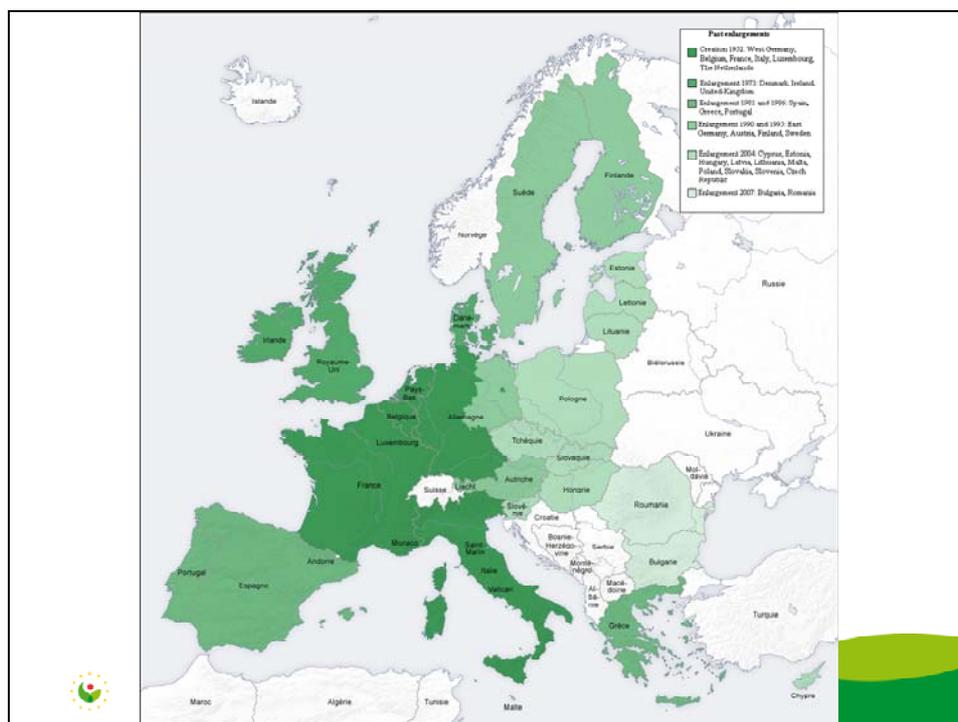
## CHARACTERISTICS

A system for the protection of plant varieties on European scale was established by a Regulation of the European Community in 1994.

Duration of the Community right: 25 years  
(30 years for vine, trees and potato varieties).

The **Community Plant Variety Office** (CPVO) administers the system.

The rights (Community plant variety rights) granted under this system are valid throughout the territory of the 27 Member States of the European Union.



## CHARACTERISTICS

In line with the UPOV Convention, Community protection can only be granted in respect of a **new** plant variety if the following technical requirements are fulfilled:

- the variety is **distinct (D)** from any other variety whose existence is a matter of common knowledge at the time of the filing of the application
- and it is sufficiently **uniform (U)**
- and **stable (S)**, and has a suitable **denomination**.



## CHARACTERISTICS

### SCOPE of the right.

These acts require the authorization of the holder of the rights:

- (a) Production or reproduction (multiplication)
- (b) Conditioning for the purpose of propagation
- (c) Offering for sale
- (d) Selling or other marketing
- (e) Exporting from the Community
- (f) Importing to the Community
- (g) Stocking for any of the above mentioned purposes

The holder may make his authorization subject to conditions and limitations.



## Characteristics

- One application leads to one decision valid in all 27 EU Member States
- System exists in parallel with national systems
- 23 Member States have their own national PVP system



## Why a Community system ?

- The system was created in 1994, operational in 1995.
- Before creation , 14 national , non harmonised, systems existed in European community.
- Breeders who wanted to protect their varieties on a European scale had to file applications in a number of countries, time consuming and expensive.



## ORGANISATION

- The Community PVP system is managed by the CPVO
- is an independent organ of the European Community;
- has an independent legal status;
- is financed out of fees paid by the users of the system.



## Organisation

The CPVO is supervised by its **Administrative Council**, composed of one representative of each Member State and the Commission and their alternates.

The Chairman and Deputy Chairman are elected by the Administrative Council among its members.

Duration of the term of office: 3 years.



## Organisation

The administrative Council

- Embodies co-operation between participating countries on policy level
- Is the budgetary authority of the CPVO
- Supervises its functioning
- Adopts technical guidelines
- Is the accrediting authority for examination offices



## Organisation

Under the terms of the basic Regulation the Community Plant Variety Office is **self-financing**:

- It must administer the system without financial support from the general European Community budget;
- The CPVO receives revenue from fees;
- Due to the number of applications received and rights granted, the Office has been able to meet the requirement of **financial self-sufficiency**.



## EXAMINATION OFFICES

The CPVO has not created its own technical infrastructure.

The technical examination to confirm DUS is carried out by the Examination Offices who are entrusted by the Administrative Council.

Enhanced quality requirements for entrustment



## Examination Offices

In respect of **ornamental** species

- Mostly centralised testing

In respect of **agricultural** species

- Several competent examination offices per species;
- Selection on the basis of environmental/climatic conditions, nationality of breeder.



CPVO  
network of  
Examination  
offices  
in the EU



# Statistics

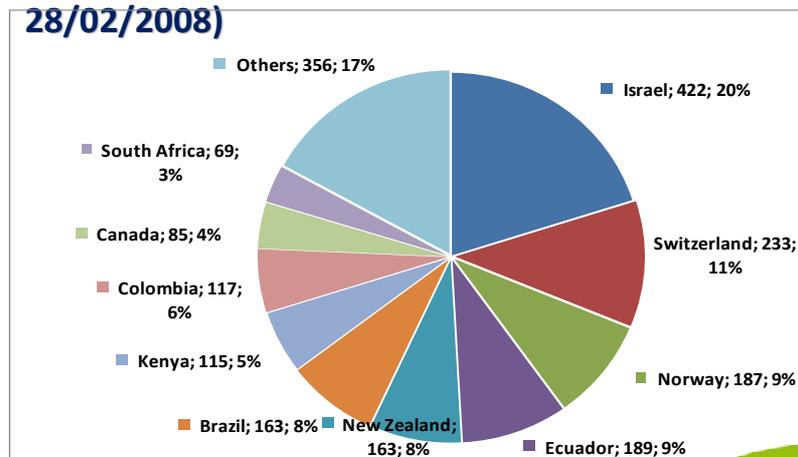


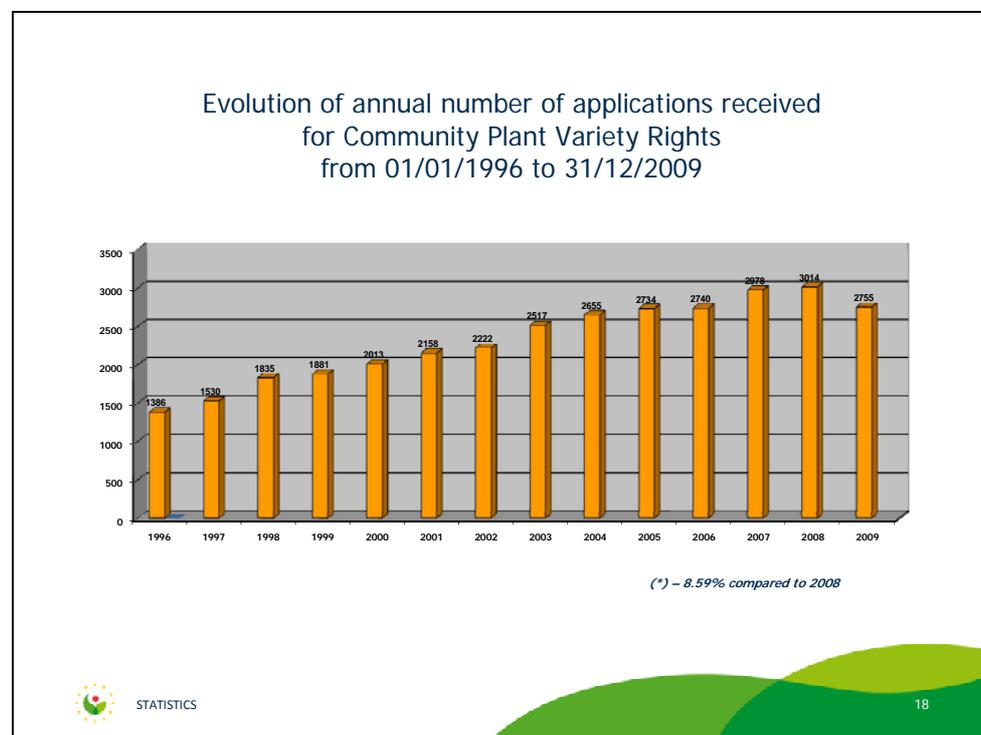
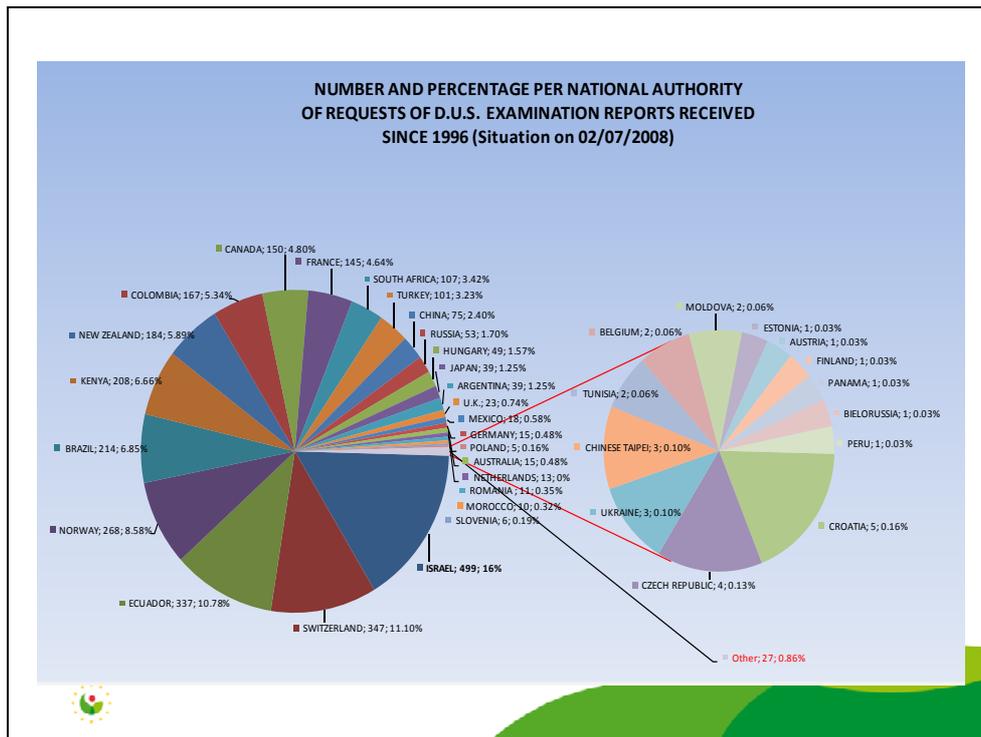
STATISTICS

15

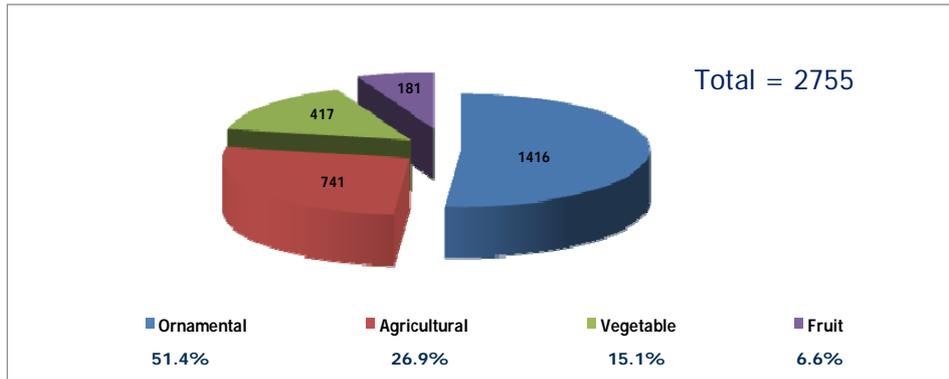
## International cooperation

**Number and percentage of sales of DUS examination reports since 1998 - (Situation on 28/02/2008)**



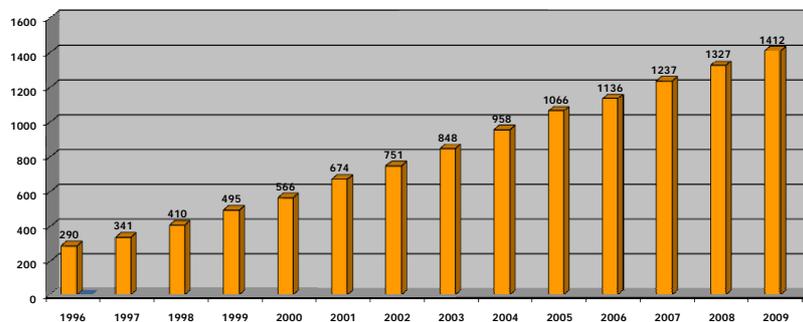


Applications received  
for Community Plant Variety Rights  
from 01/01/2009 to 31/12/2009



STATISTICS

Evolution of the number of species of which varieties were  
applied for Community Plant Variety Rights  
from 01/01/1996 to 31/12/2009

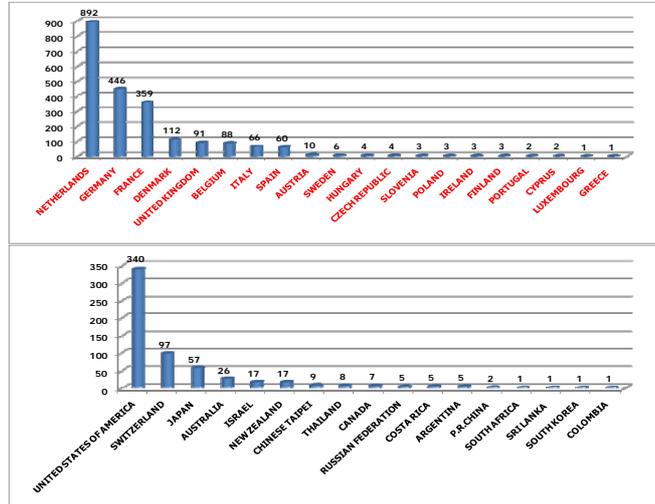


(\*) + 6.41% compared to 2008



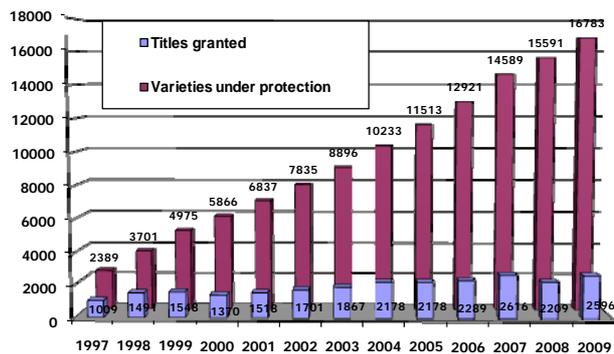
STATISTICS

### Origin of Community Plant Variety Rights applications in 2009



Total 2755

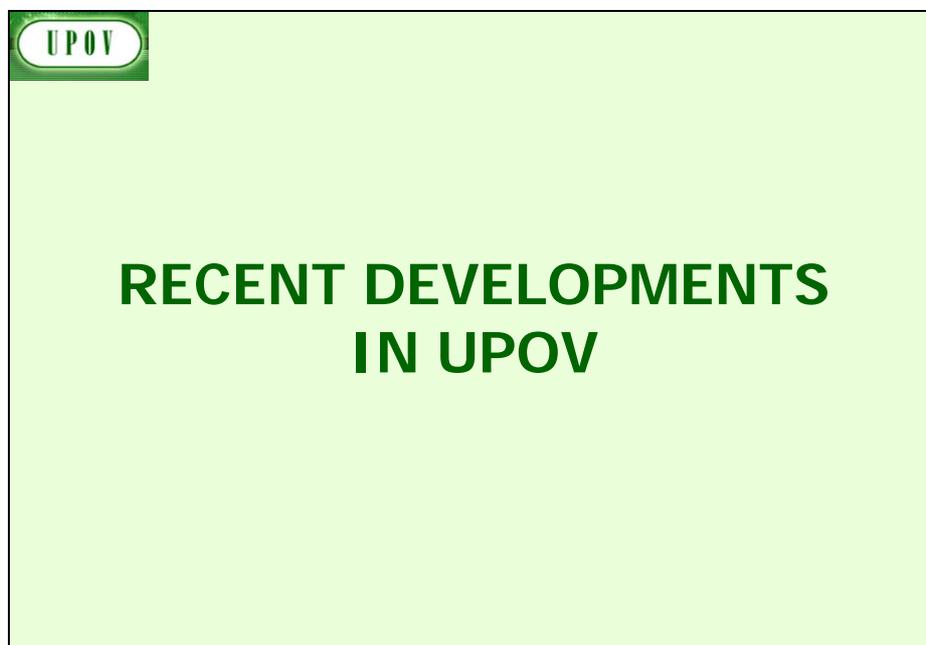
### Evolution of varieties protected under the Community system from 01/01/1997 to 31/12/2009





[Annex III follows]

Presentation made by the Office of the Union under the agenda item  
“Short Reports on Developments in Plant Variety Protection:  
Reports on developments within UPOV”



**UPOV**

## MEMBERSHIP OF UPOV

**68 Members**  
(67 States and the European Union)

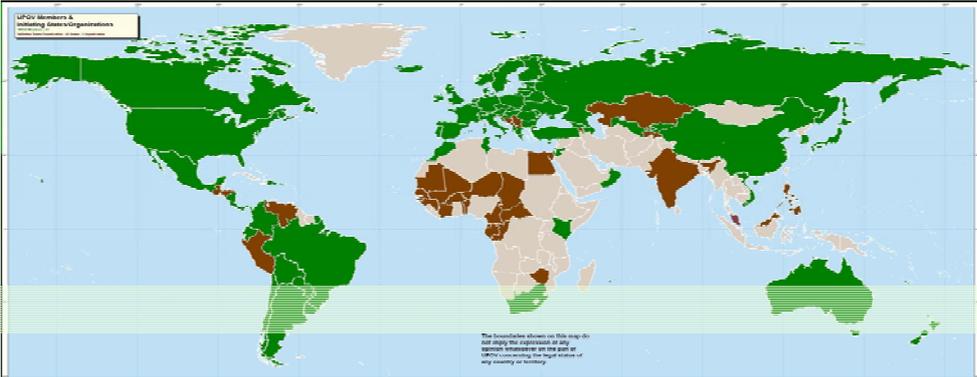
1991 Act  
Slovakia June 12, 2009

<u>Laws examined</u>	<u>Council session</u>	<u>Advice</u>
Oman	October 22, 2009	positive
Guatemala	October 22, 2009	positive

New Members  
Oman November 22, 2009

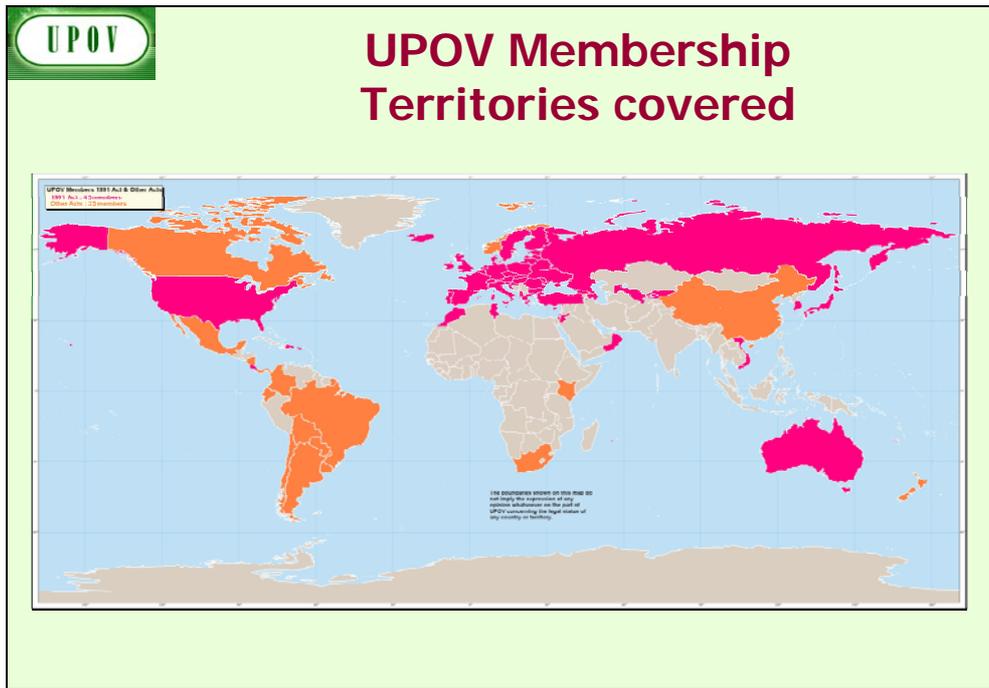
**UPOV**

## Members of UPOV (green) and initiating States and organizations (brown)



The map displays the global distribution of UPOV members and initiating states. Green shading covers most of North America, Europe, and parts of South America and Africa. Brown shading covers various countries in Africa, Asia, and the Middle East. A legend in the top-left corner of the map area identifies the colors. A disclaimer in the bottom-right corner of the map area states: 'The boundaries shown on this map do not imply the expression of any opinion whatsoever on the part of UPOV concerning the legal status of any country or territory.'

Initiated the Procedure  
17 States  
1 intergovernmental organization



**UPOV**

## COUNCIL

### ELECTIONS

for a term of three years ending in 2012

President of the Council

**Mr. Keun-Jin Choi**  
(Republic of Korea)

Vice-President of the Council

**Ms. Kitisri Sukhapinda**  
(United States of America)

 **TECHNICAL COMMITTEE**

**proposals**

President of the Technical Committee

**Mr. Joël Guiard**  
(France)

Vice-President of the Technical Committee

**Mr. Alejandro Barrientos-Priego**  
(Mexico)

 **COUNCIL**

**APPOINTMENT**  
from December 1, 2010

Vice Secretary-General

**Mr. Peter John Button**

**PROMOTION**  
from December 1, 2010

Director

**Mr. Raimundo Lavignolle**



UPOV

## VACANCY

### **SENIOR TECHNICAL COUNSELLOR**

(Grade P5)

UPOV

## **INFORMATION MATERIALS**

 **COUNCIL**

INFORMATION MATERIALS ADOPTED:

UPOV/INF/12/2 (Revision)  
Explanatory Notes on **Variety Denominations** under the UPOV Convention

*(Revised classes:  
Class 202 Megathyrsus, Panicum, Setaria and Steinchisma  
Class 211 Mushrooms)*

UPOV/INF/13/1  
Guidance on **How to Become a Member of UPOV**

UPOV/INF/14/1  
Guidance for Members of UPOV on **How to Ratify, or Accede to, the 1991 Act of the UPOV Convention**

 **COUNCIL**

INFORMATION MATERIALS ADOPTED (continued): :

***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 and Russian)

**UPOV**

**COUNCIL**

**INFORMATION MATERIALS ADOPTED (continued):**

**Explanatory Notes on:**

UPOV/EXN/GEN/1	Genera and Species to be Protected
UPOV/EXN/NAT/1	National Treatment
UPOV/EXN/NOV/1	Novelty
UPOV/EXN/PRI/1	Right of Priority
UPOV/EXN/PRP/1	Provisional Protection
UPOV/EXN/EDV/1	Essentially Derived Varieties
UPOV/EXN/EXC/1	Exceptions to the Breeder's Right
UPOV/EXN/NUL/1	Nullity of the Breeder's Right
UPOV/EXN/CAN/1	Cancellation of the Breeder's Right
UPOV/EXN/ENF/1	Enforcement of Breeders' Rights

...under the 1991 Act of the UPOV Convention  
*(also incorporated in document INF/6/1)*

**UPOV**

**Administrative and Legal Committee  
Advisory Group (CAJ-AG)**

**Explanatory Notes**

- (a) UPOV/EXN/BRD: Definition of Breeder
- (b) UPOV/EXN/HRV: Harvested Material
- (c) Essentially Derived Varieties (revision)

**Matters referred by the CAJ to the CAJ-AG:**

- (a) objectives of the possible development of a document on the exhaustion of the breeder's right
- (b) objectives of the possible development of a document on the notion of "own holdings"
- (c) matters arising after the grant of a breeder's right

**UPOV**

## COUNCIL

### TGP DOCUMENTS ADOPTED

TGP/12/1: Guidance on Certain Physiological Characteristics

TGP/13/1: Guidance for New Types and Species

TGP/0/2 (Revision):  
List of TGP Documents and Latest Issue Dates

**UPOV**

TG/1/3 General Introduction

↓

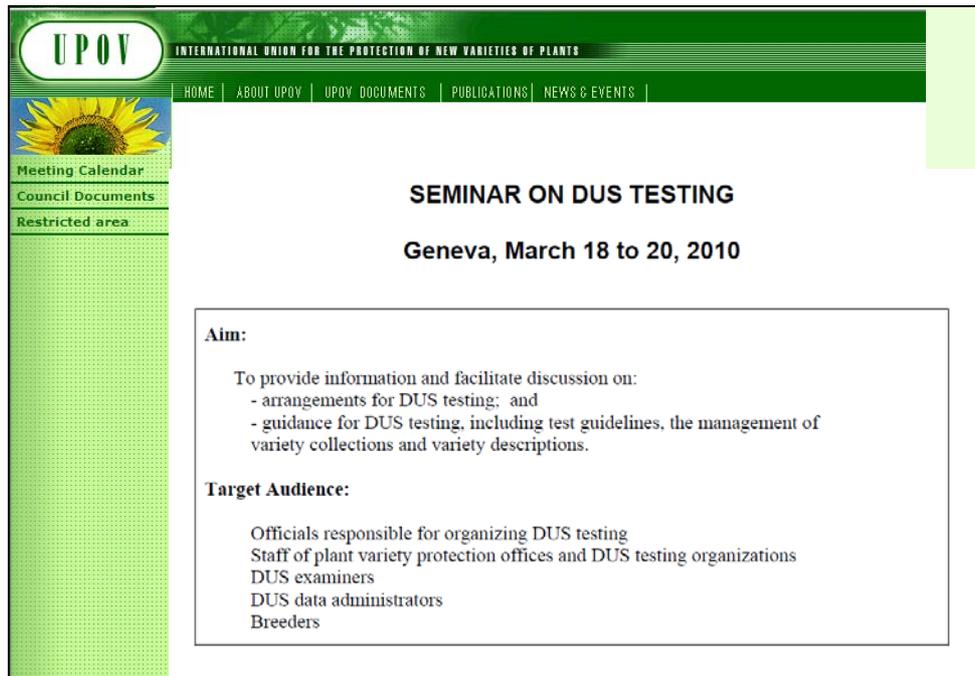
"Associated" TGP Documents

Ref.	Title
TG/00	List of TGP Documents and Latest Issue Dates
TGP/1	General Introduction With Explanations
TGP/2	List of Test Guidelines Adopted by UPOV
TGP/3	Varieties of Common Knowledge
TGP/4	Constitution and Maintenance of Variety Collections
TGP/5	Experience and Cooperation in DUS testing
TGP/6	Arrangements for DUS testing
TGP/7	Development of Test Guidelines
TGP/8	Trial Design and Techniques Used in the Examination of DUS
TGP/9	Examining Distinctness
TGP/10	Examining Uniformity
TGP/11	Examining Stability
TGP/12	Special Characteristics
TGP/13	Guidance for New Types and Species
TGP/14	Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents
TGP/15	New Types of Characteristics

for adoption →

← for revision

Standard wording



The screenshot shows the UPOV website header with the logo and navigation menu. The main content area features the title 'SEMINAR ON DUS TESTING' and the dates 'Geneva, March 18 to 20, 2010'. Below this, the 'Aim' and 'Target Audience' are listed.

**UPOV** INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

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Meeting Calendar  
Council Documents  
Restricted area

## SEMINAR ON DUS TESTING

Geneva, March 18 to 20, 2010

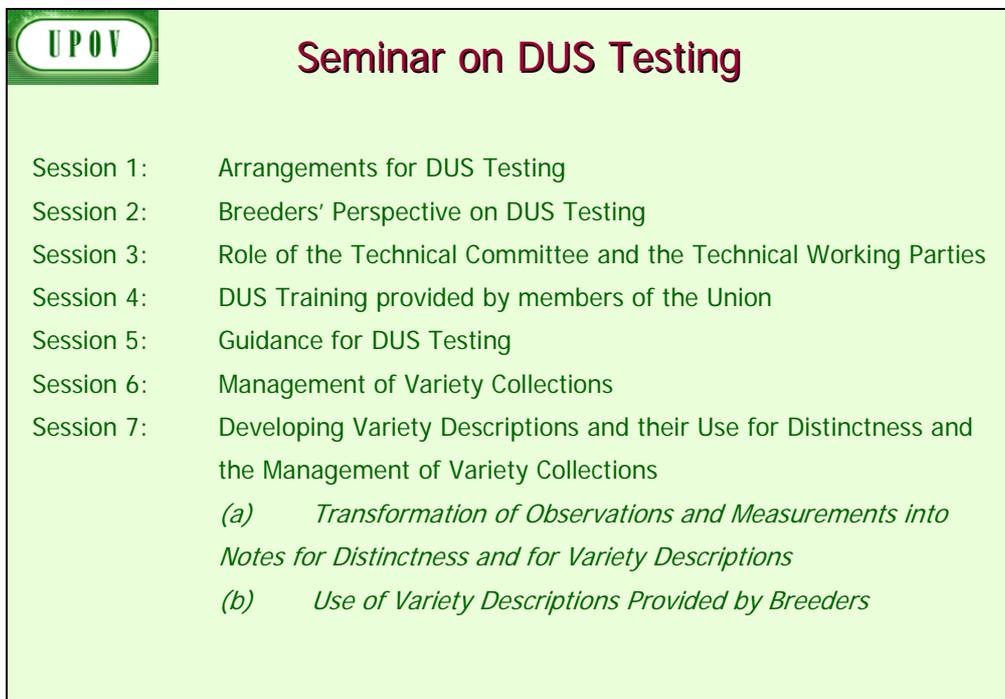
**Aim:**

To provide information and facilitate discussion on:

- arrangements for DUS testing; and
- guidance for DUS testing, including test guidelines, the management of variety collections and variety descriptions.

**Target Audience:**

- Officials responsible for organizing DUS testing
- Staff of plant variety protection offices and DUS testing organizations
- DUS examiners
- DUS data administrators
- Breeders



The summary page features the UPOV logo and the title 'Seminar on DUS Testing'. It lists seven sessions with their respective topics.

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## Seminar on DUS Testing

Session 1: Arrangements for DUS Testing

Session 2: Breeders' Perspective on DUS Testing

Session 3: Role of the Technical Committee and the Technical Working Parties

Session 4: DUS Training provided by members of the Union

Session 5: Guidance for DUS Testing

Session 6: Management of Variety Collections

Session 7: Developing Variety Descriptions and their Use for Distinctness and the Management of Variety Collections

(a) *Transformation of Observations and Measurements into Notes for Distinctness and for Variety Descriptions*

(b) *Use of Variety Descriptions Provided by Breeders*

## Seminar on DUS Testing: TC Chairman conclusions

- “UPOV members have used a range of approaches for DUS testing, as envisaged within the UPOV Convention, in order to provide an efficient and effective system for breeders according to their circumstances.
- “Cooperation is crucial for all UPOV members and will need to intensify in future to meet the expansion of the UPOV system. There is a need to:
  - continue to work on guidance documents (TGP documents, Test Guidelines) and exchangeable software (COY, GAIA etc.) to promote harmonization;
  - enhance efficiency of cooperation, through
    - maintaining standard forms, agreed fee for DUS reports, etc.;
    - the use and further development of tools, such as the GENIE database;
    - increasing exchange of information between UPOV members on their newly acquired experience;
    - exchanging variety descriptions; and
    - coordinating resources offered by members of the Union (e.g. training, helpdesks, *ad hoc* expert advice).
- “The Technical Committee and Technical Working Parties are an important means of training and exchanging information in an expert forum, and additional benefits can be achieved through preparatory workshops and associated training events.
- “It is important to continue to explore methods to address the management of variety collections, e.g. the potential role for molecular techniques.
- “The organization of such seminars, from time-to-time, provides a valuable means of sharing broad overviews and new developments and also of identifying areas for possible future guidance (e.g. treatment of data for distinctness and descriptions, understanding of “similar varieties”, status of the variety descriptions).
- “UPOV encourages breeders’ organizations to contribute to UPOV’s technical work and encourages a constructive dialogue on relevant issues at an early stage.
- “Participation by experts of potential future members of the Union in the Technical Committee and Technical Working Parties, as observers, was encouraged as a principal means of achieving harmonization with the UPOV system and facilitation of future cooperation on becoming UPOV members.”

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## Test Guidelines adopted by Technical Committee in 2010

### New Test Guidelines:

Document	English	Drafter	TWP
TG/AGARIC	Agaricus Mushroom, Button Mushroom	QZ	TWV
TG/BUDDL	Buddleia, Butterfly-bush	FR	TWO
TG/FIG	Fig	ES	TWF
TG/GAURA	Gaura	GB	TWO
TG/GYPSO	Baby's Breath, Gyp, Gypsophila	IL/QZ	TWO
TG/PAPAY	Papaya, Papaw	MX	TWF
TG/PRL_MIL	Pearl Millet	BR	TWA
TG/SWEETPOT	Sweet Potato	KR	TWATWV

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### Test Guidelines adopted by Technical Committee in 2010

Document	English	Drafter	TWP
<u>Revisions:</u>			
TG/53/7	Peach	FR	TWF
TG/59/7	Lily	NL	TWO
TG/116/4	Black Salsify, Scorzonera	NL	TWV
TG/123/4	Banana	BR	TWF
TG/130/4	Asparagus	NL/DE	TWV
TG/133/4	Hydrangea	FR	TWO
<u>Partial revisions:</u>			
TG/11/8 Rev.	Rose		TWO
TG/176/4 Rev.	Osteospermum		TWO

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### Other Test Guidelines considered by Technical Committee in 2010

Status	Document No.	English	Drafter	TWP
Referred back to TWO	TG/VRIES	Vriesea	NL	TWO

### Test Guidelines corrections notified to Technical Committee in 2010

Status	Document No.	English	TWP
Published	TG/26/5 Corr.2	Chrysanthemum	TWO
Published	TG/28/9 Corr.	Zonal Pelargonium, Ivy-Leaved Pelargonium	TWO

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## Test Guidelines

- **264 Test Guidelines** adopted
- **2,250 genera and species** for which UPOV members have practical DUS experience
- **>2,750 genera and species** with varieties examined for PBR

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## GENIE Database

Variety denomination related information  
Protection offered by UPOV members

### DUS information

- UPOV Test Guidelines
- practical experience of UPOV (document TC/46/4)
- cooperation in DUS examination (document C/43/5)



UPOV INTERNATIONAL UNION FOR THE PROTECTION OF PLANT VARIETIES

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TGP Documents  
Test Guidelines  
Practical Technical Knowledge  
Cooperation in Examination  
Variety Denominations  
Plant Variety Database  
GENIE Database

TGI/1/3 General Introduction

"Associated" TGP Documents

Ref.	Title
TGP10	UPOV TGP Documents and Linked Seed Sales
TGP12	General Introduction With Explanatory Notes
TGP13	UPOV of the Guidelines Related to UPOV
TGP14	Statutes of Common Knowledge
TGP15	Cooperation and Examination of Variety Characteristics
TGP16	Experiences and Cooperation in DUS Testing
TGP17	Arrangements for DUS Testing
TGP18	Development of Test Guidelines
TGP19	Test Design and Techniques Used in the Examination of DUS
TGP20	Examining Guidelines
TGP21	Examining Guidelines
TGP22	Examining Guidelines
TGP23	Statistical Characteristics
TGP24	Guidelines for New Types and Breeds
TGP25	Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents
TGP26	New Types of Characteristics

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**OTHER DEVELOPMENTS**

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## Report of the Special Rapporteur on the Right to Food

Note presented to the  
Third Committee of the  
General Assembly of the United Nations on  
October 21, 2009

*see [http://www.upov.int/en/about/key\\_issues.htm](http://www.upov.int/en/about/key_issues.htm)*

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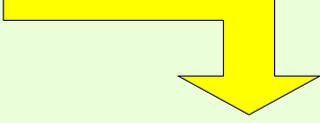
## Second World Seed Conference



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# Second World Seed Conference



  
**DECLARATION FROM THE SECOND WORLD SEED CONFERENCE**  
**Responding to the challenges of a changing world:  
The role of new plant varieties  
and high quality seed in agriculture**  
held at the FAO Headquarters in Rome, September 8-10, 2009

**World food security: urgent measures on seed needed**

Urgent government measures and increased public and private investment in the seed sector are required for the long term of agriculture to meet the challenge of food security in the context of population growth and climate change.

Governments are strongly encouraged to implement a predictable, reliable, user friendly and affordable regulatory environment to ensure that farmers have access to high quality seed at a fair price. In particular, FAO member countries are urged to participate in the internationally harmonized systems of the Organization for Economic Cooperation and Development (OECD), the International Union for the Protection of New Varieties of Plants (UPOV), the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and the International Seed Testing Association (ISTA). Participation in those systems will facilitate the availability of genuine, new plant varieties and high quality seed for the benefit of their farmers, without which their ability to respond to the challenges ahead will be substantially impaired. The conference emphasized the important role of both the public and the private sectors to meet the challenges ahead and the benefits when they work together. The Second World Seed Conference emphasized that agriculture needs to provide sustainable food security and economic development in the context of current and future global challenges. The Conference highlighted the critical role of new plant varieties and high quality seed in providing a stronger and sustainable agriculture that can meet those challenges. It concluded that governments need to develop and maintain an enabling environment to encourage plant breeding and the production and distribution of high quality seed. The global seed market has grown rapidly in recent years and is currently worth around US\$ 57 billion. Cross border seed trade was estimated to be worth around US\$6.4 billion in 2007. The Second World Seed Conference was held at FAO headquarters from September 8-10 and organized in collaboration with the OECD, UPOV, ITPGRFA, ISTA, etc.

**Conference conclusions:**

- Plant breeding has significantly contributed and will continue to be a major contributor to increased food security while reducing input costs, greenhouse gas emissions and deforestation. With that, plant breeding significantly mitigates the effects of population growth, climate change and other social and physical challenges.
- ITPGRFA is an effective instrument that aims at providing food security through conservation, as well as facilitated access to genetic resources under its multilateral system of access and benefit sharing. The multilateral system represents a resource of genetic traits, and therefore constitutes a central element for the achievement of global food security.
- Intellectual property protection is crucial for a sustainable contribution of plant breeding and seed supply. An effective system of plant variety protection is less viable for investment in breeding and the development of new varieties of plants. A country's membership of UPOV is an important global signal for breeders to have the confidence to introduce their new varieties in that country.
- Seed quality determination, as established by ISTA, can lead to be regulated to farmers is an important measure for achieving successful agricultural production. The establishment or maintenance of an appropriate infrastructure on the scientific as well as technical level in developed and developing countries is highly recommended.
- The development of reliable and internationally acceptable certificates, through close collaboration between all stakeholders along the supply chain for variety certification, phytosanitary measures and laboratory testing, contribute substantially to the strong growth in international trade and development of seed markets to the benefit of farmers.

**"Follow-up"**

Project in a group of model countries with a view to developing an enabling environment to encourage plant breeding and the production and distribution of high quality seed for the benefit of farmers.





# THANK YOU

UPOV Technical Working Party on Automation and Computer Programs (TWC) 29th Session,  
Geneva, Switzerland June 7 to 10, 2011: Draft Schedule

	<b>Monday June 6</b>	<b>Tuesday June 7</b>	<b>Wednesday June 8</b>	<b>Thursday June 9</b>	<b>Friday, June 10</b>
<b>09.00</b>		<u>1. Opening</u> <u>2. Adoption of the agenda</u> <u>3. Short reports on developments in PVP</u>	VARIETY DESCRIPTION AND DISTINCTNESS	TGP 5-7-11- 12 and 14	
10.30		<b>10:00 COFFEE</b>	<b>COFFEE</b>	<b>COFFEE</b>	<b>COFFEE</b>
11.00		IMAGE ANALYSIS	VARIETY DESCRIPTION AND DISTINCTNESS (CONT.) VISUALLY OBSERVER CHARACTERISTICS	DEVELOPMENTS ON COY	
12.45		<b>LUNCH</b>	<b>LUNCH</b>	<b>LUNCH</b>	
14.00	<u>Preparatory Workshop</u>	<u>UPOV information databases</u> (a) UPOV information databases (b) Variety description databases (c) Exchangeable software (d) Electronic application systems	TGP/8	STATISTICAL METHODOLOGIES	<b>14:00 END OF SESSION</b>
15.30		<b>COFFEE</b>	<b>COFFEE</b>		
16.00	<u>Preparatory Workshop</u>	MOLECULAR TECHNIQUES	TGP/8		
17:00					
		18:00	18:00	18:00	

[End of Annex IV and of document]