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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

TECHNICAL WORKING PARTY FOR VEGETABLES

Forty-fourth Session
Veliko Tarnovo, Bulgaria, July 5 to 9, 2010

REPORT

adopted by the Technical Working Party for Vegetables

Opening of the Session

1. The Technical Working Party for Vegetables (TWV) held its forty-fourth session in Veliko Tarnovo, Bulgaria, from July 5 to 9, 2010. The list of participants is reproduced in Annex I to this report.

2. The TWV was welcomed by Mrs. Bistra Pavlovska, Executive Director, Executive Agency for Variety Testing, Field Inspection and Seed Control (EAVTFISC).

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

4. On the afternoon of Monday, July 5, 2010, Mr. Tsvetan Dimitrov, Vice-Minister for Agriculture and Food, made a welcome address to the participants of the TWV.

Adoption of the Agenda

5. The TWV adopted the agenda as reproduced in document TWV/44/1 Rev.

Short Reports on Developments in Plant Variety Protection

6. Mrs. Bistra Pavlovska, Executive Director, Executive Agency for Variety Testing, Field Inspection and Seed Control (EAVTFISC), made a presentation on the protection of new varieties of plants in Bulgaria. A copy of Mrs. Pavlovska's presentation is provided in Annex II to this report.

(a) Reports from members and observers

7. The expert from Brazil reported that Brazil, subject to the decision of the Council of UPOV, would host the next sessions of the Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular (BMT) and the Technical Working Party for Agricultural Crops (TWA) in Brasilia in 2011. It was also planned to organize a two-day GAIA training course in conjunction with the BMT session. The plant variety protection (PVP) Office of Brazil was promoting the use of a distance training course on PVP to train more than 300 legal representatives and breeders, who were using or intended to use the PVP system of Brazil. A revised PVP law was still awaiting signature by the President in order to be sent to the Congress for voting. The PVP Office had received 121 applications to date in 2010, of which 49% was for agricultural crops, 39% for ornamental crops, 5% for vegetables, 3% for forages, 2% for fruit crops and 2% for forest trees.

8. The expert from China reported that China had become the thirty-ninth member of UPOV in 1999, by acceding to the 1978 Act of the UPOV Convention. The eighth batch of protected genera and species, adding a further 6 genera and species had been published in 2010. The National Catalogue covered 80 genera and species in the Ministry of Agriculture. Test guidelines had been established for genera and species and test guidelines for another 80 genera and species were under preparation. The number of applications for plant variety protection had been relatively stable over five years; each year, the PVP Office had received approximately 900 applications. As of May 31, 2010, the total number of applications received had been 6,979 of which 6,032 (86.43%) were for agricultural varieties, 417(5.97%) for ornamental varieties, 321 (4.59%) for vegetable varieties and 191 (2.74%) for fruit varieties. Pepper, water melon, tomato, Chinese cabbage and potato were most protected among vegetables. Research on molecular techniques was being continued. DNA protocols for maize and rice had been completed. DNA identification standards for 14 genera and species were being established. China had actively contributed in matters related to UPOV, in particular, playing the major role in the preparation of UPOV Test Guidelines for Tea and for Foxtail Millet. China had hosted the forty-third session of the Technical Working Party for Vegetable (TWV), in Beijing, from April 20 to 24, 2009. China was increasingly participating in international cooperation in the field of plant variety protection. A new agreement had been concluded between China and the Netherlands to promote cooperation in the field of plant variety protection, in the framework of which, experts from China were being trained in DUS testing in the Netherlands. China had organized an international training course on PVP in Guaing Zhou in June 2009, which had been attended by experts from 10 East Asian countries. China had hosted the International Seminar on Plant Variety Protection and Farmers' Rights in Nanjing on April 21 and 22, 2010, which had been attended by 70 experts from East Asian countries.

9. The expert from the Czech Republic reported that, in 2009, a total of 482 applications had been received for national listing purposes, a decline of 21% from the previous year. The number of applications of vegetable species remained at the same level but a drop was noted in the number of applications of varieties of agricultural species. On the other hand, the

number of applications for PVP had increased by 52% against the previous year. Currently, 670 PVP titles were in force at the national level. Cooperation in DUS testing with Austria, Hungary, Poland, Romania, Slovakia and Slovenia continued on the basis of administrative agreements. At the request of TAIEX (Technical Assistance and Information Exchange) of the European Commission, study visits had been organized for European Union (EU) candidate countries, focusing on legislation and variety testing. With regard to legislation, the Czech Republic had already transposed the EU directives relating to landraces and conservation varieties of agricultural and vegetable species. Those directives permitted certain derogations for the national listing of landraces and varieties which had been naturally adapted to the local and regional conditions, which would mean that EU Member States would adopt their own provisions regarding distinctness, uniformity and stability. The expert noted that those provisions could have some impacts on the harmonization of DUS testing in the European Union.

10. The expert from the Community Plant Variety Office (CPVO) of the European Union reported that, in 2009, the CPVO had received 2,755 applications for Community plant variety rights (CPVR), a decrease of 8% from the previous year and the first time in the CPVO's history that there had been a reduction in annual applications. There were 417 applications in the vegetable sector (2% increase); the most important species were lettuce, tomato, and greenhouse crops. The first six months of 2010 had seen only 158 CPVR vegetable applications, which was a sharp drop (35% reduction) compared to the same period of the previous year. Since the end of March 2010, the CPVO was able to offer to applicants the possibility of e-filing, which enabled filing an application for CPVR on-line via a secured site. For the time being, that was possible for the top species in each crop sector, lettuce being the main vegetable species; it was the intention to substantially increase the list of species in the second half of 2010. The system had been presented to the network of EU examination offices on February 6, 2010, so that National authorities would be free to use that system for their National purposes, if they so wished. It was also proposed to be made available to UPOV members at a later stage. With the cooperation between EU Member States authorities and UPOV, the CPVO had put in place, several years previously, a centralized database of variety denominations. In addition to the possibility for National EU authorities to use that database for the testing of similarity of denomination proposals, since February 2010 the Office produced also an "advice" on the suitability of a proposed variety denomination if such a request for advice had been received from an EU authority. With respect to research and development (R&D) projects in the vegetable sector, following an analysis of the ring-trial between the three project partners on the project "Development and evaluation of molecular markers linked to disease resistance genes for tomato DUS testing (option 1(a)) and after discussion with its examination offices, the CPVO had identified several limitations from the outcome of the project and had concluded that it was not appropriate to adopt yet the DNA marker techniques for disease resistance observations in tomato. There were no ongoing R&D projects in the CPVO vegetable sector. Following the implementation of the "one key, several doors" principle, whereby DUS test reports produced by any authority in the EU were accepted for listing or protection purposes throughout the Community, an independent technical audit of the CPVO had commenced operations in September 2008. The first quality audits, with the assistance of external technical audit experts, had commenced in spring 2010; training for technical auditors had been held at the CPVO headquarters on June 1, 2010. In May 2010, a meeting had been held between the CPVO and representatives of the European Patent Office (EPO) to discuss the eligibility of protection of hybrid varieties by intellectual properties rights. In the light of recent claims for patent protection of hybrids in Europe, the CPVO had clarified to the EPO that individual hybrids were varieties as defined in the 1991 Act of the UPOV Convention and the Basic Regulation on Community Plant Variety Rights;

therefore, according to the legislation in force, hybrids were not eligible for protection by patents within the European Union, where the sole valid form of intellectual property protection for plant varieties was via plant variety rights. The CPVO, together with GEVES, would host an open day for vegetable breeders/seed companies and examination offices on October 6, 2010, near Angers at the premises of GEVES Brion. Finally, it was reported that the CPVO had hosted the twenty-eighth session of the Technical Working Party on Automation and Computer Programs (TWC), in Angers, France, from June 29 to July 2, 2010.

11. The expert from Italy reported that ENSE (National Institute for Seed Certification) was responsible, on behalf of the Ministry of Agriculture, Forestry, and Food (MIPAAF) of Italy, for DUS tests for National Listing of vegetables as well as DUS and VCU tests and trials for cereals, fodder plants and potato. In recent years, the number of applications for vegetable varieties had been stable. In 2009, 196 applications had been filed for vegetables while, in 2010, more than 190 applications had been filed to that date, of which 37% were for tomato, 9% for pepper, 9% for watermelon and 6% for melon.

12. An expert from France reported that the PVP situation in France was stable. The number of PVP applications was low. A new type of catalogue had been introduced in the EU system for the inclusion of landraces. He noted that the inclusion of landraces could have an impact on the reference collection and the level of uniformity applied.

13. The expert from Germany reported that the number of applications for PVP in Germany was stable and low and there had been no organizational change since the previous session of the TWV.

14. An expert from Japan reported that the Ministry of Agriculture, Forestry and Fisheries (MAFF) of Japan had received a total of 24,484 PVP applications during the period from 1978 to 2009, of which PVP rights had been granted to 18,743 varieties. In 2009, MAFF had received 1,138 PVP applications, representing a decrease of 9% from the previous year. 320 applications (28% of the total) had been filed by foreign applicants. For vegetable varieties, 1,540 applications had been filed since 1978, for which 1,278 titles had been granted. For mushroom varieties, 468 applications had been filed since 1978, for which 388 titles had been granted. In 2009, 85 applications had been filed for vegetable varieties (8% of the total number of applications) and 21 applications for mushrooms (2%). The number of applications for vegetable varieties remained stable. 17 applications had been received both for lettuce and tomato. The Japanese Government had set a target to reduce the average duration between applications and the granting of protection from 2.7 year in 2009 to 2.3 years in 2014. In 2009, 51 national test guidelines, 12 of which were for vegetables, had been harmonized with UPOV Test Guidelines or CPVO Technical Protocols.

15. An expert from the Netherlands reported that a new IT system had been incorporated over the previous two years. The data migration from three existing systems into one new system had, in particular, caused a number of problems that had needed to be solved. The system would provide information and access to the applicants about the status of the applications. The publication of photos and pictures was anticipated at a later stage. Work was ongoing on the maintenance of databases and at that time there were two DNA-databases running (Potato and Phalaenopsis) that had proved very helpful in the management of variety collections. In 2010, Naktuinbouw had passed the ISO 9001 accreditations once more and also the ISO 17020 on DUS testing of 17 main species. The CPVO quality audit was scheduled for the subsequent week. In 2010, Naktuinbouw had started, in good cooperation with the Czech Republic, a system to carry out two independent growing cycles within one

calendar year. The PVP training course had been attended by 23 participants from 18 countries. The internships at Naktuinbouw had been a success. In 2010, one colleague from Canada and one from Poland had worked for 3 weeks with the Naktuinbouw staff. Later in 2010, two more were expected. At that time, there were PVP cooperation projects with China, Vietnam and Indonesia. Naktuinbouw was reworking its image analysis module. Naktuinbouw had set up a new website. All information about DUS testing at Naktuinbouw was available on that website. (www.naktuinbouw.nl). There had been more requests for Variety Tracer in 2009 compared with the previous years. Variety Tracer was a tool to provide information in infringement cases. Dutch DUS examiners had made and made use of "Calibration Books". Information on the interpretation of all characteristics contained in UPOV Test Guidelines was available. An English version of "Calibration Books" would be made available in the course of 2010.

16. The expert from Paraguay reported that a total of 261 applications had been received, of which 78% had been made by foreign breeders from countries such as Brazil, Argentina and the United States, while 22% had been from domestic breeders. At that time, 26 breeders had made applications for plant variety protection titles for the following crops: cotton, Digitaria eggplant (melanzana), Alysicarpus, stevia, mandarin, soybean, tomato, wheat, sesame and Eucalyptus.

17. An expert from Poland reported that the Research Center for Cultivar Testing (COBORU) was responsible for the listing of plant varieties, plant variety protection, the testing of varieties for listing and granting plant variety protection titles, post registration variety testing and post control test of seed material (variety identity and purity assessment of seed lots). In 2009, there were 2,473 plant varieties in the national register, among which there were 905 vegetable varieties. There had been a slight increase in the number of applications of vegetable varieties to the national register, which could be attributed to the increased number of sweet corn and popcorn varieties. All information on COBORU activities and varieties tested by COBORU was available at the COBORU website (www.coboru.pl). In May 2010, COBORU had been audited by the CPVO. COBORU had applied for competency to examine, on behalf of the CPVO, varieties of important vegetable species, such as cucumber, tomato, onion, French bean, carrot beetroot, etc. COBORU had been involved in the evaluation of cost examination organized by the European Union. From June 22 to 24, 2010, a workshop on plant variety protection had been organized by TAEIX (Technical Assistance and Information Exchange) of the European Commission in cooperation with UPOV. 41 participants from 13 East European countries had attended the workshop. The invited lecturers from UPOV, the EU Commission, CPVO and COBORU had explained matters related to plant variety protection and DUS testing. Tomato was chosen as an example species to explain DUS testing of vegetable varieties. Polish PVP experts were participating in UPOV Distance Learning Course and one DUS examiner had participated in a three-week internship program organized by Naktuinbouw in the Netherlands.

18. An expert from the Republic of Korea reported that, in 2009, protection had been extended to cover all plant genera and species except 6 genera and species (strawberry, Rubus spp., Citrus, blueberry, cherry and seaweed). It was scheduled that those genera and species would be protected by 2012. In 2009, 547 applications had been received for PVP and the total number of applications for PVP had reached 4,782, 18% of which were for vegetable varieties. Among vegetables, hot pepper was the most protected species with 21% of the total applications, followed by Chinese cabbage (14%), radish (13%), watermelon (10%) and lettuce (9%). Regarding international cooperation, the Third East Asia PVP Forum (EAPVP Forum) had been held in Seoul from April 28 to 30, 2010, hosted by the KSVS (Korea Seed

and Variety Service) and MIFAFF (Ministry of Food, Agriculture, Forestry and Fisheries). 62 participants from 17 countries had attended that Forum. An international seminar on "The use of plant variety protection system by public sector" had been held in conjunction with the EAPVP Forum. The fourth PVP training course sponsored by KOICA (Korea International Cooperation Agency) was being organized for the period from July 1 to 16, 2010, in which 18 experts from 9 countries were participating. During that course, the Republic of Korea expected that Korea's experiences in implementing the PVP system would be transferred to the participating countries. An expert from the Korea Forest Service (KFS) of the Republic of Korea reported that, in accordance with the Seed and Industrial Act, KFS was responsible for plant variety protection for ornamental trees, plant flowers and mushrooms in the forestry sector. The Korea Forest Seed & Variety Center (KFSVC) had been established in 2008 within KFS to implement PVP. To date, 77 applications had been filed, of which DUS tests had been conducted for 70 applications. Test guidelines had been prepared for 45 forestry genera and species and test guidelines for other genera and species were under preparation. An electronic application system, Meari (www.meari.go.kr), had been established in February 2010 and KFSVC was receiving applications on the website and applications received were electronically processed. That enabled a quick and efficient examination system.

19. An expert from Romania reported that in Romania, in the preceding two years, the State Institute for Inventions and Trademarks had recorded an increasing number of applications for plant variety protection for vegetables (15% increase from previous years). Among 277 applications, 25% had been filed for vegetable crops, most of them for tomato, pepper, bean and pea. Until that time, 222 protection titles had been granted, of which 49 were for vegetables. In 2009, the State Institute for Variety Testing and Registration had tested 124 vegetable varieties of 30 species, of which 22 were varieties of pepper, 12 tomato, 19 bean and 11 pea. 43 vegetable varieties had been registered into the Official Catalogue, most of which were varieties of cucumber, onion, pumpkin, bean, tomato, pepper and cabbage. In 2009, the number of varieties in the reference collection had been increased and the construction of 3 new administrative buildings for the testing stations and one greenhouse had been completed.

20. An expert from South Africa reported that, in South Africa, 225 Plant Breeder Rights were in force for vegetable varieties, which represented 10% of all valid Plant Breeder Rights. In 2009, 373 new PBR applications had been received, of which 27 were for vegetable crops, representing 7.2% of the total applications. Tomato was the most protected vegetable species, with 50 plant breeder rights in force.

21. The expert from Spain reported that, in Spain, the number of applications for variety listing and plant variety protection for vegetables had decreased by 10% in 2009 in comparison to 2008. Tomato was the crop for which the largest number of applications had been received, and the number of applications for tomato had continued to increase, while applications for other crops had decreased.

22. The expert from the United Kingdom reported that the number of applications for PVP was stable and low. During 2009, DUS tests had been carried out for a vegetatively propagated watercress application. The existing seed-propagated reference collection had been expanded and characterized and the UK DUS test protocol had been revised. The United Kingdom was currently processing applications for the registration of Bere Barley (a primary landrace) and 5 traditional varieties of swede and forage rape, under newly implemented European Legislation on Agricultural Conservation Varieties. United Kingdom Legislation for Vegetable Conservation and Amateur Varieties was being prepared.

23. A representative of the International Seed Federation (ISF) reported that the ISF World Seed Congress, held in Calgary, Canada, from May 31 to June 2, 2010, had been attended by around 1,250 participants from 57 countries. The Vice-Secretary General of UPOV, Mr. Rolf Jördens, had been among the participants, and it was his last ISF congress in that capacity. He had attended all ISF congresses since 2001. During the Calgary congress, the ISF participants had thanked him for his valuable contributions throughout the years and he had been warmly applauded. The chairman of the ISF Breeders Committee had expressed his hope that the good relationship with UPOV would continue with his successor. During the congress, Uruguay had been chosen as the location for the 2016 congress. Mr. Truels Damsgaard (Denmark) had been elected as the new President of ISF, taking over from Mr. Orlando de Ponti (Netherlands). The ISF Intellectual Property Committee had started an entire revision of its position paper on intellectual property. A major part in that revision would be an update of the chapter on patents. Other new chapters would be on contracts, enforcement and several other topics. ISF had also started with a major revision of the ISF Trade Rules, which regulated the international trade in seeds. That was expected to be finalized in 2 years. ISF had adopted a set of guidelines and a technical protocol for essentially derived variety (EDV) cases in ryegrass, which could be found on the ISF website. A set of guidelines for tomato, which could help the breeder to decide whether his proprietary parent line had been used 'as such' in the production of the hybrid of a competitor, was expected to be finalized in the coming year. In September 2009, ISF had coorganized the Second World Seed Conference with UPOV, the Organisation for Economic Co-operation and Development (OECD), the International Seed Testing Association (ISTA) and the Food and Agriculture Organization of the United Nations (FAO). It had been a very good conference with excellent speakers and interesting discussions. All presentations, a press release and a declaration coming out of that conference could be found at www.worldseedconference.org.

(b) Report on developments within UPOV

24. The TWV noted the oral report from the Office of the Union on the latest developments within UPOV, as provided in Annex III to this document.

Molecular Techniques

(a) Reports on developments within UPOV

25. The TWV considered documents TWV/44/2 and BMT/DUS Draft 3.

26. The TWV 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 TWV agreed that the term "molecular data" would be a suitable broad term
	in accordance with the proposal of the TWA, 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. The TWV noted that the model "System for combining phenotypic and molecular distances in the management of variety collections" would not necessarily require the GAIA method to be used to calculate phenotypic distance, but noted that any other method would need to be based on a similar "combination of differences observed on phenotypic characteristics, where each difference contributes to the distance according to the reliability of the characteristics, especially regarding its variability and its susceptibility to environment" (see document BMT/DUS Draft 3, Annex 4, Section 1.4.1) in order to fall within the model.
3.1.3	with regard to the proposal of the BMT, the TWV agreed that the title should read "Calibration of molecular and traditional distances in the management of variety collections (see Annex 2)" or "Calibration of distances in the management of variety collections (see Annex 2)"

27. The TWV agreed with the TWA proposal 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. The TWV agreed with the TWA 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 TWV also agreed with the TWA that consideration should be given to how to maintain both documents in an efficient way.

(b) Reports on work by members and observers

28. The expert from the CPVO reported that the outcome of the ring trial subsequent to the finalization of the CPVO R&D project "Development and evaluation of molecular markers linked to diseases resistance genes for tomato in DUS testing (Option 1a)" between the three project partners (Netherlands, France, Spain) on the CPVO R&D project had indicated the reliability of DNA techniques to identify genes currently used for conferring resistance to *Meloidogyne incognita* (nematodes) and Tomato Mosaic Virus (TMV). Consistent results had been obtained, which would fulfill the distinctness criteria as well as the uniformity criteria if the same number of plants were used in the disease resistance test as stipulated in the CPVO tomato technical protocol. The question remained though as to whether DNA-marker techniques were suitable to supplement or replace traditional bioassay techniques within DUS examinations and thereby be implemented into the CPVO protocol and current revision to the UPOV Test Guidelines for tomato as an alternative technique for observing nematode and TMV resistance. Following discussions with tomato examination

offices and representatives of vegetable breeders, it had become evident that the existing markers, which formed the basis of the R&D project, were only useful for the genes being used in the existing breeding programs to confer resistance to nematode and TMV in tomato. Particularly with respect to nematode resistance, it had been recognized that breeding effort was likely to move forward soon into other genes instead of the current Mi1-2 gene; thus, in such situations the DNA marker techniques would be obsolete and breeders were unwilling to divulge confidential information in the Technical Questionnaire on which gene they were utilizing to confer resistance to nematode. Another issue that had been taken into account was the increase in the costs of the DUS tests caused by running the DNA-marker techniques on a regular basis as part of those tests. Therefore, the CPVO had concluded that the implementation of DNA marker techniques into the DUS test via the CPVO protocol (and UPOV Test Guidelines) to indicate disease resistance in tomato candidate varieties was not appropriate at that time, taking into account the limitations outlined above. The DNA-marker techniques might however become more advanced in the coming years; and they could already prove their worth in two particular areas, namely: (i) to test rapidly a tomato reference variety collection in order to get it well structured and to define the susceptible and resistant set of varieties; and (ii) to confirm possible inconsistencies found in the bioassay for doubtful plants and thereby provide a more solid decision on uniformity.

TGP Documents

29. The TWV considered the TGP documents below on the basis of documents TWV/43/3.

(a) New TGP documents:

TGP/11 Examination of Stability

30. The TWV considered documents TWV/43/3, TWV/44/3 Add. and TGP/11/1 Draft 8, and made the following comments on document TGP/11/1 Draft 8:

1.	in accordance with the TWA proposal, 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	in accordance with the TWA proposal, 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	in accordance with the TWA proposal, 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	with regard to the TWA proposal 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.", the TWV agreed that it should be clarified that approach (ii) should be an exceptional situation
2.3	in general accordance with the TWA and TWC proposals, 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." However, in addition, the TWV agreed that: (a) the illustrative examples in Section 2.3 should be presented as Annexes; (b) example 2.3.3 (*Zea mays*) should clarify that, in France, the DUS examination on hybrids involves the examination of the hybrid by examination of the parent lines and the parent formula; and (c) with regard to the TWC proposal to add examples for vegetable crops, *Phaseolus vulgaris* was a vegetable crop
2.3.4	in accordance with the TWA proposal, to be deleted
2.4	in accordance with the TWA proposal, to be deleted

31. In response to the ongoing concerns of ISF with regard to the submission of parent lines for hybrid varieties of vegetables where the parent lines were not examined as a part of the DUS examination of the hybrid, the TWV agreed to propose to the Technical Committee that it consider organizing a seminar to discuss that issue.

(b) Revision of TGP documents:

TGP/5 Experience and Cooperation in DUS Testing

32. The TWV 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 TWV/44/10:

(i)	the TWV agreed with the TWA that 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 and TWV 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. The TWV noted that, 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)	the TWV agreed with the TWA that 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, provided it satisfied the criteria set out in the General Introduction.

TGP/7 Development of Test Guidelines

(i) Coverage of ornamental varieties in Test Guidelines

33. The TWV considered document TWV/44/11.

34. The TWV agreed with the TWA proposal 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."

(ii) Quantity of plant material required

35. The TWV considered document TWV/44/12.

36. The TWV agreed with the TWA that the guidance in document TGP/7, 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. In that regard, the TWV agreed that a summary of the following information should be prepared by the Office of the Union for all adopted Test Guidelines and made available to Leading Experts on the TG Drafters' webpage in order that information on Test Guidelines for similar crops could be presented by the Leading Expert:

(a) Chapter 2.3 Minimum quantity of plant material to be supplied by the applicant
(b) Chapter 3.1 Number of growing cycles
(c) Chapter 3.4.1 Each test should be designed to result in a total of at least X plants
(d) Chapter 4.1.4 Number of plants / parts of plants to be examined for distinctness
(e) Chapter 4.2 Number of plants to be examined for uniformity
(f) Number of plants for special tests (e.g. disease resistance)

37. The TWV also agreed with the TWA 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 agreed 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

38. The TWV considered document TWV/44/13. It noted the information provided in that document, but agreed that the matter did not need to be pursued further at that time.

(iv) Number of plants to be considered for distinctness

39. The TWV considered document TWV/44/14.

40. The TWV agreed that document TWV/44/14 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 that document, 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.

41. The TWV also agreed with the TWC proposal that consideration be given to developing guidance on:

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

(v) Selection of asterisked characteristics

42. The TWV considered document TWV/44/15.

43. The TWV agreed with the TWA 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.”. The TWV also agreed with the TWA conclusion 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

44. The TWV considered document TWV/44/16.

45. The TWV agreed that it would not be appropriate to include an indication of grouping characteristics in the Table of Characteristics in the (UPOV) Test Guidelines.

(vii) Guidance for method of observation

46. The TWV considered document TWV/44/17 and noted the comments made by the TWA.

(viii) Example varieties

47. The TWV considered document TWV/44/18.

48. The TWV agreed that consideration of the suitability of the a regional set of example varieties would need to be considered on a crop-by-crop basis and noted that it might be worthwhile to consider such an approach for some vegetable crops. The TWV agreed with the TWA 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. However, it noted that further consideration would need to be given on how to facilitate such an exchange within UPOV. The TWV also agreed with the value of "calibration books", but noted that observers still needed to compare their observations in order to harmonize descriptions. It also noted the value of digital pictures.

(ix) Providing photographs with the Technical Questionnaire

49. The TWV considered document TWV/44/19.

50. The TWV agreed that the sentence in paragraph 9 (v) "In order to have consistency in the display of such photographs for the use of the examination office, the candidate variety must always be on the left side of the photograph taken alongside the similar variety; special care must also be taken that both the candidate variety and the similar variety are correctly labeled." should be reviewed, because it was not necessarily the case that examination offices specified that the candidate variety must always be on the left side.

51. The TWV noted the concerns of ISF concerning a requirement for photographs to be required for vegetable crops, especially as a failure to provide such a photograph could result in a rejection of an application. In particular, it noted the emphasis by ISF on the need to clarify that photographs should only be requested if they would supplement the information provided in the Technical Questionnaire. In that regard, ISF considered that a photograph should be attached to the variety description by the authority if an applicant was required to provide a photograph with the Technical Questionnaire.

(x) Standard references in the Technical Questionnaire

52. The TWV noted the information provided in document TWV/44/8 and the following oral report from the Technical Working Party on Automation and Computer Programs (TWC) at its twenty-eighth session, held in Angers, France, from June 29 to July 2, 2010:

> "The TWC noted that it would be a matter for breeders to indicate the usefulness of standard references for UPOV Technical Questionnaires (TQs). However, it saw the benefits of having a standard reference for items in the TQ, particularly for authorities where applications forms could not be made available in multiple languages. In that regard, it noted that the inclusion of a

standard reference in an authority's TQ would be considerably more straightforward than translating those documents into other languages. It also noted that the growing diversity of languages and alphabets within UPOV meant that the use of the references by only some authorities might still bring substantial benefits."

53. The TWV also agreed that consideration might be given to the inclusion of an additional field in the standard UPOV Model TQ in order for an applicant to have the possibility to indicate a trademark, trade name or other similar indication that was associated with the variety denomination.

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

54. The TWV considered documents TWV/44/20, TWV/44/29, TWV/44/31 and TWV/44/32, in conjunction with document TWV/44/3 Add., which contained the comments of the TWC at its twenty-eighth session on those documents.

55. The TWV agreed to propose the following with regard to document TWV/44/20:

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

The TWV noted that the TWV experts from the Netherlands would coordinate with Mr. Henk Bonthuis (Netherlands) and Mr. van der Heijden (Netherlands) in the development of that section, also noting that France would contribute via TWC experts.

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

The TWV noted the standard wording in Chapter 3.3 of Test Guidelines: "The tests should be carried out under conditions ensuring satisfactory growth for the expression of the relevant characteristics of the variety and for the conduct of the examination.". It considered that it would be very difficult for UPOV to develop guidance on good agronomic practices and suggested that further consideration should be given to the possible content of such a section before drafting of a section began.

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

The TWV agreed that the potential benefits of image analysis should be linked to Annex II, New Section 3 - Control of variation due to different observers.

The TWV noted that the TWC had considered that, before developing this section further, it would be useful to review information on the use of image analysis by UPOV Members and that experts from Australia, Czech Republic,

Denmark, Finland, France, Germany, the Netherlands, Poland and the United Kingdom would make 15-minute presentations on their use of image analysis at the twenty-ninth session of the TWC. The TWV was informed that the TWC session would be webcast to enable interested experts to follow the presentations.
Annex XII *New Section - Guidance of data analysis for blind randomized trials (Drafter to be agreed)* The TWV agreed that it should be clarified that the guidance should not be restricted to "data analysis" for blind randomized trials.

TGP/12: Guidance on Certain Physiological Characteristics

56. The TWV considered document TWV/44/21 "Disease nomenclature and disease characteristics".

57. With regard to the proposed standard disease resistance protocols in document TWV/44/21 (Section 2.4), the TWV agreed that the information items that were not asterisked in the protocol should not be elaborated in detail in the Test Guidelines and should be replaced by a reference to the contact details for UPOV members that would be able to provide such information on request. In making that proposal, the TWV emphasized that it was of primary importance to achieve standardized results, rather than using standardized detailed conditions, and also noted that the information in the Test Guidelines would not become outdated so quickly as would be the case if detailed methodologies were provided.

58. The TWV agreed with the proposals concerning "2.5 The nomenclature of pathogens", as set out in document TWV/44/21.

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

59. The TWV considered documents TWV/44/22 and TWV/44/23.

60. The TWV expressed concerns with regard to the proposal in document TWV/44/22 that, if varieties have different shapes and different sizes within the same shape, only one absolute dimension (length or width) and the ratio should be used for DUS. In the first instance, it was noted that both length and width would need to be recorded in order to derive the ratio length/width. It also considered that it was often useful to have a separate description for length, width and ratio length/width. With regard to concerns about duplication of characteristics, it was noted that there was a suitable warning in relation to GAIA in document TGP/8/1 Draft 15, Part II, 1. The GAIA Methodology, Section 1.3.1 Weighting of characteristics. It did not anticipate problems for DUS examiners making decisions on DUS where the characteristics length, width and ratio length/width were considered separately and noted that there were correlations between other types of characteristics.

61. With regard to document TWA/44/23 "New section for color characteristics", the TWV agreed that it would be better to consider that document after the Technical Working Party for

Ornamental Plants and Forest Trees (TWO) and Technical Working Party for Fruit Crops (TWF) had had an initial discussion on the draft at their sessions in 2010.

Discussion on Draft Test Guidelines

Dock

62. The subgroup discussed document TG/RUMEX(proj.5), presented by Mrs. Radmila Safarikova (Czech Republic) in the absence of the Leading Expert from Ukraine, and agreed the following:

Char. 2	to read “Rosette leaf: intensity of green color”
Char. 3	to read “Rosette leaf: length of blade”
Char. 4	to read “Rosette leaf: width of blade”
Char. 5	to be deleted
Char. 6	- to be indicated as QN - state 1 to read “narrow elliptic”; state 2 to read “medium elliptic”
Char. 7	to add (*); to be indicated as VG
Char. 8	to add (*)
Char. 11	Leading Expert to check whether state 3 to become state 1, in accordance to illustration in Section 8.2, Ad. 11
Char.12	to be indicated as VG
Char. 14	- to delete “intensity of” (see state 1) - to add Note 1
Chars. 15, 16, 17, 18, 19	to clarify which leaf to be observed; explanation to be provided in Section 8.2
Char. 17	to delete small, large etc. and use meaningful states only
Char. 19	- to add (+) with explanation - Leading Expert to check whether to read: “Stem leaf: rugosity” and to check whether to be indicated as QL
Char. 21	to be placed before Char. 10
Char. 22	to read: “Panicle: length (without peduncle)” and to check whether the illustration in Ad. 22 corresponds to the wording of the characteristic
Char. 24	to read “Time of seed maturity”
Ad. 3, 4, 9	- to become note in Chapter 8.1 (explanation covers several non-consecutive characteristics) - to improve drawing in the explanation - to add also rosette leaves with lobes (see Ad. 8) to be sure about measurement of length and width
Ad. 10	one picture to indicate the “height” is sufficient
Ad. 11	to amend in accordance with states in Table of Chars.
Ad. 13	to read: “This characteristic should be observed on the stem at time of full bloom of panicle. Minimum quantity of internodes can be 2 (note 3). Assessment of other expression should be carried out by comparing with example varieties.”
Ad. 15, 15,17, 18	the drawing to be improved to indicate precisely the position for measurement
Ad. 20	to read: “The full flowering means that 75% of flowers are open.”
Ad. 24	to read: “Full seed maturity means that 75% of panicles have its final color”

TQ 4.2	to review
TQ 5.1	Notes to be 1, 3 and 5; to include even Notes

Echinacea

63. The subgroup discussed document TG/ECNCE(proj.1), presented by Ms. Julia Borys (Poland), and agreed the following:

2.2	to read “The material is to be supplied in the form of young plants capable of expressing all relevant characteristics of the variety during the first growing cycle or in the form of seed.”
2.3	The minimum quantity of plant material, to be supplied by the applicant, should be: 15 plants, the quantity of seed to be checked
3.1	to provide separate paragraphs for different types of propagation as follows: “For vegetatively propagated varieties, the minimum duration of tests should normally be a single growing cycle.” “For seed propagated varieties, the minimum duration of tests should be two independent growing cycles.”
3.4.1	to provide separate paragraphs for different types of propagation as follows: “For vegetatively propagated varieties, each test should be designed to result in a total of at least 12 plants.” “For seed propagated varieties, each test should be designed to result in a total of at least 60 plants, which should be divided between at least 2 replicates.”
4.2.3	The second sentence to read: “In the case of a sample size of 12 plants, 1 off-type is allowed
5.3	to check whether to add Chars. 34 and 36 – TQ characteristics
Table of Chars.	to add further example varieties
Table of Chars.	to indicate (*) for appropriate characteristics, including grouping and TQ characteristics to add indications for type of expression and method of observation to delete indications of “G”
Char. 1	to be indicated as VG, QN
Char. 2	to be indicated as MG, QN
Char. 3	to add (+) and provide explanation, to be indicated as VG/MS, QN
Char. 4	to add (+) and provide explanation, to be indicated as VG. to check whether to be indicated as QL
Char. 5	to be indicated as MG, QN
Char. 6	to be indicated as VG, QN, to delete (a), to have notes 1,3,5
Char. 7	to be indicated as MG, QN, to be placed after. Char. 11
Char. 8	to be indicated as VG, PQ, to add (+) and provide explanation
Char. 9	to receive additional states of expression “green tinged with purple (7), purplish green (8), purple (9), to be indicated as VG, PQ
Char. 10	to read: “Stem: density of pubescence”, to be indicated as VG, QN, to have notes 1,3,5
Char. 11	to be deleted
Char. 12	to be indicated as VG, QL, to check whether this characteristic to be used to distinguish species
Char. 13	to read: “Leaf blade: length”, to be indicated as VG, QN

Char. 14	to be indicated as VG, QN
Char. 15	to add (+) and provide illustration in form of grid, to be indicated as VG, PQ
Char. 16	to add (+) and provide illustration, to be indicated as VG, PQ
Char. 17	to add (+) and provide illustration, to be indicated as VG, PQ
Char. 18	to add (+) and provide illustration, to be indicated as VG, PQ
Char. 19	to be indicated as VG, QN
Char. 20	to read: "Leaf blade: main color of upper side" to be indicated as VG, PQ
Char. 21	to check whether correlated with Char. 10, to be indicated as VG, QN
Char. 22	to be indicated as VG, QN
Char. 23	to be placed after Char. 20, to be indicated as VG, QN
Char. 24	to be indicated as VG, QL
Char. 25	to be indicated as VG/MS, QN
Char. 26	to be indicated as VG, QN
Char. 27	to be indicated as VG, QL
Char. 28	to add (+) with explanation, to be indicated as VG, to check whether to be indicated as QL or PQ
Char. 29	- to read "Excluding varieties with flower type: double: Flower: type of disc" and to add (+) with explanation - to insert (b)
8.1(b)	to check whether to read "characteristics to be observed at full flowering"
Ad. 3	to check whether timing could be covered by note (b) (see comment above) and/or to add explanation/illustration of whether natural height

French Bean (Partial revision)

64. The TWV discussed document TWV/44/30, presented by Mr. François Boulineau (France).

65. The TWV agreed to the proposed revisions to Characteristics 49 to 51 in the Test Guidelines for French Bean (document TG/12/19), as set out in document TWV/44/30, subject to the following amendments:

Char. 50	(a) to retain the existing characteristic "Type of resistance to Bean Common Mosaic Virus (BCMV)", but to delete the (*); and (b) to introduce the new characteristic "Resistance to Bean Common Mosaic Necrosis Virus (BCMNV)", but to add an asterisk and amend state 3 to read "present without symptoms"
Char. 51	to add "Race 6" as heading to new characteristic

66. The TWV noted that the proposal set out in document TWV/44/30 had been circulated to the TWV and the TWA by means of Circular E-1285 of April 28, 2010 and that, given the short time before the thirty-ninth session of the TWA, the Chairpersons of the TWV and TWA had agreed that the TWV should consider the proposed partial revision of the Test Guidelines for French Bean at its forty-fourth session, and a report would be made to the TWA in 2011, with a view to proposing the adoption of the partial revision by the Technical Committee in 2012.

Globe Artichoke (Revision including Cardoon)

67. The subgroup discussed document TG/184/4(proj.2), presented by Mrs. Chrystelle Jouy (France), and agreed the following:

2.3 (a)	to read "seed propagated varieties: 1,500 seeds"
4.2.3	to read "For the assessment of uniformity of inbred lines and hybrids, a population standard of 5% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 40 plants, 4 off-types are allowed. In addition, for hybrids, the same population standard and acceptance probability should be applied to clearly recognizable inbred plants. In the case of a sample size of 40 plants, 4 clearly recognizable inbred plants would be allowed."
5.3	to read: "The following characteristics are used for grouping of varieties into Artichoke or Cardoon: (a) Petiole: thickness at 35 cm from base (characteristic 15) (b) Main stem: diameter (at about 10 cm below central flower head) (characteristic 20) (c) Central flower head: length (characteristic 21) (d) Central flower head: diameter (characteristic 22) (e) Outer bract: thickness at base (characteristic 40) (f) Plant: number of lateral heads on main stem (characteristic 41) "The following have been agreed as useful grouping characteristics within Artichoke: (a) Leaf: intensity of lobing (characteristic 4) (b) Artichoke varieties only: Central flower head: time of appearance (characteristic 18) (c) Artichoke varieties only: Central flower head: shape in longitudinal section (characteristic 23) (d) Artichoke varieties only: Outer bract: intensity of violet color (external side) (characteristic 31) "The following have been agreed as useful grouping characteristics within Cardoon: (a) Leaf: intensity of lobing (characteristic 4) (b) Cardoon varieties only: Petiole: color Petiole: color (characteristic 10) (c) Petiole: length of spines (characteristic 17)"
5.5 (new)	to read "A key for grouping varieties into artichoke and cardoon is provided in Chapter 8.1."
6.4	to add explanation of types of example varieties from Chapter 6.5
Table of Chars.	to correct page numbering
Chars. 1-1, 1-2 etc.	to correct formatting to "1.1", "1.2" etc.

Char. 1	to correct alignment of note 7
Chars. 1-1, 1-2	to be indicated as VG/MS
Char. 3	to be deleted
Char. 4	to be indicated as VG
Char. 5	to be indicated as PQ
Char. 6	to be indicated as VG
Char. 8	to correct spelling of “light” (state 2)
Char. 9	to read “Artichoke varieties only: Petiole: anthocyanin coloration at base”
Char. 10	to be indicated as VG and to correct notes to 1 to 7
Char. 11	to be indicated as VG/MS
Char. 12	to be indicated as VG/MS and to read “Cardoon varieties only: Petiole: length to apex width of 2cm” and to add (+) with explanation
Chars. 13, 14, 15	to be indicated as VG/MS
Char. 15	to add (+) with explanation and to provide additional example varieties
Char. 16	to be indicated as VG
Char. 17	to add state 1 “absent or very short”, with example variety “Madrigal (A)” and example variety to be provided by Italy
Char. 18	to read “Artichoke varieties only: Time of beginning of elongation of central flower head stem” and to delete note (a)
Chars. 19-1, 19-2, 20, 21, 22	to be indicated as VG/MS
Chars. 21, 22	to correct “Ateca ©” to “Ateca (C)”
Char. 23	- state 3 to read “oblong”; - states and notes to be: triangular (1); ovate (2); oblong (3); circular (4); oblate (5)
Char. 24	to read “Artichoke varieties only: Central flower head: shape of apex” and to be indicated as PQ
Chars. 27, 28	to be indicated as VG/MS
Char. 29	to have the states: flat or slightly depressed (1); moderately depressed (2); strongly depressed (3)
Char. 30	to be indicated as MG/MS and to add explanation that the time of beginning of opening of the central flower head is when the central flower head has opened on 50% of plants
Char. 31	to read “Artichoke varieties only: Outer bract: violet color (external side)”, with the states: absent or very weak (1); weak (2); medium (3); strong (4); very strong (5)
Char. 32	further photographs to be provided of various examples and to check whether to read “Artichoke varieties only: Outer bract: color of apex (external side)” with the states: green (1); bronze (2); grey (3)
Char. 33	to be indicated as PQ
Char. 34	to have notes 1, 3, 5
Char. 35	to be indicated as QN
Char. 39	to be indicated as VG/MS

Char. 40	- to have notes 1, 2, 3 - further example varieties to be provided
Char. 41	to be indicated as VG/MS, example varieties to be provided and (+) to be deleted
Char. 42	to consider whether to delete
8	to renumber: *8.1 Key for grouping varieties into artichoke and cardoon* *8.2 Explanation covering several characteristics* *8.3 Explanation for individual characteristics*
8. (grouping)	- to indicate a grey area for varieties with Char. 15: notes 4 and 5 Char. 20: notes 3, 4 and 5 Char. 21: notes 4 and 5 Char. 22: notes 4 and 5 Char. 40: notes 3 and 4 Char. 41: notes 5, 6 and 7 - to classify varieties as Artichoke if at least one characteristic is in the Artichoke zone and no characteristics are in the Cardoon zone (in the grey zone for all other characteristics) - to classify as Cardoon if at least one characteristic is in the Cardoon zone and no characteristics in the Artichoke zone (in the grey zone for all other characteristics) - in all other cases the variety to be grown in both Artichoke and Cardoon trials.
8.1 (a)	- to read "Characteristics on plant, foliage (leaf, leaf blade and petiole) which should be observed at fully vegetative development, just after the first flower head appears, but before the main flowering stem starts to elongate. Stage 10- 12 leaves = on the 3^{rd} – 4^{th} whorl of leaves from the base of the plant." - to check allocation of note (a)
8.1 (b)	to read "Characteristics on the main flowering stem and central flower head which should be observed at the harvest stage (largest size just before reflexing of lower part of bracts) of the central flower head."
8.1 (c)	to read "These characteristics should be observed…."
8.1 (d)	to read "Characteristics on the outer bract which should be observed …"
Ad. 23	to delete explanation and illustration before grid
Ad. 26	to indicate the part of the head to be observed
Ad. 29	to correct notes to 1, 2, 3 and to indicate the part to be observed by dotted line
Ad. 32	to indicate part of bract to observe and to delete references to background color
Ad. 33	illustration for state 1 to be provided
Ad. 34	to replace illustration for state 3
Ad. 35	to replace photograph with illustration
Ad. 39, 40	to delete indication of Char. 40
Ad. 41	to be deleted
TQ 5	to number in normal way

Lettuce (Partial revision)

68. The TWV discussed document TWV/44/24, presented by Mrs. Marian van Leeuwen (Netherlands),

69. The TWV agreed to the proposed revisions to the Test Guidelines for Lettuce (document TG/13/10) for *Bremia* resistance and the inclusion of an additional characteristic "Resistance to *Nasonovia ribisnigri* biotype Nr: 0", as set out in document TWV/44/24, subject to corrections to the spelling of "Naktuinbouw" and the amendment of "Pays Bas" to "Netherlands".

Onion (Partial revision)

70. The TWV discussed document TWV/44/26, presented by Mrs. Marian van Leeuwen (Netherlands), and agreed that the exchange of seed of potential example varieties for a possible new state 8 "purple" in characteristic 23 "Bulb/Bulblet: base color of dry skin", had indicated that it was not necessary to make a partial revision of the Test Guidelines for Onion, document TG/46/7. However, it noted that the exercise had indicated that it would be useful to review how color characteristics were structured and agreed that the results of the exercise should be considered in relation to discussions on the development of the new section for color characteristics in document TGP/14.

Pleurotus

71. The subgroup discussed document TG/PLEUR(proj.1) presented by Mr. Yong Hyun Cho (Republic of Korea) and agreed the following:

Cover page	to replace "spp." with Author initial
3.1	to add "The growing cycle is considered to be from spawning until the end of the first flush."
3.4.2	the last part of the paragraph to read "'…which must be made up to the end of the growing cycle." and to delete "which has to be at harvest stage
4.1.4, 4.1.5	the word "plant(s)" to be replaced by the word "fruit body(ies)"
5.3	to check whether to add Chars. 4 and 10 (TQ characteristics)
Table of Chars.	Leading Expert to check whether to add (*) to more characteristics
Char. 3	to read: "Stipe: shape in longitudinal section" and to provide illustration in form of grid; to be indicated as PQ
Char. 4	to be moved to TQ7, as being used to distinguish species
Char. 5	to provide illustration to indicate which position to be observed/measured, using the illustrations included in Ad.8
Char,. 6	to include the example varieties 'Helios (3)', 'HK 35(5)' and 'Charnu (7)'
Char. 7	Leading Expert to consider meaningful states to replace "small, medium, large"(see document TWV/44/22, paragraphs 3 & 4) and to provide illustration
Char. 8	to read "Cap: curvature of upper surface in longitudinal section" with the states of expression "strongly convex (1)(Nong-gi 1ho)", "moderately convex (2) (Miso)", "flat (3)(Saesongi 1ho)", "moderately concave (4)(Suhan)" and "strongly concave (5)(Chunchu)"
Char. 9	to correct the spelling of "grey"; to have the following states of expression: white (1), yellow (2), pink (3), light brown (4), medium brown (5), dark brown (6), light grey (7), medium grey (8), dark grey (9), and the example varieties to be relocated accordingly

Char. 10	to read “Cap: position in relation to stipe” and to have the states: central (1); moderately offset (2); strongly offset (3); to be indicated as QN and to review order in Table of Chars.
Char. 11	to be deleted, as covered by Char. 16
Char. 12	to be removed from the Table of Characteristics and moved into TQ7
Char. 13	to read “Concentration of spores” with the states of expression “absent or very weak (1)(Spoppo), weak (3), medium (HK 35), strong (7)(3014), very strong (9)”
Char. 14	to add (+) with illustration to be provided by HU and KR
Char. 15	to add (+) with illustration to be provided by HU
New Char.	to add a new Char. to read “Gills: width” with states of expression “narrow (3) , medium (5) (HK 35), broad (7) (Spoppo)”
New Char.	to add a new Char. to read “Mycelium: growth rate at 25^{o}C” with states of expression “slow (3) (HK 35), medium (5), fast (7) (Helios)”
8.1	to delete the reference to Chapter 8.3 in 8.1 (a) and 8.1 (b)
Ad. 1, 2, 5, 6	to replace with note in Chapter 8.1 (covers a number of non-consecutive characteristics)
Ad. 1	the length of stipe to be indicated for different shapes of stipe (see Ad. 3)
Ad. 8	to check the difference and order of states 1, 2 and 3 and to indicate the part of the surface to be observed
TQ7	To include “optimum temperature for fruit body formation”

Raphanus sativus L. (Revision)

72. The subgroup discussed document TG/63/7(proj.3) - TG/64/7(proj.2), presented by Mrs. Swenja Tams (Germany), and agreed the following:

Cover page	to amend box to reflect the coverage of the Test Guidelines (not all Raphanus sativus L.): **RADISH; BLACK RADISH** UPOV Code: RAPHA_SAT_SAT; RAPHA_SAT_NIG (*Raphanus sativus* L. var *sativus*; *Raphanus sativus* L. var. *niger* (Mill.) S. Kerner;)* “Daikon radish” to be deleted as English common name for *Raphanus sativus* L. var. *niger* (Mill.) S. Kerner
1.	to read “These Test Guidelines apply to all varieties of *Raphanus sativus* L. var *sativus* and *Raphanus sativus* L. var. *niger* (Mill.) S. Kerner and hybrids between those species.”
3.4.1	to add reference to Chapter 5.3 for grouping into “Niger-type varieties” (N-type) and “Sativus-type varieties” (S-type)
3.4.2	to be moved to Chapter 5.3
4.1.4	to read: “… disregarding any off-type plants”
4.2.2	to read “The assessment of uniformity should be according to the recommendations for cross pollinated varieties in the General Introduction. However, for the characteristics “Radish: shape” (characteristic 17) and “Radish:

	color of skin" (characteristic 21), a population standard of 2% and an acceptance probability of 95% should be applied. In the case of a sample size of 60 plants, 3 off-types are allowed. In the case of a sample size of 200 plants, 7 off-types are allowed."
4.2.3	to read: "Hybrids and inbred lines For the assessment of uniformity of hybrids and inbred lines, a population standard of 2 % and an acceptance probability of at least 95 % should be applied. In the case of 60 plants, 3 off-types are allowed. In the case of a sample size of 200 plants, 7 off-types are allowed."
5.3	to be reviewed
Table of Chars.	- to refer to "Only S-type varieties:" and "Only N-type varieties:", as appropriate - to consider adding (*) to more characteristics
Char. 1	to read "Only N-type varieties: Ploidy"
Char. 2	to be indicated as QN, to have the states: absent or weak (1); moderate (2); strong (3) and example varieties to be provided
Char. 3	to be deleted
Char. 4	to add note (b)
Char. 6	to delete note (b), to add (+) with explanation that the characteristic should be observed 30 days after planting and example varieties for S-type varieties to be checked
Char. 7	- to be indicated as VG/MS - to be separated into 7.1 "Only S-type varieties:" and 7.2 "Only N-type varieties:"
Char. 8	to be indicated as VG/MS
Char. 9	to check whether to have the states: slightly pointed (1); blunt (2); rounded (3) and to add (+) and provide illustrations (to request from Japan)
Chars. 10, 11	to be combined into a single characteristic to read "Leaf blade: color", with the states: yellow green (1); light green (2); medium green (3); dark green (4); light grey green (5) medium grey green (6); dark grey green (7) (states and example varieties to be checked by all interested experts)
Char. 16	to delete "Intensity of"
Char. 17	to be separated into 17.1 "Only S-type varieties:" and 17.2 "Only N-type varieties:"
Char. 18	to be separated into 18.1 "Only S-type varieties:" and 18.2 "Only N-type varieties:" and to check whether to add (*)
Char. 19	to have the states: narrow triangular (1); medium triangular (2); ovate (3); ~~icielical~~ acicular (4); ~~rectangular~~ oblong (5); narrow elliptic (6); ~~elliptic~~ medium elliptic (7); circular (8); ~~transverse broad elliptic~~ narrow oblate (9); ~~transverse elliptic~~ medium oblate (10); obovate (11); bell shaped (12)
Char. 22	to read "Radish: shape of apex (excluding tip)"
Char. 23	to read "Radish: number of colors of skin (excluding root)"

Char. 24	to read “Radish: color of skin of stem end”, with the states: white (to add example varieties with two colors) (1); yellowish white (2); yellow (3); brown (4); light green (5); medium green (6); dark green (7); pink (8); dark pink red (9); red (10); purple (11); violet (12); black (13) and to add (+) with explanation
new (after Char. 24)	to read “Root: color”, to add (+) and provide illustration and to have the states: white (1); yellowish white (2); yellow (3); brown (4); light green (5); medium green (6); dark green (7); pink (8); dark pink red (9); red (10); purple (11); violet (12); black (13) and to add (+) and provide illustration
Char. 25	to be deleted
Char. 26	to read “<u>Only N-type varieties:</u> Radish: red colored pattern of skin”, to provide suitable example varieties and to add photographs from Japan in Ad. 26
Char. 27	to read “<u>Only varieties with Radish: Number of colors of skin: two</u>: Radish: extent of white color from root-end”, to add (*) (grouping characteristic) and example varieties to be checked
Char. 28	to be deleted
Char. 29	to be deleted
Char. 30	state 5 to read “very strong”
Char. 31	to add (+) with explanation that the main color is the color with the largest surface area
Char. 32	to have the states: early S-type (1); medium S-type (2); late S-type (3); very early N-type (4); early N-type (5); medium N-type (6); late N-type (7); very late N-type (8) and example varieties to be provided
Char. 33	to have 1-9 scale and to delete note (b)
8	to rearrange to include the following subsections: *8.1 Grouping within* Raphanus sativus *L.* *8.2 Explanation covering several characteristics* *8.3 Explanation for individual characteristics*
8.1	to read: <u>N-type varieties</u> > 60 days (to be checked and example variety to be added) <u>S-type varieties</u> < 35 days (example variety to be provided)
Ad. 19	- to reverse order of position of broadest part (towards base from left to towards apex on right) - illustration for state “obovate” to be replaced
Ad. 23	to add illustrations of various radishes with more than one color
Ad. 27	to explain that the extent is to be observed relative to the size of the radish
Ad. 32	to read “The time of maturity is when 80 % of the expected root diameter has been reached”

TQ Header	to delete paragraph referring to hybrids
TQ 1	to delete “Daikon radish”
TQ 4.1	to add new section to indicate type of variety: inbred line / hybrid / open-pollinated / other (see Test Guidelines for Maize)
TQ 4.2.1	to delete the 4.2.1 header row
TQ 5	to add the following characteristics: Time of harvest maturity < 35 days [ ] 35 – 60 days [ ] > 60 days [ ] Number of days to harvest maturity …… (please complete)
TQ 7.3	to request information on seasonal type

Shiitake

73. The subgroup discussed document TG/SHIITK(proj.2), presented by Mr. Hideki Maeda (Japan), and agreed the following:

Cover page	title box to read SHIITAKE UPOV Code: LENTI_EDO *Lentinula edodes* (Berk.) Pegler
	alternative botanical names to read “*Lentinula edodes* (Berk.) Pegler , *Lentinus edodes* (Berk.) Singer”
General	to replace “plants” with “fruit bodies” (e.g. Chapter 4.1.5)
2.3	to read “The minimum quantity of material, to be supplied by the applicant, should be: 2 liters of spawn or 3 slant tubes containing a pure culture, if accepted by the authority concerned.”
2.4, 2.5	existing text to be moved to Chapter 2.2 and to replace with Chapter 2.4 to read “The material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.”
3.1	to read “The minimum duration of tests should normally be two independent growing cycles. The growing cycle is considered to be from spawning until the end of the first flush.”
3.4.1	to read “Each test should be designed to result in a total of at least 50 fruit bodies, which should be divided between at least two replicates.”

4.1.4	to read “Unless otherwise indicated, all observations for the purposes of distinctness should be made on at least check fruit bodies or parts taken from each of check fruit bodies, disregarding any off-type fruit bodies.”
4.2.2	to read “For the assessment of uniformity, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 50 fruit bodies, 2 off-types are allowed.”
5.3	to consider whether “Cultivation type” meets the requirement for a characteristic, set out in the General Introduction, “Chapter 4.2 Selection of Characteristics” and, therefore whether it can be included in the Table of Characteristics and used as a grouping characteristic. Alternatively, to consider whether to follow the approach in Rose, where different types of varieties are grown in different trials (see TG/11/8).
6.5	to include explanation on (a) –(c) and on (+)
6.5 (B), (S)	to check whether it is necessary to indicate (B) or (S) to all example varieties or it is only necessary for example varieties provided for Chars. 35, 36 as they stand now
Char. 1	to read “Density of hyphae in culture” and to add (+) with explanation
Char. 3	to check whether a qualitative characteristic
Char. 4	- to explain how to determine the states of expression for Char. 4 from the information obtained from Chars. 5 to 9 - to amend to notes 1, 2, 3, 4, 5 - to review whether the states of expression would be more discriminative if changed to 20°C, 23°C, 25°C, 27°C, 30°C and whether to amend Chars. 5 to 9 accordingly
Chars. 5 to 9	additional example varieties to be provided (asterisked characteristics)
Char. 14	to be indicated as QN, to read “Cap: firmness” and to add (+) with explanation
Char. 15	to check whether a qualitative characteristic
Char. 16	to check whether a qualitative characteristic
new (after Char. 17)	to read “Cap: presence of gills”, with the states: absent (1); present (9)
Char. 18	to read “Gill: attachment to stipe”, with the states: separated from stipe (1) partly attached (2); fully attached (3)
Char. 21	to read “Cap: density of gills”
Char. 22	to delete (+)
Char. 23	to have the states of expression “thicker at lower part (1), cylindrical (2), thicker at upper part (3)” with the example varieties relocated and to be indicated as PQ
Char. 25	to read “Stipe: diameter”, with the states: narrow (3); medium (5); broad (7) and to add explanation to observe on the broadest part
Char. 26	to be indicated as QL
Char. 27	to check whether to read “Stipe: presence of scales”
Char. 28	to check whether to read “Stipe: color of scales”
Char. 29	to read “Stipe: firmness” and to be indicated as QN
Char. 30	to use meaningful states e.g. stipe much longer than cap diameter (1) … stipe much shorter than cap diameter (9) (or much longer than wide (1) … as long as wide (5); much wider than long (9))
Char. 31	to read “Fruit body: ratio of diameter of cap / diameter of stipe” and to use meaningful states (see Char. 30)
Char. 32	to be indicated as MG

Char. 33	to read “Fruit body: ratio dry weight / fresh weight” and to use meaningful states (see document TWV/44/22, paragraphs 3 & 4) e.g. very much lighter … slightly lighter, or to consider revising characteristic to % dry weight. To be indicated as MG.
Char. 34	further explanation to be provided and to check whether a qualitative characteristic
Char. 35	to check whether to read “Fruit body: period from inoculation to appearance of primordium”
Char. 36	to check whether to read “Fruit body: period from appearance of primordium to harvest”
8.1 (c)	the reference to the additional information in the square brackets to be replaced by “Fruit body 80% open / gills visible”
Ad. 2	illustration to be provided in profile view
Ad. 10, 11, 13, 14, 15, 16, 18, 19, 20, 21, 23, 24, 25 and 27	- to become note in Chapter 8.1 “Explanations covering several characteristics” - to indicate that the point at which to start to measure the thickness of cap is the start of the gills
Ad. 16	to explain which part of the cap to observe
Ad. 34	to explain the terms “short term” and “long term”
Ad. 35, 36	to explain that the time of harvest is when the fruit body has 80% open / gills visible
TQ 4.2.1	to be deleted

Spinach (Partial revision)

74. The TWV discussed document TWV/44/27, presented by Mrs. Marian van Leeuwen (Netherlands).

75. The TWV agreed to the proposed revisions to characteristic 17 in the Test Guidelines for Spinach (document TG/55/7), as set out in document TWV/44/27

Tomato (Revision)

76. The subgroup discussed documents TG/44/11(proj.3), presented by Mr. Sergio Semon (European Union), and agreed the following:

Cover page	botanical name, alternative names and UPOV code to be amended in accordance with document TWV/44/4
1.	botanical name to be amended in accordance with document TWV/44/4
2.3 (a)	to read “seed propagated varieties: 10g or 2,500 seeds”
2.3 (b)	to read “vegetatively propagated varieties: 25 plants plus the number required for disease resistance tests”
3.4.3	to remove the quotation mark at the end of the sentence
4.1.4	to read “Unless otherwise indicated, all observations for the purpose of

	distinctness should be made on 10 plants or parts taken from each of 10 plants, disregarding any off-type plants."
Table of Chars.	to check alphabetic order of example varieties
Char. 1	to read "Seed-propagated varieties only: Seedling: anthocyanin coloration of hypocotyls"
Char. 5	to delete explanation in brackets
Char. 7	to delete explanation in brackets
Char. 8	to be indicated as VG/MS
Char. 9	to be indicated as VG/MS
Char. 10	to replace "division" with "type"
Char. 11	to delete explanation in brackets
Char. 13	to delete explanation in brackets and to add (+) with explanation
Char. 14	to delete explanation in brackets and add to Ad. 14
Char. 15	to delete explanation in brackets and add to Ad. 15
Char. 16	to be indicated as VG/MS and to delete explanation in brackets
Char. 17	to delete (+)
new (after 17)	to read "Flower: pubescence of style", with the states: absent (example variety "Campbell 1327") (1); present (example variety "Saint Pierre") (9), to be indicated as QL, VG and to add (+) with explanation that "Some hairy varieties can present only rare and small hairs at the base of the style."
Char. 19	to delete explanation in brackets
Char. 21	state 1 to read "very small" with example variety "Daniela"
Char. 22	to add "Daniela" as example variety for state 3
Char. 25	to delete (+)
Char. 26	to have the states: very compressed (1); moderately compressed (3); medium (5); moderately elongated (7); very elongated (9)
Char. 27	to have the states: flattened (1); oblate (2); circular (3); oblong (4); cylindric (5); elliptic (6); cordate (7); ovate (8); obovate (9); pyriform (10); obcordate (11)
Char. 29	to delete state 9
Char. 31	to add example variety "Rozova Magia" for state 9
Char. 33	to correct the spelling of the example variety "Montfavet H 63.5" for state 5
Char. 35	state 2 to read "two and three"; state 3 to read "three and four"
Char. 37	to be deleted
Char. 38	to be deleted
Char. 40	to have the states: weak (Josefina) (1); medium (Roncardo) (2); strong (Mecano) (3)
Char. 44	to be indicated as MS
Char. 45	to delete note (c) and to provide example varieties in Char. 45 that have different states than for Char. 44
Char. 48	to read "Resistance to Verticillium sp. (Va and Vd)"
Char. 49.1	to be indicated as VG
Char. 51.1	to be indicated as VG
8.1 (a)	to replace "leaves" by "leaf"
8.1 (b)	to read: "Observations should be made on the fruit before maturity (see Ad. 45)."

8.1 (c)	to read: "Observations should be made on fruits at maturity (see Ad. 45) from the second or higher truss, avoiding first and last mature fruit on the truss." and to check whether to add a note concerning varieties with RIN gene (see Ad. 36)
Ad. 2	to abbreviate and to clarify the criteria for the states of expression and to delete "and uniform"
Ad. 4	to check whether to delete
Ad. 6	to provide clearer guidance
Ad. 7	to provide a picture for state 1
Ad. 17	to be deleted
Ad. 18	to delete the first paragraph of the explanation as this is the same as the second paragraph
Ad. 25	to be deleted
Ad. 28	to delete text of explanation
Ad. 29	to delete photographs
Ad. 30	to delete illustrations
Ad. 31	to delete illustrations
Ad. 34	to delete illustrations
Ad. 39	to read "The color of flesh should be observed at maturity (see Ad. 45)."
Ad. 41	to read "The color of the epidermis should be observed after the epidermis has been peeled off the fruit."
Ad. 47 etc.	to present standard varieties in lower case letter
Ad. 47	to have states susceptible / moderately resistant / highly resistant
Ad. 48 – 65	to clarify the symptoms with states and, for example, "calibration with results on R and S controls" where the symptoms do not correspond to those stated for the states of expression
Ad. 48	to elaborate "PDA or S of Messiaen media"
Ad. 49.1, 49.2, 49.3	beneath the table Controls for Fol:1 resistance test, a hyphen to be inserted to "Fol:0"
Ad. 50	in the heading the code to be corrected to "Forl"
Ad. 52.1-52.3	the heading to read: "Resistance to Tomato Mosaic Tobamovirus…"
Ad. 59	heading to read: "Resistance to Tomato Spotted Wilt Tospovirus …"
Ad. 65	to be corrected to "Ad. 62" and to read: "Patents pending on part of the method: WO2006/085749 and WO2008/150158 and equivalents. Use solely for DUS purposes and for the development of variety descriptions by UPOV and authorities of UPOV members, courtesy of De Ruiter Seeds R&D B.V./Monsanto Invest N.V.."
TQ 1	botanical name to be amended in accordance with document TWV/44/4
TQ 4	to add new section to indicate type of variety: inbred line / hybrid / open-pollinated / other (see Test Guidelines for Maize)
TQ 5.6	to add the grid from Ad. 27
TQ 7 f)	(char.54) instead of (char.58)
TQ 7 m)	to read: "*Oidium neolycopersicum* (On) (ex *Oidium lycopersicum* (Ol))
TQ 7.3.2 (ii)	to add "Other"

77. The TWV agreed to propose the adoption of the Test Guidelines for Tomato on the basis of document TG/44/11(proj.3), as amended above, subject to an item being included on its forty-fifth session for a possible partial revision in order to consider:

(a) further discrimination within varieties with red colored fruits (see document TG/44/11(proj.3), Chars. 36 and 37;
(b) revised format for disease resistance characteristics; and
(c) gene-specific marker method for examination of resistance to Tomato Spotted Wilt topovirus (TSWV) - Race 0.

Watermelon (Revision)

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

3.4.1	to read “Each test should be designed to result in a total of at least 20 plants, which should be divided between at least two replicates.”
3.4.3	to delete “special” from last sentence
4.1.4	to read “Unless otherwise indicated, all observations for the purposes of distinctness should be made on 10 plants or parts taken from each of 10 plants, disregarding any off-type plants.”
4.2.3	to read “For the assessment of uniformity of hybrids and inbred lines, a population standard of 2% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 20 plants, 2 off-types are allowed.”
Table of Chars.	to correct presentation of example variety “SP 4”
Char. 1	to be indicated as VG, to add state 4 “tetraploid” and to add (+) with explanation
Char. 2	to be placed after Char. 3, to be indicated as QN and to delete example variety “Topgun” (state 1)
Char. 4	to add example variety “SP 4” for state 7 and to have notes 1, 3, 5
Char. 6	to be deleted
Char. 7	to be deleted
Char. 8	to be deleted
Char. 9	to have notes 1, 3, 5 and to add (+) with explanation
Char. 10	to be indicated as MS/VG, to read “Leaf blade: ratio length/width”, to add (+) with explanation and to have the states: slightly elongated (1); moderately elongated (3); strongly elongated (5)
Char. 11	to have the states: yellowish green (1); light green (2); medium green (3); dark green (4); light greyish green (5); medium greyish green (6); dark grayish green (7) and example varieties to be provided
Char. 12	to be deleted
Char. 13	to be deleted
Char. 14	to be deleted
Char. 15	to be deleted
Char. 16	state 1 to read “absent or very weak”, to add (*) and example varieties to be reviewed

Char. 17	to replace note (a) with (b), to read “Leaf blade: blistering”, to have notes 1, 2, 3 and example varieties to be reviewed	
Char. 18	to delete (*) and to add (+) and provide photographs from Japan	
Char. 19	to be deleted	
Char. 20	to be deleted	
Char. 21	to read “Ovary: density of pubescence”, with the states: sparse (1); medium (2); dense (3) and example varieties to be provided	
Char. 22	to be indicated as MS/MG, to add (+) with explanation and to have only example varieties “Monaco” for state 1 and “Precious Petite, Mini” for state 2	
Char. 23	to be indicated as QN, to have the states: circular (1); broad elliptic (2); medium elliptic (3); narrow elliptic (4) and to add example variety “Camilla” and delete “Sugar Baby” for state 1 and add example variety “Allsweet” for state 4	
Char. 25	to read “<u>Only varieties with Fruit: ground color of skin: green:</u> Fruit: intensity of ground color of skin” and to have example varieties “Blanca de Benocaz, Napsugar” for state 1, “Sugar Baby, Panni” for state 8 and “Augusta, Rocio, Tabor 5” for state 9	
Char. 26	to replace note (b) with (c)	
Char. 28	(*) to be deleted	
Char. 31	to be deleted	
Char. 32	to have the states absent or very weak (Sugar Baby) (1); weak (Rapid, Kanro, Augusta) (3); medium (Asahi, Bego, Miyako) (5); strong (Marsowszky, Napsugár, Panni) (7)	
Chars. 33 to 39	new proposal(s) for describing color and color pattern/distribution to be developed and circulated to interested experts with photographs of varieties to be described. The following characteristics were discussed:	
	Fruit: veining	absent or very weak (1); moderate (3); very strong (5), with the explanation that intensity of veining is determined by the pattern density of the over color
	Fruit: conspicuousness of stripes	absent or weak (1); medium (2); strong (3)
	Fruit: margin of stripes	sharp (1); moderate (2); diffuse (3)
	Fruit: width of stripes	very narrow (1); moderate (5); very broad (9)
	Fruit: intensity of green color of stripes	very light (1); moderate (3); very dark (5) same scale as ground color
	Fruit: patternation of stripe	none (1); netted (2); netted and marbled (3); marbled (4)
Chars. 40 to 56	not discussed	
Ad. 5	photographs to be provided by Japan	
Ad. 16	to review photographs to correspond to new state 1 “absent or very weak”	

Ad. 26	to explain that the size of insertion is absolute and not relative to fruit size
Ad. 28	to provide illustrations from Japan

Review of grouping characteristics in the Test Guidelines for Pea

79. The TWV considered documents TWV/44/33 and TWV/44/33 Add., introduced by Mr. François Boulineau (France).

80. The TWV agreed that it would be useful to seek responses to the questionnaire from a wider number of UPOV members and agreed that the questionnaire should be re-issued to the TWV with copies of documents TWV/44/33 and TWV/44/33 Add. in order to indicate the usefulness of contributing information. It also agreed that it should be clarified in the questionnaire that there would be anonymity for the contributing UPOV members. In addition, the TWV agreed that Mr. Boulineau should make a further study on characteristic 15 "Stem: number of nodes up to and including first fertile node" with particular regard to the calibration of scales between the contributors to the questionnaire.

81. In response to the observation of Mr. Boulineau that the results of the questionnaire indicated substantial potential benefits in developing a database containing pea variety descriptions from members of the Union, at least for grouping characteristics as first step, the TWV agreed that Mr. Boulineau should make a presentation on his concept at the forty-fifth session of the TWV. The TWV agreed that Mr. Boulineau should organize an exchange of a common set of variety descriptions for grouping characteristics, and possibly a ring test, to examine if grouping characteristics were sufficiently reliable for such an approach. It noted that it would be important to involve the TWA experts in that work.

Information and databases

(a) UPOV information databases

82. The TWV noted the information provided in document TWV/44/5 and agreed to check the new UPOV codes added to the GENIE database and UPOV code amendments, as set out in Annex II to document TWV/44/5, and to send any comments on the additions and amendments to the Office by November 1, 2010.`

83. The TWV received a report on the discussions of the Test Guidelines for Shiitake and agreed that the principal botanical name for Shiitake should be indicated in the GENIE database as "*Lentinula edodes (*Berk.) Pegler", with the UPOV code being amended to "LENTI_EDO"

(b) Variety description databases

84. The TWV noted the information provided in document TWV/44/6.

(c) Exchangeable software

85. The TWV noted the information provided in document TWV/44/7. The TWV also heard that the TWC, at its twenty-eighth session, held in Angers, France, from June 29 to July 2, 2010, had noted the benefits that could be achieved from harmonization in the checking of variety denominations and agreed that the CPVO Centralised Database of Variety Denominations and the CPVO algorithm for variety denomination checking should be proposed for inclusion in document UPOV/INF/Software. It also heard that, at the TWC, CPVO had offered its assistance to any UPOV member wishing to benefit from the experiences of CPVO in developing their electronic office management systems and had suggested that consideration might be given to how that offer might be reflected in document UPOV/INF/Software, or elsewhere.

(d) Electronic application systems

86. The TWV recalled that it had considered the inclusion of standard references for the Technical Questionnaire, as set out in document TWV/44/8, 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 TWV agreed that it would be of great interest to receive a presentation on the CPVO system at the forty-fifth session of the TWV. The expert from the European Union agreed to make such a presentation. The expert from Germany reported that an electronic system had been developed and successfully introduced in Germany and indicated that she would be glad to arrange a demonstration of that system at the TWV.

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

87. The TWV considered document TWV/44/9 and agreed that Cauliflower should be added as a vegetable example for the questionnaire "Population standards used for assessing uniformity by off-types on the basis of more than one sample", with the necessary information to be provided by experts from France.

DUS examination of seed-propagated varieties of Papaya

88. The TWV considered document TWV/44/25.

89. The TWV noted that the situation in Carrot was not quite the same as that with Papaya, because the characteristic "Plants: proportion of male sterile plants" was examined in a special test and all other characteristics were examined on all plants of the variety. However, it agreed that the situation for Asparagus and Spinach was similar to that for Papaya. In that regard, it noted that all the plants of those varieties were observed and a description was made to cover all plants. The TWV agreed that the approach proposed for Papaya by the Leading Expert, as set out in document TWV/44/25, paragraph 11, might be interesting for crops such as Asparagus and Spinach. The TWV noted that a similar situation existed in varieties of *Matthiola incana*, where there were single- and double-flowered plants within a variety.

90. An expert from ISF requested clarification on what was protected if only certain plants of a variety were described and wondered whether the female plants in such a seed-propagated Papaya variety could be vegetatively propagated and protected as a new variety. In that regard, it was noted that such a vegetatively propagated variety could probably be considered as a new variety (e.g. on the basis of a characteristic for the proportion of male plants, female plants and hermaphrodite plants in the variety), irrespective of whether all the plants in the seed-propagated variety were described, or only the hermaphrodite plants. The TWV also noted that the vegetative characteristics could be recorded on all plants and it was only the inflorescence and fruit characteristics were proposed to be observed only on hermaphrodite plants.

Experiences with new types and species (oral reports)

91. The expert from the European Union reported that the CPVO received applications for around 100 “new” species each year and had developed a procedure for arranging the examination of varieties for such new types and species. In cases where one of its examination offices did not have the necessary experience, or where suitable growing conditions could not be provided, CPVO sought to establish a bilateral agreement with another UPOV member, e.g. Avocado (Mexico) and Pineapple (South Africa).

92. The TWV agreed to invite the United Kingdom to make a report to the TWV, at its forty-fifth session, on its experience with establishing a DUS examination for vegetatively propagated varieties of Watercress.

Proposal for Partial Revisions/Corrections of Test Guidelines

93. No proposals were made for partial revisions/corrections of test guidelines.

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

94. The TWV considered document TWC/44/28 and agreed with the proposal concerning characteristic 9 in that document.

Variety Denominations

95. The TWV noted the developments reported in document TWV/44/4.

96. With regard to the request of the Technical Committee for the TWV to consider the alternatives for an amendment to document UPOV/INF/12/2 Annex I, Part I “Classes within a genus”, Class 4, the TWV agreed to the following structure:

Alternative 1

	Botanical names	Current UPOV codes
Class 4.1	*Solanum tuberosum* L.	SOLAN_TUB
Class 4.2	Tomato & Tomato rootstocks	~~SOLAN_LYC _LYC etc.~~
	-*Solanum lycopersicum* ~~var. *lycopersicum and*~~ (*Lycopersicon esculentum Mill.*)	LYCOP_ESC
	-*Solanum cheesmaniae* (L. Ridley) Fosberg (*Lycopersicon cheesmaniae* L. Riley)	none
	-*Solanum chmielewskii* (C.M. Rick et al.) D.M. Spooner et al. (*Lycopersicon chmielewskii* C. M. Rick et al.)	none
	-*Solanum chilense* (Dunal) Reiche (*Lycopersicon chilense* Dunal)	none
	-*Solanum galapanense* S.C. Darwin & Peralta (*Lycopersicon cheesmaniae* f. *minor* (Hook. f.) C. H. Müll.)	none
	(*Lycopersicon cheesmaniae* var. *minor* (Hook. f.) D. M. Porter)	none
	-*Solanum habrochaites* S. Knapp & D.M. Spooner (*Lycopersicon agrimoniifolium* Dunal) (*Lycopersicon hirsutum* Dunal) (*Lycopersicon hirsutum* f. *glabratum* C. H. Müll.)	LYCOP_HIR
	-*Solanum peruvianum* L. (*Lycopersicon dentatum* Dunal)	none
	(*Lycopersicon peruvianum* (L.) Mill.	none
	-*Solanum pimpinellifolium* L. (*Lycopersicon pimpinellifolium* (L.) Mill.)	none
	(*Lycopersicon racemigerum* Lange)	none
	-*Solanum pennellii* Correll (*Lycopersicon pennellii* (Correll) D'Arcy)	none
	and hybrids between those species	
Class 4.3	*Solanum melongena* L.	SOLAN_MEL
Class 4.4	*Solanum* other than classes 4.1, 4.2 and 4.3	other than classes 4.1, 4.2 and 4.3

97. The TWV noted that it might be necessary to revise Class 4 over time if additional species of *Solanum* started to be used as Tomato rootstocks on a regular basis.

Recommendations on draft Test Guidelines

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

98. The TWV agreed that the following draft Test Guidelines should be sent to the TC for adoption at its forty-seventh session, to be held in Geneva in April 2011, on the basis of the following documents and the comments in this report:

Garden Sorrel (Dock) (*Rumex* L.)	TG/RUMEX(proj.5)
Globe Artichoke (*Cynara scolymus* L.) (Revision: including Cardoon)	TG/184/4(proj.2)
Lettuce (Partial revision)	TWV/44/24
Spinach (Partial revision)	TWV/44/27
Tomato (revision) (document TG/44/11(proj.3))	TG/44/11(proj.3)

99. The TWV agreed that the Test Guidelines for French Bean (Partial revision) should be sent to the TC for adoption in 2012, on the basis of document TWV/44/30, subject to agreement by the TWA.

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

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

Cassava
Coriander (*Coriandrum sativum* L.)
Echinacea
Lycopersicon (excluding *Lycopersicon esculentum* Mill.)
Pea (Partial revision: grouping characteristics)
Pleurotus
Raphanus sativus L. (Revision)
Rosemary
Shiitake (*Lentinula edodes*)
Watermelon (revision)

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

Date and Place of the Next Session

102. At the invitation of the United States of America, the TWV agreed to hold its forty-fifth session in California, United States of America from July 25 to 29, 2011, with the Preparatory Workshop on the Sunday, July 24, 2011.

Chairperson

103. The TWV agreed to propose to the TC that it recommend to the Council to elect Mr. François Boulineau (France) as the next chairperson of the TWV.

Future program

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

1. Opening of the session
2. Adoption of the agenda
3. Short reports on developments in plant variety protection
   (a) Reports from members and observers (oral reports by the participants)
   (b) Reports on developments within UPOV (oral report by the Office of the Union)
4. Molecular Techniques
   (a) Reports on developments within UPOV
   (b) Reports on work by members and observers
5. TGP documents
6. Variety denominations
7. Information and databases
   (a) UPOV information databases (document to be prepared by the Office of the Union)
   (b) Variety description databases (document to be prepared by the Office of the Union)
   (c) Exchangeable software (document to be prepared by the Office of the Union)
   (d) Electronic application systems (document to be prepared by the Office of the Union)
8. Uniformity assessment
   (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. Experiences with new types and species (oral reports invited)
10. Database for Pea variety descriptions (document to be prepared by France)
11. Disease resistance testing in Tomato (document to be prepared by the Netherlands)
12. Proposals for Partial Revisions / Corrections of Test Guidelines (if appropriate)

13. Matters to be resolved concerning Test Guidelines adopted by the Technical Committee (if appropriate)
14. Discussion on draft Test Guidelines (Subgroup)
15. Recommendations on draft Test Guidelines
16. Guidance for drafters of Test Guidelines
17. Date and place of the next session
18. Future program
19. Report on the session (if time permits)
20. Closing of the session

Technical Visit

105. On the afternoon of July 7, 2010, the TWV visited EAVTFISC Variety Testing Station at Samovodene, near Veliko Tarnovo.

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

[Annexes follow]

ANNEX I

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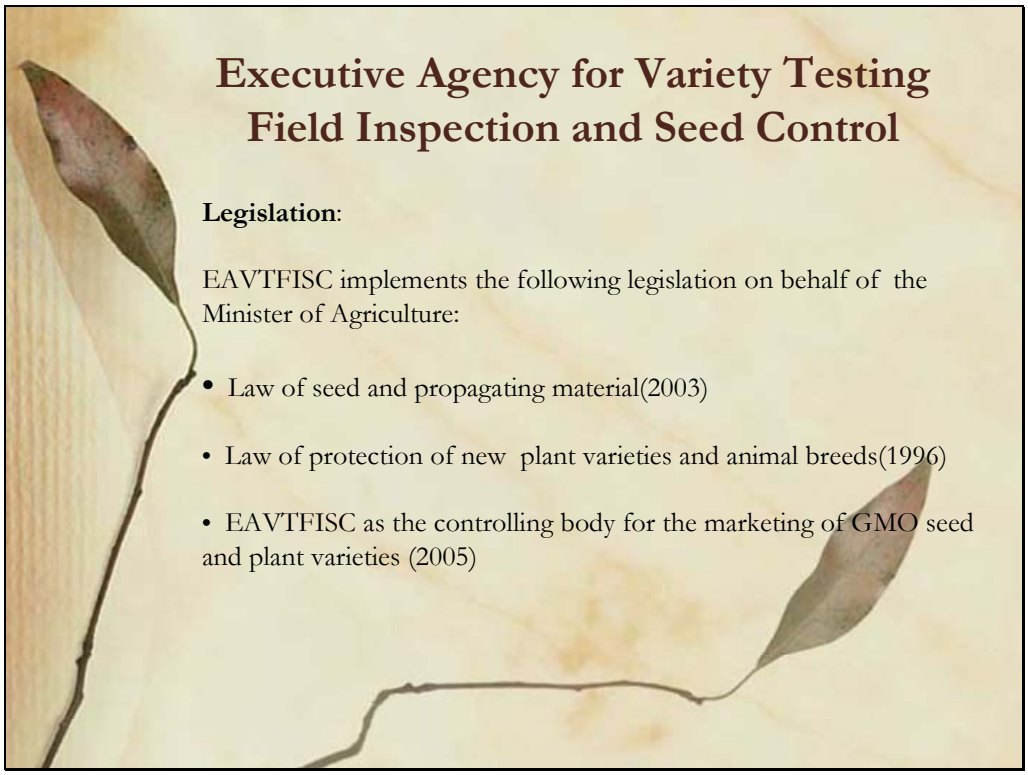
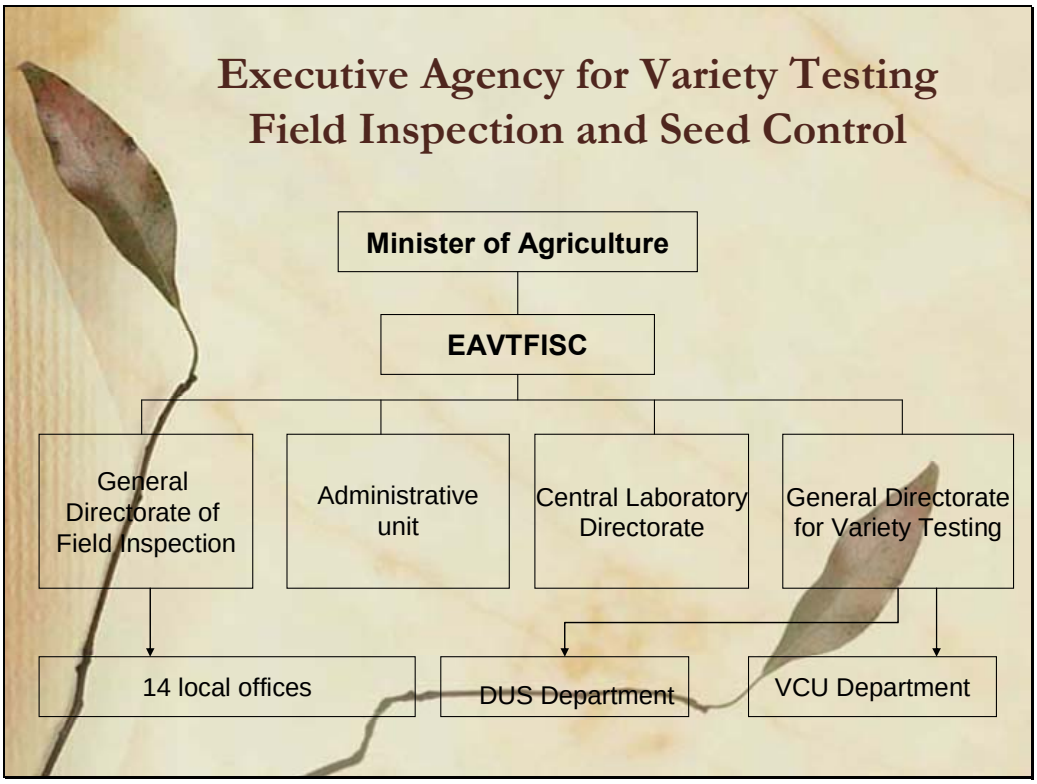
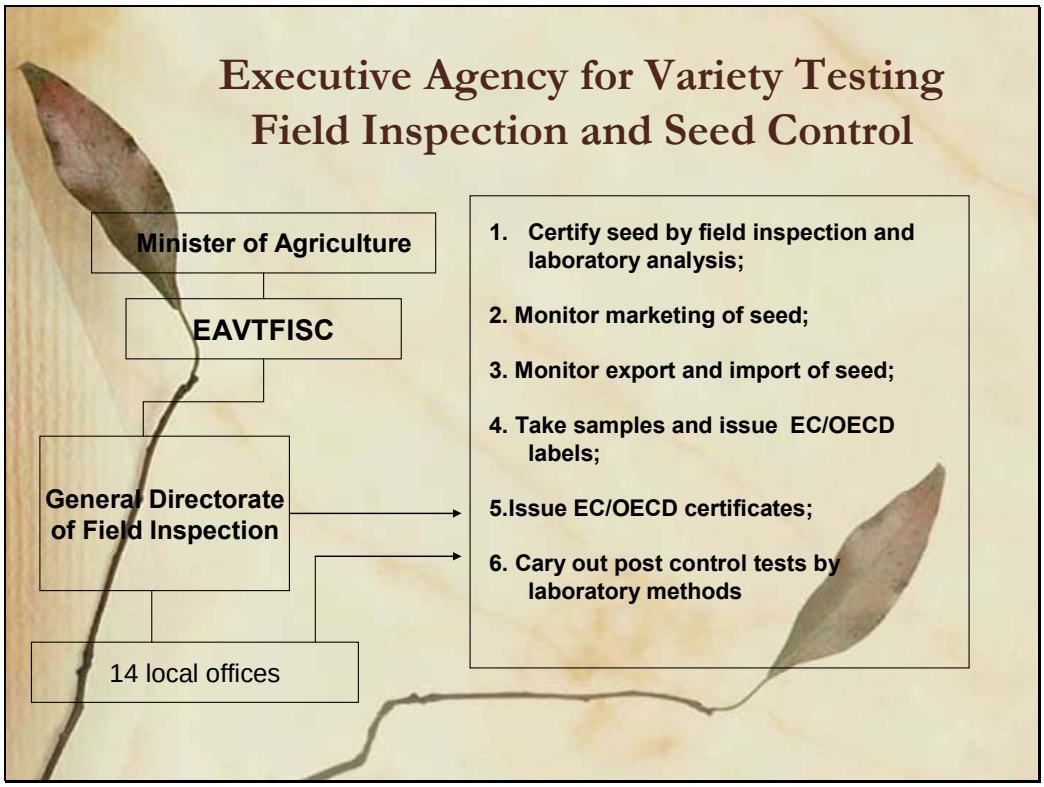
[Annex II follows]

ANNEX II

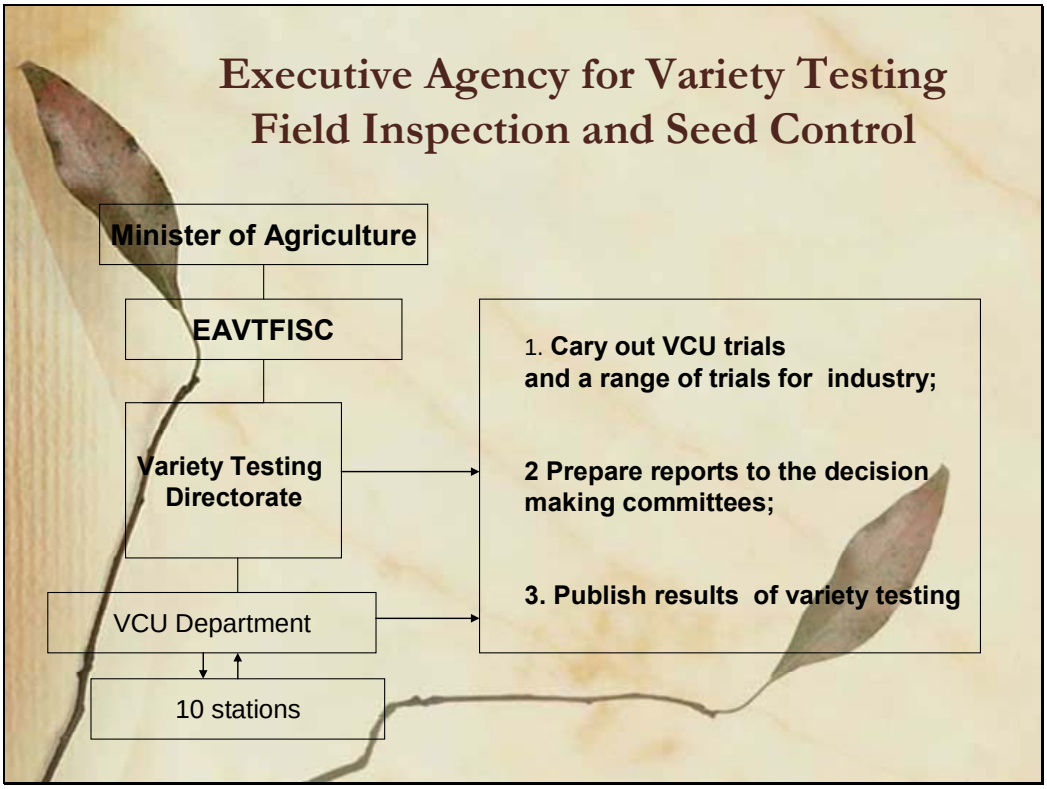

Executive Agency for Variety Testing
Field Inspection and Seed Control

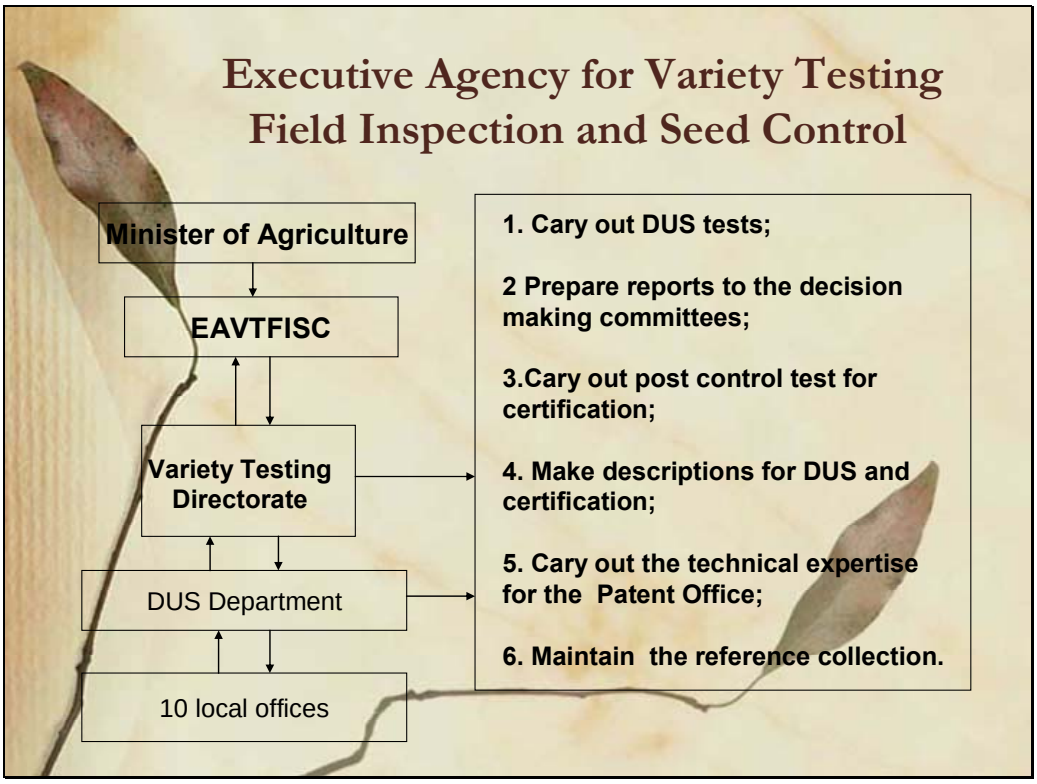

Executive Agency for Variety Testing
Field Inspection and Seed Control
Legislation:
EAVTFISC implements the following legislation on behalf of the Minister of Agriculture:
• Law of seed and propagating material(2003)
• Law of protection of new plant varieties and animal breeds(1996)
• EAVTFISC as the controlling body for the marketing of GMO seed and plant varieties (2005)

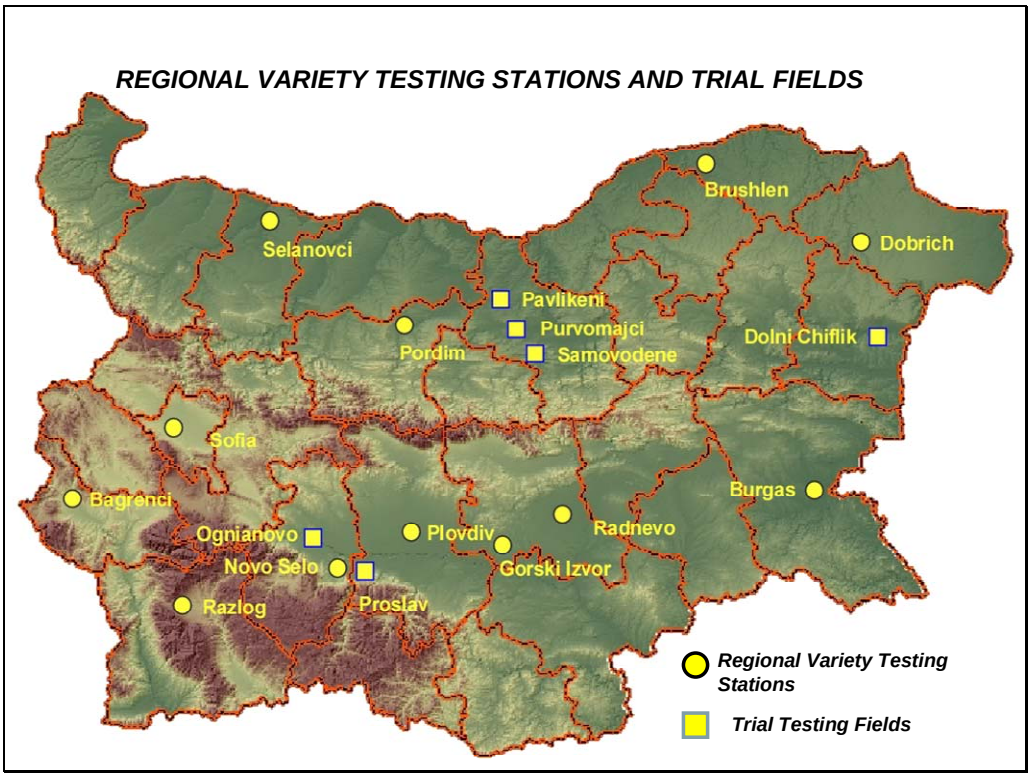

Executive Agency for Variety Testing
Field Inspection and Seed Control
Minister of Agriculture
EAVTFISC
General Directorate of Field Inspection
Administrative unit
Central Laboratory Directorate
General Directorate for Variety Testing
14 local offices
DUS Department
VCU Department

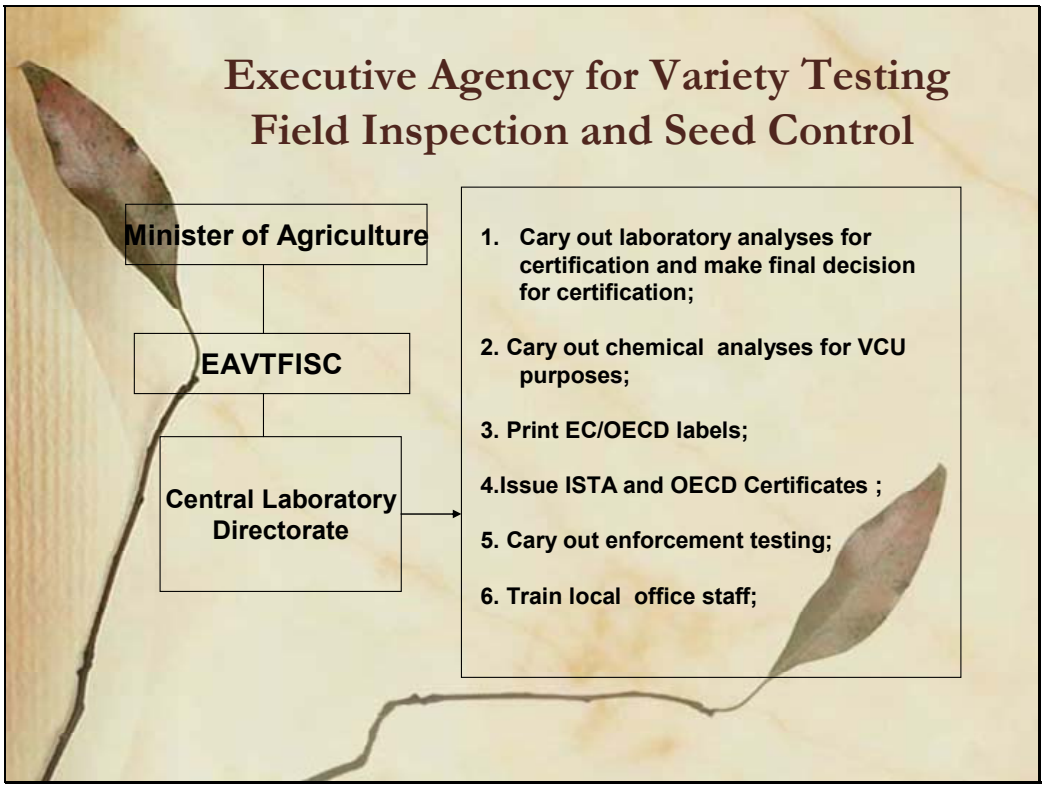

Executive Agency for Variety Testing
Field Inspection and Seed Control
Minister of Agriculture
EAVTFISC
General Directorate of Field Inspection
14 local offices
1. Certify seed by field inspection and laboratory analysis;
2. Monitor marketing of seed;
3. Monitor export and import of seed;
4. Take samples and issue EC/OECD labels;
5.Issue EC/OECD certificates;
6. Cary out post control tests by laboratory methods

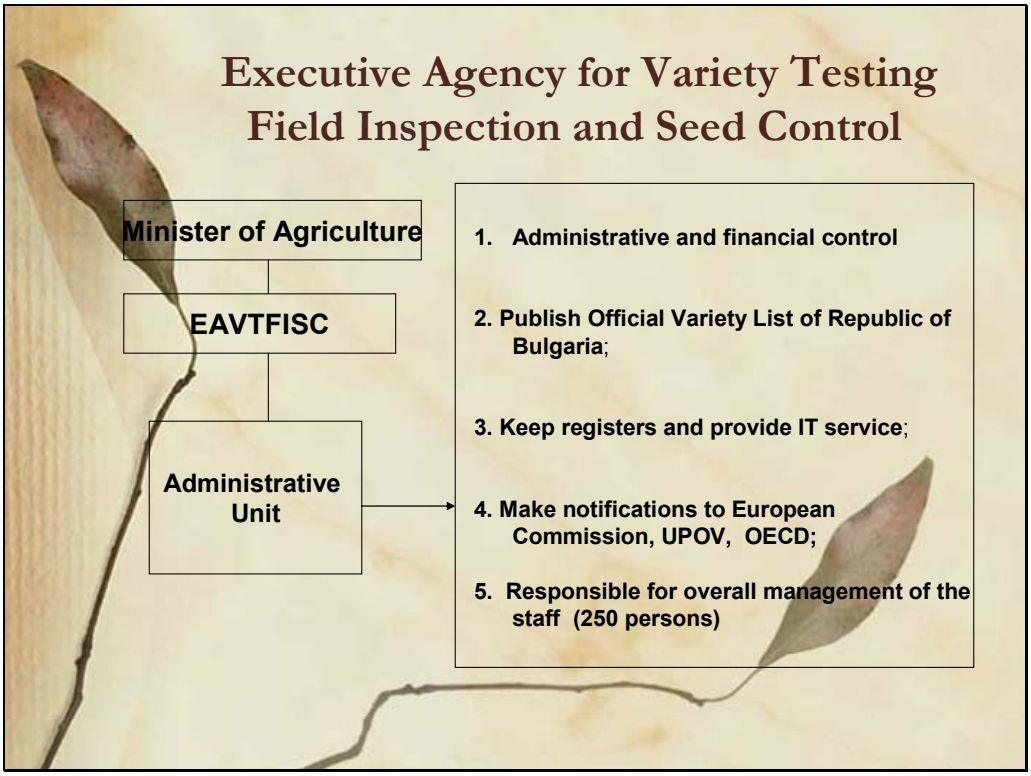

Vidin
Lom
Montana
Vraca
Pleven
Silistra
Ruse
Razgrad
Dobrich
Balchik
Shumen
Varna
Veliko Tarnovo
Sofia
Pernik
Karnobat
Jambol
Burgas
St. Zagora
Plovdiv
Haskovo
Blagoevgrad
Smolian

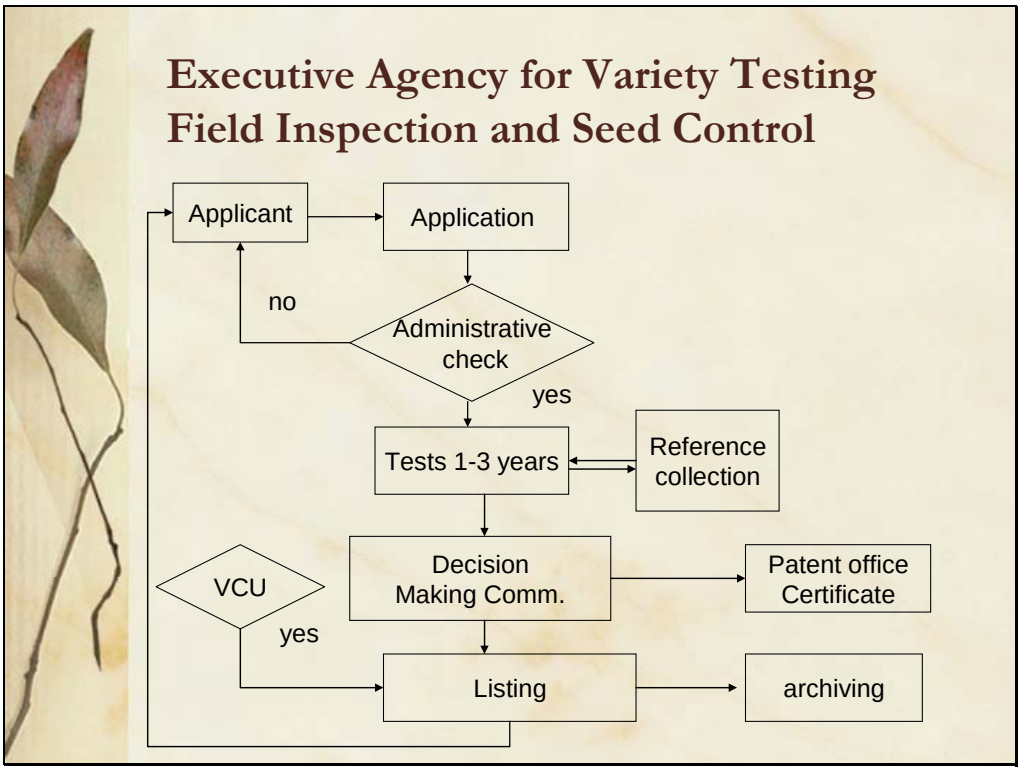

Executive Agency for Variety Testing
Field Inspection and Seed Control
Minister of Agriculture
EAVTFISC
Variety Testing Directorate
VCU Department
10 stations
1. Cary out VCU trials and a range of trials for industry;
2 Prepare reports to the decision making committees;
3. Publish results of variety testing


Executive Agency for Variety Testing
Field Inspection and Seed Control
Minister of Agriculture
EAVTFISC
Variety Testing Directorate
DUS Department
10 local offices
1. Cary out DUS tests;
2 Prepare reports to the decision making committees;
3.Cary out post control test for certification;
4. Make descriptions for DUS and certification;
5. Cary out the technical expertise for the Patent Office;
6. Maintain the reference collection.


REGIONAL VARIETY TESTING STATIONS AND TRIAL FIELDS
Brushlen
Selanovci
Dobrich
Pavlikeni
Purvomajci
Samovodene
Pordim
Dolni Chiflik
Sofia
Burgas
Bagrenci
Ognianovo
Plovdiv
Radnevo
Novo Selo
Gorski Izvor
Razlog
Proslav
Regional Variety Testing Stations
Trial Testing Fields

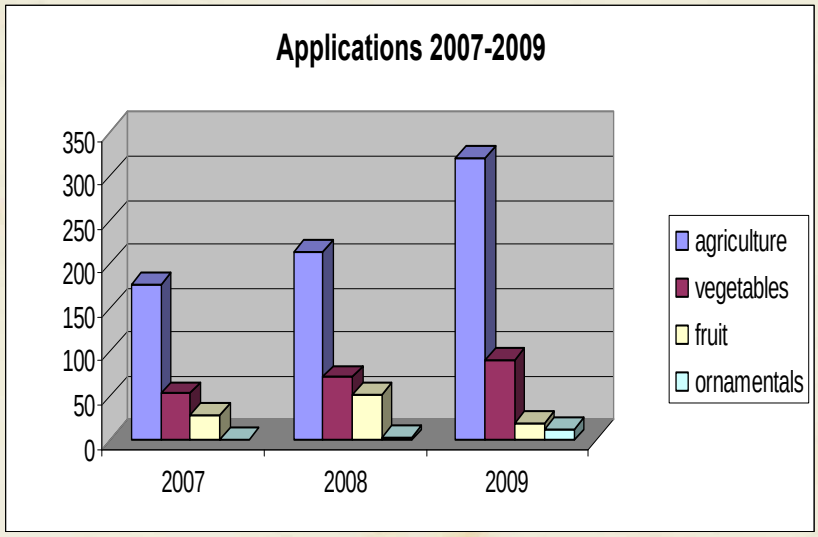

Executive Agency for Variety Testing
Field Inspection and Seed Control
Minister of Agriculture
EAVTFISC
Central Laboratory Directorate
1. Cary out laboratory analyses for certification and make final decision for certification;
2. Cary out chemical analyses for VCU purposes;
3. Print EC/OECD labels;
4.Issue ISTA and OECD Certificates ;
5. Cary out enforcement testing;
6. Train local office staff;


Executive Agency for Variety Testing
Field Inspection and Seed Control
Minister of Agriculture
EAVTFISC
Administrative Unit
1. Administrative and financial control
2. Publish Official Variety List of Republic of Bulgaria;
3. Keep registers and provide IT service;
4. Make notifications to European Commission, UPOV, OECD;
5. Responsible for overall management of the staff (250 persons)

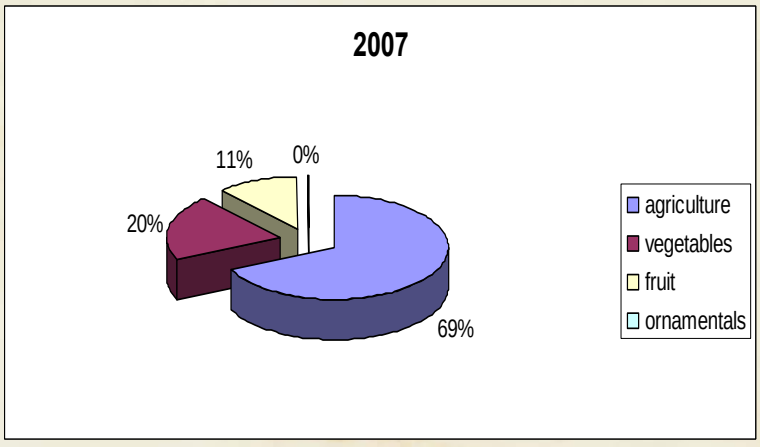

Executive Agency for Variety Testing
Field Inspection and Seed Control
Applicant
Application
no
Administrative check
yes
Tests 1-3 years
Reference collection
VCU
Decision Making Comm.
Patent office Certificate
yes
Listing
archiving


Executive Agency for Variety Testing
Field Inspection and Seed Control
Experience in DUS:
Agricultural crops:
wheat, maize, sunflower, barley, tobacco,
Vegetables:
tomato, pepper, cucumbers, melons, water melons, french beans
Fruit:
apple, wine, apricot, cherry
In Total : 33 species

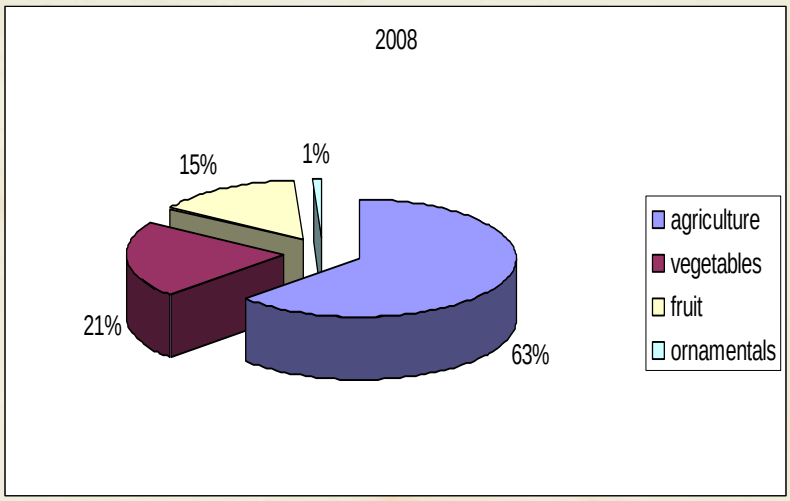
Executive Agency for Variety Testing
Field Inspection and Seed Control



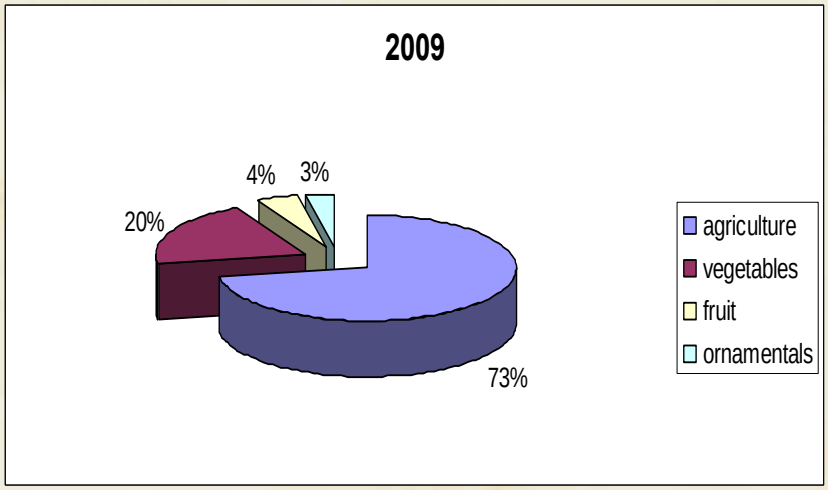
Executive Agency for Variety Testing
Field Inspection and Seed Control



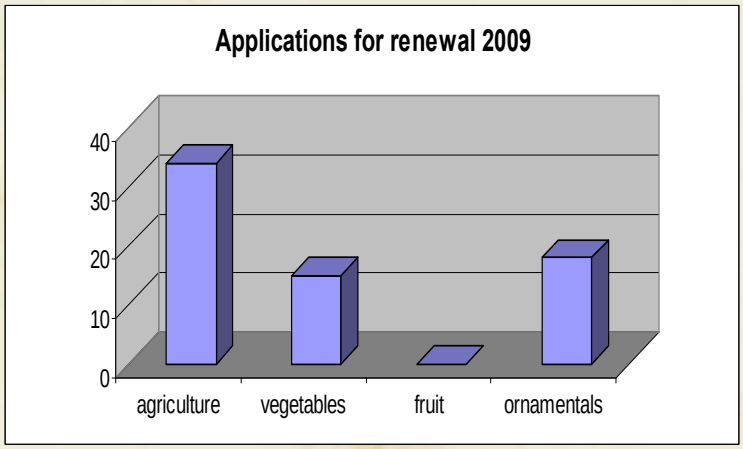
Executive Agency for Variety Testing
Field Inspection and Seed Control



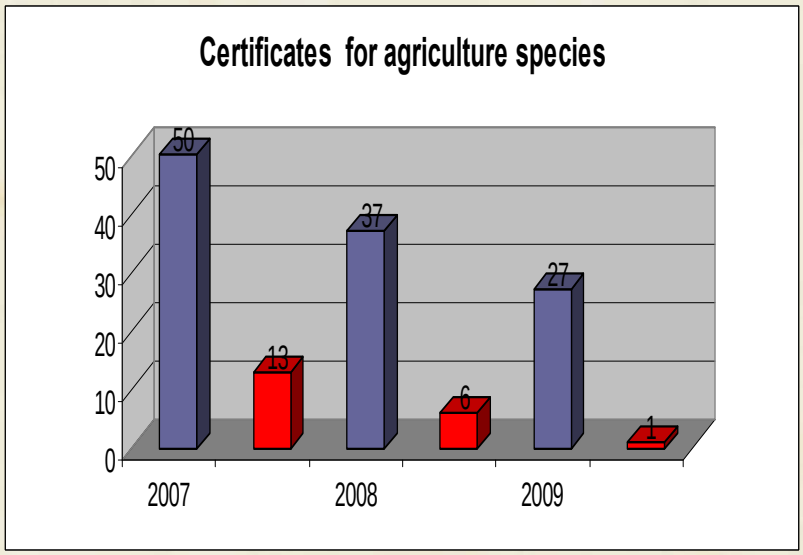
Executive Agency for Variety Testing
Field Inspection and Seed Control



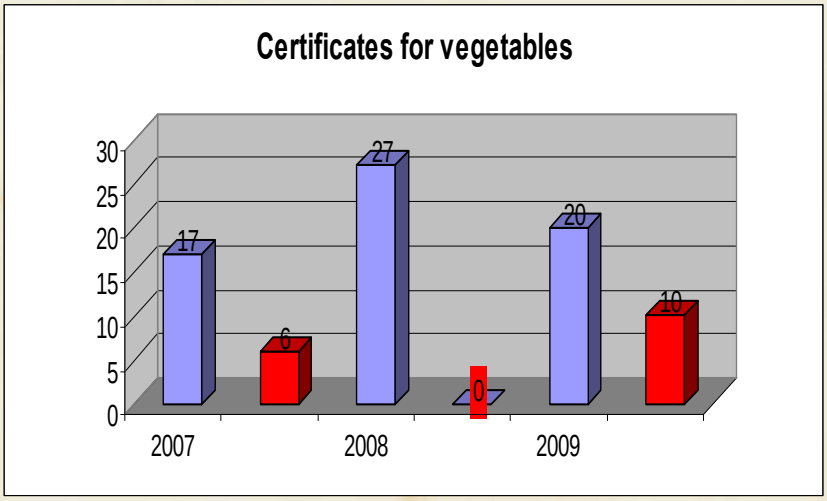
Executive Agency for Variety Testing
Field Inspection and Seed Control



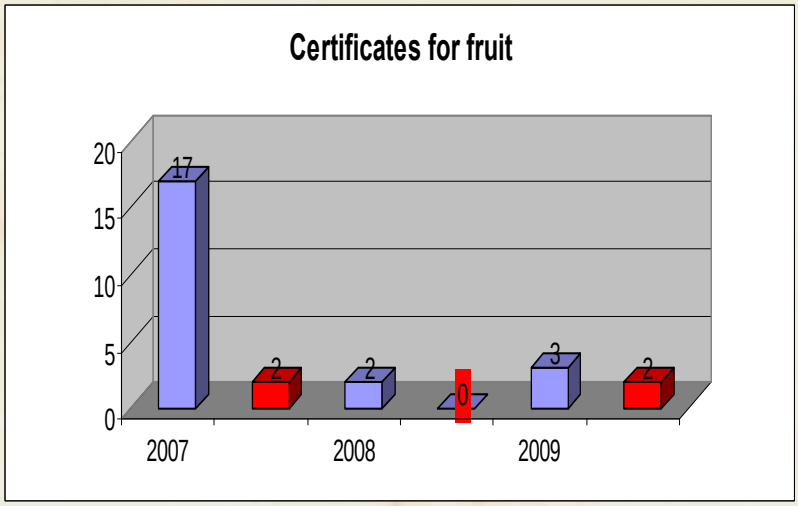
Executive Agency for Variety Testing
Field Inspection and Seed Control



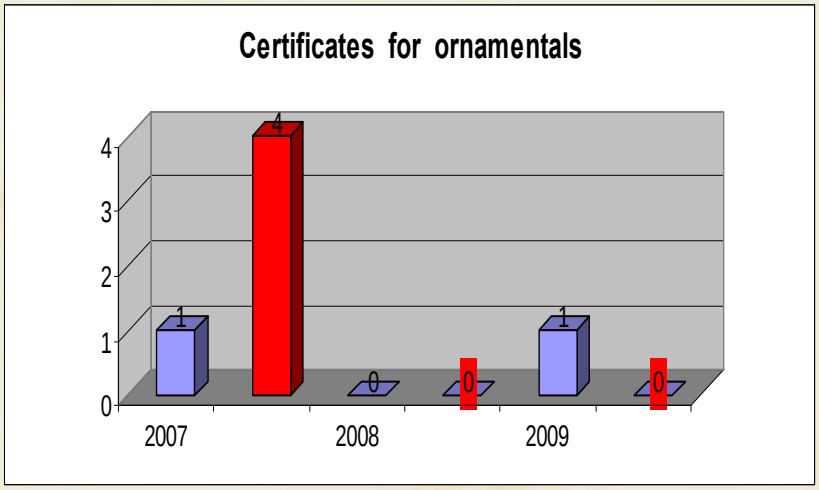
Executive Agency for Variety Testing
Field Inspection and Seed Control



Executive Agency for Variety Testing
Field Inspection and Seed Control



Executive Agency for Variety Testing Field Inspection and Seed Control



THANK YOU FOR YOUR ATTENTION

[Annex III follows]

RECENT DEVELOPMENTS IN UPOV

OVERVIEW

- UPOV Membership
- UPOV people
- Information materials
- Seminar on DUS testing
- Test Guidelines
- 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

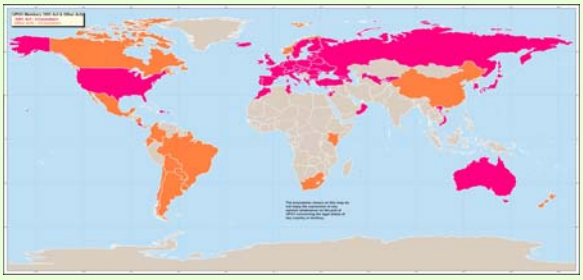
New Members

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

VACANCY

SENIOR TECHNICAL COUNSELLOR

(Grade P5)

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

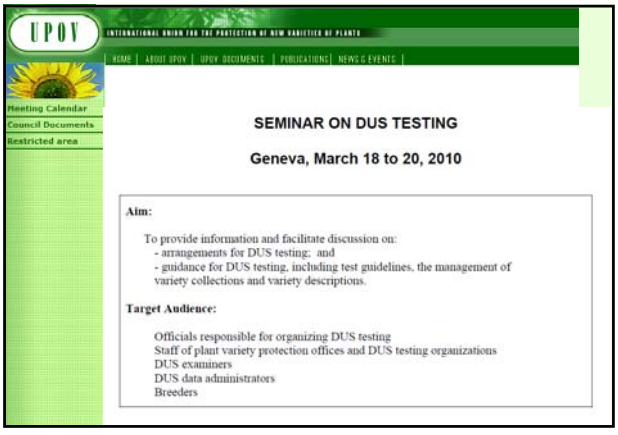
TGP/13/1: Guidance for New Types and Species

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

TG/1/3 General Introduction

"Associated" TGP Documents

Ref.	Title	
TG/00	List of TGP Documents and Latest Issue Dates	
TGP/1	General Introduction With Explanations	
TGP/2	List of Test Guidelines Adopted by UPOV	
TGP/3	Varieties of Common Knowledge	
TGP/4	Constitution and Maintenance of Variety Collections	
TGP/5	Experience and Cooperation in DUS testing	
TGP/6	Arrangements for DUS testing	
TGP/7	Development of Test Guidelines	for revision
TGP/8	Trial Design and Techniques Used in the Examination of DUS	for adoption
TGP/9	Examining Distinctness	
TGP/10	Examining Uniformity	
TGP/11	Examining Stability	
TGP/12	Special Characteristics	
TGP/13	Guidance for New Types and Species	Standard wording
TGP/14	Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents	for adoption
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 (DOV, GAIA etc.) to promote harmonization,
  - enhance efficiency of cooperation, through:
    - maintaining standard forms, agreed fee for DUS reports, etc.,
    - the use and further development of tools, such as the GENIE database,
    - increasing exchange of information between UPOV members on their newly acquired experience,
    - exchanging variety descriptions, and
    - coordinating resources offered by members of the Union (e.g. training, helpdesks, *ad hoc* expert advice)."
- "The Technical Committee and Technical Working Parties are an important means of training and exchanging information in an expert forum, and additional benefits can be achieved through preparatory workshops and associated training events."
- "It is important to continue to explore methods to address the management of variety collections, e.g. the potential role for molecular techniques."
- "The organization of such seminars, from time-to-time, provides a valuable means of sharing broad overviews and new developments and also of identifying areas for possible future guidance (e.g. treatment of data for datamatrices 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

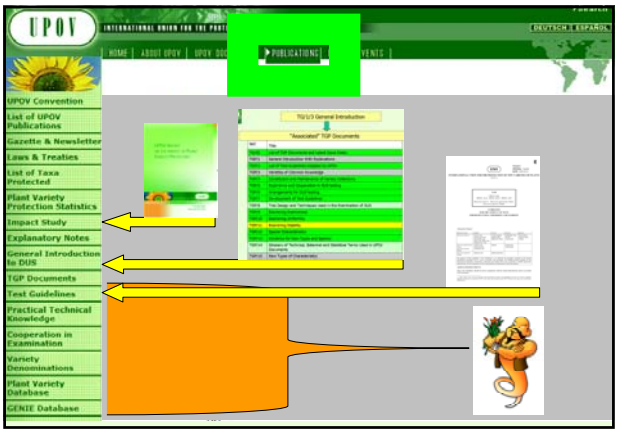
- **264 Test Guidelines** adopted
- **2,250 genera and species** for which UPOV members have practical DUS experience
- **>2,750 genera and species** with varieties examined for PBR

GENIE Database

Variety denomination related information
Protection offered by UPOV members

DUS information

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



UPOV

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

UPOV

Second World Seed Conference

"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.

UPOV

TWC/29 (2011)
Schedule

TWC_28_36_ANNEX-IV_rev_final.doc

[Annex IV follows]

ANNEX IV

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 August 20, 2010

Species	Basic Document	Leading expert(s)	Interested experts (State / Organization)[1]
Dock (*Rumex* L.)	TG/RUMEX (proj.5)	Nadiya Leschuk (UA)	CZ, HU, NL, PL, ISF[2], Office
Globe Artichoke (*Cynara scolymus* L.) (Revision: including Cardoon)	TG/184/4(proj.2)	Chrystelle Jouy (FR)	AR, DE, ES, IL, IT, NL, QZ, RU, ISF[2], Office
Lettuce (Partial revision)	TG/13/10, TWV/44/24	Marian van Leeuwen (NL)	
Spinach (Partial revision)	TG/55/7, TWV/44/27	Marian v Leeuwen (NL)	
Tomato (Revision)	TG/44/11(proj.3)	Sergio Semon (QZ)	AZ, BG, BR, CA, CN, CZ, DE, ES, FR, HU, IL, IT, JP, KR, MD, NL, NZ, PL, PT, PY, RO, RU, SK, TN, UA, ZA, ISF[2], Office

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

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

*French Bean (Partial revision: diseases)	TG/12/9, TWV/44/30	François Boulineau (FR)	TWV / TWA

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

[2] to be sent to ISF Office

DRAFT TEST GUIDELINES TO BE DISCUSSED AT TWV/45
(* indicates possible final draft Test Guidelines)

New draft to be submitted to the Office of the Union

by June 10, 2011

(Guideline date for Subgroup draft to be circulated by Leading Expert: (April 15, 2011)
Guideline date for comments to Leading Expert by Subgroup: (May 13, 2011)

Species	Basic Document	Leading expert(s)	Interested experts (State / Organization)[2]
Cassava (*Manihot esculenta* Crantz.)	TG/CASSAV (proj.1)	Mr. Fabricio Santana Santos (BR)	TWA CO, ISF[2], Office
Coriander (*Coriandrum sativum* L.)	TG/CORIA(proj.1)	Mr. Ricardo Zanatta Machado (BR)	DE, FR, HU, NL, PL, QZ, ZA, ISF[2] , Office
Echinacea	TG//ECNCE(proj.1)	Mrs. Julia Borys (PL) / Ms. Elizabeth Scott (GB) (TWO)	DE, HU, RO, ZA, ISF[2] , Office
Endive (Revision)	TG/118/4	Mrs. Marian van Leeuwen (NL)	FR, IT, QZ, ISF[2], Office
Lycopersicon (excluding Lycopersicon esculentum Mill.) (Tomato rootstock)	New	Mrs. Marian van Leeuwen (NL)	ES, FR, IT, JP, QZ, ISF[2], Office
*Pea (Partial revision: grouping characteristics)	TG/7/10, TWV/44/33	Mr. Francois Boulineau	TWA
**Pleurotus*	TG/PLEUR(proj.1)	Mr. Yong-Hyun Cho (KR)	BE, HU JP, QZ, ISF[2], Office
Poppy (Revision)	TG/166/3	Mrs. Marianna Fehér (HU)	CZ, PL, QZ, ISF[2], Office
**Raphanus sativus* L. (Revision)	TG/63/7(proj.4) – TG/64/7(proj.3)	Mrs. Swenja Tams (DE)	CN, CZ, ES, FR, GB, HU IT, JP, KR, NL, PL, QZ, , ZA, ISF[2], Office
*Shiitake (*Lentinula edodes*)	TG/SHIITK(proj.2)	Mr. Hideki Maeda (JP)	HU, KR, QZ, UA, ISF[2], Office
*Watermelon (revision)	TG/142/5(proj.1)	Mrs. Marian van Leeuwen (NL)	BG, BR, CN, ES, FR, HU, IT, JP, KR, QZ, SK, ZA ISF[2], Office

DRAFT TEST GUIDELINES TO BE DISCUSSED AT TWV/46 (2012)

Rosemary	TG/ROSEMARY (proj.4)	Mrs. Zsuzsanna Füstös (HU)	DE, FR, GB, NL, PL, QZ, ZA, ISF[2], Office

[End of Annex IV and of document]