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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
GENEVA

TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS

Thirty-Ninth Session
Osijek, Croatia, May 24 to 28, 2010

REVISED REPORT

adopted by the Technical Working Party for Agricultural Crops (TWA)

1. The Technical Working Party for Agricultural Crops (TWA) held its thirty-ninth session in Osijek, Croatia, from May 24 to 28, 2010. The list of participants is reproduced in Annex I to this report.

2. The TWA was welcomed Mr. Ivan Đurkić, Director, Institute for Seeds and Seedlings.

3. The session was opened by Mr. Dirk Theobald (European Union), Chairperson of the TWA, who welcomed the participants and, in particular, new participants to the TWA.

Adoption of the Agenda

4. The TWA adopted the agenda as reproduced in document TWA/39/1 Rev., subject to the following changes to items after 15:

"16 Date and place of the next session
"17 Future program
"18 Adoption of the Report of the session (if time permits)"

Short Reports on Developments in Plant Variety Protection

(a) Reports from members and observers

5. The expert from Argentina reported that there had been an increase in the number of applications for plant breeder's rights, with the main crops being soybean, corn, sorghum, sunflower and cotton and that there had also been an increased interest in breeding of native grasses.

6. The expert from Australia reported that the number of applications for new varieties received at that date in the 2009/2010 financial year was around 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, representing 20 genera, including *Arachis, Brachiaria, Brassica, Cannabis, Glycine, Gossypium, Hordeum, Lens, Lotus, Medicago* and *Triticum.* Work was continuing on the development and testing of 'Evock', 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 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 the moment, that also involved other areas of the agency. It was likely to impact on some existing PBR systems but should allow some opportunity for improvement and development and it would be a number of years before implementation.

7. The expert from Austria reported that applications remained stable, around 400 for national list and around one or two for plant breeder's rights. She added that the main crops were cereals, maize, sunflower, oilseed rape and soybean. She reported that Austria conducted DUS testing of cereals, potato and maize and smaller crops, such as oil pumpkin and buckwheat. Austria had bilateral agreements for sunflower, oilseed rape, soybean and all grasses.

8. The expert from Brazil reported that the revision of the national guidelines for soybean, including the example varieties, had been completed. He also reported that, during 2010, the establishment of a national set of example varieties for cassava, and for Urochloa would be completed and that the work for the development of a set for wheat would start in July, for rice in September and for finger millet in October.

9. The expert from Bulgaria reported that the number of applications for national listing remained stable, at around 380 and that there were a few applications for plant breeders' rights. He added that the main crops in Bulgaria were wheat, maize, sunflower, tomato, cotton, barley, some vegetable crops, grape and some fruit tree crops. He also reported that Bulgaria had a bilateral agreement with Romania.

10. An expert from Canada reported that, in 2009, 311 applications had been filed, 89 of which were for agricultural crop varieties, accounting for approximately 27% of all applications received in the Office. Up to that time, applications in Canada had been received

for 41 agricultural crops, with the highest number of applications being received for canola, potato, soybean, wheat and barley. She added that, while in the past one of the main crops for which applications had been filed was canola, there had been a recent shift away from canola applications to soybean applications.

11. An expert from China reported that, since the establishment of the PVP Regulations until 31 December, 2009, the PVP office of the Ministry of Agriculture had received 6,555 applications and granted 2,807 plant breeder's rights. He added that 86% of applications were for agriculture crops and that the main agricultural crops were rice, maize and wheat. He also reported that, in 2009, 992 applications had been filed with the Ministry of Agriculture and the PVP office had promulgated the eighth batch of protected genera or species, adding a further 8 genera or species, amongst which were *Lotus*, *Phalaenopsis* and Begonia. At that time, there were 80 genera or species for which applications were possible in the Ministry of Agriculture. The Ministry of Agriculture had started a special project to conduct the development of testing guidelines for 80 genera or species; DNA identification standards for 14 genera or species, and the development of the reference variety database of descriptive characteristics, photographs and DNA fingerprints. The project was established for the period 2009 to 2013. That database was useful for testers to examine the DUS of candidate varieties and enhanced work efficiency.

12. The expert from Colombia reported that 1,480 applications for plant breeder's rights had been filed and 900 rights had been granted.

13. An expert from the Community Plant Variety Office of the European Union (CPVO) reported that, in 2009, the CPVO had received 2755 applications for Community plant variety rights (CPVR), a decrease of 8% from the previous year. There were 741 applications in the agricultural sector, which represented 27% of all applications. The most important agricultural species were maize, wheat, potato and oilseed rape. She added that since the end of March 2010 the CPVO was able to offer to applicants the possibility of electronic filing, which enabled the filing of an application for CPVR on-line, via a secured site. For the time-being it was available for 5 species, of which potato was an agricultural species, and it was the intention to enlarge the list of species as soon as possible. The system would be presented to the network of examination offices of the European Union on June 2, 2010; it would be proposed to be offered to National Authorities of the European Union and at a later stage to UPOV Members as well. With respect to the cooperation between EU Member States' authorities and UPOV, she reported that, several years ago, the CPVO had created a centralized database of variety denominations. In addition to the possibility of using that database for testing similarity of proposals for denomination for national authorities of the European Union, since February 2010, the CPVO was producing advice on the suitability of a proposed variety denomination upon request received from an EU authority. With regard to research and development (R&D) projects in the agricultural sector, follow up discussions were taking place between the project partners and the European Seed Association (ESA) with respect to the project "Construction of an integrated microsatellite and key morphological characteristic database of potato varieties in the EU Common Catalogue". She reported that, 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 European Union, an independent technical audit of the CPVO had commenced operations in the September 2008. The first quality audits with the assistance of external technical audit experts started in Spring 2010 and training for technical auditors was planned to be held at the CPVO on June 1, 2010. She reported that, from June 29 to July 2, 2010, CPVO would host the TWC in Angers, France.

14. The expert from Czech Republic reported that, in 2009, 482 applications for national list had been received, which represented a reduction of 21% with respect to the previous year. Whilst the number of applications of vegetable species remained at the same level, there had been a significant decrease in the number of applications of agriculture species. The number of applications for plant breeder's rights increased by 52% with respect to 2008. At that time, 670 varieties had been protected at national level. With respect to cooperation, she explained that the Czech Republic was continuing cooperation in DUS testing with Austria, Hungary, Poland, Rumania, Slovakia and Slovenia on the basis of administrative agreements. At the beginning of 2010, the Czech Republic had signed an agreement on DUS testing cooperation with the Netherlands. Upon the request of TAIEX, her country had hosted the following activities for countries in the process of accession to the European Union: study visits for Croatia, Serbia and seminars for Bulgaria and Montenegro. The activities were focused on legislation on plant breeder's rights and variety testing.

15. The expert from Denmark reported that, three years previously, the organization had changed to only one testing station, dealing with DUS, VCU and seed certification and that it had proved to run well since. He reported the use of image analysis for several crops and that even though in some cases it had not reduced the cost of the examination; it had reduced the error in observations. He added that they were under the accreditation process of the CPVO, and that such accreditation would be made for fewer species than the ones for which they were making examinations at that time.

16. The expert from Finland reported that the Finnish Law on Plant Breeder's Rights had been modified and had entered into force at the beginning of 2010. The major change in the law was that the Finnish Food Safety Authority "Evira" had become the official registration authority. Evira was responsible for filing, publications and registration of new varieties of plants. He explained that the new legislation had been amended to be clearer and to incorporate the provisions of the 1991 Act of the UPOV Convention more accurately as well as to incorporate the provisions of the European Community with respect to plant breeders' rights. The changes in the legislation were intended to secure a profitable plant breeding sector in Finland and also to secure the availability of foreign plant varieties in the Finnish market. He added that, in general, Finnish breeders applied for national breeder's rights and that around ten breeder's rights were granted annually in Finland.

17. An expert from France reported that the *Groupe d'étude et de contrôle des variétés et des semences* (GEVES) had moved to Beaucouze, near Angers. He reported that the construction of the new testing station for DUS and VCU was almost completed, but was fully operational for testing. With respect to National List, in 2009 the number of applications filed was similar to the previous year, at around 1,200 for all crops, with, in particular, an increased number of applications for fruit varieties. With respect to plant breeder's rights, he reported that around 200 applications had been filed. He explained that French breeders preferred to apply at the CPVO. He reported that the model applied for the use of molecular markers in the management of reference collections in maize would be applied to barley and was under study for lettuce.

18. The expert from Germany reported that the national authority in Germany (the *Bundessortenamt* (BSA)) was responsible for plant breeder's rights and national list and not for seed certification. She added that the number of applications filed remained stable. However, there had been a reduction in the number of applications for minor crops, such as lupins, field bean and fodder pea, whilst there had been an increase in other crops, such as

oilseed rape, maize and wheat. She also reported that any possible restructuring within the seed industry in Germany had not had any effect in the BSA at the moment.

19. An expert from Japan reported that a total of 24,484 applications had been filed and a total of 18,743 titles had been granted in the period 1978 to 2009. In 2009, 1,138 applications had been filed, which represented a decrease of 18% compared to 2008. 320 applications, 28% of the total, had been filed by foreign applicants. He reported that, with respect to agricultural crops, 1,773 applications had been filed and 1,433 titles had been granted in the period 1978 to 2009. In 2009, there were 87 applications for agricultural crops, which represented a decrease of 11% compared to 2008. He explained that the average duration of the examination procedure was 2.7 years in 2009 and that the objective was to decrease to 2.3 years by 2014, in accordance with the national objectives. With respect to harmonization of national test guidelines with UPOV Test Guidelines, he reported that 17 national test guidelines had been harmonized in 2009, 2 of which were for agricultural crops, including sugarcane and maize. He reported that, due to internal reorganization of the Ministry of Agriculture, the name of the office would be changed from October 2010. He reported that, within the East Asia Plant Variety Protection Forum, test guidelines for rice had been discussed based on UPOV Test Guidelines for rice with the aim to harmonize and use a common test guideline for rice in the region. The members of the forum might propose the result of that discussion for consideration of the guidelines by the TWA in the future.

20. The expert from the Netherlands reported that, after a long process of restructuring and changes within the national authority, the situation was stable.

21. An expert from Poland reported that the Research Centre for Cultivar Testing (COBORU) was responsible for the maintenance of the National List of Varieties (NLI) and of the Register of PBR. In 2009 in Poland, a total of 426 applications had been received for NLI, 362 of which were for agricultural crops. As regard PBR, applications had been received for 65 varieties: 24 for agricultural species, 16 for vegetables, 18 for ornamental species and 7 for fruit plants. Poland had bilateral cooperation with many countries in the field of DUS testing: e.g. Czech Republic, Hungary and Slovakia and conducted DUS tests for countries such Lithuania, Latvia, Slovenia, Romania, Estonia, Norway and also on behalf of the CPVO. Each year COBORU organized a training course in DUS testing. In 2009 experts from Belarus, Ukraine and Estonia had participated in that training.

22. An expert from the Republic of Korea reported that, since the implementation of the plant variety protection system, the total number of applications for plant breeder's rights, as of March 31, has reached 4,712 of which 2,988 varieties were protected and 475 applications had been rejected since the implementation of PVP in 1998. With respect to the national list, he reported that the 5 major agricultural crops were rice, barley, soybean, corn and potato, and that a total of 496 varieties have been registered. However, since the national list had become optional, from March 2008, the applications for national listing had declined. He reported that the Third East Asia Plant Variety Protection (EAPVP) Forum was held in Seoul from April 28 to 30, hosted by KSVS and MIFAFF. A total of 62 participants from 17 countries had attended at the forum. The international seminar "The use of plant variety protection system by public sector" was held at the same place in conjunction with the EAPVP forum; 9 speakers were invited from various countries and international organizations including Australia, China, European Union, Japan, Republic of Korea, United States of America, APSA, IRRI, and UPOV and 142 participants had attended the seminar.

23. An expert from Romania reported that 276 applications for plant variety protection had been filed, of which 96 were for agricultural crops. The Romanian State Office for Inventions and Trademarks had granted 219 titles, 78 of which were for agricultural crops. Plant breeders' rights had been granted for the following agricultural crops: wheat, maize, barley and sunflower. The legislation on Plant Breeders' Rights, Law no.255/1998, amended in 2006, was in conformity with the 1991 Act of the UPOV Convention and EU Regulation 2100/1994. She added that in the field of testing and registering varieties, in 2009, the State Institute for Variety Testing and Registration (ISTIS), had tested 869 varieties and registered 75 varieties of agricultural plant species, 45 vegetables, 10 varieties of fruit trees, 14 vine varieties and 8 ornamentals. The previous year, the construction of 3 administrative buildings for the testing stations and a greenhouse had been finished. The stations were equipped with laboratory equipment and new equipment for the field testing. She concluded by reporting that three new administrative buildings were planned, including laboratories and storage facilities and that the reference collection and database had been expanded.

24. The expert from Slovakia reported that the management of the Plant Variety Register (PVR) and plant breeder's rights (PBR) was under the Ministry of Agriculture. The Central Controlling and Testing Institute in Agriculture (UKSUP) provided the service and testing network concerning PVR to the Ministry. She explained that, during the first half of 2009, the preparation of the new law on Plant Breeder's Right and Plant Variety Protection was undertaken. Since April 2009, the legal basis for plant breeder's right was provided by Law N 202/2009. She explained that, in general, in Slovakia the majority of the applications for PBR concerned agricultural crops species, in particular cereals (mostly wheat and barley), maize, sunflower and grass varieties. Until the end of the year 2008, 100 varieties of wheat and 75 varieties of barely had been protected. During the previous 20 years, since 1990, 1,177 applications for plant breeder's rights had been filed and around 624 rights had been granted. In 2009, the Ministry of Agriculture had received 9 applications for plant breeder's rights and granted 23 breeder's rights. She reported that, during the previous six years, there had been a significant decrease in the number of applications for plant breeder's right. The most significant decrease was for vegetables and fruit species. UKSUP had bilateral agreements concerning DUS testing with several countries, especially with Czech Republic, Poland, Hungary, and Slovenia. UKSUP also carried out testing of grasses for Croatia, Denmark and Sweden. Concerning national listing, the situation was similar; every year the Institute received very many applications for agricultural crops, mainly for varieties of maize, sunflower, oilseed rape and grasses.

25. The expert from South Africa reported that the Plant Breeder's Rights Act was administrated by the Department of Agriculture, forestry and Fisheries under the Directorate of Genetic Resources. The Office of the Registrar, within that directorate, was responsible for the administration and all matters related to plant breeder's rights. The Division of Variety Control was responsible for the planting and evaluation of all crops to be registered under the Plant Breeder's Act. That division was divided into three offices, in which crops were classified according to their suitability to climatic conditions. For protection under the PBR Act, the genera and species for which new plant varieties were obtained were declared by the Minister of Agriculture, Forestry and Fisheries in accordance with the regulation of the Act. There had been an increase in the total number of applications received in 2009 compared to 2008. The total number of applications received in 2009 was 373, showing an increase compared to the 346 filed in 2008. From the applications filed in 2009, 120 were for agricultural crops, 27 vegetable crops, 92 fruit crops and 134 ornamental crops. The total number of varieties under PBR was 2205, showing an increase compared to the 2076 in 2008. The largest group was ornamental, with 911 varieties, followed by agricultural, 688, fruit, 380

and vegetables 226. The crops with the highest number of applications were: rose, maize, tomato and wheat. He added that there were some applications for genetically modified varieties in maize, soybean and cotton, and the number was increasing every year. He finally reported that the Directorate was maintaining a Plant Variety Database which was available on the website of the Department of Agriculture, Forestry and Fisheries,

26. An expert from United Kingdom reported the following activity of the Food and Environment Research Agency (Fera) Plant Varieties and Seeds Office in Cambridge. In 2009/10, United Kingdom PBR applications had declined. He explained that it appeared that the bulk of remaining applications related to smaller companies who did not envisage marketing varieties outside of the United Kingdom or those who preferred to obtain national breeder's rights before submitting applications to the Community Plant Variety Office of the European Union (CPVO). He added that National List (NLI) applications overall had remained constant, at a level that was approximately 10 times than for PBR. The oilseed sector remained very competitive with such NLI applications accounting for approximately 20% of the total. He explained that breeding effort in the cereal and herbage sectors also appeared fairly robust and persistent. Another expert from the United Kingdom added that, in 2010, the National Institute of Agricultural Botany (NIAB) had successfully become an EU Entrusted Office (EO) of the CPVO for Ornamentals. As such, they were the first to be entrusted under the new system. The application of the United Kingdom to become an EO for agricultural crops was ongoing, with the next stage being an audit on June 22-23, 2010 in Cambridge and Belfast. The cyclical planting method, used successfully in grasses for 15 years, had recently been further developed and implemented in oilseed rape as a means of managing the reference collection. That had reduced the number of reference varieties that needed to be grown in the field by about 15%.

27. The representative of the European Seed Association (ESA) and the International Seed Federation (ISF) reported that ESA had organized a seminar in Brussels, focusing on the evaluation of the Community Plant Variety Rights system in the European Union, including the issue of farm saved seed, as well as the interface between patent protection and plant breeders' rights. He added that ESA would revise its position paper on intellectual property with the intention to finalize the revision process in September 2010. He also reported that ISF was in the process of revising its position paper on intellectual property rights. He reported that ESA had increased its activities with respect to enforcement and black market in response to the increased sale of uncertified seed in grasses, fodder crops and seed potatoes as well as increased illegal vegetative propagation of hybrid varieties of vegetable species, such as tomato. In that respect, vegetable seed companies had established an anti-infringement bureau (AIB) while companies active in seed potatoes had established a company called "Breeder's Trust" to fight black market activities.

(b) Reports on developments within UPOV

28. The TWA received a presentation from the Office of the Union on the latest developments within UPOV, a copy of which is attached as Annex V to this document.

Molecular Techniques

(a) Developments in UPOV concerning the use of molecular techniques

29. The TWA received a report on developments in UPOV concerning the use of molecular techniques, as set out in document TWA/39/2 and BMT/DUS Draft 3, and an oral report from the twelfth session of the Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular (BMT), held in Ottawa, Canada, from May 11 to 13, 2010, on the basis of document BMT/12/24 "Report".

30. The TWA considered the following extract from the report of the twelfth session of the BMT (document BMT/12/24):

"7. The BMT considered document BMT/DUS Draft 3 and agreed the following:

General	to delete all references to the terms "Option" and "Proposal" and to replace with the terms "Model" and "Example"
	to replace all references to "molecular characteristics" with an appropriate term such as "molecular markers"
3.1.2	to clarify that the phenotypic distance is based on phenotypic characteristics and to indicate that the GAIA threshold would need to be selected on a case-by-case basis
3.1.3	to read "Calibration of molecular distances in the management of variety collections (see Annex 2)"

"8. The BMT agreed that document TGP/15 should be developed separately, but in parallel, to document BMT/DUS. The content of document BMT/DUS would be similar to BMT/DUS Draft 3, i.e. it would explain the development and consideration of all models within UPOV. However, document TGP/15 would contain only models that had received a positive assessment and for which accepted examples could be provided, i.e. Models "Characteristic-specific molecular markers" (Section 3.1.1) and "Combining phenotypic [characteristics] and molecular distances in the management of variety collections" (Section 3.1.2) for the time being."

31. The TWA agreed the following with regard to document BMT/DUS Draft 3:

General	in accordance with the proposal of the BMT, to delete all references to the terms "Option" and "Proposal" and to replace with the terms "Model" and "Example"
	in accordance with the proposal of the BMT, to replace all references to "molecular characteristics" with an appropriate term. The TWA noted that "molecular markers" were a tool and concluded that the term "molecular markers" might not be an appropriate term to refer to the data or information generated by those markers. It considered that terms such as "molecular data", "molecular marker data" and "molecular polymorphism", should be considered.

	to seek to develop shorter names for the models and to avoid any use of numbering in association with the models, i.e. to remove the indications of 3.1.1, 3.1.2, 3.1.3 and 3.2.1.
3.1.2	in accordance with the proposal of the BMT, to clarify that the phenotypic distance is based on phenotypic characteristics and to indicate that the GAIA threshold would need to be selected on a case-by-case basis
3.1.3	in accordance with the proposal of the BMT, to read "Calibration of molecular distances in the management of variety collections (see Annex 2)"

32. The TWA agreed that document TGP/15 should be developed separately, but in parallel, to document BMT/DUS on the basis that document BMT/DUS would provide a report on the development and consideration of all models within UPOV and that document TGP/15 would provide guidance for the use of those models that had received a positive assessment and for which accepted examples could be provided, i.e. Models "Characteristic-specific molecular markers" (Section 3.1.1) and "Combining phenotypic [characteristics] and molecular distances in the management of variety collections" (Section 3.1.2) for the time being. It agreed that the purpose of both documents should be clarified within the documents and noted that both documents would need to be adopted by the Council. The TWA agreed that consideration should be given to how to maintain both documents in an efficient way.

(b) Ad hoc *Crop Subgroups*

33. The TWA noted the report of developments concerning *Ad Hoc* Crop Subgroups on Molecular Techniques (Crop Subgroups) in document TWA/39/2 and noted that the BMT had not made any recommendation on the establishment of new crop specific subgroups at its twelfth session.

TGP Documents

34. The TWA considered the TGP documents below on the basis of document TWA/39/3.

(a) New TGP documents:

TGP/11 Examination of Stability

35. The TWA considered document TGP/11/1 Draft 8, and made the following comments:

1.	to replace the paragraph after the extract from the General Introduction with a text incorporating a reference to document TGP/10/1, Section 4.2.2.4, in order to explain that differences in the expression of a characteristic that occur on a part of the plant are considered with regard to uniformity.
2.1.1	to add an explanation that the purpose of document TGP/11 is to provide guidance, in the form of illustrative examples, on the examination of stability where that is considered appropriate.

2.1.2	to read "The stability of the candidate variety depends on the maintenance breeding effort in order to ensure that the variety will remain in conformity to the type and uniform. Samples resulting from repeated propagation of the candidate variety should be uniform and conform to the initial sample for all relevant characteristics."
2.2	to read "Where considered appropriate, the testing of stability should be conducted by either: (i) testing a new seed or plant stock, or (ii) testing a seed or plant stock obtained from propagation of the initial sample. In the case of (i), the examination authority should request the applicant to provide the sample of plant material to be tested for stability. In the case of (ii), the propagation cycle can be undertaken by the examination authority as long as it can ensure the safety and reliability of the propagation procedure."
2.3	to read as follows: "2.3.1 The following examples illustrate possible approaches of how individual authorities address examination of stability. *2.3.2 Examination based on samples submitted by the breeder* 2.3.2.1 *Phaseolus vulgaris* in Australia: Two seed samples of the candidate variety, from different cycles of propagation, are requested from the breeder and sown in the DUS trial side by side. For testing stability, the second sample of the candidate variety is compared to the first sample to establish that there is no difference between them in their relevant characteristics. The variety is considered to be stable if the 2 samples conform with each other. 2.3.2.2 A similar approach as under 2.3.2.1 is used for hybrid varieties where the stability is tested on the hybrid itself. The breeder is requested to submit samples from different cycles of propagation, which are compared side-by-side in the field. *2.3.3 Examination based on a sample harvested by the authority from the initial sample* 2.3.3.1 *Zea mays* parental lines in France: seed from the initial sample of the candidate variety is to be sown alongside the subsequent generation of seed of the candidate variety. (a) When the technical examination is carried out as a two-year DUS test by the examination authority, a part of the submitted seed sample is sown in a specific trial to produce selfings. In the second year the seeds harvested on six selfings are sown in ear-rows besides a two-row plot sown with seeds of the submitted sample. All the characteristics are checked on the ear-rows in comparison with the plot. The candidate parent line variety is declared stable if at least 5 ear-rows conform to the plot (1 different ear-row is accepted to take into account the risk of a mistake by the authority when producing selfings).

	(b) When the technical examination is carried out partly using the applicant's results (one year of testing for distinctness and uniformity carried out by the applicant) the applicant is asked to provide to the examination authority seeds of the candidate variety in the year "n-1" (the year in which the applicant carries out half of the test for distinctness and uniformity) and 6 non-threshed ears of the candidate variety are sent to the examination authority in year "n". The ears are threshed by the examination authority and sown in ear-rows close by a plot sown with seeds of the submitted seed sample. All the characteristics are checked on the ear-rows in comparison with the plot. The candidate parent line variety is declared stable if at least 5 ear-row conform to the plot (1 different ear-row is accepted to take into account the risk of mistake done by the authority when producing selfings). The only objective is to look at the conformity of the 2 generations in their relevant characteristics. 2.3.3.2 In the case of hybrids, stability is based on the stability of the parental lines, as described in 2.3.3.1, and the verification of the formula on the basis of the initial sample of the hybrid."
2.3.4	to be deleted
2.4	to be deleted

(b) Revision of TGP Documents:

TGP/5 Experience and Cooperation in DUS Testing

36. The TWA agreed the following with regard to the proposals concerning a revision of document TGP/5 Section 10 "Notification of Additional Characteristics", as set out in document TWA/39/10:

(i)	proposals for additional characteristics and states of expression notified to the Office of the Union by means of document TGP/5 Section 10, should be presented to the relevant Technical Working Party(ies) (TWP(s)) at the earliest opportunity. The characteristics would then, as appropriate, be posted on the password-restricted area of the UPOV website (*http://www.upov.int/restrict/en/index_drafters_kit.htm*) on the basis of comments made by the relevant TWP(s). In that regard, the TWA noted that, for example, it might not be useful to publish such characteristics or states of expression if the knowledge of such developments led to a revision or a partial revision of the Test Guidelines concerned. In proposing that approach, the TWA considered that consideration of additional characteristics and states of expression by the TWPs was an important means of informing members of the Union of relevant developments and, therefore, in facilitating harmonization.

(ii)	document TGP/5 Section 10 should be revised to clarify that the notification of characteristics in document TGP/5 Section 10 was not necessary before a characteristic could be used by a member of the Union.

37. With regard to the additional characteristic "Content of vicine/convicine" for the Test Guidelines for Field Bean (document TG/8/6), as set out in document TWA/39/10 Annex, the TWA agreed that the type of expression and notes should not be included. It agreed that two states (low and high) should be indicated with a range of values indicated for France, with a clear discontinuity between the two states. It noted that a revised version of the table would be provided to the Office of the Union for posting on the password-restricted area of the UPOV website (*http://www.upov.int/restrict/en/index_drafters_kit.htm*).

TGP/7 Development of Test Guidelines

(i) Coverage of ornamental varieties in Test Guidelines

38. The TWA agreed that the proposed Additional Standard Wording (ASW) in document TWA/39/11, paragraph 1 might be extended to cover other situations by amending it to read as follows:

> "In the case of [ornamental] [fruit] [industrial] [vegetable] [agricultural] [etc…] varieties, in particular, it may be necessary to use additional characteristics to those included in the Table of Characteristics in order to examine Distinctness, Uniformity and Stability."

39. In making the proposal for ASW, the TWA agreed that such wording should not lead to any particular conclusions as to whether other types of varieties should or should not be covered by the development of separate Test Guidelines, since that would need to be considered on a case-by-case basis.

(ii) Quantity of plant material required

40. The TWA considered document TWA/39/12.

41. The TWA observed that document TGP/7 already provided guidance with respect to the quantity of plant material required in Guidance Note GN 7 and recalled that attempts in the past to develop a formula to determine the quantity of plant material had not been successful. With regard to the development of any further guidance, the TWA agreed that such guidance should be confined to "Quantity of plant material required", as considered in paragraph 11 of document TWA/39/12, and should not extend to the matters covered in paragraph 11 (b) and (c). It also agreed that the guidance should seek to supplement the guidance already contained in GN 7, rather than starting afresh.

42. The TWA agreed that the guidance in GN 7 should be extended to encourage Leading Experts to consider the quantity of plant material required for similar crops in order to seek consistency as far as that was appropriate. It also agreed that guidance should be provided on whether the quantity required related to both growing cycles in the case of Test Guidelines indicating two growing cycles. In that regard, it suggested that previous wording in

Test Guidelines, before the adoption of document TGP/7, might provide a useful starting point.

(iii) Applications for varieties with low germination

43. The TWA considered document TWA/39/13.

44. The representative of the ESA reported that an ESA survey had concluded that there were very few cases concerning such low germination, and explained that the matter did not justify further consideration within UPOV for the time-being. He added that ISF had also arrived at the same conclusion.

(iv) Number of plants to be considered for distinctness

45. The TWA considered document TWA/39/14.

46. The TWA noted that the revision of document TGP/7 had indicated the need for clarification on the number of plants to be considered for distinctness. In particular, it had highlighted that the number of plants to be considered for distinctness should:

(i) allow for off-type plants, within the accepted number, to be disregarded; and

(ii) relate to both the number of plants of the candidate variety(ies) and of varieties of common knowledge to be compared with the candidate(s) in the growing trial.

47. It was agreed that document TWA/39/14 provided a useful explanation of the issues to be considered by the Technical Working Parties when developing Test Guidelines according to document TGP/7/2. It further agreed that Mrs. Beate Rücker (Germany), as the author of document TWA/39/14, should be invited to draft suitable guidance for inclusion in a future revision of document TGP/7 on the basis of comments received from the TWPs.

(v) Selection of asterisked characteristics

48. The TWA considered document TWA/39/15.

49. The TWA agreed that the final sentence of GN 13.1 “Asterisked characteristics”, Section 1.2, should be amended to read “The number of asterisked characteristics should, therefore, be determined by the characteristics which are required to achieve useful internationally harmonized variety descriptions.”

50. The TWA concluded that the guidance provided in document TGP/7, GN 13, on the selection of asterisked characteristics was appropriate and sufficient, and that it was only necessary to ensure that the guidance was followed in the development of Test Guidelines.

(vi) Indication of grouping characteristics

51. The TWA considered document TWA/39/16.

52. The TWA agreed that it would not be appropriate to include an indication of grouping characteristics in the Table of Characteristics in the (UPOV) Test Guidelines. It was observed that Items 14 and 15 in document TGP/5: Section 6 "UPOV Report on Technical Examination and UPOV Variety Description", Annex "UPOV Variety Description" might be improved, but the TWA concluded that the improvement of those items was not a priority.

(vii) Guidance for type of observation

53. The TWA considered document TWA/39/17.

54. The TWA concluded that the important difference between Scenario A and B in Example 1 was that, in Scenario B, the assessment was made by reference to example varieties, instead of recording the date and suggested that the document be modified to clarify that. It also agreed that the guidance should be consistent with the recommendations provided in document TGP/8, in particular in section "Data to be recorded" to be developed for a future revision of TGP/8 - PART I.

(viii) Example varieties

55. The TWA considered document TWA/39/18.

56. The TWA agreed that the matters raised in document TWA/39/18 were of particular importance and that measures to improve the situation should be considered.

57. The TWA agreed that the development of regional sets of example varieties would be an appropriate way to provide members of the Union with useful example varieties. In cases where it was agreed that regional sets of example varieties would be appropriate, it was agreed that the Test Guidelines might be adopted without example varieties, on the basis that regional sets of example varieties would be added at a later stage. The TWA noted that it would be necessary for the relevant members of the Union to share their data and to conduct ring tests in order to develop regional sets of example varieties.

58. It was agreed that the sharing of respective lists of example varieties by members of the Union with other members of the Union would, in itself, provide a valuable source of information and would also provide a valuable step towards harmonization of example varieties by indicating the extent to which example varieties were relevant for different members of the Union.

59. The TWA noted that, as explained in document TGP/7/2 Draft 5, Section 4.1.7, the inclusion of example varieties in individual authorities' test guidelines was an important means of ensuring that variety descriptions produced in the territory concerned were harmonized as far as possible and agreed that further guidance on that aspect might be useful. It was noted that the use of "calibration books", containing, for example, example varieties, illustrations and explanations of characteristics, as reported by the expert from the Netherlands, were a very useful means of increasing the harmonization of descriptions produced by DUS experts and by breeders.

60. An expert from the Republic of Korea proposed that the leading experts should provide the measured values for the notes of quantitative characteristics corresponding to the example varieties in their growing conditions, for publication on the UPOV website, in order to help experts from other UPOV members.

(ix) Providing photographs with the Technical Questionnaire

61. The TWA considered document TWA/39/19.

62. With regard to the proposed new text for ASW 16 in document TWA/39/19, paragraph 5, the TWA agreed that the wording should indicate that a photograph "would" help the examination authority to conduct its examination of distinctness in a more efficient way and "would" be used by the examination authority.

(x) Standard references in the Technical Questionnaire

63. The TWA considered document TWA/39/8.

64. The representative of the European Seed Association (ESA) noted that the arrangements for providing and using the standard references for Technical Questionnaires, as set out in document TWA/39/8, Annexes III and IV, could be complicated and would imply a significant commitment for authorities and might not be simple for breeders. Therefore, he agreed to consult his members in order to provide a clear view from ESA on whether such an approach would merit the investment of resources required.

65. The TWA heard that the CPVO was planning to make its electronic application forms available in English, French, German and Dutch in order to assist breeders.

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

66. The TWA considered document TWA/39/20 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 (Drafter: Mr. Uwe Meyer (Germany))

The TWA noted that Mrs. Beate Rücker (Germany) was already involved in the drafting if this section.

ANNEX II - TGP/8 PART I: DUS TRIAL DESIGN AND DATA ANALYSIS
New Section 3 - Control of variation due to different observers (Drafter: Mr. Gerie van der Heijden (Netherlands))

Mr. Henk Bonthuis (Netherlands) to coordinate with Mr. van der Heijden (Netherlands). France to contribute via TWC experts.

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 (Drafters: experts from Finland, France, Germany, Japan, Kenya and the United Kingdom)

See Annex XIII

ANNEX IV - TGP/8 PART I: DUS TRIAL DESIGN AND DATA ANALYSIS
New Section – Information of good agronomic practices for DUS field trials (Drafter to be agreed)

Mrs. Anne Weitz (European Union) to act as Drafter and Argentina and France to contribute.

ANNEX IV - TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
New Section after COYU – Statistical Methods for very small sample sizes (Drafter Mr. Gerie van der Heijden (Netherlands))

TWC to develop.

ANNEX V - TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
Section 4 – 2x1 % Method - Minimum number of degrees of freedom for the 2x1% Method (Drafter to be agreed)

TWC to develop.

ANNEX VI - 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 (Drafter to be agreed)

The TWA agreed that the TWC should review the data that was originally presented for COY when considering the appropriate degrees of freedom.

ANNEX VII - TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
Section 10 – Minimum number of comparable varieties for the Relative Variance Method (Drafter: Mr. Nik Hulse (Australia)).

The TWA made no comment on this section.

ANNEX VIII - TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
New Section 11 Examining DUS in bulk samples: (Drafter: Mr. Kristian Kristensen (Denmark))

The TWA made no comment on this section.

ANNEX IX - TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
New Section 12 - Examining characteristics using image analysis (Drafter: Mr. Gerie van der Heijden (Netherlands))

France and the United Kingdom to contribute.

ANNEX X - 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 (Drafters: experts from Finland, France, Germany, Japan, Kenya and the United Kingdom)

The Office of the Union to coordinate and to include all relevant information presented at the Seminar on DUS Testing.

ANNEX XI - TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
New Section - Guidance of data analysis for blind randomized trials (Drafter to be agreed).

France to provide an example.

ANNEX XII - TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
New Section - Statistical methods for visually observed characteristics (Drafter to be agreed)

TWC to develop.

ANNEX XIII - TGP/8 PART II: TECHNIQUES USED IN DUS EXAMINATION
New Section - Guidance for the development of variety descriptions (Drafter to be agreed)

To be combined with Annex X.

TGP/12 Guidance on Certain Physiological Characteristics
Disease nomenclature and disease resistance characteristics

67. The TWA considered document TWA/39/21 and noted that the document would need to be developed further with regard to states of expression for quantitative disease resistance characteristics.

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

68. The TWA considered documents TWA/39/22 and TWA/39/23.

69. With regard to document TWA/39/22 “Revision of existing sections of document TGP/14/1”, the TWA agreed that experts from Denmark, Germany and the United Kingdom should send data on characteristics for length, width and length/width ratio to Mr. Trevor Gilliland for collation. The TWA, at its fortieth session, would consider that data with a view to forming conclusions on any benefits in using all three characteristics in Test Guidelines.

70. The TWA noted that the text of TGP/8/1 Draft 15 “Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability”, Part II, 1. The GAIA Methodology, Section 1.3.1.1, should be amended to clarify that there is an assumption that the length of panicle is used as a characteristic.

71. With regard to document TWA/39/23 “New section for color characteristics”, the TWA agreed that the TWO and TWF should be invited to consider how and where to provide guidance on the use of the RHS Colour Chart for assessing distinctness.

Variety denominations

72. The TWA noted the developments reported in document TWA/39/4.

Information and databases

(a) UPOV information databases

73. The TWA noted the information provided in document TWA/39/5 and agreed to provide comments to the Office, by November 1, 2010, on the additions and amendments to UPOV codes, set out in Annex II to that document.

(b) Variety description databases

74. The TWA noted the information provided in document TWA/39/6.

(c) Exchangeable software

75. The TWA considered document TWA/39/7.

76. In reply to a query from the expert from Argentina, it was clarified that members of the Union were encouraged to offer further software for inclusion in document UPOV/INF/Software and that the first opportunity to initiate the process would be to present the software at the twenty-eighth session of the TWC, to be held in Angers, France, from June 29 to July 2, 2010.

(d) Electronic application systems

77. The TWA recalled that it had considered the inclusion of standard references for the Technical Questionnaire, as set out in document TWA/39/8, 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", 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, the TWA heard that the CPVO would have a meeting of the network of examination offices of the European Union on June 2, 2010 and would make a report of developments at the twenty-eighth session of the TWC, to be held in Angers, France, from June 29 to July 2, 2010.

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

78. The TWA considered the questionnaire presented in document TWA/39/9 and requested the Office to amend the probability of the Example of 2-step test assessment of uniformity in Barley, on page 8 of the document, to read 1% instead of 0.1%.

DUS examination of seed-propagated varieties of Papaya

79. The TWA considered document TWA/39/25.

80. The TWA agreed with the approach proposed by the Leading Expert for the Test Guidelines for Papaya, as set out in document TWA/39/25, paragraph 11. In that regard, it agreed that, in Chapter 3.4, it would be important to specify the number of plants that would need to be sown in order to achieve 25 hermaphrodite plants. It also agreed that it might be appropriate to consider the addition of a characteristic for the proportion of male plants, female plants and hermaphrodite plants in the variety, if that characteristic would fulfill the requirements for a characteristic set out in the General Introduction.

81. In order to assist other experts in their consideration of the proposal, the TWA agreed that it would be useful to provide information on the method of propagation of varieties of papaya. It was also agreed that reference might be made to the Test Guidelines for Spinach (document TG/55/7) in an additional annex to the document, with particular regard to the following characteristics:

Proportion of monoecious plants (characteristic 12)
Proportion of female plants (characteristic 13)
Proportion of male plants (characteristic 14)

Discussion on Draft Test Guidelines

Buckwheat

82. The subgroup discussed document TG/FAGOP(proj.4), presented by Mr. Masayuki Uchida (Japan), and agreed the following:

6.5	to add “C: special test”
Table of Chars.	to review order according to document TGP/7, GN 26
	to amend spelling of example variety from “Yanggeol” to “Yangjeol” and to replace “Fages 1” with “Zita” throughout Table of Chars.
	to reintroduce note (a) for relevant characteristics
Char. 1	to have notes 2 and 4, to be indicated as VG and to add “C” to indicate special test
Char. 2	to indicate growth stage, to be indicated as VG and to provide an explanation in addition to the photographs
Char. 3	to be indicated as VG
Char. 4	to delete (+)
Char. 5	additional example varieties to be provided by Japan
Char. 7	to check whether characteristic refers to natural height (may not be to tip) or length (always to tip) and to check whether to be indicated as MS, for consistency with Char. 17 (stem length)

Char. 10	to reverse order of state 1 and 2
Char. 11	to be indicated as QN
Chars. 15, 16	to clarify the difference between Chars. 15 and 16
Char. 15	to check whether to rename “Plant: number of flower clusters (excluding clusters on tip of main stem)”
Char. 16	to check whether the states should be: few (1); medium (2); many (3) or whether to rename the characteristic
Chars. 21-24	to provide an explanation of the position on the plant from where the fruits should be taken
Char. 21	more example varieties to be provided and to check whether notes 1, 2, 3 would be more appropriate
Char. 22	more example varieties to be provided and to delete “La Harpe”
Char. 23	example variety to be provided for state 1 or state to be deleted
Char. 24	to read “Seed: 1000 fruit weight”
possible new	to check whether rutin content would be a characteristic that would enable varieties to be distinguished that could not be distinguished by the other characteristics in the Table of Chars.
Ad. 7, 17, 19	to delete Ad. 19
Ad. 24	to be deleted

Durum wheat (Triticum durum *Desf.*) *(Revision)*

83. The subgroup discussed document TG/120/4(proj.2), as presented by Mr. Nik Hulse (Australia), and agreed the following:

Cover page	to delete “TG/3/11 + Corr. Wheat” from “Other associated UPOV documents”
2.	to add “2.3” after Chapter 2.2
3.3.3	to be deleted
3.4.1	to read “Each test should be designed to result in a total of at least 2,000 plants, which should be divided between at least 2 replicates.”
4.2.2	to read “For the assessment of uniformity in a sample of 2,000 plants, a population standard of 0.1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 2,000 plants, 5 off-types are allowed.”
4.2.3	to read: “For the assessment of uniformity of in a sample of 100 plants or parts of plants and ear-rows, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 100 plants, parts of plants or ear-rows, 3 off-types plants / ear-rows are allowed. “An ear-row is considered to be an off-type ear-row if there is more than one off-

	type plant within that ear-row.”
5.3	to add Char. 32 (TQ characteristic)
6.5	- to delete “B: row plot” and to remove all references in the Table of Chars. and “C” to be indicated as “Additional test – see Chapter 3.5” - to amend growth stage reference to “0-92”
Table of Chars.	to replace “VS” with “VG” throughout Table of Chars.
Char. 3	to delete “at tillering stage” and to provide example varieties for states 7 and 9 if possible
Chars. 4, 5	to delete “Plant:”
Chars. 6, 7	to be indicated as “55-65”
Char. 8	to have notes 1-5 and to move before Char. 6
Char. 9	to be deleted
Char. 10	to be indicated as “55-69”
Char. 13	- to be indicated as MG and to delete “(stem, ear and awn)” - to check whether all interested experts would accept the growth stage to be indicated as 71-75
Char. 14	to check whether all states are relevant for *T. durum* and example varieties to be provided for all states
Char. 16	to delete “(spikelet in mid-third of ear)” and to reword the states
Char. 16(a)	to delete “(spikelet in mid-third of ear)”, to be indicated as VG, to have notes 1-5 and to be numbered correctly
Char. 17	state 5 to read “elevated with 2nd beak”
Char. 18	to add note 1 “very narrow” with example variety “Don Sebastian”
Char. 21	to add (+) with explanation that the characteristic should be observed with a hand lens
Char. 22	to delete “(half way between base of ear and stem node below)” and to have notes 1-5
Char. 27	(*) to be deleted and to be indicated as PQ
Char. 28	to have the states : absent or very short (1); short (3); medium (5); long (7)
Chars. 29, 30	Spain to provide image analysis data at thirty-ninth session
Char. 31	to be reworded
Char. 32	to add (*) and to have the states: absent or light (1); medium (3); dark (5) – notes 7 and 9 to be deleted, with no change to example varieties for states 1-5
Char. 33	growth stage to be deleted
Ad. 1	to delete explanation for “Note”
Ad. 2	to delete last sentence

	to read "The time of ear emergence is reached when the first spikelet is visible on ears of 50% of the plants."
Ad. 13	to read "Plant height should be measured including stem, ear and awn. The height is taken from the base of the plant to the tip of the highest awn."
Ad. 14	to replace with the illustrations from a previous version of the draft Test Guidelines
Ad. 32	to delete explanation for "Note"
Ad. 33	to read "Winter type: The plants have not exceeded stage 45 of the Zadoks decimal code (boots swollen). "Alternative type: The plants have exceeded stage 45 of the Zadoks decimal code ---as a rule they have exceeded stage 75---and have not exceeded stage 90"
8.3	to amend to regular format for growth stage table
TQ 7.3	to be deleted

*Flax, Linseed (*Linum usitatissimum *L.) (Revision)*

84. The subgroup discussed document TG/57/7(proj.4), as presented by Mrs. Laetitia Denecheau (France), and agreed the following:

6.5	to add: "(F): Fiber variety: see Chapter 6.4.2 "(O): Oil variety: see Chapter 6.4.2"
Char. 4	- state 2 to be separated into two states: light pink (2) (example variety "Zhongyama No. 3 (type to be provided)"); and medium pink (3) (example variety "Petra (O)") - "??" to be deleted from state 3
Char. 7	to add (+) and provide illustration
Char. 8	to add (+) and provide illustration
Char. 9	to add note (a)
Char. 10	to replace example varieties with following: (1) (Selena (F), Valoal (O)); (2) (Artemida (F), Aries (O))
new (after Char. 10)	to read "Stamen: color of basal part of filament", with the states: white (1) (Artemida (F), Valoal (O)); blue (2) (Selena (F), Aries (O)), to be indicated as QL, VG, (a), 61-65
Char. 11	to add note (a)
Char. 12	"??" to be deleted from state 3
Char. 14	to check whether example varieties can be provided or whether the interested experts would agree to deletion

Char. 15	to have notes 1-5
Char. 18	to check whether example variety “Liviola” could be added for state 9
Char. 22	to read “Seed: 1000 seed weight” and to add (*)
Char. 23	to add state 1: white, with example variety to be provided by China
Chars. 24, 25, 26	to have a consistent set of example varieties to cover the three characteristics
Chars. 24, 25	to recalibrate the scale with notes 1 – 5, with only Fiber example varieties
Char. 26	to recalibrate the scale to cover only Fiber example varieties and to add note (d)
8.1 (b)	to replace “appropriate” with “useful”
Ad. 5	to add an explanation that the characteristic should be observed in the natural position and not with the corolla held flat
Ad. 6	to correct according to the states in the Table of Chars.
Ad. 13	to add a cross-reference to Ad. 21
Ad. 21	to add Ad. 20 to header and to amend Char. 21 indication to read “Stem: length from cotyledon scar to top boll (characteristic 21)”
8.3	to read “*Growth stages of* Linum usitatissimum *L. adapted to the BBCH scale (Meier U., 1997) applicable to individual plant”*

Foxtail millet (Setaria italica *(L.) P. Beauv.)*

85. The subgroup discussed document TG/SETARIA (proj.4), as presented by Mr. Xianmin Diao (China), and agreed the following:

Altern. names	to add “Italienhirse” (German)
2.3	to amend “0.5 Kg” to “100 g”
3.4.2	to specify that 200 seeds should be sown in each panicle row
3.5	to be deleted
Char. 2	example varieties to be provided
Char. 3	to have notes 1–5 and more example varieties to be provided
Char. 4	to delete “of tillers” and to have notes 1-3
Char. 5	to have the states: absent or weak (1); medium (2); strong (3) and to check the correct botanical term for “pedestal”
Char. 7	to read “Leaf: attitude of blade”, to add (*) and to have the states: erect (1); semi erect (2); horizontal (3); drooping (4) and example varieties and Ad. 7 to be updated accordingly
Char. 8	to move before Char. 7
Char. 9	to add (*) and to have the states: short (1); medium (3); long (5)

Char. 13	to have the states: very narrow (1); medium (3); very broad (5) and example varieties to be updated
Char. 14	to have notes 1-5 and example varieties to be updated
Char. 15	to read “Stem: length” and to have notes […] long (7); very long (9)
Char. 16	to read “Stem: diameter”
Char. 19	to be deleted
Char. 20	to be deleted
Char. 21	to add (*), to read “Panicle: attitude in relation to stem” and to have notes 1 (erect) -5 (strongly drooping)
Char. 22	to add (*)
Char. 23	to provide an explanation for Char. 23 and 26 of primary and lateral branching and to explain that state 7 refers to primary branching
Char. 25	to read “Excluding varieties with panicle shape: branched: Panicle: density” and to have notes 1-5
Char. 26	to be indicated as MS and to replace “lateral” with “secondary”
Char. 27	to read “1000 grain weight”
Char. 28	to add (*), state 1 to read “circular” and to reverse the order of the states
Char. 29	to have the states: whitish (1) (Anai 3); grey (2) (example variety to be provided); yellow (3) (Jinmiaogu, Ribenchixu); brown (4) (example variety to be provided); red (5) (Hongmiaoqing); black (6) (Heiniangu)
Char. 30	to have the states: whitish (1) (Taohuami); grey (2) (Hongmiaoqing); green (3) (example variety to be provided); yellow (4) (Lianggu, Yugu 8)
Char. 31	to add (*) and to be indicated as QL
Ad. 4	to amend wording of state 1
Ad. 5	to add an arrow to indicate the pedestal
Ad. 6	to read “Time of heading is the time when 50% of plants have reached stage 45.”
Ad. 22	to correct spelling of “plant”
Ad. 23	to provide the illustrations with only the outline shape
Ad. 25	to provide photographs
Ad. 26	to read “The number of grains should be counted on a secondary branch taken from the middle third of a main stem panicle.”
TQ 4.2	to be completed
TQ 6	to be modified

Hemp

86. The subgroup discussed document TG/CAN_SAT(proj.3), presented by Mr. Henk Bonthuis (Netherlands), and agreed the following:

1.	The subgroup agreed that further information should be sought on the method of propagation of varieties of hemp, particularly with regard to the proportion of hermaphrodite, female and male plants and the variability of those proportions within a variety, before deciding on the coverage of the Test Guidelines and the way in which to approach the DUS examination. The following comments are subject to the developments arising from the consultation with breeders.
2.2	to read "The material is to be supplied in the form of seed or young, non-flowering plants in pots, of sufficient size and with sufficient development to express all the characteristics of the variety in the first growing cycle.
2.3	to delete "(potted, non-flowering)"
3.3.3	to be deleted
3.4.3	to delete "Seed-propagated varieties are recommended to be grown at a plant density of about 60 plants per m^2 ."
4.2.2	to add "A population standard of 5% and an acceptance probability of at least 95% should be applied for male plants. In the case of a sample size of 200 plants, 15 male plants are allowed."
4.2.3	to be deleted
6.5	"A: field test" and "B: seedling test" to be deleted. To add "C: Additional test in greenhouse"
Table of Chars.	"A" & "B" to be deleted and "C" to be added for Chars. 1, 2, 3
	note (b) to be deleted
Char. 4	to delete "the"
Char. 6	to read "Leaf: size of blade", to delete (*) and to add (+) and provide illustration of the observation of size as an overall outline area
Char. 8	to read "Leaf: anthocyanin coloration of petiole" and to add the following example varieties: Fibrol, Silistrenski (Note 1); Santhica (3); Futura 75, Epsilon 68 (4)
Char. 14	to have the states: absent or very low (1); medium (3); very high (5), to check the example varieties and to add (+) with explanation of the importance of the example varieties to adjust the states of expression for environmental variation
Char. 23	state 1 to read "absent or thin"
Char. 25	state 6 to be deleted
Ad. 22	to be improved
Ad. 23	to be improved
Ad. 26	to be amended for consistency with Char. 26

Sesame

87. The subgroup discussed document TG/SESAME(proj.5), as presented by Mr. Keun-Jin Choi (Republic of Korea), and agreed the following:

4.3.2	To delete the word “tested”
5.4	To delete the repeated word “Introduction”
Char. 2	To read: “Plant: number of branches” with states “absent or very few (1)”; “moderate (3)” and “very many (5)”
Char. 3	To add example variety “Kanto 1 go” for state (1); “H 65” for state (3) and state (2) to read: “along whole length”.
Char. 4	To have MS and QN
Char. 5	To have VG and QN and Leading expert to check if example variety for state 1 = absent or very weak
Char. 6	To delete VG; to add QN and JP, KR and BR will provide example varieties
Char. 7	To delete VG; to add QN.
Char. 8	To delete VG; to add QN and JP, and BR will check the method for the assessment of width in case of lobing and will provide example varieties
Char. 9	States of expression to read “weakly elongated (3)”; “moderately elongated (5)”; “strongly elongated (7)” and to provide illustration for different degrees of lobing
Char. 12	BR and JP to provide example varieties
Char. 13	To delete MG and to have MS
Char. 14	To be indicated as QN
New. Char.	To read: “Flower: color of petals “ with states “white (1), “yellowish (2)” and “pink(3)” and to be indicated as PQ. Leading expert to check and Bulgaria to provide example varieties
Char. 18	To be indicated as QN
Char. 19	Leading expert, BR and JP will check whether notes 1-3-5 or 1-2-3.
Char. 20	Leading expert will check whether QL is correct
Char. 22	To be indicated as MS to add explanation and BR and JP will provide example varieties
Char. 23	To read: “Capsule: width” and to provide explanation. KR to provide example varieties
Char.25	Leading expert to check the following states of expressions proposed by China: “Yellow(1)”, “Yellow green (2)”, “Green (3)”, “Green with purple spots(4)”.
Char. 26	To be indicated as QN; to have states of expression “Absent or very weak (1)” with example variety “Victoria”; “weak(2)”; “medium(3)” and “strong(4)”.
Char. 27	To be indicated as PQ, to delete states “light grey” and “medium grey”.
Char. 28	To be indicated as VG and to provide an improved image for the explanation

Char. 30	To be indicated as MG
8.1 (b) and (c)	to replace “measured” by “observed”
Ad. 2	To replace “branching” by “branches”
Ad. 3	To provide a better drawing
Ad. 28	To provide a better image
9.	To put in the correct format

Urochloa (Brachiaria)

88. The subgroup discussed document TG/UROCH(proj.4), presented by Mr. Fabrício Santana Santos (Brazil), and agreed the following:

1.	To number the paragraphs
3.1	To check whether to read “The minimum duration of tests should normally be a single growing cycle.”
3.4.1	To read “Each test should be designed to result in a total of at least 60 spaced plants at 1.5 m. by 1.5 m. which should be divided into three replicates.”
3.4.3	To be deleted
4.1.4	To delete second sentence
4.2.2	To delete “of seed propagated varieties”
4.2.3	To be deleted
6.5	To add “C special tests”
Table of Chars.	To indicate the groups using a note in the corresponding column.
Char.2	To improve the drawings of the explanation
Char.3	To read “Plant: natural height” and to be indicated as MS
Char.5	To be deleted
Char.6	To be indicated as QL with notes 1 and 9
Char.7	To read: “Rhizome: number” with states of expression “very few(1)”; “few(3)”; medium (5)”; “many (7)” and “very many (9)”
Char.8	To provide explanation
Char.9	To read “Stolon: length of internode”; with states “absent or very short (1)”; “short (3)”; “medium (5)”; “long (7)”; to be indicated as MS and to add an explanation.
Char.12	To read “Leaf: curvature of leaf blade”; with states “weak (1) ”; “moderate (2)” and “strong (3)”.
Char.14	To delete the underlined text from the wording of the characteristic.

Char.15	To provide an illustration.
Char.17	To be indicated as MS
Char.18	Australia to check state of expression “on lower side only”.
Char.19	To be indicated as PQ and VG
Char.21	To be indicated as MS, to add (+) and to provide an explanation
Char.22, 23 and 24	To provide an explanation
Char.25	Leading expert to check whether there are example varieties for state “black(5)”; if not to delete the state
Char.26	To provide an illustration
Char.27	To read “Spikelet: density of hairs”
New Char.	To read “Seed: texture” with states “smooth(1)” and “rough(2)”, indicated as QL and VG. Leading expert will check, BR and CO will exchange example varieties
8.1 (a)	Leading expert to check if one growing cycle is enough, In the case of a positive answer, to read “(a) Unless otherwise stated, all observations should be made at full flowering stage, in the first growing cycle only.”
Ad. 28	To read “The time of beginning of flowering should be assessed when 50% of the plants have at least one inflorescence fully emerged”
TQ 1.1	To add synonymies and boxes to indicate the species.

Development of regional sets of example varieties for the Test Guidelines for Rice

89. The TWA noted the information provided in document TWA/39/24

Proposal for a Partial Revision of the Test Guidelines for Pea and French Bean (document TWA/39/26)

90. The TWA noted the information provided in document TWA/39/26.

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

91. The TWA noted that there were no matters to consider under this agenda item.

Recommendations on draft Test Guidelines

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

92. The TWA 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 in April 2011, on the basis of the following documents and the comments in this report:

Flax, Linseed (Revision) (*Linum usitatissimum* L.)	TG/57/7(proj.4)
Foxtail millet (*Setaria italica* (L.) P. Beauv.)	TG/SETARIA (proj.4)

(b) Test Guidelines to be discussed at the thirty-ninth session

93. The TWA agreed to discuss the following draft Test Guidelines at its fortieth session:

*Buckwheat (*Fagopyrum esculentum* Moench)
Cassava (*Manihot esculenta* Crantz.)
Common Vetch (*Vicia sativa* L.) (Revision)
*Durum wheat (Revision) (*Triticum durum* Desf.)
Elytrigia elongata (Host) Nevski (*Agropyron elongatum* (Host) P. Beauv.) Tall wheatgrass
Groundnut (*Arachis* L.) (Revision)
*Hemp (*Cannabis sativa* L.)
Job's Tears (*Coix lacryma-jobi*)
Phacelia tanacetifolia Benth.(Scorpion Weed)
Rhodes grass (*Chloris gayana* Kunth)
*Sesame
**Urochloa (Brachiaria)*

94. The leading experts, interested experts and timetables for the development of the Test Guidelines are set out in Annex VI.

Guidance for drafters of Test Guidelines

95. The TWA received a presentation on the assistance provided on the UPOV TG webpage for drafters of Test Guidelines. The TWA heard that, at its forty-sixth session, the TC had agreed on the plans of the Office of the Union to make copies of all previous adopted versions of Test Guidelines available on the first restricted area of the UPOV website.

Date and Place of the Next Session

96. At the invitation of Brazil, the TWA agreed to hold its fortieth session in Brasilia, from May 16 to 20, 2011, with the preparatory workshop on May 15, 2011. The TWA was informed that there would be a workshop on GAIA on May 12 and 13, 2011, for which further details would be provided in due course.

97. The TWA received an invitation from France to host the forty-first session of the TWA, in May/June 2012 in conjunction with a workshop on GAIA, subject to sufficient interest.

* possible final draft Test Guidelines

Future Program

98. The TWA 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 (document to be prepared by the Office of the Union)
5. TGP documents
6. Variety denominations (document to be prepared by the Office of the Union)
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 and documents invited)
   (c) Exchangeable software (documents 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
   (a) Method for calculation of COYU (document to be prepared by the Office of the Union)
   (b) 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)
9. Example varieties (document to be prepared by France)
10. Development of regional sets of example varieties for the Test Guidelines for Rice (document to be prepared by IRRI)
11. Proposals for Partial Revision/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 (Subgroups)
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)
19. Closing of the session

Chairperson

99. The TWA agreed to propose to the TC that it recommend to the Council to elect Mrs. Robyn Hierse (South Africa) as the next chairperson of the TWA.

Visit

100. On the afternoon of May 26, 2010, the TWA visited the Institute for Seed and Seedlings. The TWA was received by Mr. Petar Čobanković, Minister of Agriculture Fisheries and Rural Development. A copy of the welcome speech is provided in Annex II to this report. Mr. Ivan Đurkić, Director, Institute for Seeds and Seedlings, made an introduction to the institute and Mrs. Ružica Ore-Jurić, Head of Plant Variety Protection and Registration, made a presentation on plant variety testing and registration in Croatia. Copies of their presentations are provided in Annex III and Annex IV, respectively. The TWA visited field trials of barley, oat, triticale, soft and durum wheat at the institute.

[Annexes follow]

ANNEX I

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[End of document]

ANNEX II

Welcome Speech made by
Mr. Petar Čobanković,
Minister of Agriculture Fisheries and Rural Development

Ladies and gentlemen,

I am especially honored and extremely pleased to be able to welcome you on behalf of the Croatian Government and the Ministry of Agriculture, Fisheries and Rural Development at this occasion when the Republic of Croatia held the first workshop of UPOV from the days when becoming a member of this organization.

It is my pleasure to welcome representatives of 25 UPOV members, whose presence will magnify this meeting and also contribute to the introduction of an effective system of protection of new plant varieties based on the principles of the UPOV Convention in the Republic of Croatia.

A special honor for us is awarding of the organization's of technical working group for agricultural crops to Institute for Seed and Seedlings. The Institute for Seed and Seedlings is an institution that has greatly contributed with its work to Croatian accession to the International Union for the Protection of New Varieties of Plants, and I want to take this opportunity to thank them for the total contribution to the field of plant varieties protection..

The Republic of Croatia is at this point in the process of completing negotiations and on the doorstep to the full membership of the European Union. In parallel with the process of harmonization of legislation with the legislative framework of the European Union, Croatia finds itself in the process of restructuring and modernizing the agricultural sector as a prerequisite for entry into full membership of the European Union. Future development of the agricultural sector depends on a fast and quality adjustment process on domestic and international level.

Therefore, the Republic of Croatia, in the field of the quality seeds and seedlings, as well as in the protection of plant varieties has made a step forward and harmonized its legislation with the legislative framework of the European Union.

Law on the Protection of Varieties of Plants (Official Gazette No. 131/97, 62/00, 67/08), which entered into force in 1997 was governed by the manner and procedure for the protection of new plant varieties, the process of acquiring breeding rights and protection of breeding rights holders.

During 2001, ordinances were harmonized with the 1991 Act of the UPOV Convention, and in this way Croatia met the conditions for depositing the instrument of accession to the UPOV Convention.

According to the provision of the UPOV Convention which gives the opportunity to new members of the International Union for the Protection of New Varieties of Plants to protect minimum of 15 plant genera or species, the Republic of Croatia include the following spp.:

- wheat, barley, oats, maize •
- sunflower, soybean, rapeseed,

- sugar beet, potatoes,
- alfalfa, field pea and fodder kale and,
- pear
- The poplar and willow tree of culture.

By the expiration of a period of 10 years from the date on which Croatia became a member of UPOV (September 1, 2011) system for the protection of plant varieties will be extended to all plant genera and species.

Consequently, the accession of the Republic of Croatia to the European Union will enable that all breeders rights at the EU level at the central office for the protection of plant varieties (CPVO) would be applied in Croatia..

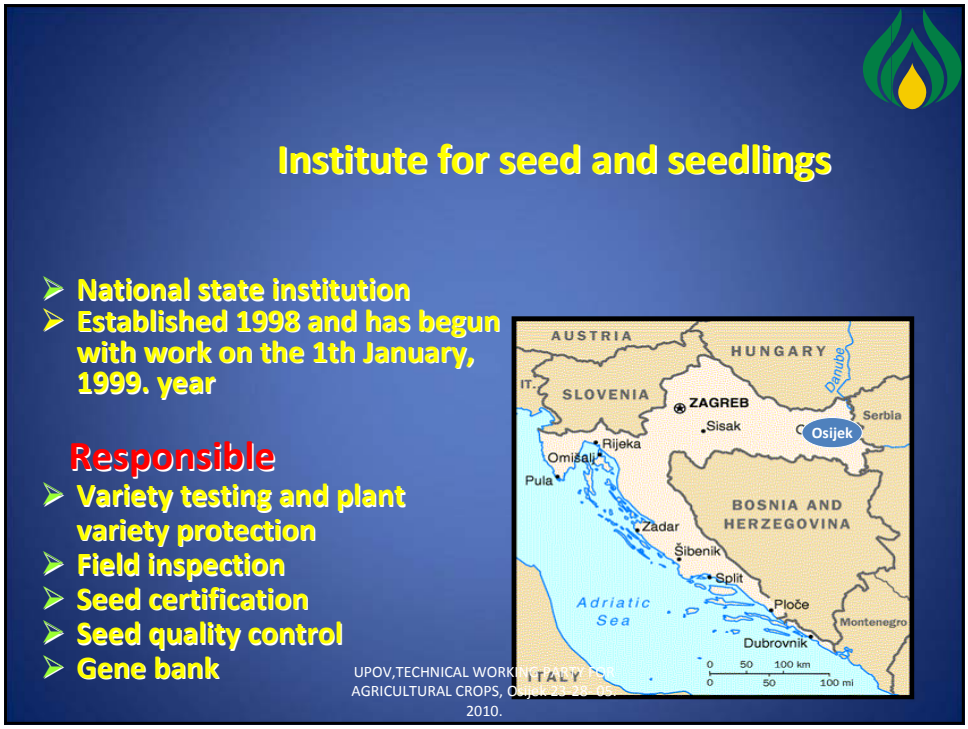
And finally, once again I welcome all of you and wish you successful work in this meeting and also a pleasant stay in our host city of Osijek and in Croatia.

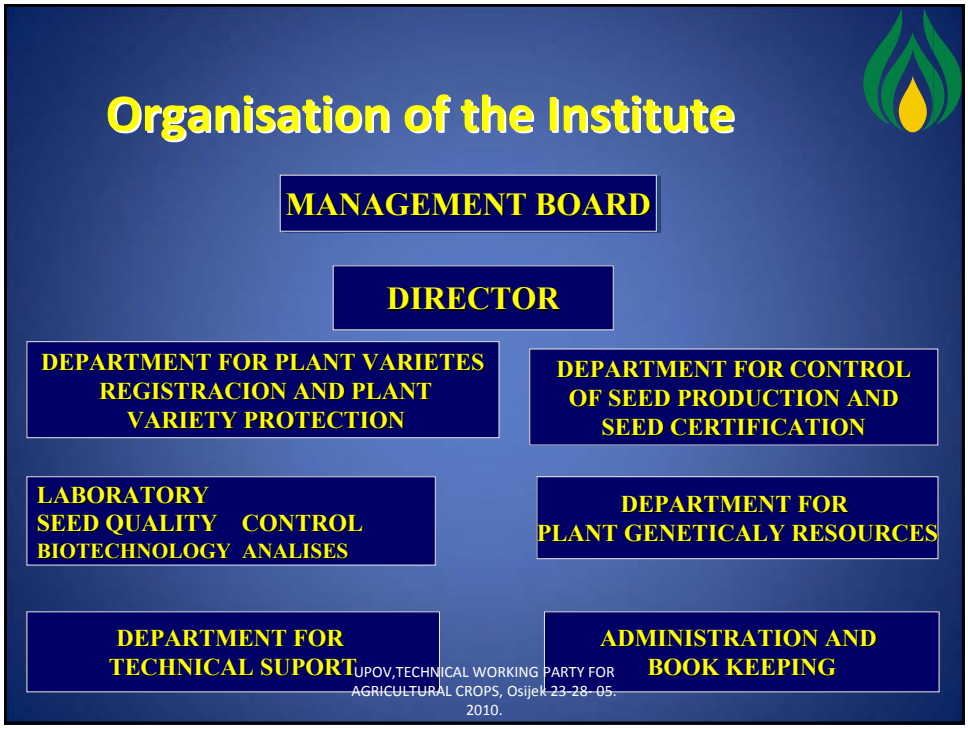
Thanks!

[Annex III follows]

ANNEX III

Presentation made by Mr. Ivan Durkić, Director, Institute for Seeds and Seedlings




Organisation of the Institute
MANAGEMENT BOARD
DIRECTOR
DEPARTMENT FOR PLANT VARIETES REGISTRACION AND PLANT VARIETY PROTECTION
DEPARTMENT FOR CONTROL OF SEED PRODUCTION AND SEED CERTIFICATION
LABORATORY
SEED QUALITY CONTROL
BIOTECHNOLOGY ANALISES
DEPARTMENT FOR PLANT GENETICALY RESOURCES
DEPARTMENT FOR TECHNICAL SUPORT
ADMINISTRATION AND BOOK KEEPING
UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.


Institute for seed and seedlings
• The Institute is under management of the Management Bord, which is appointed by the Government of Republic of Croatia on the proposal of the Ministry of Agriculture, Fisheris and Rural Development
• Work in the Institute is manage by the Director appointed by the Ministry. The Director represents the Institute and is responsible for work in the Institute.
• Financial suport and resource for work of the Institute coming from own operational activities and the state budget.
• The Institute is independant non-profitabile Institution.
UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Institute for seed and seedlings

Staff		
Full time	44	
Dr.sc.	1	
Mr.sc.		5
Bsc	24	
Techn. And labor.	14	
Part time	8	
Total	52	

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Institute for seed and seedlings

Financial Resources

Total buget	cca 2.000.000 EURO
Income from fees and service	75 %
Income from State Budget	25 %

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Institute for seed and seedlings

Participation in International Association and Organisation

- OECD
- ISTA
- UPOV
- IPGR
- EESNET

Institute for seed and seedlings

- **Co-operation with National Institutes in Europe**

- NAK - The Netherlands
- GEVES – France
- AGES – Austria
- CAO – Hungary
- NO – Slovenia
- NIAB - The United Kingdom
- UKSUP- Slovakia
- ENSA- Italia

Institute for seed and seedlings

Croatian Seed Law and Regulations

Croatian Seed Law and Regulations

Till 1997. year **- Republic of Croatia *(retain)* – take over Yugoslav Law on the Seed, Planting Material and Registration of Varieties of Agricultural Plants, which has been used by all forma states of ex Yugoslavia**

Croatian Seed Law and Regulations

- *1997. year* - Republic of Croatia has adopted the first Law on the Seed, Planting Material and Registration of Varieties of Agricultural Plants,
- The first Croatian Law which regulate seed, planting materijal and registration of varieties of agricultural plants on the way how is it regulate in EU countries and OECD

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Harmonisation of Croatian Seed Regulation with EU and OECD Regulation

- For the first time – intellectual property right regarding plant variety is regulated and inplemented
- Aim was to harmonised our seed legislation with UPOV Convention

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Harmonisation of Croatian Seed Regulation with EU and OECD Reaglation

- *2000. year* - Republic of Croatia has adopted Plant Variety Protection Law Alterations and Amendments
- With these Alterations and Amendments of the Law Republic of Croatia has full harmonised with UPOV Convention 1991 Act
- 2001. year – become member of UPOV

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

- Harmonisation of Croatian Seed Regulation with EU and OECD Reaglation

- *2003. year* - The Law of Alterations and Amendments on the Seed, Planting Material and Registration of Varieties of Agricultural Plants
- With these Alterations and Amendments of the Law Croatian legislation is mostly harmonised with EU legislation regarding certfication of seeds

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Harmonisation of Croatian Seed Regulation with EU and OECD Reaglation

- *2005. year* – New Law on the Seed, Planting Material and Registration of Varieties of Agricultural Plants
- The Law is drafted the same way as the EU legislation and with that is fully harmonised with the EU legislation

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Harmonisation of Croatian Seed Regulation with EU and OECD Reaglation

- *2006. year* - harmonisation of legislation with EU directives
- During Bilateral Screening – Negotiations for accession of the Republic of Croatia to the European Union, it is confirm, that Croation legislation regarding seeds is fully in line with EU directives

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Harmonisation of Croatian Seed Regulation with EU and OECD Reaglation

- the Council of the European Union has adopted Council Decision 2006/545/EC of 18 July 2006 on the equivalence of the official examination of varieties carried out in Croatia
- the official examination as regards distinctness, stability and uniformity of the varieties of species *Hordeum vulgare L., Triticum aestivum L. and Zea Mays L.* carried out in Croatia by the Institute for Seed and Seedlings, Osijek shall be considered to afford the same assurances as those carried out by the Member States of the EU.

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Institute for seed and seedlings

Variety registration

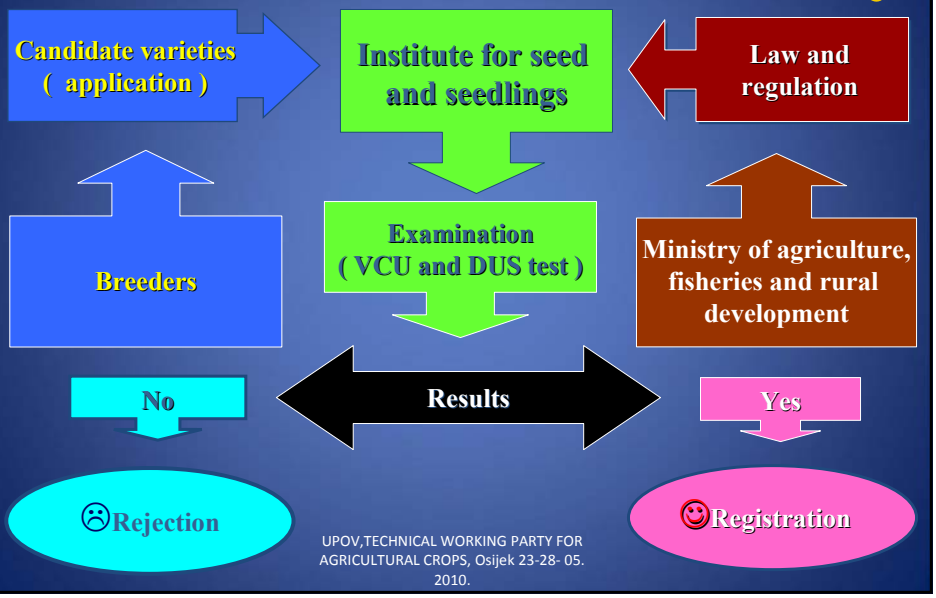
UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Variety registration

- Distinct, uniform and stable (DUS)
- Satisfactory value for cultivation and use (VCU)
- Denomination - *Regulation (EC) No 930/2000*

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Schematic overview of variety testing



UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

VCU testing

Carried by the Institute

Testing period 2 years

VCU testing

Criteria for the selection of locations:

- different climate zones
- different type of the soil
- typical area for the crop in testing

VCU testing

Locations

- Osijek
- Tovarnik
- Kutjevo
- Nova Gradiška
- Zagreb
- Split

DUS testing

After 4 years of performing DUS testing, the Institute for Seed and Seedlings has been entrusted with organisation of Ring test for DUS testing of winter and spring barley.

DUS testing

Locations

- Osijek

Institute for seed and seedlings

Seed production in Croatia
- achievements and outlook

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Republic of Croatia

Introduction

- Total area 56.538 km²
- Territorial sea 31.000 km²
- Total population 4,5 mil.
- Total agricultural land 3,5 mil.ha
- Agricultural population of total population 8,6%
- The share of agriculture, forestry and fishing in the total GD 10,0%

Agricultural land

Total agricultural land	3,53 mil. Ha
Arable land	1,84 mil. ha
Vineyards	58.000 ha
Orchards	57.000 ha
Meadows	413.000 ha
Pasture	1,14 mil. ha
Lakes, fishponds and marshlands	26.000 ha

Croatian seed program

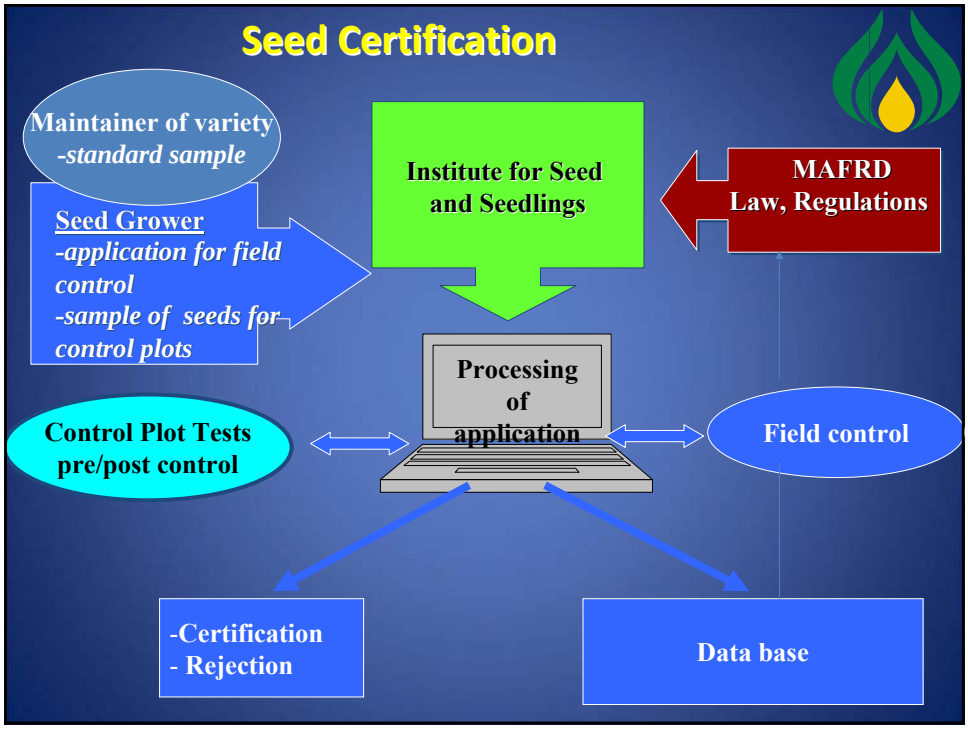
- Tradition in seed production
- Excellent soil and climatic conditions
- Capacity for seed storages and processing
- Experienced experts
- Implementation of international rules in seed
- Legislation harmonised with EC Directives
- GMO free country

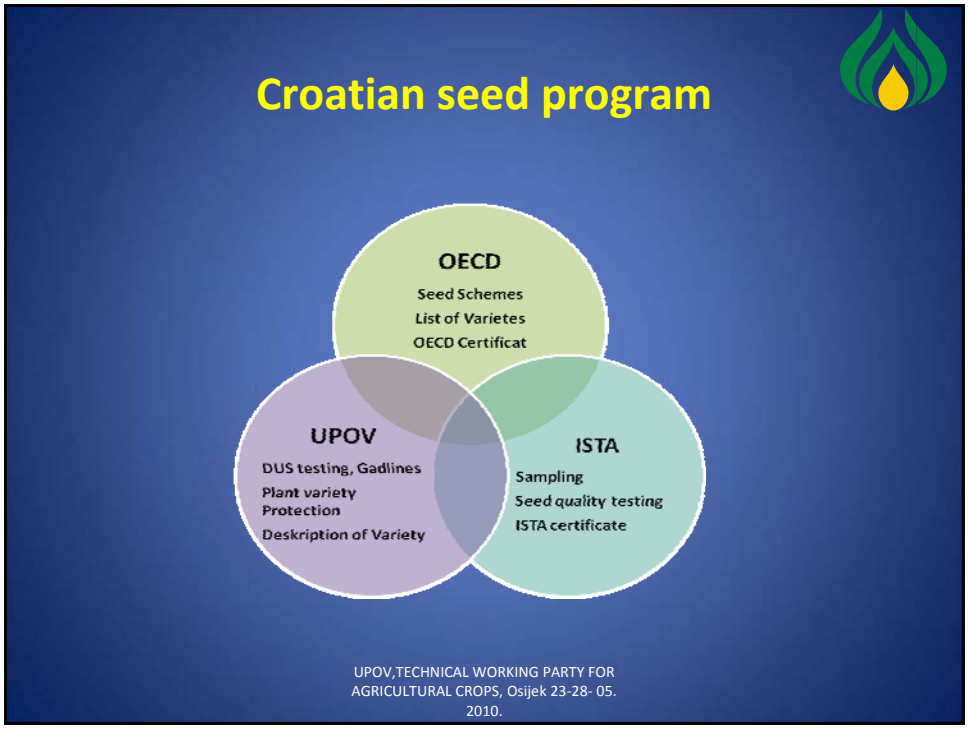
UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

The basic principles of seed certification based on the following rules:

List of Varieties
Field inspection and post control
Samples and laboratory analysis

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.


Seed Certification
Maintainer of variety
-standard sample
Seed Grower
-application for field control
-sample of seeds for control plots
Institute for Seed and Seedlings
MAFRD
Law, Regulations
Processing of application
Control Plot Tests pre/post control
Field control
-Certification
- Rejection
Data base


Croatian seed program
OECD
Seed Schemes
List of Varietes
OECD Certificat
UPOV
DUS testing, Gadlines
Plant variety Protection
Deskription of Variety
ISTA
Sampling
Seed quality testing
ISTA certificate
UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Croatian seed program

- **Administrative components**
  - The Law and regulations
  - Implementation of international rules in seed
  - Institute for Seed and Seedlings
- **Tehnical components**
  - Breeding companies
  - Seed producers
  - Seed processing companies
  - Trade companies

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Croatian seed program

- **Administrative components**
  - Seed Law and regulations incorporate EU Directives and Regulations
  - Croatia applies rules of international organisations: OECD, ISTA, UPOV, relevant for the domestic and international seed moving
  - Institute for Seed and Seedlings is responsible for implementation of the Law and regulations

ALL ADMINISTRATIVE COMPONENTS ARE IN STATE SECTOR

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Croatian seed program

- Technical components
  - Breeding companies: domestic and international seed companies provide about 2.900 varieties in the national variety list
  - 150 seed producers
  - 17 seed processing companies
  - 200 trade companies

ALL TECHNICAL COMPONENTS ARE IN PRIVATE SECTOR

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Seed production in Croatia

(average 1999 – 2009)

❖ Cereals	20.000 ha
❖ Maize	5.400 ha
❖ Oil crops	3.000 ha
❖ Fodder crops	1.000 ha
❖ Grasses	500 ha
❖ Vegetables	500 ha
❖ Potato	200 ha
❖ Other crops	100 ha
❖ Total	30.700 ha

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Seed certification in Croatia for domestic market

(average 1999 – 2009)

❖Cereals	54.408 tones
❖Maize	8.806 tones
❖Oil crops	5.089 tones
❖Fodder crops	549 tones
❖Grasses	376 tones
❖Sugar beet	42.000 units
❖Potato	9.422 tones
❖Vegetables	870 tones

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Seed certification in Croatia for export

(average 1999 – 2009)

➢Cereals	981 tones
➢Maize	1.503 tones
➢Oil crops	44 tones
➢Fodder crops & grasses	200 tones
➢Other crops	1.000 tones

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Production – Import – Export

(average 1999 – 2009)

Species	Domestic production	Imoprt	Export
Cereals	55.222	186	981
Maize	7.752	1.054	1.503
Oil crops	4.974	115	44
Fodder crops	346	203	6
Grasses	155	221	6
Vegetables	307	563	0
Potato	4.141	5.281	0
Sugar beet	0	42.000	0

Main Areas for Seed Production

- Slavonija
- Baranja
- Posavina
- Podravina
- Međimurje

Croatian Seed Program

Future activities:

- Developing plant breeding, seed production and trade
- Developing and suggesting new regulations concerning plant breeding, seed production and trade
- Harmonasation seed Law and regulations with internationale institutions and associations
- Improving seed assotiation and intergrating plant breeders, seed producers and seed traders in all activities
- Integrating Croatian seed market with the world seed industry on the higer level

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Institute for seed and seedlings

Production planting material in Croatia

UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Institute for seed and seedlings

Production of planting material in Croatia

AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Institute for seed and seedlings

Production of seedlings material in 2009.

- 65 producers of fruts seedlings
- 31 producers of wine grape seedlings

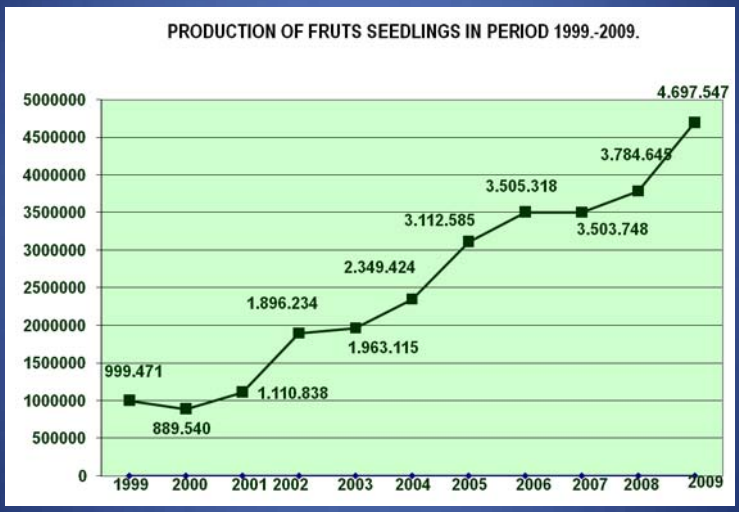
UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Institute for seed and seedlings

Production of seedlings Material in 2009.

- 4.697.547 fruts seedlings
- 7.172.219k vine grape

Institute for seed and seedlings



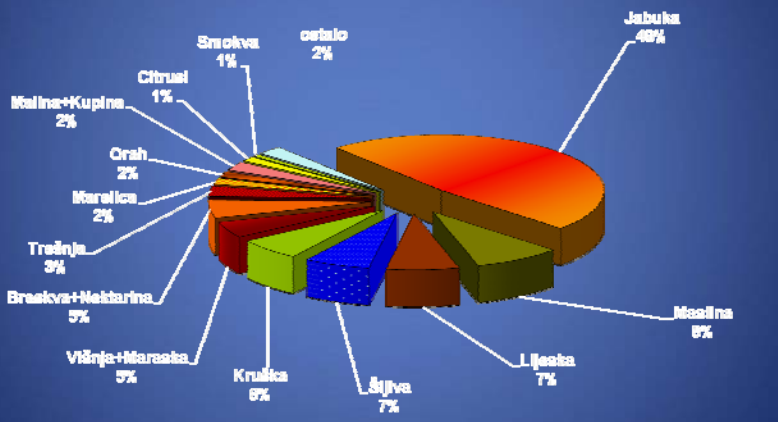
UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Institute for seed and seedlings

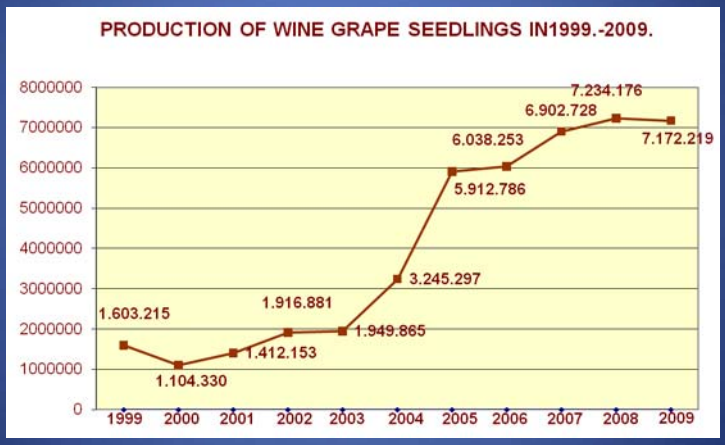
Relation betwen production and import(2001 – 2009)

Institute for seed and seedlings

STRUCTURE OF FRUTS SEEDLINGS PRODUCTION IN 2009.G.



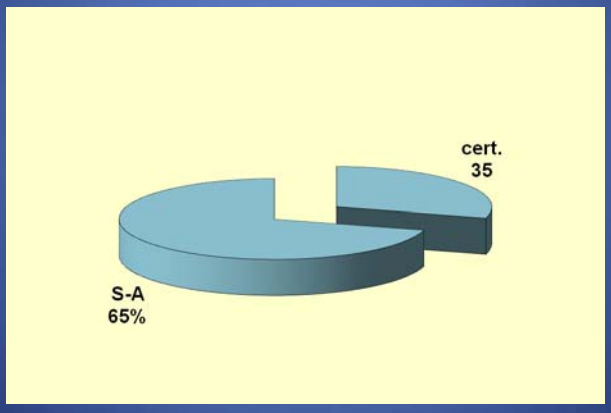
Institute for seed and seedlings



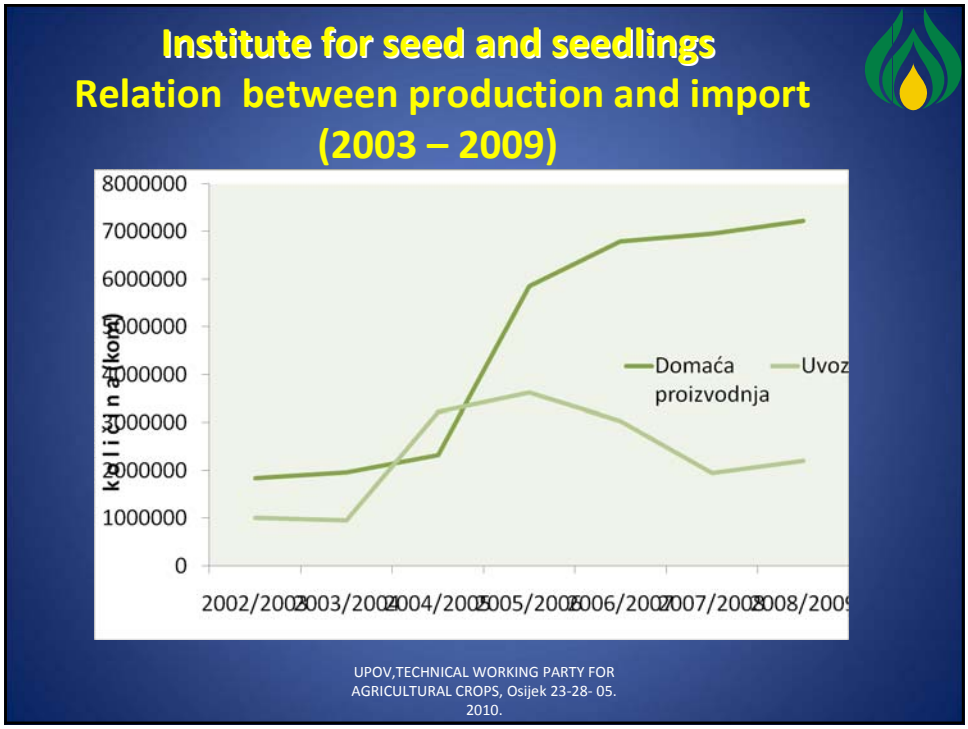
UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

Institute for seed and seedlings

Category of wine grapes seedlings in 2009.



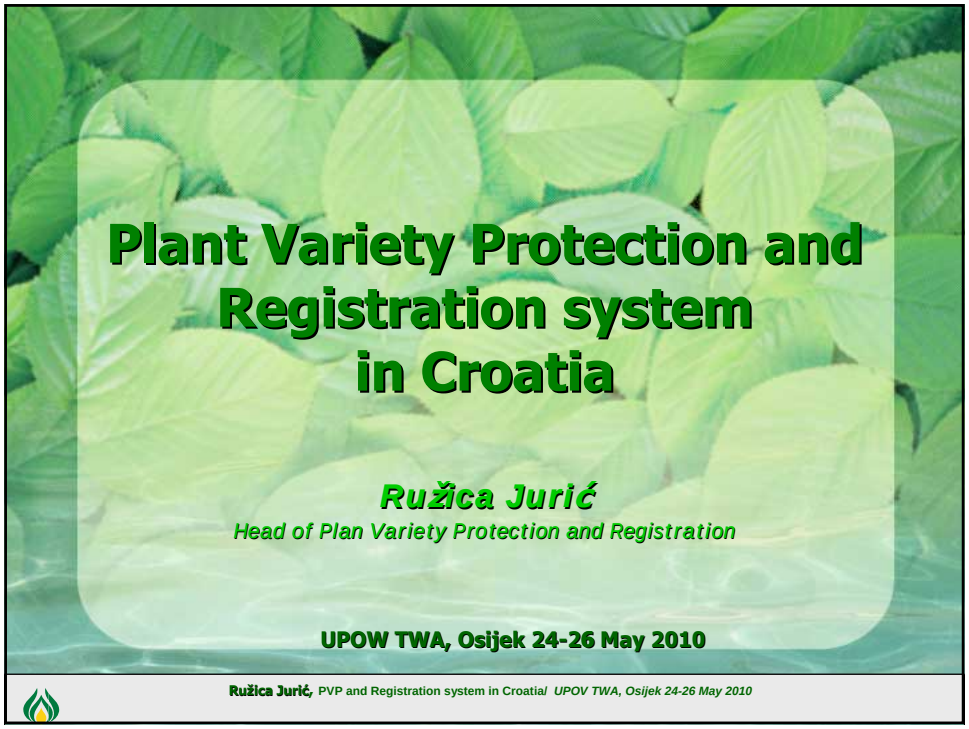
UPOV,TECHNICAL WORKING PARTY FOR AGRICULTURAL CROPS, Osijek 23-28- 05. 2010.

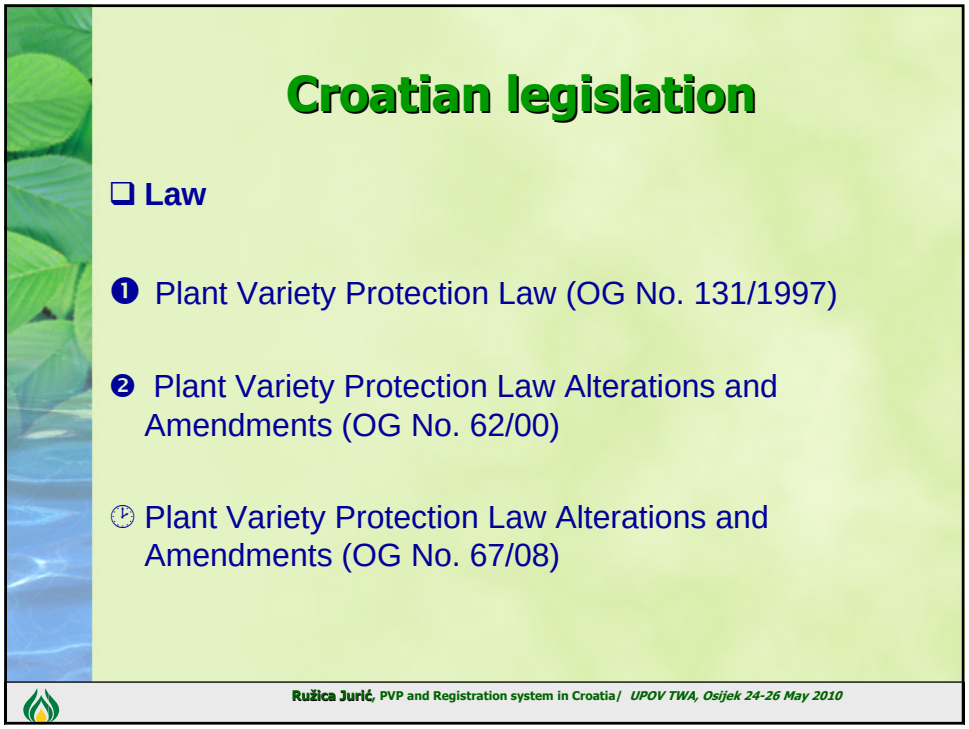


[Annex IV follows]

ANNEX IV

Presentation made by Mrs. Ružica Ore-Jurić, Head,
Plant Variety Protection and Registration, Institute for Seeds and Seedlings





Croatian legislation

- Implementing Regulations
  - Regulations on the registration in the Registers for the Protection of New Varieties of Plants (No. 63/01)
  - Regulations on the procedure and the conduct of tests for distinctness, uniformity and stability (DUS) of new varieties of plants for the purpose of granting the Breeders' Right (No. 63/01)
  - Decree on the (amount of) costs relating to the Plant Variety Protection (No. 17/09)

International Agreement

- **International Agreement**
  (Official Gazette No. 1/2001)

As a member of UPOV (International Union for the Protection of New Varieties of Plants) Croatia recognises and conforms to the 1991 UPOV Convention.

International Convention

- ✓ **On August 1, 2001, Croatia deposited the Instrument of Accession to the 1991 Act of the UPOV Convention**
- ✓ **Member of UPOV from 1st September 2001**

Genera and Species to be Protected

In conformity to the Article 3 (2)(i) of the 1991 Act of the UPOV Convention

- Plant Variety Protection is presently available for varieties of 15 genera and species

Genera and Species to be Protected

Plant Variety Protection is presently available for varieties of following 15 genera and species:

- *Wheat*
- *Barley*
- *Oats*
- *Maize*
- *Common Sunflower*
- *Soya Bean, Soybean*
- *Rapeseed*
- *Sugar Beet*
- *Potato*
- *Lucerne, Alfalfa*
- *Field Pea*
- *Fodder Kale*
- *Pear*
- *Poplar*
- *Willow*

Genera and Species to be Protected

- **By the expiration of period of 10 years from the 1st of September 2001,**
- **Plant Variety Protection will be available for all plant genera and species from the 1st of September 2011.**

Situation in the Administrative Field

- **25 applications for plant breeder's rights received**
- **no breeder's right were granted**
- **criteria NOVELTY - not satisfied**

Responsible Institution

According to the Plant Variety Protection Law:

The Institute for Seed and Seedlings will manage:

- The Register of Applications for breeder's right
- DUS testing
- Publishing of the Official Gazette.

The Ministry of Agriculture, Fisheries and Rural Development will manage:

- The Register of Granted of breeder's right
- The Register of Transferred breeder's right
- The Register of Contractual Licenses of breeder's right
- The Register of Designated Representatives

Institute for Seed and Seedling

- equipped with necessary equipment and facilities to perform variety testing for plant variety protection and registration of variety

Institute for Seed and Seedling

DUS testing

Plant Variety Protection

Variety Registration

Institute for Seed and Seedling

- **winter wheat;**
- **winter and spring barley;**
- **winter and spring oat;**
- **winter and spring rye;**
- **winter triticale;**
- **winter Triticum durum;**
- **maize;**
- ***soybean***

Institute for Seed and Seedling

the Council of the European Union has adopted Council Decision 2006/545/EC of 18 July 2006 on the equivalence of the official examination of varieties carried out in Croatia

Institute for Seed and Seedling

the official examination as regards distinctness, stability and uniformity of the varieties of species *Hordeum vulgare L., Triticum aestivum L.* and *Zea Mays L.* carried out in Croatia by the Institute for Seed and Seedlings, Osijek shall be considered to afford the same assurances as those carried out by the Member States of the EU.

Institute for Seed and Seedling

The administrative agreement for cooperation in the testing of Distinctness, Uniformity and Stability with **Slovenia has been signed in January 2007.**

***The Institute for Seed and Seedling provide DUS testing for Slovenia for the following genera and species: spring barley, winter barley, spring wheat, winter wheat* and *maize*, no changes.**

Institute for Seed and Seedling

- The bilateral agreement of cooperation with Hungary is signed in 2002, no changes.
- The bilateral agreement concerning the exchange of DUS a report with Bundssortenamt, Germany is signed in 2002, no changes.
- The purchase of DUS reports and descriptions is effectuated with the CPVO, France, the Netherlands, Germany, Italy, Hungary, Spain, the Czech Republic, Poland and Slovakia.
- Provide DUS testing for Romania for the winter wheat, but the bilateral agreement of cooperation has not been signed.
- Provide DUS reports and descriptions for Serbia and Russia.

DUS testing in Croatia 2010

- ***1486 varieties in testing***
- ***152 new varieties in testing***

DUS testing in Croatia 2010

Species	No. new varietis	No.of refferent coll.	No. of location
w. Wheat	*49*	*408*	*2*
w. Barley	*16*	*157*	*2*
s. Barley	*9*	*97*	*2*
w Tr. Durum	*1*	*7*	*2*
w. Triticale	*1*	*15*	*2*
s. Wheat	*1*	*17*	*2*
s.Oat	*3*	*23*	*2*
Maize	*67*	*505*	*2*
Soya bean	*11*	*112*	*2*

Project

With reference to the Commission Decision C/2005/4762 the multi-beneficiary Program on participation of Croatia in CPVO has been prolonged in 2009-2010.

DUS training on cereals:

- From 4-6 May 2010, Osijek, Croatia
- Aalbania, Serbia and Bosnia and Hercegovina

Legal Bases for Variety Registration

➔ The Law on the seed, plant material and plant variety registration
(Official Gazette No. 140/05 and 35/08)

➔ Implementing Regulations
(Official Gazette No. 99/08; 45/08; 84/08; 17/09 and 50/10)

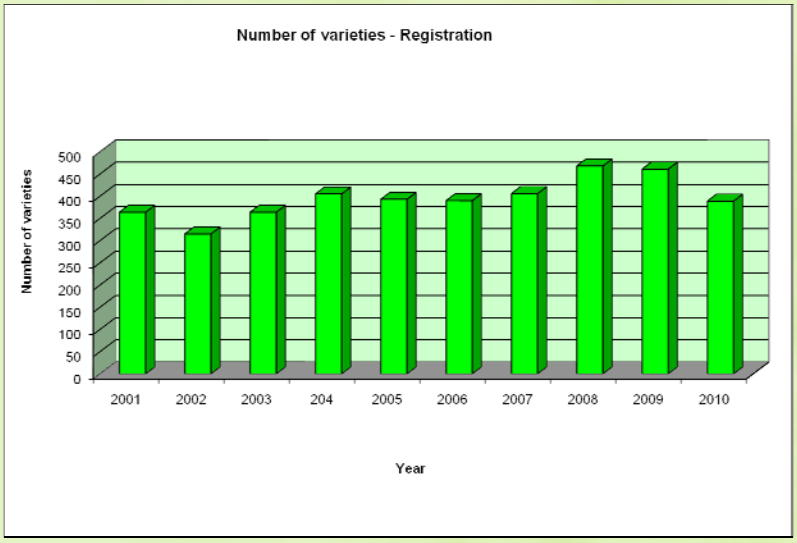
Requirements for Variety Registration

- distinct
- stable
- uniform
- satisfactory value for cultivation and use
- acceptable denomination

VCU testing

- **Locations 4 - 6**

Variety Registration



DUS and VCU testing

A total of 7 staff

M.Sc.	-	2
B.Sc.	-	5
technicians	-	4

Thank You
for Your attention

[Annex V follows]

ANNEX V

RECENT DEVELOPMENTS IN UPOV

OVERVIEW

- UPOV Membership
- UPOV people
- Finances & auditing
- Information materials
- Seminar on DUS testing
- Test Guidelines
- Assistance webpage
- Other developments
  - United Nations
  - Second World Seed Conference

MEMBERSHIP OF UPOV

68 Members
(67 States and the European Union)

1991 Act

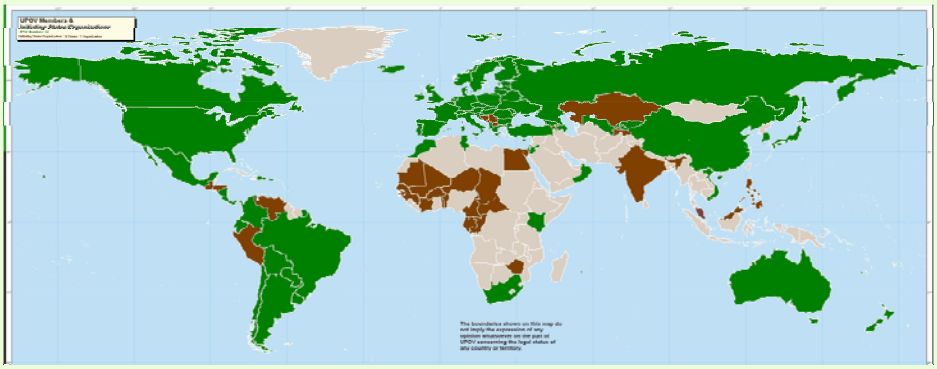
Slovakia	June 12, 2009	

Laws examined	Council session	Advice
Oman	October 22, 2009	positive
Guatemala	October 22, 2009	positive

New Members

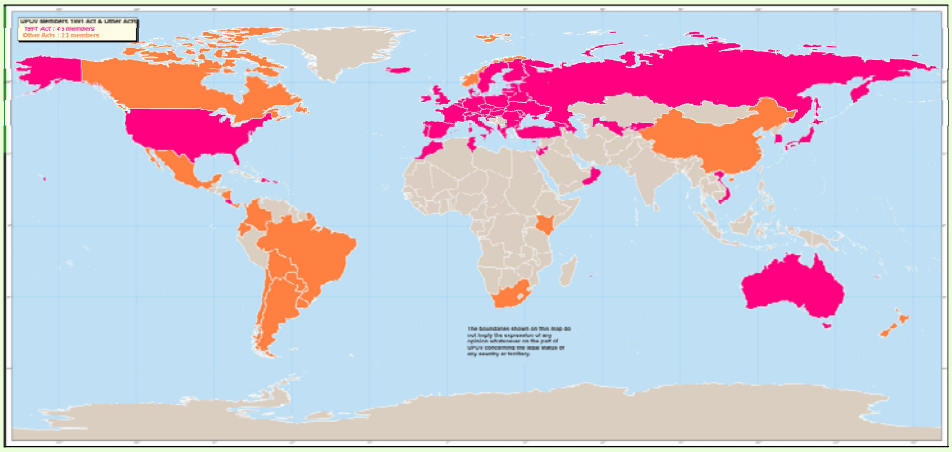
Oman	November 22, 2009

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



Initiated the Procedure
17 States
1 intergovernmental organization

UPOV Membership
Territories covered



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

Finances & Auditing: Consultative Committee

- Review of Financial Regulations and Rules of UPOV
- External audit committee and internal audit provisions

  ⇒ *ad hoc* working group established
- Endorsed preparation of the draft program and budget of the Union for the 2010-2011 biennium
- Endorsed medium-term work program of the Office of the Union for the period 2012-2015

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)

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)

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

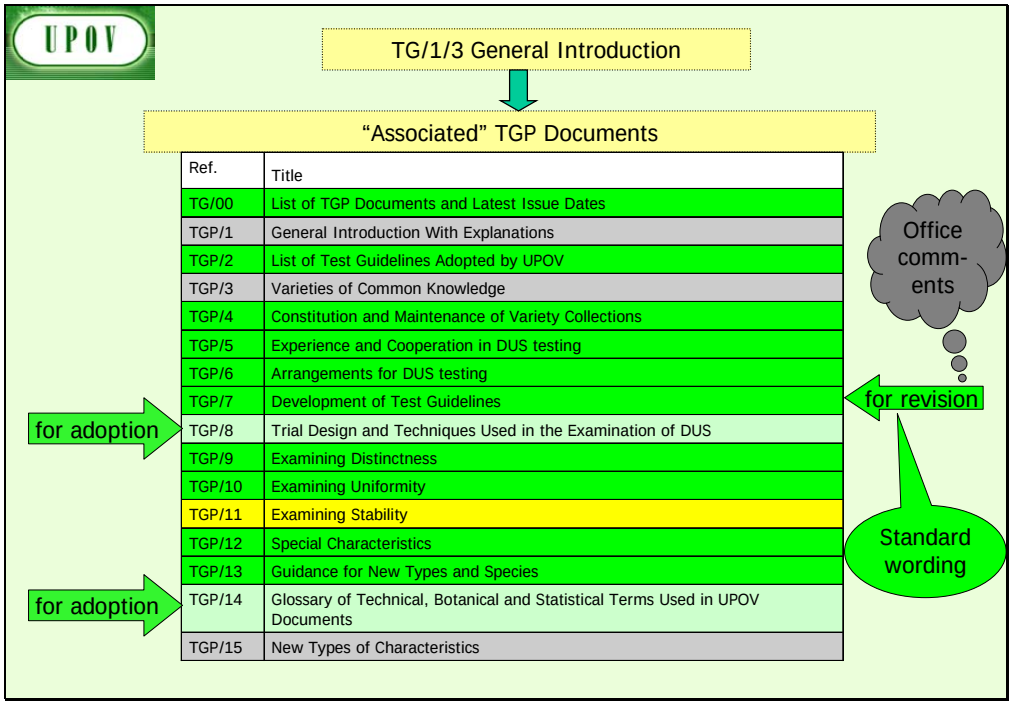
COUNCIL

TGP DOCUMENTS ADOPTED

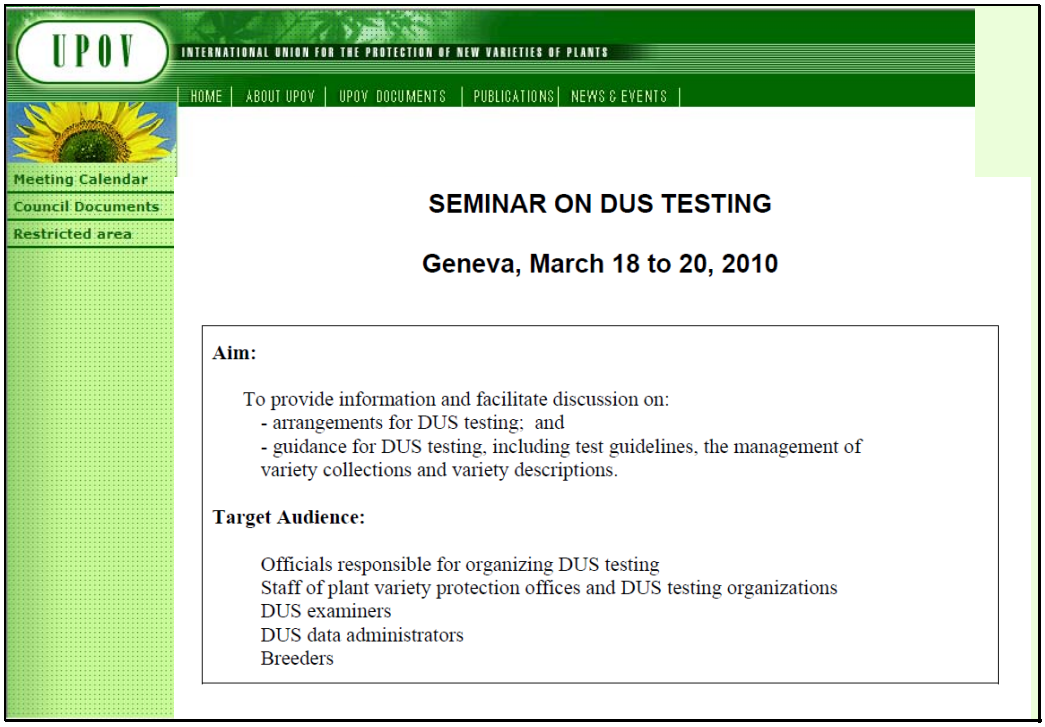
TGP/12/1: Guidance on Certain Physiological Characteristics

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

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



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



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 indentifying 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."

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	TWA/TWV

Test Guidelines adopted by Technical Committee in 2010

Document	English	Drafter	TWP
Revisions:			
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
Partial revisions:			
TG/11/8 Rev.	Rose		TWO
TG/176/4 Rev.	Osteospermum		TWO

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

Test Guidelines

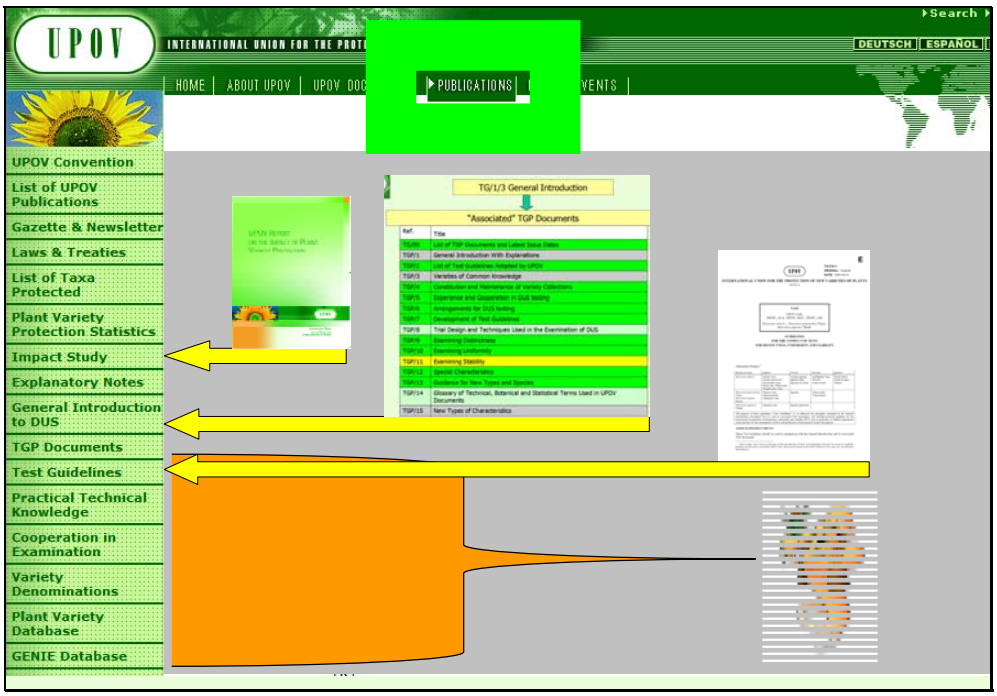
- **264 Test Guidelines** adopted
- **2,250 genera and species** for which UPOV members have practical DUS experience
- **>2,750 genera and species** with varieties examined for PBR

GENIE Database

Variety denomination related information
Protection offered by UPOV members

DUS information

- UPOV Test Guidelines
- practical experience of UPOV (document TC/44/4)
- cooperation in DUS examination (document C/41/5)



Consultative Committee

Assistance webpage

- to provide **information on relevant forms of assistance** in the development of plant variety protection according to the UPOV Convention and an approach to seek **to enhance extra-budgetary sources of funding** for assistance
- **Mr. Minwook Kim**, Deputy Director, Foodgrain Policy Division, Ministry for Food, Agriculture and Fisheries, Republic of Korea
  (internship: November 3, 2008 to November 2, 2010)
  to investigate extra-budgetary resources and to assist in the development of proposals to access such funding.

OTHER DEVELOPMENTS

UPOV

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

UPOV

Second World Seed Conference

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 if agriculture is 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 and Genetic Resources for Food and Agriculture (ITPGRFA) and the International Seed Testing Association (ISTA). Participation in those systems will facilitate the availability of germplasm, 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 the two 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 dynamic 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$37 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, ISF.

Conference conclusions:

- Plant breeding has significantly contributed and will continue to be a major contributor to increased food security whilst 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 innovative 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 reservoir 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 a key enabler 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, on seed to be supplied 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 varietal certification, phyto-sanitary measures and laboratory testing, contributes 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

[Annex VI follows]

ANNEX VI

LIST OF LEADING EXPERTS

DRAFT TEST GUIDELINES TO BE SUBMITTED
TO THE TECHNICAL COMMITTEE IN 2011

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

before July 9, 2010

Species	Basic Document	Leading expert(s)	Interested experts (countries)
*Flax, Linseed (Revision) (*Linum usitatissimum* L.)	TG/57/7(proj.4)	Ms. Laetitia Denecheau (FR)	AT, AU, BG, BE, CA, CN, CZ, DE, GB, HU, JP, NL, NZ, PL, QZ, RO, (RU), SK, UA, ESA, ISF, Office
*Foxtail millet (*Setaria italica* (L.) P. Beauv.)	TG/SETARIA (proj.4)	Mr. Xianmin Diao (CN)	AR, BR, HU, JP, KE, KR, MX, ISF, Office

DRAFT TEST GUIDELINES TO BE DISCUSSED AT TWA/40
(* indicates possible final draft Test Guidelines)

Guideline date for Subgroup draft to be circulated by Leading Expert: **February 4, 2011**
Guideline date for comments to Leading Expert by Subgroup: **March 4, 2011**

New draft to be submitted to the Office of the Union
before April 1, 2011

Species	Basic Document	Leading expert(s)	Interested experts (countries)
*Buckwheat (*Fagopyrum esculentum* Moench)	TG/FAGOP (proj.4)	Mr. Masayuki Uchida (JP)	AT, BG, CN, CZ, DE, FR, KR, PL, QZ, RU, UA, ESA, ISF, Office
Cassava (*Manihot esculenta* Crantz.)	TG/CASSAV (proj.1)	Mr. Evans Sikinyi (KE) or Mr. Fabricio Santana Santos (BR)	TWV, BR, CO, ISF, Office
Common Vetch (*Vicia sativa* L.) (Revision)	TG/32/7(proj.1)	Mr. Luis Salaices (ES)	AR, AU, BG, CZ, FR, HR, PL, QZ, UA, ZA, ESA, ISF, Office
*Durum wheat (Revision) (*Triticum durum* Desf.)	TG/120/4(proj.2)	Mr. Tanvir Hossain (AU) / Mr. Luis Salaices (ES)	AR, AT, (AZ), BG, BR, CA, CN, CZ, DE, ES, FR, HR, HU, (IL), JP, MX, NZ, PL, (PT), QZ, RO, (RU), SK, UA, ZA, ESA, ISF, Office
Elytrigia elongata (Host) Nevski (*Agropyron elongatum* (Host) P. Beauv.) Tall wheatgrass	new	Mr. Alberto Ballesteros (AR)	HU, PL, QZ, ISF, Office
Groundnut (*Arachis* L.) (Revision)	TG/93/3	Mrs. Lynette Croukamp (ZA)	AR, AU, BG, BR, CN, JP, KE, KR, MX, ISF. Office
*Hemp (*Cannabis sativa* L.)	TG/CAN_SAT (proj.3)	Mr. Henk Bonthuis (NL)	AU, BG, BR, CZ, DE, FR, GB, HU, NZ, PL, RO, QZ, (RU), UA, ZA, ESA, ISF, Office
Job's Tears (*Coix lacryma-jobi*)	new	Mr. Kimikazu Ishikawa (JP)	KR, ISF, Office
Phacelia tanacetifolia Benth. (Scorpion Weed)	new	Mrs. Bogna Kowalczyk (PL)	AT, CZ, DE, FR, QZ, ISF, Office
Rhodes grass (*Chloris gayana* Kunth)	new	Mr. Tanvir Hossain (AU)	AR, BR, KE, MX, NZ, ZA, ISF, Office

Species	Basic Document	Leading expert(s)	Interested experts (countries)
*Sesame	TG/SESAME (proj.5)	Mr. Baruch Bar-Tel (IL) / Mr. Keun-Jin Choi (KR)	BG, BR, CN, JP, UA, ISF, Office
**Urochloa (Brachiaria)*	TG/UROCH (proj.4)	Mr. Fabrício Santana Santos (BR)	AU, CO, MX, ZA, ISF, Office

DRAFT TEST GUIDELINES TO POSSIBLY BE DISCUSSED IN FUTURE SESSIONS

Wheat (Revision)	TG/3/11 + Corr.		To decide in 2011
Triticale (Revision)	TG/121/3		To decide in 2011
Adzuki/Red bean (*Vigna angularis*)	new	Mr. Masayuki Uchida (JP)	To decide in 2011
Finger millet (*Eleusine coracana* (L.) Gaertn.)	new	Mr. Fabrício Santana Santos (BR)	To decide in 2011

[End of Annex VI and of document]