

TWV/43/17

ORIGINAL: English

DATE: April 24, 2009

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

## TECHNICAL WORKING PARTY FOR VEGETABLES

# Forty-Third Session Beijing, April 20 to 24, 2009

#### **REPORT**

adopted by the Technical Working Party for Vegetables

## Opening of the Session

- 1. The Technical Working Party for Vegetables (TWV) held its forty-third session in Beijing, China, from April 20 to 24, 2009. The list of participants is reproduced in Annex I to this report.
- 2. The TWV was welcomed by Mr. Yanquan Shi, Deputy Director-General, Department of Science, Technology and Education, Ministry of Agriculture. A copy of Mr. Shi's opening address is provided as Annex II to this document.
- 3. The session was opened by Mrs. Radmila Safarikova (Czech Republic), Chairman of the TWV, who welcomed the participants.

## Adoption of the Agenda

4. The TWV adopted the agenda as reproduced in document TWV/43/1 Rev.

#### Short Reports on Developments in Plant Variety Protection

- 5. Mr. Xiangming Lin, Deputy Director, Division of GMO Biosafety and IPR, Department of Science, Technology and Education, Ministry of Agriculture, made a presentation on the protection of new varieties of plants in China. A copy of Mr. Lin's presentation is provided as Annex III to this document.
  - (a) Reports from members and observers
- 6. The expert from Australia reported that the Australian PBR system was based on the 1991 Act of the UPOV Convention. DUS examination used the breeder testing method where trials were conducted by breeders under close supervision of the PBR examiners and accredited experts. International cooperation also played an important role in the efficient processing of applications especially where an examination had already been conducted by another UPOV member. This arrangement allowed Australia to extend protection to more than 600 genera and species with only 5 PBR examiners. Vegetable varieties represented about 5 % of the total applications. 226 vegetable varieties from 27 genera and species were protected. Capsicum and lettuce were among the most protected vegetable species. The average period for examination of all species ranged between 30 and 40 months. 2008 was the 20<sup>th</sup> anniversary of the operation of the Australian PBR system and therefore some grants were now expiring. As an indicator of the value that industry placed on PBR protection, breeders were keen to discuss the possibility of longer terms of protection for some selected species. To date, no additional duration of protection had been made available. An inquiry into the enforcement of PBR was underway and it was expected that the report and a number of recommendations will be available via the IP Australia website by July 2009. With respect to PBR administration, as a result of the introduction of ISO 9001 system and competency accreditation, examiners could be fully responsible for all aspects of the examination including the decision whether or not a grant of PBR should be made. It was hoped that this would contribute to a reduction of examination time to 30 months.
- 7. The expert from <u>Brazil</u> reported that in 2008, 207 applications had been filed, of which 54% had been for agricultural crops, 26% for ornamental crops, 9% for vegetables, 4.5% for fruit crops, 4.5% forest trees, and 2% for forage crops. In 2009, 59 applications had been so far filed, of which 48% had been for agricultural crops, 37% for ornamental crops, 14% for fruit trees and 1% for forage crops. Since 2008, an electronic application system had been in place, which had received a good response from the applicants. The system had proven to facilitate both the application for protection and the follow-up by the applicants. The PVP office of Brazil, in cooperation with breeders, was conducting a ring test on molecular markers for soybean, the results of which would be reported to Crop Subgroup for Soybean. The ring test might be expanded to work together with other Latin American countries. A new PVP law proposal had been concluded by the Executive Power and was to be sent to the Congress by the President shortly.
- 8. The expert from <u>Bulgaria</u> reported that the Executive Agency for Variety Testing, Field Inspection and Seed Control (IASAS) was responsible for variety testing for plant breeders' rights and national listing in Bulgaria. In 2008, 68 vegetable varieties, showing a 17% increase from the previous year, had been tested and 41 vegetable varieties had entered into the Bulgarian National List of Varieties. In 2008, 9 applications had been filed for plant variety protection and 19 titles of protection had been issued. In Bulgaria, tomato, onion and garden pea were main targets for vegetable breeding. Bulgaria hosted a Regional Seminar on the Enforcement of

Plant Variety Rights organized by the Community Plant Variety Office of the European Community (CPVO), in 2008, and a Seminar on the Protection of Plant Breeders' Rights in the Territory of Bulgaria within the Context of the International Legislation and the European Practices had been organized in 2009 by UPOV

9. The expert from the Community Plant Variety Office (CPVO) of the European Community reported that, in 2008, the CPVO had received 3014 applications for Community Plant Variety Rights (CPVR), a slight increase of 1% from the previous year, although it had granted fewer titles than in 2007. However, as a reflection of the global economic crisis, the CPVO had seen a 12% decrease of applications in the first three months of 2009, so the CPVO anticipated that 2009 would be the first time that fewer applications for Community rights would have been filed with respect to the previous year. 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 the September 2008. Its first task was to establish rules for "quality requirements" to be followed by examination offices, and these had been adopted by the CPVO's Administrative Council in March. Therefore, the first quality audits with the assistance of external technical audit experts would commence later in the year. Internally, the CPVO was establishing processes to become a "paperless" office, so that all documents would be scanned into its database and treated electronically. At the same time the CPVO was making good progress in being able to offer to applicants the possibility of e-filing by the end of 2009, which would enable an application for Community rights to filed on-line via a secured site, leading to gains in time and efficiency to both the applicant and the CPVO, and ultimately to examination offices as well. In September 2009, the CPVO would host the Technical Working Party for Ornamental Plants and Forest Trees (TWO) in Angers, making it the first time it would have hosted a UPOV Technical Working Party. Applications in the vegetable sector in 2008 had increased to an all-time high of 411, which was a large 39% increase in comparison to 2007, although the first quarter of 2009 had seen a substantial 25% drop in vegetable figures in comparison to the same time last year. The CPVO had organized in October 2008 in conjunction with Naktuinbouw, its first ever vegetable open day, which had been well attended by vegetable breeders/seed companies (mostly of Dutch origin) and some examination offices, to explain the intricacies of Community rights, their relationship to national listing, and to discuss current topics of interest/difficulties in the sector. Seeing the success of that gathering, it was foreseen to have another similar open day in France in 2010. With respect to research and development (R&D) projects, the conclusions of the CPVO co-funded project "Development and evaluation of molecular markers linked to disease resistance genes for tomato DUS testing (Option 1(a))" had been discussed at various for ain 2008; the three project partner countries had also carried out a ring trial with a set of reference and candidate tomato varieties during the previous year to look in particular at the reliability of the biomolecular tests in relation to the uniformity criteria, and a possible future implementation of such tests for DUS testing in this crop. Overall it appeared that biomolecular techniques seemed to have most promise within tomato DUS in the disease resistance testing for nematodes (Mi) and Tomato Mosaic Virus (ToMV), so the CPVO would continue to analyze the outcome of the project to see if these measures could be adopted in its tomato testing protocol and the revision of the UPOV Test Guidelines document TG/44/11. At the beginning of the year, the CPVO had received a new collaborative R&D project proposal from a large number of its vegetable examination offices to look into the harmonization of further disease resistance in several vegetable crops. The CPVO would shortly be analyzing the merits of the R&D project proposal before deciding whether it could co-finance it.

- 10. The expert from the Czech Republic reported that the National Plant Variety Office (NPVO) was one of the divisions of the Central Institute for Supervising and Testing in Agriculture. The NPVO was responsible for national listing (NLI), plant variety protection (PVP) and for recommendation of plant varieties. The NPVO carried out DUS and VCU tests for NLI and PVP for all plant species. The number of applications for NLI and PVP was relatively stable. During the last five years, the total number of applications varied between 550 to 600 per year for NLI, and 70 to 90 for PVP. However, the number of applications for vegetable varieties for NLI represented only 10 % of the total (63 in 2008) and there was almost no interest in PVP in the vegetable breeding sector (1 application in 2008). It was observed that a considerable number of varieties did not meet the criteria for NLI, in particular, due to the non-fulfillment of the VCU requirements; in the case of certain species 60 to 70 % of the applications for NLI had been rejected after the first year of test. To the contrary, there were less problems with respect to the DUS requirements. The NPVO had already finished a preparatory phase for the accreditation accordingly to ISO 9001 and was now waiting for the official audit by international agency TIFF, planned for May 2009. On May 13 2009, the CPVO would organize a one-day seminar in Brno, on the subject of farm-saved seed and the entrustment of examination offices. All neighboring countries would be also invited.
- 11. The expert from <u>France</u> reported that GEVES would receive an ISO 9001 version 2008 certificate. GEVES expected that its DUS examination system would be improved in accordance to the norms set up by ISO 9001. GEVES had established a system of cooperation with private companies (MATREF) for maintenance and production of strains and differential hosts needed to facilitate and harmonize DUS trials on disease resistance characteristics. That system was open for private companies and official testing centers.
- 12. The expert from <u>Germany</u> reported that the number of applications for vegetable species remained low but stable. It had been decided that the VCU trial for vegetable varieties (facultative) be abolished and the publication of a descriptive list of vegetable varieties be discontinued in future.
- 13. The expert from <u>Italy</u> reported that, in Italy, plant variety protection (PVP) was administered by the Ministry of Industry, while the Ministry of Agriculture, Forestry and Food (MIPAAF) was responsible for national listing of varieties. The National Institute for Seed Certificate (ENSE) carried out DUS tests for listing varieties of agricultural and vegetable species on behalf of the MIPAAF. In 2008, 197 applications (slight increase from the previous year) had been filed, of which 45% had been for tomato varieties, followed by pepper (10%), watermelon (8%) and lettuce (7%). In 2008, 80 vegetable varieties had been entered in the National Catalogue of Vegetable Species.
- 14. An expert from <u>Japan</u> reported that the number of applications had decreased in 2008 by 19% from the previous year. In 2008, among a total of 1,245 applications, 87 applications (7%) had been for vegetable varieties and 17 for mushroom varieties. In 2008, 1,192 varieties had been granted protection. The Japanese Government had set a target of 30 months for the average period for examination. In 2008, that period had been 32 months. It had been considered that international cooperation in DUS testing should be more widely used to achieve this target.
- 15. An expert from the <u>Netherlands</u> reported that, at the occasion of the official opening of the new glasshouses in the first week of 2009 by Mr Bart Kiewiet, President of CPVO, together with Mrs. Annemie Burger, Director General of the Ministry for Agriculture, Nature and Food quality and Mrs. Lous van Vloten, President of the Dutch Board for Plant Varieties, the restructuring of

the DUS testing in the Netherlands had been completed. Naktuinbouw was now responsible for all DUS tests for National Listing and National and Community Plant Breeders' Rights. All vegetable and ornamental trials were now conducted in Roelofarendsveen, while the agricultural trials were placed in the trial fields of NAK in Emmeloord. All contracts with the CPVO could be now signed directly by Naktuinbouw. In 2008, the number of vegetable applications for National Listing and Plant Breeders' Rights had increased to 800. The number of applications for Plant Breeders' Rights in Netherlands had increased because now in the Netherlands the application for National Listing and National Plant Breeder's Rights was possible on the payment of one single fee and on the basis of the same trials. To the contrary, the number of tests carried out on behalf of CPVO decreased dramatically, as such testing was replaced by the taking-over of reports. The economic crises had also affected the DUS systems. Netherlands, thus far, the effects were marginal, but expected to some extent, in particular, in the ornamental section. The two year bilateral cooperation project on PBR between China and the Netherlands had been concluded successfully in 2008. The two countries had decided to continue the cooperation in future. A similar two-year project was underway between the Netherlands and Indonesia while comparable projects were expected with Viet Nam and Egypt. The "Open day for applicants of vegetable varieties" organized by CPVO in Roelofarendsveen, Netherlands, in 2008, on the subject of minimum distances had ended successfully. In relation to disease resistance, the expert from the Netherlands highlighted the following results of research programs:

- (i) the project partially funded by CPVO on the use of DNA techniques to establish disease resistances for a number of diseases in tomato had showed promising results, but also showed potential limitations of these techniques as not all resistances were, or would be, based on identical genetics; and
- (ii) the availability of correctly identified isolates to carry out resistance tests was a growing concern. With respect to the maintenance of isolates, Dutch seed companies had expressed their interest in a system of cooperation on the production of seed for sets of host differentials, more or less such as that already done by French companies in cooperation with GEVES.

The expert from the Netherlands informed the TWV that the number of applications was increasing for varieties containing patented genes (e.g. disease resistances). That itself did not cause any problem in respect of the conduct of DUS testing. A quality control system, launched by CPVO, based on ISO as principal basis for the future contracts with testing stations was welcomed by Naktuinbouw as a logical step to ensure the harmonization and quality of the DUS tests carried out on behalf of the CPVO. The Netherlands would not only apply this quality system for CPVO purposes but also for National decisions both for National Listing as for National Plant Breeders' Rights. In reply to an increasing number of requests for support to PBR systems, Naktuinbouw had decided to launch two DUS related training projects: a "DUS helpdesk" and "Internship at Naktuinbouw". It was explained that many colleagues that start their career in DUS are provided with training and do the UPOV distant learning course, but at a given moment they have to do the job themselves. Naturally, they encountered a wide range of problems, often of a very practical nature. However, not all new experts had experienced colleagues from whom they could seek assistance. For that reason, Naktuinbouw had established a DUS helpdesk at DUShelpdesk@naktuinbouw.nl. Experts could send their problems to that address and one of Naktuinbouw staff would get in contact to provide help. In addition, Naktuinbouw was offering an internship, which offered the possibility for interns to spend some time at Naktuinbouw and to work side-by-side with Naktuinbouw staff in vegetable and ornamental crops. Naktuinbouw provided free lodging, a bicycle and a small daily allowance to buy food etc.. From the interns, Naktuinbouw expected enthusiasm, an open mind, willingness to do practical work and fluency in English.

- The expert from Poland reported that, in Poland, the Research Centre for Cultivar Testing (COBORU) was responsible for the maintenance of the National List of Varieties and of the Register of PBR. It was also responsible for DUS and VCU testing as well as for the publication of Descriptive Lists (for main species of vegetables and fruit plants), post-registration variety system and variety recommendation. Since 1988, COBORU had been designated for the administration of UPOV matters and since then COBORU had hosted a session of the TWC, a session of the TWA and two sessions of the TWV. In 2008, the 42<sup>nd</sup> Session of the TWV had been held in Cracow. Poland had bilateral cooperation with many countries in the field of DUS testing e.g. the Czech Republic, Hungary, Slovakia, and conducted DUS tests for countries such as Lithuania, Latvia, Romania and also on behalf of the CPVO. Each year, COBORU organized a training course in DUS testing. In 2008, experts from Belarus, Ukraine and Latvia had participate in the training. In 2008, in Poland, there had been 1,446 protected varieties, of which 889 were national and 557 foreign. They were 646 agricultural, 297 vegetable, 383 ornamental and 120 fruit varieties. In the National List there were 2,510 varieties among them 1,282 were agricultural, 908 vegetable and 320 fruit varieties. For vegetables, 71 applications had been filed.
- 17. An expert from the Republic of Korea reported that, in 2008, protection had been extended to a further 34 plant genera and species, bringing the total number of plant genera and species eligible for protection to 223. As of February 2009, the total number of applications had reached 4,114 of which 2,567 had be granted protection (ornamentals (56%), vegetables (18%), cereals (16%), fruits (5%), and others (5%)). Among vegetable species, the top 5 species were: hot pepper (20%); Chinese cabbage (15%); radish (13%); watermelon (11%); and lettuce (9%). The Korean Seed and Variety Service (KSVS) had organized its first PVP training course in 2007 for countries having enacted a PVP law recently or having started PVP legislation. The third PVP training course was scheduled from June 18 to July 3, 2009, in which 15 experts from 10 countries would be invited to participate. During the course, experiences accumulated in the Republic of Korea, in implementing its PVP system would be transmitted to the participants. In 2008, the 26th session of the TWC session was held in Jeju. The 38th session of the TWA would be held in Seoul from August 30 to September 4, 2009. Immediately before the TWA session, an International Symposium on "The Impact of the PVP System" would be held at the same place.
- 18. The expert from Slovakia reported that the legal basis of the plant breeder's rights in Slovakia was provided by Law N 132/1989, with amendment N 22/1996. Since 1990, 1165 applications for plant breeder's rights had been filed and 604 rights had been granted. In 2008, the Ministry of Agriculture of the Slovak Republic had received 28 applications for plant breeder's rights and granted 60 rights, those rights having been granted to 31 agricultural crop varieties, 15 grass varieties, 3 fruit varieties, 1 medical plant variety and 10 grapevine varieties. 51 applications had been cancelled. Generally, in Slovakia the majority of applications were filed for agricultural crops, particularly for cereals and maize. Until the end of the year 2008, protection had been granted to 100 varieties of wheat and 75 varieties of barley. Since Slovakia had become a member of the European Union, there had been a significant decrease in the number of applications for plant breeder's rights in Slovakia. The most significant decrease was observed in the field of vegetables and fruit species. The Central Controlling and Testing Institute in Agriculture in Bratislava (UKSUP) had bilateral agreements concerning DUS testing with several countries, especially with the Czech Republic, Poland, Hungary, Slovenia and, in

the field of grass variety testing, with Croatia and Denmark and had started to carry out DUS tests for Sweden.

- 19. The expert from the <u>United Kingdom</u> reported that the number of applications for vegetable varieties was low but, after several years of decline, numbers had stabilized. Automated management using digital images had been introduced for recording parsnip roots in United Kingdom DUS trials, following a comparative analysis of 3 years' data of both manual and automated measurements. Measurement of un-sliced roots had been slightly less discriminating when compared to longitudinally sliced roots, but had been chosen as a more cost effective recording method. The Science and Advice for Scottish Agriculture (SASA) participated in the proposed CPVO research project on the harmonization of disease resistance characteristics with particular interest in 2 diseases (Race 1 of Pea Wilt and Race c of *Ascochyta pisi*)
- 20. A representative of the <u>International Seed Federation (ISF)</u> reported that ISF's World Seed Conference, held in Prague in May 2008, had been attended by around 1480 participants from 59 countries. The Congress in 2009 in Antalya was expected to draw around 1250 participants. The ISF Intellectual Property Committee had had some very interesting meetings to discuss the issue of access to germplasm, especially in relation to varieties containing patented traits and/or technologies. The current ISF position was that breeding with such varieties be possible until the moment of commercialization. In cases where the resulting variety would still fall, at the moment of commercialization, within the patent claims, a license would be necessary. The ISF Working Group on Molecular Markers had met twice and revised the ISF position on the use of molecular markers for DUS testing. The revised position was planned to be adopted at the ISF congress in May 2009 in Antalya, Turkey. That position could be sent to TWV delegates on ISF was co-organizing 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). The conference would take place from September 8 to 10, 2009 at the FAO headquarters in Rome. The online registration could be done at www.worldseedconference.org. ISF would continue to contribute to the work of all relevant UPOV meetings. The representative of the ISF appreciated the timely publication of draft Test Guidelines to be discussed at this TWV session, enabling thorough analysis of those documents by ISF experts.
  - (b) Report on developments within UPOV
- 21. The TWV noted the oral report from the Office of the Union on the latest developments within UPOV, as provided in Annex IV to this document.
- 22. With regard to the request from Bioversity for the nomination of UPOV experts for the Germplasm Information on Germplasm Accessions (GIGA) project to define a minimum set of characterization and evaluation standards for 22 crops of major economic importance, the TWV agreed that the Leading Experts for the relevant Test Guidelines should be nominated, subject to their willingness to participate.

## Molecular Techniques

23. The TWV noted the report of developments in UPOV on molecular techniques, as set out in document TWV/43/2.

# **TGP Documents**

- 24. The TWV considered the TGP documents below on the basis of documents TWV/43/3.
- (a) New TGP documents
  - TGP/8 Trial Design and Techniques Used in the Examination of Distinctness, Uniformity and Stability
- 25. The TWV considered documents TGP/8/1 Draft 13 and TWV/43/11.
- 26. The TWV made the following comments on document TGP/8/1 Draft 13:

Part I	
3.2.1.4, 3.2.1.5	to be deleted and to be replaced by an explanation that different statistical methods will produce different results and to consider that in the context of harmonization
3.3	title to read "Summary of selected statistical methods for examining distinctness"
3.3	- title of flow diagram to be amended and to avoid an indication that there is a preference of COYD over 2x1% method if there are more than 20 degrees of freedom
	- to clarify that other statistical methods would not be excluded
Part II	
title	to read "PART II: Selected techniques used in DUS examination"
General	to check that the term "clearly distinct" is replaced by "clearly distinguishable", "distinct" or another suitable term (e.g. 6.1.9)
5.1.4	to delete "or establish that the type of data collected does not fit the parametric assumptions"
6.2	to be deleted and to be covered by new section in future revision of TGP/8 (see below)
9.1	to read "The relative variance method may be applied to any measured characteristic that is a continuous variable, irrespective of the method of propagation of the variety."

# 27. The TWV made the following comments on document TWV/43/11:

New	to develop a new section to provide guidance on the predictability and
	consistency of segregation (e.g. in three-way hybrids), frequency of dark blue
	flowers in Lucerne (TG/6/5, characteristic 6) and characteristics examined in
	bulk samples (see document TWV/43/11, "5. Examining DUS in bulk
	samples".

28. The TWV noted the developments concerning document TGP/11/1 Draft 5, as set out in document TWV/43/3.

TGP/14 Glossary of Technical, Botanical and Statistical Terms Used in UPOV Documents (documents TGP/14/1 Draft 9, TGP/14/1 Draft 9 Supp. and TWV/43/12)

- 29. The TWV considered documents TGP/14/1 Draft 9, TGP/14/1 Draft 9 Supp. and TWV/43/12.
- 30. The TWV made the following comments on document TGP/14/1 Draft 9:

	SUBSECTION 2. SHAPES AND STRUCTURES I. SHAPE
1.3	to introduce the possibility to provide a different definition for the terms "base" and "apex" where that would be appropriate for the Test Guidelines concerned, in particular to avoid confusion in the use of commonly used terms by breeders. On that basis, it was agreed that the definitions of the terms should always be provided in the Test Guidelines. Furthermore, in order to ensure that applicants used the correct terms in completing the Technical Questionnaire, it was agreed that the relevant illustration of shapes in the Test Guidelines should be added to the Technical Questionnaire.
1.5	to retain the states "small" and "large" for ratio, but to add a clarification in brackets, e.g. for ratio length/width, to have "small (moderately compressed)", "large (moderately elongated)" etc.
1.5 (second)	(after Chart for Other Plane Shapes) to remove reference to a decision-tree
2.10	to update cross-references

## (b) Revision of TGP Documents:

TGP/7: Development of Test Guidelines

31. The TWV made the following comments on document TGP/7/2 Draft 3:

# Section 1

1.2	to explain the importance for harmonization of variety descriptions of using the Test Guidelines as individual authorities' test guidelines. In cases where that would not be possible, to encourage the inclusion of references to the characteristic number in the Test Guidelines in the individual authorities' test guidelines.
1.2.1.5	to clarify that the harmonization of variety descriptions could be lost if different example varieties are used in individual authorities' test guidelines
1.2.1.7	to amend to cover information provided by breeders in a breeder testing system

2.2.4.4	to read "In advance of the TWP session, the leading expert should prepare a
	preliminary draft of the Test Guidelines ("Subgroup draft") for comments by the
	subgroup. On the basis of the comments received from the subgroup, the leading
	expert should establish a first draft for the TWP. This draft is sent to the Office
	which will produce a document for distribution to the members of the TWP(s)
	concerned for discussion at their session(s). Prior to the TWP session, the Office
	will make a preliminary check that the draft has been prepared according to
	document TGP/7 and, in particular, that it conforms with the TG/Template
	(Annex 1 [cross ref.]). A result of that check will be provided to the Leading
	Expert at least one week before the session. []

# Annex 1: TG Template

2.3	Netherlands to develop draft guidance on the quantity of plant material to be provided for Test Guidelines, for consideration at the forty-fourth session of the TWV with a view to its inclusion in a future revision of TGP/7
	(document TGP/7/3)
4.1	to develop ASW for the assessment of distinctness of hybrids using the parental formula, on the basis of the wording in the Test Guidelines for Maize.

Annex 2: Additional Standard Wording (ASW) for the TG Template

ASW 13 to include an indication that the parental formula would be used	
<u> </u>	

Annex 3: Guidance Notes (GN) for the TG Template

GN 28	the TWV noted that it would not be able to review any proposed amendments to GN 28 before the Technical Committee considered the approval of document TGP/7/2 in 2010. The TWV noted the importance of example varieties in Test Guidelines for vegetable crops and generally supported the text in GN 28. Therefore, to avoid a delay in the adoption of document TGP/7/2, it proposed that document TGP/7/2 should be adopted in 2010 without amendments to GN 28 and that any proposed amendments should be considered in a future revision of document TGP/7, if appropriate.
GN 31	to add the possibility to indicate that the variety is a parent line, with a reference to document TGP/5 "Experience and Cooperation in DUS Testing", Section 11/1 "Examples of Policies and Contracts for Material Submitted by the Breeder", which explains in paragraph 1.1 that "[] in the particular case of parent lines submitted as a part of the examination of a candidate hybrid variety, living plant material should only be made available to other variety collectors in such a way that the legitimate interests of the breeder would be safeguarded."
GN 32	Three-Way Hybrid: to add a line to enter the name of the female hybrid parent

- 32. The TWV noted that the Office was compiling a historical list of adopted Test Guidelines and was also intending to make all previous adopted versions of Test Guidelines available in electronic form in the future.
- 33. The TWV noted the program for the development of TGP documents, agreed by the TC at its forty-fifth session, as set out in document TWV/43/3.

# <u>Discussion on Draft Test Guidelines</u>

Agaricus L.

34. The subgroup discussed document TG/AGARIC(proj.3), as presented by Mr. Sergio Semon (European Community), and agreed the following:

	1
Cover page	to amend Test Guidelines to apply to the genus <i>Agaricus</i> L. and to update the table of Alternative names accordingly
1.	to read "These Test Guidelines apply to all varieties of the genus Agaricus L
General	to use term "fruit body" or "fruiting body" consistently throughout document
2.3	to amend spelling of "liter"
2.4	to read "Spawn should be of a quality which ensures that all relevant characteristics of the variety will be expressed. In particular, mycelium on grain should be visible to the naked eye, the grain should not be colonized to such an extent that kernels stick together. The spawn should not be older than 3 months and should have been stored at 2-4 °C."
2.5	to read "Pure cultures must be on slant agar tubes with an appropriate medium such as PDA (potato dextrose agar) or Malt extract agar. Tubes should be covered by cotton plugs or plastic caps allowing sterile air diffusion. Cultures should be fresh, i.e. not stored for longer than 2 weeks at low temperature."
2.4, 2.5	to be incorporated in Chapter 2.2
3.3.2	to replace "plants" with "fruit bodies"
3.5	to add "The 20 fruit bodies should be distributed over the spawn sample."
4.2.2	to add "The 20 fruit bodies should be distributed over the spawn sample."
5.3	to add Chars. 1 and 21
Char. 1	to be indicated as "MS"
Char. 4	state "small" (3) to become state "moderately compressed" (7) and state "large" (7) to become state "moderately elongated" (3)
Char. 5	to be indicated as "VG" and to order the states as bulbous (1); rectangular (2); trapezoidal (3)
Char. 6	to be deleted
Char. 10	state "small" (3) to become state "moderately compressed" (7) and state "large" (7) to become state "moderately elongated" (3)
Char. 11	to check whether Char. 11 provides useful discrimination beyond Char. 10 and to provide the same example varieties for both characteristics if both retained
Char. 13	to replace "low" with "weak" and "high" with "strong"
Char. 18	to read "Open Cap: fraying of margin", with the states: absent or weak (1); moderate (2) strong (3)
Char. 21	to add (*)
Chars. 21,	- to delete "Flushing pattern" and to check whether the characteristics should

:	
22	refer to "flush" or "harvest"
	- to add (+) with explanation
Char. 23	to have the states: susceptible (1); moderately resistant (2); highly resistant (3)
8.1 (b)	to delete "(and not postponed until later date)"
Ad. 1	to check the wording of the final sentence
Ad. 2, 3, 7, 8, 9, 12, 16, 17	to be incorporated into notes (a) and (b) or to become new note (d)
Ad. 13	to check the explanation for inconsistencies in the relative humidity recommendation; to check for inconsistencies with note (a); and to clarify what recommendation is intended by the observation that "It should be noted that the side of the cap is more scaly than the top."
Ad. 15, 18	to read "Characteristic 15 should be observed at veil breaking because all spores will become brown after veil breaking".
Ad. 18	to provide an illustration of fraying
Ad. 20	to replace "10 mushrooms" with "the mushrooms"
Ad. 23	to provide the following information, according to document TGP/12:  (a) nature of the genetic control of disease resistance; (b) information on the disease pathotypes; (c) source(s) of disease inoculum; (d) the host differential set of varieties / lines to use to check the inoculum on correctness regarding the pathotypes used; (e) source(s) of host differential set of varieties / lines; (f) method for maintaining the disease inoculum; (g) test method; (h) scoring procedure for determination of states of expression (notes); (i) example varieties (pathotype-specific standard varieties); and (j) source(s) of example varieties (pathotype-specific standard varieties).  The information above to be circulated to the TWV by the end of August 2009, for approval by correspondence. Subject to agreement by correspondence, the Test Guidelines to be put forward for adoption by the Technical Committee in 2010.
8.3	to provide a life cycle that applies to Agaricus L
TQ 1	to indicate Agaricus L. and request details of species to be provided by applicant
TQ 4.2	to delete Section 4.2.1
TQ 6	to add "Cap: color" / greyish white / brown
TQ 7.3	to update according to change of states to Char. 23

# Asparagus (revision)

35. The TWV considered documents TG/130/4(proj.1), as presented by Mr. Kees van Ettekoven (Netherlands), and agreed the following:

2.3	to read: "The minimum quantity of plant material, to be supplied by the
	applicant, should be:
	1200 seeds for seed-propagated varieties, or
	60 plants (crowns) for vegetatively propagated varieties."
3.1.1	to read: "The minimum duration of tests should normally be two independent
2.1.0	growing cycles."
3.1.2	to read: "The two <u>independent</u> growing cycles may be observed from a single
3.3	planting, examined in two separate growing cycles."
3.3	an additional sentence to be added, reading "In particular, it is essential that the plant produces satisfactory spears in each of the two growing circles."
3.3.1	to be deleted
3.4.1	the total number of plants to be at least 40 plants
3.5	to read: "Unless otherwise indicated, all observations should be made on 30
3.3	plants or parts taken from each of 30 plants."
4.2.3	to read: "For the assessment of uniformity of vegetatively propagated varieties,
	and male F1 hybrids, a population standard of 1% and an acceptance probability
	of at least 95% should be applied. In the case of a sample size of 40plants, 2 off-
	types are allowed."
Char.1	to be deleted
Char.2	(a) to be replaced by (+) and to receive an explanation under Section 8.2,
	reading: "The time of emergence of spears is the time when at least 30% of the
	plants has at least 1 spear emerged."
Chars.3,5,	(b) to be replaced by (a)
6,7,8,9	
Char.4	to be deleted
Char.5	to read: "Spear: cross-section of apex" with the states of expression "narrow
	triangular (1), medium triangular (2) and broad triangular (3)"; (+) to be inserted
	with drawings in Section 8.2.
Char.6	to read: "Spear: diameter of base of apex compared to middle of stem" and the
	position of "middle of stem" to be indicated in drawings in Ad.6
Char.10	after this characteristic, a new characteristic to be inserted, reading: "Spear:
	opening of bracts" (QN)(VG) with example varieties to be provided by France
	and with the explanation in Section 8.2, reading: "To be observed 5-10 cm above
	soil surface"
Chars.10,	(d) to be replaced by (b)
14,15	
Char.12	To read: "Plant: intensity of green color of foliage"
Chars.12,	(g) to be replaced by (c)
13,	
Char.16	to delete (f)
Char.17	to delete state (1); state (3) to read: "plants with male flowers and plants with
	female flowers"
Char.18	to be deleted
8.1(a)	to be deleted
8.1(b)	to be 8.1(a)
8.1(c)	to be deleted
8.1(d)	to be 8.1(b)
8.1(e)	to be deleted
8.1(f)	to be deleted

8.1(g)	to be 8.1(c)
Ad.11	to receive an explanation reading: "to be observed on first non-branched side
	shoot"; and the figures to be deleted

36. The subgroup recommended that the draft revised Test Guidelines for Asparagus be sent to the TC for adoption, subject to the inclusion of example varieties for the new characteristic to be provided by France.

Black Salsify (Scorzonera hispanica L.) (Revision)

37. The subgroup discussed document TG/116/4(proj.1), as presented by Mr. Kees van Ettekoven (Netherlands), and agreed the following:

4.2.2	to read: "For the assessment of uniformity, a population standard of 2% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 300 plants, 10 off-types are allowed.
Table (general)	missing example varieties to be provided; the example variety "Hoffmanns schwarze Pfahl" to be deleted throughout from the Table
Char.1	states (3) and (7) to read, respectively, "short" and "tall"
Char.2	to read: "Foliage: intensity of green color"
Char.9	to read: "Leaf: reflexing of blade"
Char.10	states (1) and (3) to read, respectively, "conical" and "obconical"
Chars. 10,11,12, 13,14,15	to receive (a) in the second column
Char.12	to read: "Root: diameter at broadest part"
Char.13	to read: "Root: shape of shoulder" with states "flat (1), rounded (2)(Alpha) and obconical (3)(Lange Jan)"
Char.14	to be QN with states of expression "blunt (1), slightly pointed (2) and strongly ponted (3)"
8.1 (a)	to read: "to be observed at harvest maturity when first leaves start to turn yellow"
TQ 4.2.1(a)	to be replaced with "Self-pollination [ ]"

38. The subgroup recommended that the draft revised Test Guidelines for Black Salsify be sent to the TC for adoption, subject to the inclusion of additional example varieties to be provided by the Netherlands and Germany, if available.

#### Dock

39. The subgroup discussed document TG/RUMEX (proj.3), as presented by Mrs. Radmila Safarikova (Czech Republic) in the absence of the Leading Expert from Ukraine, and agreed the following:

Name of Test Guidelines to read "Garden sorrel" and UPOV Code to read "RUMEX_ATS"	
to add the common names: Garden sorrel, sorrel, sorrel dock, sour dock (English), Grande oseille, Oseille commune (French), Wiesensauerampfer (German), Acedera común (Spanish)	
to read "General Introduction"	
to read "In cases"	
to read "For the assessment of uniformity , a population standard of 2% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 60 plants, 3 off-types are allowed."	
to add Char. 3	
to indicate characteristics that should be observed only in the year of sowing or the second year	
to add "VG"	
to add an explanation of whether to exclude basal lobes	
state "small" (3) to become state "small (moderately compressed)" and state "large" (7) to become state "large (moderately elongated)"	
to check whether the characteristic is a duplication of Char. 5 (i.e. if the lobes are excluded in Char. 5) and, if so, to be deleted	
to add (*)	
to be indicated as PQ and to reorder states as 3, 4, 5, 2, 1	
to amend spelling of "length"	
to add "MS"	
to be indicated as VG and amend states to elliptic (instead of round-oval) (1); circular (instead of round) (2); oblong (instead of rectangular) (3)	
to be indicated as VG and to add (*)	
to be indicated as MS/VG and to add (+) with explanation of where to observe	
to be deleted	
to have the states: absent or very weak (1); weak (3); medium (5); strong (7)	
state "small" (3) to become state "small (moderately compressed)" and state "large" (7) to become state "large (moderately elongated)"	
to check whether QL: if not, to be indicated as QN with the states: smooth or slightly rough (1); moderately rough (2); very rough (3)	
to be indicated as MG	
to be indicated as QN with the states: absent or weak (1); medium (2); strong (3)	

Char. 25	to read "Panicle: color"
Char. 26	to check whether to read "Time of seed maturity" or "Time of plant maturity" and to add (+) with explanation
Ad. 16, 17, 18, 19	key to be provided for notes A, B, C
9.	to check whether to add "pH" before "6.8"
TQ 4.1	to be amended in accordance with TGP/7/1
TQ 4.2	to be completed
TQ 5.5	to be deleted
TQ 6	to read "Plant: height" / medium / tall
TQ 7	to be amended in accordance with TGP/7/1
TQ 9	to be amended in accordance with TGP/7/1

40. The subgroup agreed that the draft Test Guidelines incorporating the information requested above should be circulated to the TWV by the end of August 2009, for approval by correspondence. Subject to agreement by correspondence, the Test Guidelines to be put forward for adoption by the Technical Committee in 2010.

#### Globe Artichoke (Revision) and Cardoon

41. The subgroup discussed documents TG/184/4(proj.1) and TG/CARD(proj.2), as presented by Mr. François Boulineau (France), and agreed that the Test Guidelines for Artichoke should be extended to cover Cardoon. On that basis, the subgroup proposed the following with regard to document TG/184/4(proj.1):

Cover page	to cover Artichoke and Cardoon / UPOV Code: CYNAR_CAR / Cynara cardunculus L.	
4.2	to read:  4.2.2 The assessment of uniformity for cross-pollinated varieties should be according to the recommendations for cross-pollinated varieties in the General Introduction.	
	4.2.3 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 a population standard of 5% with the same acceptance probability should be applied to clearly recognizable inbred plants. In the case of a sample size of 40 plants the additional maximum number of clearly recognizable inbred plants allowed would be [].	
	4.2.4 For the assessment of uniformity of vegetatively propagated varieties, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 40 plants, 2 off-types are allowed.	

5.3	to include th	ne following characteristics for the grouping of varieties into Artichoke
	Main s (charac Centra Centra	e: thickness at 35 cm from the base (characteristic 15) stem: diameter (at about 10 cm below central flower head) cteristic 21) al flower head: length (characteristic 22) al flower head: diameter (characteristic 23) bract: thickness at base (characteristic 40)
	The relevant explained in	t states for each characteristic for Artichoke or Cardoon to be Chapter 8.
5.3	grouping cha	aracteristics within Artichoke:
	b) (c) (d)	Leaf: intensity of lobing (characteristic 4) Central flower head: time of appearance (characteristic 19) Central flower head: shape in longitudinal section (characteristic 24) Outer bract: color (external side) (characteristic 32)
	grouping cha	aracteristics within Cardoon:
	b) I	Leaf: length of spines (characteristic 3) Leaf: intensity of lobing (characteristic 4) Petiole: color (characteristic 10)
	Table of Cha	
	Char. 1.1	(Artichoke) Plant: height: short (3); medium (5); tall (7)
	Char. 1.2 Char. 2	(Cardoon) Plant: height: short (3); medium (5); tall (7) Leaf: attitude: erect (1); semi-erect (3); horizontal (5)
	Char. 3 (*)	Leaf: length of spines: absent to very short (1); short (3); medium (5); long (7); very long (9)
	Char. 4 (*)	Leaf: intensity of lobing: weak (3); medium (5); strong (7)
	Char. 5	Lobe: shape of tip: narrow acute (1); broad acute (2); rounded (3)
	Char. 6	Lobe: number of secondary lobes: absent or very few (1); few (3); medium (5); many (7); very many (9)
	Char. 7	Leaf blade: blistering: weak (3); medium (5); strong (7)
	Char. 8	Leaf blade: color: yellow green (1); light green (2); medium green (3); dark green (4); grey green (5)
	Char. 9	(Artichoke) Petiole: anthocyanin coloration at base: absent or very weak (1); weak (3); medium (5); strong (7); very strong (9)
	Char. 10	(Cardoon) Petiole: color: whitish (1); light green (2); medium green (3);
	(*) Char. 11	dark green (4); light red (5); medium red (6); dark red (7)  (Cardoon) Petiole: length free of leaflets: short (3); medium (5); long
	Char. 11	(7)
	Char. 12	(Cardoon) Petiole: length of edible part: short (3); medium (5); long (7)
	Char. 13	(Cardoon) Petiole: width at 5cm from base: narrow (3); medium (5); broad (7)
	Char. 14	(Cardoon) Petiole: width at 35cm from base: narrow (3); medium (5); broad (7)
	Char. 15 (*)	Petiole: thickness at 35 cm from the base: very thin (1); thin (3); medium (5); thick (7); very thick (9)
	Char. 16	(Cardoon) Petiole: profile of inner side at 5 cm from base: slightly concave (3); moderately concave (5); strongly concave (7)
	Char. 17	(Cardoon) Petiole: hollowing: weak (3); medium (5); strong (7)
	Char. 18	(Cardoon) Petiole: length of spines: short (3); medium (5); long (7)

Char. 19 (**) (S); late (7) and to add (+) with explanation Char. 20.1 (Artichoke) Main stem: height from base to central flower head: short (3); medium (5); tall (7) Char. 20.2 (Cardoon) Main stem: height from base to central flower head: short (3); medium (5); tall (7) Char. 21 (**) (3); medium (5); tall (7) Char. 21 (**) (3); medium (5); tall (7) Char. 22 (**) (2) (2) (2) (2) (3); medium (5); long (7) (**) (3); medium (5); long (7) (**) (4); medium (5); long (7) (**) (2) (2) (2) (4); medium (5); long (7) (**) (4); medium (5); long (7) (**) (5); medium (5); long (7) (**) (6); medium (5); long (7) (**) (7); medium ovate (2); broad elliptic (3); circular (4); oblate (5) Char. 24 (Artichoke) (2) (2) (2) (3); depressed (4) Char. 25 (Artichoke) (2) (2) (3); depressed (4) Char. 26 (Artichoke) (2) (2) (3); depressed (4) Char. 26 (Artichoke) (2) (2) (3); depressed (4) Char. 27 (Artichoke) (2) (2) (3); depressed (4) Char. 28 (Artichoke) (3); depressed (4) Char. 29 (Artichoke) (2) (3); depressed (3); medium (5); strong (7); very strong (9) Char. 29 (Artichoke) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4		G1 10	
Char. 20.1 (Artichoke) Main sterm: height from base to central flower head: short (3); medium (5); tall (7)  Char. 20.2 (Cardoon) Main sterm: height from base to central flower head: short (3); medium (5); tall (7)  Char. 21 (*) Main sterm: diameter (at about 10 cm below central flower head): short (3); medium (5); long (7)  Char. 22 (Central flower head: length: short (3); medium (5); long (7)  (*) Char. 23 (Central flower head: diameter: small (3); medium (5); long (7)  (*) Char. 24 (Artichoke) Central flower head: shape in longitudinal section: triangular (1); medium ovate (2); broad elliptic (3); circular (4); oblate (5)  Char. 25 (Artichoke) Central flower head: shape of tip: acute (1); rounded (2); flat (3); depressed (4)  Char. 26 (Artichoke) Central flower head: anthocyanin coloration of inner bracts: absent or very weak (1); weak (3); medium (5); strong (7); very strong (9)  Char. 27 (Artichoke) Central flower head: anthocyanin coloration of inner bracts: absent or very weak (1); weak (3); medium (5); strong (7); very strong (9)  Char. 28 (Artichoke) Receptacle: diameter: small (3); medium (5); large (7)  Char. 29 (Artichoke) Receptacle: diameter: small (3); medium (5); large (7)  Char. 30 (Artichoke) Receptacle: shape in longitudinal section: flat (1); slightly depressed (2); strongly depressed (3)  Char. 31 (Artichoke) Central flower head: time of beginning of opening: early (3); medium (5); late (7) and to add (+) with explanation  Char. 32 (Artichoke) Outer bract: color (external side): green (1); green with violet stripes (2); green with violet buls (3); violet with green stripes (3); green with violet buls (3); violet with green stripes (3); green with violet buls (3); violet with green stripes (3); green with violet (6)  Char. 33 (Artichoke) Outer bract: shape of apex: acute (1); flat (2); emarginate (3) and to add (+) and provide illustration  Char. 34 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 37 (Artichoke) Outer		Char. 19 (*)	(Artichoke) Central flower head: time of appearance: early (3); medium (5); late (7) and to add (+) with explanation
Char. 20.2 (Cardoon) Main stem: height from base to central flower head: short (3); medium (5); tall (7) Char. 21 Main stem: diameter (at about 10 cm below central flower head): short (**) Char. 22 Central flower head: length: short (3); medium (5); long (7) (**) Char. 23 Central flower head: diameter: small (3); medium (5); large (7) (**) Char. 24 (Artichoke) Central flower head: shape in longitudinal section: triangular (1); medium ovate (2); broad elliptic (3); circular (4); oblate (5) Char. 25 (Artichoke) Central flower head: shape of tip: acute (1); rounded (2); flat (3); depressed (4) Char. 26 (Artichoke) Central flower head: anthocyanin coloration of inner bracts: absent or very weak (1); weak (3); medium (5); strong (7); very strong (9) Char. 27 (Artichoke) Central flower head: density of inner bracts: sparse (3); medium (5); dense (7) Char. 28 (Artichoke) Receptacle: diameter: small (3); medium (5); targe (7) Char. 29 (Artichoke) Receptacle: diameter: small (3); medium (5); thick (7) Char. 30 (Artichoke) Receptacle: thickness: thin (3); medium (5); thick (7) Char. 31 (Artichoke) Receptacle: shape in longitudinal section: flat (1); slightly depressed (2); strongly depressed (3) Char. 31 (Artichoke) Outer bract: color (external side); green (1); green with violet stripes (2); green with violet blush (3); violet with green stripes (4); mainly violet (5); entirely violet (6) Char. 33 (Artichoke) Outer bract: shape of apex: acute (1); flat (2); emarginate (3) and to add (+) and provide illustration Char. 34 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); longer (1); straight (2); reflexed towards outside of the flower head (3) Char. 36 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); longer than broad (3) Char. 37 (Artichoke) Outer bract: length of base: short (3); medium (5); thick (7); very thick (9) Char. 40 Outer bract: there has base: very thin (1); thin (3); medium (5); thick (7); very thick (9) Char. 41 (Artichoke)		·	(Artichoke) Main stem: height from base to central flower head: short
Char. 21 Main stem: diameter (at about 10 cm below central flower head): short (*)  Char. 22 Central flower head: length: short (3); medium (5); long (7)  Char. 23 Central flower head: diameter: small (3); medium (5); large (7)  (*)  Char. 24 (Artichoke) Central flower head: shape in longitudinal section: triangular (1); medium ovate (2); broad elliptic (3); circular (4); oblate (5)  Char. 25 (Artichoke) Central flower head: shape of tip: acute (1); rounded (2); flat (3); depressed (4)  Char. 26 (Artichoke) Central flower head: anthocyanin coloration of inner bracts: absent or very weak (1); weak (3); medium (5); strong (7); very strong (9)  Char. 27 (Artichoke) Central flower head: density of inner bracts: sparse (3); medium (5); dense (7)  Char. 28 (Artichoke) Receptacle: diameter: small (3); medium (5); large (7)  Char. 30 (Artichoke) Receptacle: diameter: small (3); medium (5); large (7)  Char. 31 (Artichoke) Receptacle: shape in longitudinal section: flat (1); slightly depressed (2); strongly depressed (3)  Char. 31 (Artichoke) Central flower head: time of beginning of opening: early (3); medium (5); late (7) and to add (4) with explanation  Char. 32 (Artichoke) Outer bract: color (external side); green (1); green with violet stripes (2); green with violet blush (3); violet with green stripes (4); mainly violet (5); entirely violet (6)  Char. 33 (Artichoke) Outer bract: shape of apex: acute (1); flat (2); emarginate (3) and to add (4) and provide illustration  Char. 34 (Artichoke) Outer bract: length of spines: absent or very short (1); short deep (7)  Char. 35 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 36 (Artichoke) Outer bract: length of base: short (3); medium (5); long (7)  Char. 39 (Artichoke) Outer bract: length of base: short (3); medium (5); thick (7); very think (9)  Char. 40 Outer bract: thickness at base: very thin (1); thin (3); medium (5); thick (7); very think (9)  Char. 41 (Artichoke) Tendency to produce lateral		Char. 20.2	(Cardoon) Main stem: height from base to central flower head: short
Char. 22 Central flower head: length: short (3); medium (5); long (7)  (*)  Char. 23 (*)  Char. 24 (Artichoke) Central flower head: shape in longitudinal section: triangular (1); medium ovate (2); broad elliptic (3); circular (4); oblate (5)  Char. 25 (Artichoke) Central flower head: shape of tip: acute (1); rounded (2); flat (3); depressed (4)  Char. 26 (Artichoke) Central flower head: anthocyanin coloration of inner bracts: absent or very weak (1); weak (3); medium (5); strong (7); very strong (9)  Char. 27 (Artichoke) Central flower head: density of inner bracts: sparse (3); medium (5); dense (7)  Char. 28 (Artichoke) Receptacle: diameter: small (3); medium (5); large (7)  Char. 29 (Artichoke) Receptacle: diameter: small (3); medium (5); large (7)  Char. 30 (Artichoke) Receptacle: shape in longitudinal section: flat (1); slightly depressed (2); strongly depressed (3)  Char. 31 (Artichoke) Central flower head: time of beginning of opening: early (3); medium (5); late (7) and to add (+) with explanation  Char. 32 (Artichoke) Outer bract: color (external side): green (1); green with violet stripes (2); green with violet blush (3); violet with green stripes (4); mainly violet (5); entirely violet (6)  Char. 33 (Artichoke) Outer bract: depth of emargination: shallow (3); medium (5); deep (7)  Char. 34 (Artichoke) Outer bract: depth of emargination: shallow (3); medium (5); deep (7)  Char. 35 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 36 (Artichoke) Outer bract: shape: broader than long (1); as broad as long (2); longer than broad (3)  Char. 39 (Artichoke) Outer bract: shape: broader than long (1); as broad as long (2); longer than broad (3)  Char. 40 (Artichoke) Outer bract: shape: broader than long (1); as broad as long (2); longer than broad (3)  Char. 41 (Artichoke) Outer bract: length of base: short (3); medium (5); thick (7); very thick (9)  Char. 41 (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); st			Main stem: diameter (at about 10 cm below central flower head): short
Char. 23		Char. 22	
Char. 24 (Artichoke) Central flower head: shape in longitudinal section: triangular (1); medium ovate (2); broad elliptic (3); circular (4); oblate (5)  Char. 25 (Artichoke) Central flower head: shape of tip: acute (1); rounded (2); flat (3); depressed (4)  Char. 26 (Artichoke) Central flower head: anthocyanin coloration of inner bracts: absent or very weak (1); weak (3); medium (5); strong (7); very strong (9)  Char. 27 (Artichoke) Central flower head: density of inner bracts: sparse (3); medium (5); dense (7)  Char. 28 (Artichoke) Receptacle: diameter: small (3); medium (5); large (7)  Char. 29 (Artichoke) Receptacle: thickness: thin (3); medium (5); hick (7)  Char. 30 (Artichoke) Receptacle: shape in longitudinal section: flat (1); slightly depressed (2); strongly depressed (3)  Char. 31 (Artichoke) Central flower head: time of beginning of opening: early (3); medium (5); late (7) and to add (+) with explanation  Char. 32 (Artichoke) Outer bract: color (external side): green (1); green with violet stripes (2); green with violet blush (3); violet with green stripes (4); mainly violet (5); entirely violet (6)  Char. 33 (Artichoke) Outer bract: shape of apex: acute (1); flat (2); emarginate (3) and to add (+) and provide illustration  Char. 34 (Artichoke) Outer bract: depth of emargination: shallow (3); medium (5); deep (7)  Char. 35 (Artichoke) Outer bract: reflexing of tip: reflexed towards center of flower head (1); straight (2); reflexed towards center of flower head (3)  Char. 36 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 37 (Artichoke) Outer bract: mucron: absent (1); present (9)  Char. 39 (Artichoke) Outer bract: length of base: short (3); medium (5); long (7)  Char. 40 (Outer bract: thickness at base: very thin (1); thin (3); medium (5); thick (*)  (**) (T); very thick (9)  Char. 41 (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); stany (7)  Char. 42 (Artichoke) Tendency to produce lateral shoots		Char. 23	Central flower head: diameter: small (3); medium (5); large (7)
Char. 25 (Artichoke) Central flower head: shape of tip: acute (1); rounded (2); flat (3); depressed (4)  Char. 26 (Artichoke) Central flower head: anthocyanin coloration of inner bracts: absent or very weak (1); weak (3); medium (5); strong (7); very strong (9)  Char. 27 (Artichoke) Central flower head: density of inner bracts: sparse (3); medium (5); dense (7)  Char. 28 (Artichoke) Receptacle: diameter: small (3); medium (5); large (7)  Char. 29 (Artichoke) Receptacle: shape in longitudinal section: flat (1); slightly depressed (2); strongly depressed (3)  Char. 31 (Artichoke) Central flower head: time of beginning of opening: early (3); medium (5); late (7) and to add (+) with explanation  Char. 32 (Artichoke) Outer bract: color (external side): green (1); green with violet stripes (2); green with violet blush (3); violet with green stripes (2); green with violet (5); entirely violet (6)  Char. 33 (Artichoke) Outer bract: depth of emargination: shallow (3); medium (5); deep (7)  Char. 35 (Artichoke) Outer bract: depth of emargination: shallow (3); medium (5); deep (7)  Char. 36 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 37 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 39 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 39 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 39 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 40 (Artichoke) Outer bract: shape: broader than long (1); as broad as long (2); longer than broad (3)  Char. 40 (Artichoke) Outer bract: length of sase: short (3); medium (5); thick (7); very thick (9)  Char. 41 (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); many (7)  Char. 42 (Artichoke) T		Char. 24	(1); medium ovate (2); broad elliptic (3); circular (4); oblate
absent or very weak (1); weak (3); medium (5); strong (7); very strong (9)  Char. 27 (Artichoke) Central flower head: density of inner bracts: sparse (3); medium (5); dense (7)  Char. 28 (Artichoke) Receptacle: diameter: small (3); medium (5); large (7)  Char. 29 (Artichoke) Receptacle: thickness: thin (3); medium (5); thick (7)  Char. 30 (Artichoke) Receptacle: shape in longitudinal section: flat (1); slightly depressed (2); strongly depressed (3)  Char. 31 (Artichoke) Central flower head: time of beginning of opening: early (3); medium (5); late (7) and to add (+) with explanation  Char. 32 (Artichoke) Outer bract: color (external side): green (1); green with violet stripes (2); green with violet blush (3); violet with green stripes (4); mainly violet (5); entirely violet (6)  Char. 33 (Artichoke) Outer bract: depth of emargination: shallow (3); medium (5); deep (7)  Char. 34 (Artichoke) Outer bract: depth of emargination: shallow (3); medium (5); deep (7)  Char. 35 (Artichoke) Outer bract: elepth of spines: absent or very short (1); short (3); medium (5); ing (9)  Char. 36 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 38 (Artichoke) Outer bract: length of base: short (3); medium (5); long (7)  Char. 39 (Artichoke) Outer bract: length of base: short (3); medium (5); long (7)  Char. 40 Outer bract: thickness at base: very thin (1); thin (3); medium (5); thick (7); very thick (9)  Char. 41 (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); medium (5); many (7)  Char. 42 (Artichoke) Plant: number of lateral shoots at base: weak (3); medium (5); strong (7)		Char. 25	(Artichoke) Central flower head: shape of tip: acute (1); rounded (2); flat
medium (5); dense (7)  Char. 28 (Artichoke) Receptacle: diameter: small (3); medium (5); large (7)  Char. 29 (Artichoke) Receptacle: thickness: thin (3); medium (5); thick (7)  Char. 30 (Artichoke) Receptacle: shape in longitudinal section: flat (1); slightly depressed (2); strongly depressed (3)  Char. 31 (Artichoke) Central flower head: time of beginning of opening: early (3); medium (5); late (7) and to add (+) with explanation  Char. 32 (Artichoke) Outer bract: color (external side): green (1); green with violet stripes (2); green with violet blush (3); violet with green stripes (4); mainly violet (5); entirely violet (6)  Char. 33 (Artichoke) Outer bract: shape of apex: acute (1); flat (2); emarginate (3) and to add (+) and provide illustration  Char. 34 (Artichoke) Outer bract: depth of emargination: shallow (3); medium (5); deep (7)  Char. 35 (Artichoke) Outer bract: reflexing of tip: reflexed towards center of flower head (1); straight (2); reflexed towards outside of the flower head (3)  Char. 36 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 37 (Artichoke) Outer bract: mucron: absent (1); present (9)  Char. 38 (Artichoke) Outer bract: shape: broader than long (1); as broad as long (2); longer than broad (3)  Char. 39 (Artichoke) Outer bract: length of base: short (3); medium (5); long (7)  Char. 40 (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); many (7)  Char. 41 (Artichoke) Tendency to produce lateral shoots at base: weak (3); medium (5); strong (7)  To indicate botanical name as Cynara cardunculus L. and tick boxes to be provided for "Artichoke" and "Cardoon"		Char. 26	(Artichoke) Central flower head: anthocyanin coloration of inner bracts: absent or very weak (1); weak (3); medium (5); strong (7);
Char. 28 (Artichoke) Receptacle: diameter: small (3); medium (5); large (7) Char. 29 (Artichoke) Receptacle: thickness: thin (3); medium (5); thick (7) Char. 30 (Artichoke) Receptacle: shape in longitudinal section: flat (1); slightly depressed (2); strongly depressed (3) Char. 31 (Artichoke) Central flower head: time of beginning of opening: early (3); medium (5); late (7) and to add (+) with explanation Char. 32 (Artichoke) Outer bract: color (external side): green (1); green with violet stripes (2); green with violet with green stripes (4); mainly violet (5); entirely violet (6) Char. 33 (Artichoke) Outer bract: shape of apex: acute (1); flat (2); emarginate (3) and to add (+) and provide illustration Char. 34 (Artichoke) Outer bract: depth of emargination: shallow (3); medium (5); deep (7) Char. 35 (Artichoke) Outer bract: reflexing of tip: reflexed towards center of flower head (1); straight (2); reflexed towards outside of the flower head (3)  Char. 36 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9) Char. 37 (Artichoke) Outer bract: murcon: absent (1); present (9) Char. 38 (Artichoke) Outer bract: shape: broader than long (1); as broad as long (2); longer than broad (3)  Char. 39 (Artichoke) Outer bract: length of base: short (3); medium (5); long (7) Char. 40 (Outer bract: thickness at base: very thin (1); thin (3); medium (5); thick (7); very thick (9) Char. 41 (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); many (7) Char. 42 (Artichoke) Tendency to produce lateral shoots at base: weak (3); medium (5); strong (7)  To indicate botanical name as Cynara cardunculus L. and tick boxes to be provided for "Artichoke" and "Cardoon"		Char. 27	
Char. 30 (Artichoke) Receptacle: shape in longitudinal section: flat (1); slightly depressed (2); strongly depressed (3)  Char. 31 (Artichoke) Central flower head: time of beginning of opening: early (3); medium (5); late (7) and to add (+) with explanation  Char. 32 (Artichoke) Outer bract: color (external side): green (1); green with violet stripes (2); green with violet blush (3); violet with green stripes (4); mainly violet (5); entirely violet (6)  Char. 33 (Artichoke) Outer bract: shape of apex: acute (1); flat (2); emarginate (3) and to add (+) and provide illustration  Char. 34 (Artichoke) Outer bract: depth of emargination: shallow (3); medium (5); deep (7)  Char. 35 (Artichoke) Outer bract: reflexing of tip: reflexed towards center of flower head (3)  Char. 36 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 37 (Artichoke) Outer bract: mucron: absent (1); present (9)  Char. 38 (Artichoke) Outer bract: shape: broader than long (1); as broad as long (2); longer than broad (3)  Char. 39 (Artichoke) Outer bract: length of base: short (3); medium (5); long (7)  Char. 40 (Artichoke) Outer bract: length of base: short (3); medium (5); thick (*)  (*) (7); very thick (9)  Char. 41 (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); medium (5); many (7)  Char. 42 (Artichoke) Tendency to produce lateral shoots at base: weak (3); medium (5); strong (7)  To indicate botanical name as Cynara cardunculus L. and tick boxes to be provided for "Artichoke" and "Cardoon"		Char. 28	
Char. 31 (Artichoke) Central flower head: time of beginning of opening: early (3); medium (5); late (7) and to add (+) with explanation  Char. 32 (Artichoke) Outer bract: color (external side): green (1); green with violet stripes (2); green with violet blush (3); violet with green stripes (4); mainly violet (5); entirely violet (6)  Char. 33 (Artichoke) Outer bract: shape of apex: acute (1); flat (2); emarginate (3) and to add (+) and provide illustration  Char. 34 (Artichoke) Outer bract: depth of emargination: shallow (3); medium (5); deep (7)  Char. 35 (Artichoke) Outer bract: reflexing of tip: reflexed towards center of flower head (1); straight (2); reflexed towards outside of the flower head (3)  Char. 36 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 37 (Artichoke) Outer bract: mucron: absent (1); present (9)  Char. 38 (Artichoke) Outer bract: shape: broader than long (1); as broad as long (2); longer than broad (3)  Char. 39 (Artichoke) Outer bract: length of base: short (3); medium (5); long (7)  Char. 40 Outer bract: thickness at base: very thin (1); thin (3); medium (5); thick (*)  (*) (7); very thick (9)  Char. 41 (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); many (7)  Char. 42 (Artichoke) Tendency to produce lateral shoots at base: weak (3); medium (5); strong (7)  TQ 1 to indicate botanical name as Cynara cardunculus L. and tick boxes to be provided for "Artichoke" and "Cardoon"		Char. 29	(Artichoke) Receptacle: thickness: thin (3); medium (5); thick (7)
medium (5); late (7) and to add (+) with explanation  Char. 32 (Artichoke) Outer bract: color (external side): green (1); green with violet stripes (2); green with violet blush (3); violet with green stripes (4); mainly violet (5); entirely violet (6)  Char. 33 (Artichoke) Outer bract: shape of apex: acute (1); flat (2); emarginate (3) and to add (+) and provide illustration  Char. 34 (Artichoke) Outer bract: depth of emargination: shallow (3); medium (5); deep (7)  Char. 35 (Artichoke) Outer bract: reflexing of tip: reflexed towards center of flower head (3)  Char. 36 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 37 (Artichoke) Outer bract: mucron: absent (1); present (9)  Char. 38 (Artichoke) Outer bract: shape: broader than long (1); as broad as long (2); longer than broad (3)  Char. 39 (Artichoke) Outer bract: length of base: short (3); medium (5); long (7)  Char. 40 Outer bract: thickness at base: very thin (1); thin (3); medium (5); thick (7); very thick (9)  Char. 41 (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); many (7)  Char. 42 (Artichoke) Tendency to produce lateral shoots at base: weak (3); medium (5); strong (7)  TQ 1 to indicate botanical name as Cynara cardunculus L. and tick boxes to be provided for "Artichoke" and "Cardoon"		Char. 30	
(*) stripes (2); green with violet blush (3); violet with green stripes (4); mainly violet (5); entirely violet (6)  Char. 33 (Artichoke) Outer bract: shape of apex: acute (1); flat (2); emarginate (3) and to add (+) and provide illustration  Char. 34 (Artichoke) Outer bract: depth of emargination: shallow (3); medium (5); deep (7)  Char. 35 (Artichoke) Outer bract: reflexing of tip: reflexed towards center of flower head (1); straight (2); reflexed towards outside of the flower head (3)  Char. 36 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 37 (Artichoke) Outer bract: mucron: absent (1); present (9)  Char. 38 (Artichoke) Outer bract: shape: broader than long (1); as broad as long (2); longer than broad (3)  Char. 39 (Artichoke) Outer bract: length of base: short (3); medium (5); long (7)  Char. 40 Outer bract: thickness at base: very thin (1); thin (3); medium (5); thick (*) (7); very thick (9)  Char. 41 (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); many (7)  Char. 42 (Artichoke) Tendency to produce lateral shoots at base: weak (3); medium (5); strong (7)  TQ 1 to indicate botanical name as Cynara cardunculus L. and tick boxes to be provided for "Artichoke" and "Cardoon"		Char. 31	
Char. 33 (Artichoke) Outer bract: shape of apex: acute (1); flat (2); emarginate (3) and to add (+) and provide illustration  Char. 34 (Artichoke) Outer bract: depth of emargination: shallow (3); medium (5); deep (7)  Char. 35 (Artichoke) Outer bract: reflexing of tip: reflexed towards center of flower head (1); straight (2); reflexed towards outside of the flower head (3)  Char. 36 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 37 (Artichoke) Outer bract: mucron: absent (1); present (9)  Char. 38 (Artichoke) Outer bract: shape: broader than long (1); as broad as long (2); longer than broad (3)  Char. 39 (Artichoke) Outer bract: length of base: short (3); medium (5); long (7)  Char. 40 Outer bract: thickness at base: very thin (1); thin (3); medium (5); thick (*)  (7); very thick (9)  Char. 41 (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); many (7)  Char. 42 (Artichoke) Tendency to produce lateral shoots at base: weak (3); medium (5); strong (7)  TQ 1 to indicate botanical name as Cynara cardunculus L. and tick boxes to be provided for "Artichoke" and "Cardoon"			stripes (2); green with violet blush (3); violet with green
Char. 34 (Artichoke) Outer bract: depth of emargination: shallow (3); medium (5); deep (7)  Char. 35 (Artichoke) Outer bract: reflexing of tip: reflexed towards center of flower head (1); straight (2); reflexed towards outside of the flower head (3)  Char. 36 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 37 (Artichoke) Outer bract: mucron: absent (1); present (9)  Char. 38 (Artichoke) Outer bract: shape: broader than long (1); as broad as long (2); longer than broad (3)  Char. 39 (Artichoke) Outer bract: length of base: short (3); medium (5); long (7)  Char. 40 Outer bract: thickness at base: very thin (1); thin (3); medium (5); thick (*) (7); very thick (9)  Char. 41 (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); many (7)  Char. 42 (Artichoke) Tendency to produce lateral shoots at base: weak (3); medium (5); strong (7)  TQ 1 to indicate botanical name as Cynara cardunculus L. and tick boxes to be provided for "Artichoke" and "Cardoon"		Char. 33	(Artichoke) Outer bract: shape of apex: acute (1); flat (2); emarginate (3)
Char. 35 (Artichoke) Outer bract: reflexing of tip: reflexed towards center of flower head (1); straight (2); reflexed towards outside of the flower head (3)  Char. 36 (Artichoke) Outer bract: length of spines: absent or very short (1); short (3); medium (5); long (7); very long (9)  Char. 37 (Artichoke) Outer bract: mucron: absent (1); present (9)  Char. 38 (Artichoke) Outer bract: shape: broader than long (1); as broad as long (2); longer than broad (3)  Char. 39 (Artichoke) Outer bract: length of base: short (3); medium (5); long (7)  Char. 40 Outer bract: thickness at base: very thin (1); thin (3); medium (5); thick (*) (7); very thick (9)  Char. 41 (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); many (7)  Char. 42 (Artichoke) Tendency to produce lateral shoots at base: weak (3); medium (5); strong (7)  TQ 1 to indicate botanical name as Cynara cardunculus L. and tick boxes to be provided for "Artichoke" and "Cardoon"		Char. 34	(Artichoke) Outer bract: depth of emargination: shallow (3); medium (5);
(3); medium (5); long (7); very long (9)  Char. 37 (Artichoke) Outer bract: mucron: absent (1); present (9)  Char. 38 (Artichoke) Outer bract: shape: broader than long (1); as broad as long (2); longer than broad (3)  Char. 39 (Artichoke) Outer bract: length of base: short (3); medium (5); long (7)  Char. 40 Outer bract: thickness at base: very thin (1); thin (3); medium (5); thick (*)  (**) (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); many (7)  Char. 42 (Artichoke) Tendency to produce lateral shoots at base: weak (3); medium (5); strong (7)  TQ 1 to indicate botanical name as Cynara cardunculus L. and tick boxes to be provided for "Artichoke" and "Cardoon"		Char. 35	(Artichoke) Outer bract: reflexing of tip: reflexed towards center of flower head (1); straight (2); reflexed towards outside of the
Char. 38 (Artichoke) Outer bract: shape: broader than long (1); as broad as long (2); longer than broad (3)  Char. 39 (Artichoke) Outer bract: length of base: short (3); medium (5); long (7)  Char. 40 Outer bract: thickness at base: very thin (1); thin (3); medium (5); thick (*) (7); very thick (9)  Char. 41 (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); many (7)  Char. 42 (Artichoke) Tendency to produce lateral shoots at base: weak (3); medium (5); strong (7)  TQ 1 to indicate botanical name as Cynara cardunculus L. and tick boxes to be provided for "Artichoke" and "Cardoon"		Char. 36	
(2); longer than broad (3)  Char. 39 (Artichoke) Outer bract: length of base: short (3); medium (5); long (7)  Char. 40 Outer bract: thickness at base: very thin (1); thin (3); medium (5); thick  (*) (7); very thick (9)  Char. 41 (Artichoke) Plant: number of lateral heads on main stem: few (3);  medium (5); many (7)  Char. 42 (Artichoke) Tendency to produce lateral shoots at base: weak (3);  medium (5); strong (7)  TQ 1 to indicate botanical name as Cynara cardunculus L. and tick boxes to be provided for "Artichoke" and "Cardoon"		Char. 37	(Artichoke) Outer bract: mucron: absent (1); present (9)
Char. 40 (*) Char. 41 (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); many (7) Char. 42 (Artichoke) Tendency to produce lateral shoots at base: weak (3); medium (5); strong (7)  TQ 1 to indicate botanical name as Cynara cardunculus L. and tick boxes to be provided for "Artichoke" and "Cardoon"		Char. 38	-
(*) (7); very thick (9)  Char. 41 (Artichoke) Plant: number of lateral heads on main stem: few (3); medium (5); many (7)  Char. 42 (Artichoke) Tendency to produce lateral shoots at base: weak (3); medium (5); strong (7)  TQ 1 to indicate botanical name as Cynara cardunculus L. and tick boxes to be provided for "Artichoke" and "Cardoon"		Char. 39	(Artichoke) Outer bract: length of base: short (3); medium (5); long (7)
medium (5); many (7)  Char. 42 (Artichoke) Tendency to produce lateral shoots at base: weak (3); medium (5); strong (7)  TQ 1 to indicate botanical name as Cynara cardunculus L. and tick boxes to be provided for "Artichoke" and "Cardoon"		(*)	(7); very thick (9)
medium (5); strong (7)  TQ 1 to indicate botanical name as Cynara cardunculus L. and tick boxes to be provided for "Artichoke" and "Cardoon"			medium (5); many (7)
for "Artichoke" and "Cardoon"		Char. 42	
TQ 4.2 (b) to add row for parent line	TQ 1		• • • • • • • • • • • • • • • • • • •
	TQ 4.2 (b)	to add row t	or parent line

Lettuce (partial revision: Bremia resistance)

42. The TWV considered document TWV/43/10 and amendments proposed to that document by Mr. François Boulineau (France). The subgroup agreed that an amended version be circulated to the members of the TWV, and if there was no objection, the draft revised Test Guidelines would be put forward for adoption by the TC in 2010 on that basis.

Raphanus sativus L. (revision)

43. The subgroup discussed document TG/63/7(proj.3) - TG/64/7(proj.2), presented by Mrs. Swenja Tams (Germany). The subgroup agreed that there should be two groups (D-Group and S-Group) which were tentatively defined as follows:

	earliness
D-Group	>60 days
S-Group	<45 days

Those varieties of which the earliness falls between 45 and 60 days would be considered as "grey-zone" varieties and their handling would be considered later, taking into account length and width as follows:

	length of radish	width of radish
D-Group	>12.5cm	>2.5cm
S-Group	<12.5cm	<2.5cm

On that basis, the Subgroup agreed to use document TG/63/7(proj.3) - TG/64/7(proj.2) as the working document and to consider the characteristics included in that document with a view to classify whether the characteristic concerned could be used for:

- (a) D- and S-Groups with one common scale;
- (b) D- and S-Groups with two separate scales;
- (c) D-Group only;
- (d) S-Group only.

The Subgroup agreed the following:

General	The term "radish" used throughout in document TG/63/7(proj.3) - TG/64/7(proj.2) should be replaced with a more appropriate term, although the Subgroup decided to retain the term "radish" for the time being.
4.2.2	the word "single cross" to be deleted
4.2.3	to be deleted
Char.1/1	to be used both for D-and S-Groups with one common scale; ISF to propose an example variety of S-Group for state 4
Char.2/2	to be used both for D-and S-Groups with one common scale
Char.3/3	to be split into a characteristic for D-Group and another characteristic for S-

	Group	
Char.4/-	to be used for S-Group only	
Char.4	to be retained and used for D-Group only	
Char.5/5	to be used both for D-and S-Groups with one common scale;	
Char.6/6	to be split into a characteristic for D-Group and another characteristic for S-Group	
Char.7b	to be used for D-Group only; example varieties for S-Group to be deleted	
Char.8/-	to be split into a characteristic for D-Group and another characteristic for S-Group; a set of example varieties for D-Group to be provided; QN to be replaced by PQ	
Char.9/8	to be used both for D-and S-Groups with one common scale	
Char.10/9	to be used both for D-and S-Groups with one common scale; the example varieties to be deleted completely	
Char/10	to be used both for D-and S-Groups with one common scale; the example variety "Viola" to be inserted for note 1 of S-Group	
Char.11/11	to be split into a characteristic for D-Group and another characteristic for S-Group	
Char.12	to be deleted	
Char.13/13	to be split into a characteristic for D-Group and another characteristic for S-Group; an example variety to be provided for note 1 of D-Group	
Char.15+16	to be split as follows:	
/14	Petiole: anthocyanin coloration (for S-Group) with the states of expression "absent (1) and present (9)";	
	Petiole: intensity of anthocyanin coloration (for S-Group) with the states of expression "very weak (1), weak (3), medium (5), strong (7) and very strong (9)";	
	Petiole: anthocyanin coloration (for D-Group) with the states of expression "absent (1) and present (9)"	
Char/15	to be split into a characteristic for D-Group and another characteristic for S-Group; example varieties for D-Group to be rearranged through inclusion of a new set of example varieties to be provided by Japan	
Char.18/16	to be split into a characteristic for D-Group and another characteristic for S-Group	
Char.19/17	to be used both for D-and S-Groups with one common scale; to add "rectangular"; drawings to be improved and included under Section 8.2 in a grid	
Char.17a	to be deleted	
Char.17b	to be deleted	
Char/18	to be used for D-Group only	
Char.20/19	to be used both for D-and S-Groups with one common scale	
Char.21/20	to be used both for D-and S-Groups with one common scale; to read: "Radish: shape of <u>apex</u> "	

follows:  Radish: Number of colors of skin (without green shoulder) with the states of expression "one (1) and (2)" with (+) and explanation under Section 8.2  Only varieties with one color: Radish: color of skin with the states of expression "white (1), yellowish white (2), yellow (3), brown (4), green (5), pink (6), re (7), dark pink red (8), purple (9), violet (10), black (11)"  Only varieties with two colors: Radish: color of skin of upper part with states of expression to be determined to check a whether it is necessary to add a characteristic concerning the color of skin on lower part  Char. new to be used for D-Group only; a more appropriate term to be introduced to replace "stripe"  Char.25/- to be used both for D-and S-Groups with one common scale; a more appropriate term to be introduced to replace "root"; to receive a (+) and explanation is Section 8.2  Char/22 to be used for D-Group only; Japan to check whether the red color observed anthocyanin coloration or red skin color  Char/24 to be used for D-Group only  Char.26/- to be deleted  Char.27/25 to be used both for D-and S-Groups with one common scale; to check whether this characteristic should read "Radish: main color of flesh"; additional color to be provided by China in agreement with Chars. 23+24/21  Char. 28/26 to be retained and to be used for D-Group only; explanation to be provided by China in agreement with Chars. 23+24/21  Char.28/26 to be split into a characteristic for D-Group and another characteristic for Section 8.2 to define the time of harvest maturity		
expression "one (1) and (2)" with (+) and explanation under Section 8.2  Only varieties with one color: Radish: color of skin with the states of expression "white (1), yellowish white (2), yellow (3), brown (4), green (5), pink (6), re (7), dark pink red (8), purple (9), violet (10), black (11)"  Only varieties with two colors: Radish: color of skin of upper part with states of expression to be determined to check a whether it is necessary to add a characteristic concerning the color of skin on lower part  Char. new to be used for D-Group only; a more appropriate term to be introduced to replace "stripe"  Char.25/- to be used both for D-and S-Groups with one common scale; a more appropriate term to be introduced to replace "root"; to receive a (+) and explanation is Section 8.2  Char/22 to be used for D-Group only  Char/23 to be used for D-Group only; Japan to check whether the red color observed anthocyanin coloration or red skin color  Char/24 to be used for D-Group only  Char.26/- to be deleted  Char.27/25 to be used both for D-and S-Groups with one common scale; to check whether this characteristic should read "Radish: main color of flesh"; additional color to be provided by China in agreement with Chars. 23+24/21  Char. 28/26 to be retained and to be used for D-Group only; explanation to be provided in Section 8.2 to define the time of harvest maturity  Char.29/27 to be split into a characteristic for D-Group and another characteristic for S-Group; for D-Group, the scale of states of expression to be reduced to "absert		to be used both for D-and S-Groups with one common scale; to be rearranged as follows:
"white (1), yellowish white (2), yellow (3), brown (4), green (5), pink (6), re (7), dark pink red (8), purple (9), violet (10), black (11)"  Only varieties with two colors: Radish: color of skin of upper part with states of expression to be determined to check a whether it is necessary to add a characteristic concerning the color of skin on lower part  Char. new to be used for D-Group only; a more appropriate term to be introduced to replace "stripe"  Char.25/- to be used both for D-and S-Groups with one common scale; a more appropriate term to be introduced to replace "root"; to receive a (+) and explanation is Section 8.2  Char/22 to be used for D-Group only  Char/23 to be used for D-Group only; Japan to check whether the red color observed anthocyanin coloration or red skin color  Char/24 to be used for D-Group only  Char.26/- to be deleted  Char.27/25 to be used both for D-and S-Groups with one common scale; to check whether this characteristic should read "Radish: main color of flesh"; additional color to be provided by China in agreement with Chars. 23+24/21  Char. 28/26 to be retained and to be used for D-Group only; explanation to be provided in Section 8.2 to define the time of harvest maturity  Char.28/26 to be split into a characteristic for D-Group and another characteristic for Section 9.2 Group; for D-Group, the scale of states of expression to be reduced to "absert		Radish: Number of colors of skin (without green shoulder) with the states of expression "one (1) and (2)" with (+) and explanation under Section 8.2
expression to be determined to check a whether it is necessary to add a characteristic concerning the colo of skin on lower part  Char. new to be used for D-Group only; a more appropriate term to be introduced to replace "stripe"  Char.25/- to be used both for D-and S-Groups with one common scale; a more appropriate term to be introduced to replace "root"; to receive a (+) and explanation in Section 8.2  Char/22 to be used for D-Group only  Char/23 to be used for D-Group only; Japan to check whether the red color observed anthocyanin coloration or red skin color  Char/24 to be used for D-Group only  Char.26/- to be deleted  Char.27/25 to be used both for D-and S-Groups with one common scale; to check whether this characteristic should read "Radish: main color of flesh"; additional color to be provided by China in agreement with Chars. 23+24/21  Char. 28/26 to be retained and to be used for D-Group only; explanation to be provided in Section 8.2 to define the time of harvest maturity  Char.28/26 to be split into a characteristic for D-Group and another characteristic for S-Group; for D-Group, the scale of states of expression to be reduced to "abser		Only varieties with one color: Radish: color of skin with the states of expression "white (1), yellowish white (2), yellow (3), brown (4), green (5), pink (6), red (7), dark pink red (8), purple (9), violet (10), black (11)"
Char. new to be used for D-Group only; a more appropriate term to be introduced to replace "stripe"  Char.25/- to be used both for D-and S-Groups with one common scale; a more appropriate term to be introduced to replace "root"; to receive a (+) and explanation in Section 8.2  Char/22 to be used for D-Group only  Char/23 to be used for D-Group only; Japan to check whether the red color observed anthocyanin coloration or red skin color  Char/24 to be used for D-Group only  Char.26/-  Char.27/25 to be used both for D-and S-Groups with one common scale; to check whether this characteristic should read "Radish: main color of flesh"; additional color to be provided by China in agreement with Chars. 23+24/21  Char. 28/26 to be retained and to be used for D-Group only; explanation to be provided in Section 8.2 to define the time of harvest maturity  Char.28b/26 to be split into a characteristic for D-Group and another characteristic for Second; for D-Group, the scale of states of expression to be reduced to "abservables"		Only varieties with two colors: Radish: color of skin of upper part with states of expression to be determined
replace "stripe"  Char.25/-  to be used both for D-and S-Groups with one common scale; a more appropriaterm to be introduced to replace "root"; to receive a (+) and explanation in Section 8.2  Char/22  to be used for D-Group only  Char/23  to be used for D-Group only; Japan to check whether the red color observed anthocyanin coloration or red skin color  Char/24  to be used for D-Group only  Char.26/-  Char.27/25  to be used both for D-and S-Groups with one common scale; to check whether this characteristic should read "Radish: main color of flesh"; additional color to be provided by China in agreement with Chars. 23+24/21  Char. 28/26  to be retained and to be used for D-Group only; explanation to be provided in Section 8.2 to define the time of harvest maturity  Char.28b/26  Char.29/27  to be split into a characteristic for D-Group and another characteristic for Section; for D-Group, the scale of states of expression to be reduced to "absert		to check a whether it is necessary to add a characteristic concerning the color of skin on lower part
term to be introduced to replace "root"; to receive a (+) and explanation is Section 8.2  Char/22 to be used for D-Group only  Char/23 to be used for D-Group only; Japan to check whether the red color observed anthocyanin coloration or red skin color  Char/24 to be used for D-Group only  Char.26/- to be deleted  Char.27/25 to be used both for D-and S-Groups with one common scale; to check whether this characteristic should read "Radish: main color of flesh"; additional color to be provided by China in agreement with Chars. 23+24/21  Char. 28/26 to be retained and to be used for D-Group only; explanation to be provided in Section 8.2 to define the time of harvest maturity  Char.28b/26 to be split into a characteristic for D-Group and another characteristic for Section 9.2 for D-Group, the scale of states of expression to be reduced to "absent the section 8.2 for D-Group, the scale of states of expression to be reduced to "absent the section 8.2 for D-Group, the scale of states of expression to be reduced to "absent the section 8.2 for D-Group, the scale of states of expression to be reduced to "absent the section 8.2 for D-Group and another characteristic for Section 8.2 for D-Group, the scale of states of expression to be reduced to "absent the section 8.2 for D-Group and another characteristic for Section 8.2 for D-Group, the scale of states of expression to be reduced to "absent the section 8.2 for D-Group and another characteristic for Section 8.2 for D-Group and 8.2	Char. new	to be used for D-Group only; a more appropriate term to be introduced to replace "stripe"
Char/23 to be used for D-Group only; Japan to check whether the red color observed anthocyanin coloration or red skin color  Char/24 to be used for D-Group only  Char.26/- to be deleted  Char.27/25 to be used both for D-and S-Groups with one common scale; to check whether this characteristic should read "Radish: main color of flesh"; additional color to be provided by China in agreement with Chars. 23+24/21  Char. 28/26 to be retained and to be used for D-Group only; explanation to be provided in Section 8.2 to define the time of harvest maturity  Char.28b/26 to be deleted  Char.29/27 to be split into a characteristic for D-Group and another characteristic for Section B-Group; for D-Group, the scale of states of expression to be reduced to "absention to be reduced to "abs	Char.25/-	to be used both for D-and S-Groups with one common scale; a more appropriate term to be introduced to replace "root"; to receive a (+) and explanation in Section 8.2
char/24 to be used for D-Group only  Char.26/- to be used both for D-and S-Groups with one common scale; to check whether this characteristic should read "Radish: main color of flesh"; additional color to be provided by China in agreement with Chars. 23+24/21  Char. 28/26 to be retained and to be used for D-Group only; explanation to be provided in Section 8.2 to define the time of harvest maturity  Char. 28b/26 to be split into a characteristic for D-Group and another characteristic for Section 9.2 for D-Group, the scale of states of expression to be reduced to "absert	Char/22	to be used for D-Group only
Char.26/- to be deleted  Char.27/25 to be used both for D-and S-Groups with one common scale; to check whether this characteristic should read "Radish: main color of flesh"; additional color to be provided by China in agreement with Chars. 23+24/21  Char. 28/26 to be retained and to be used for D-Group only; explanation to be provided in Section 8.2 to define the time of harvest maturity  Char.28b/26 to be deleted  Char.29/27 to be split into a characteristic for D-Group and another characteristic for Section 5.2 for D-Group; for D-Group, the scale of states of expression to be reduced to "absent the characteristic for Section 5.2".	Char/23	to be used for D-Group only; Japan to check whether the red color observed is anthocyanin coloration or red skin color
Char.27/25 to be used both for D-and S-Groups with one common scale; to check whether this characteristic should read "Radish: main color of flesh"; additional color to be provided by China in agreement with Chars. 23+24/21  Char. 28/26 to be retained and to be used for D-Group only; explanation to be provided in Section 8.2 to define the time of harvest maturity  Char.28b/26 to be deleted  Char.29/27 to be split into a characteristic for D-Group and another characteristic for Section B-Group; for D-Group, the scale of states of expression to be reduced to "absention to be reduced to	Char/24	to be used for D-Group only
this characteristic should read "Radish: <u>main</u> color of flesh"; additional color to be provided by China in agreement with Chars. 23+24/21  Char. 28/26 to be retained and to be used for D-Group only; explanation to be provided in Section 8.2 to define the time of harvest maturity  Char. 28b/26 to be deleted  Char. 29/27 to be split into a characteristic for D-Group and another characteristic for Section 9. Group; for D-Group, the scale of states of expression to be reduced to "absention to be reduced to "absention".	Char.26/-	to be deleted
Section 8.2 to define the time of harvest maturity  Char.28b/26 to be deleted  Char.29/27 to be split into a characteristic for D-Group and another characteristic for S Group; for D-Group, the scale of states of expression to be reduced to "absention of the scale of states of expression to be reduced to "absention of the scale of states of expression to be reduced to "absention of the scale of states of expression to be reduced to "absention of the scale of states of expression to be reduced to "absention of the scale of states of expression to be reduced to "absention of the scale of states of expression to be reduced to "absention of the scale of states of expression to be reduced to "absention of the scale of states of expression to be reduced to "absention of the scale of states of expression to be reduced to "absention of the scale of states of expression to be reduced to "absention of the scale o	Char.27/25	to be used both for D-and S-Groups with one common scale; to check whether this characteristic should read "Radish: <u>main</u> color of flesh"; additional colors to be provided by China in agreement with Chars. 23+24/21
Char.29/27 to be split into a characteristic for D-Group and another characteristic for S Group; for D-Group, the scale of states of expression to be reduced to "abser	Char. 28/26	to be retained and to be used for D-Group only; explanation to be provided in Section 8.2 to define the time of harvest maturity
Group; for D-Group, the scale of states of expression to be reduced to "abser		to be deleted
	Char.29/27	to be split into a characteristic for D-Group and another characteristic for S-Group; for D-Group, the scale of states of expression to be reduced to "absent or very weak (1), weakly expressed (2) and strongly expressed (3)"
Char.30/- to be moved from the Table to Section 7 of TQ	Char.30/-	to be moved from the Table to Section 7 of TQ
Char.31 to be deleted	Char.31	to be deleted
8.1 (b) to read: "All observation on the leaf and the radish should be made at the time of harvest maturity."	8.1 (b)	to read: "All observation on the leaf and the radish should be made at the time of harvest maturity."
TQ the Reference to hybrid varieties on the top of the TQ to be removed	TQ	the Reference to hybrid varieties on the top of the TQ to be removed

# Shiitake (Lentinula edodes (Berk.) Pegler

44. The subgroup discussed document TG/SHIITK(proj.1), as presented by Mr. Yuji Niwa (Japan), and agreed the following:

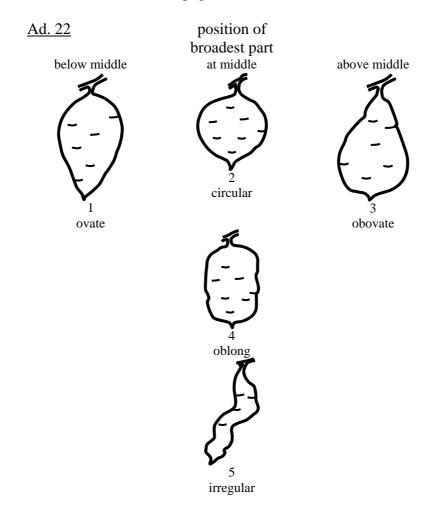
UPOV Code to be provided
Botanical name to be checked
"Oak Mushroom" to be added as an additional English Name
Botanical name to be checked
the minimum quantity of material to be "1 litre of spawn and $\underline{3}$ slant tubes containing a pure culture
spawn not to be older than <u>3</u> months
to be formulated as for Sections 2.4 and 2.5 of Test Guidelines for Agaricus
the second sentence to read: "Tubes should be covered by cotton /or silicon plugs or plastic caps allowing sterile air diffusion."
the word "plants" to be replaced with the word "fruit bodies"
to check whether the test should be conducted under wood log cultivation or under sawdust block cultivation; to check whether to refer to the number of fruit bodies rather than to the number of wood logs or sawdust blocks; to check whether it is possible to reduce the number of wood logs or sawdust blocks
to check whether it is possible to reduce the number of fruit bodies
to introduce a key to define "log cultivation type" and "sawdust cultivation type"
MG to be replaced with VG; state 2 to read: "intermediate"
MG to be replaced with VG; state 2 to read: "intermediate"; to receive explanation in Section 8.2
to read: "Aerial hyphae: browning"; to receive explanation in Section 8.2 to indicate how to observe this characteristic; to check whether this characteristic is linked with characteristic 4
to check whether this characteristic to be observed as QL; if PQ, this characteristic should have at least three states of expression
to check whether this is a QN characteristic; to check whether it is possible to increase the interval between the states of expression from 1 degree to 2 degrees; to receive explanation in Section 8.2, to indicate how this characteristic can be examined
to check whether it is possible to delete any of these characteristics
to be modified in accordance with the corresponding section of Test Guidelines for Agaricus

Sweet potato (Ipomoea batatas (L. Lam.))

45. The subgroup discussed document TG/SWEETPOT(proj.4) as presented by Mr. Keun-Jin Choi (Republic of Korea), and agreed the following:

5.3	to delete characteristics 8 and 17 and add characteristic 9
Table of Chars.	to delete all references to countries in parentheses after example varieties
Char. 8	to be indicated as VG and state 1 to read "absent or sparse"
Char. 9	to be indicated as QL, VG and to add (*)
Char. 10	to read "Only varieties with leaf lobes absent: Leaf blade: shape" and to have states as cordate (1); triangular (2); reniform (3); circular (4)
Char. 14	state 1 to read "absent or very small" and to add state "small" (3) and to check example varieties
Char. 15	to be indicated as QN, VG; to add notes (a) and (d); and state 1 to read "very weak"
Char. 16	to be indicated as VG
Char. 18	to be deleted
Char. 20	to be indicated as VG, to read "Plant: presence of flowers", to amend state 1 to read "absent" and state 9 to read "present" and to check example varieties
Char. 21	state 3 to read "small (moderately compressed)" and state 7 to read "large (moderately elongated)"
Char. 22	to read "Storage root: shape" with the states: ovate (1); elliptic (2); obovate (3); oblong (4); irregular (5)
Char. 23	to be deleted
Char. 26	to be indicated as PQ
Char. 27	to add example varieties from Char. 29
Char. 28	to have notes 1, 2, 3 and to add example varieties from Char. 27 in appropriate states
Char. 29	to be indicated as VG
Char. 30	to have notes 1, 2, 3
Ad. 11	to correct notes and to add illustration for state 9 for three-lobed variety
Ad. 22	to be presented as below:

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Ad. 26	to read "The secondary color is the color with the second largest surface area of skin."
Ad. 27	to read "The main color is the color with the largest surface area of storage root in cross section"
Ad. 29	to read "The secondary color is the color with the second largest surface area of storage root in cross section"
TQ 5.2, 5.4, 5.5, 5.7, 5.8	to be deleted
TQ 7.3	to read "Other information: Main use: Food / Feed [ ] Ornamental [ ]"

# Tomato (revision)

46. The subgroup discussed document TG/44/11(proj.2), as presented by Mr. Sergio Semon (European Community), and agreed the following:

2.3	an additional sentence to be added, reading "For disease, resistance testing,	
	additional plant material may be requested."	

3.3.2	To be deleted
3.4.2	the minimum number of plants on which records must be taken to be 20
3.5	the number of plants on which all observation should be made to be 20
Char.1	the asterisk to be deleted; to receive the example variety "Colt" for note 1
Char.2	the state "semi determinate" to be deleted
Char.6	the example varieties to be checked
Char. 7	MS to be deleted; the states of expression to be extended to 1 to 9; example variety to be provided for state 1 by Bulgaria and Poland, and for state 9 by the Netherlands, new pictures to be inserted under Ad. 16 in section 8.2
Chars.8,9	the asterisk to be deleted
Char.10	additional illustration to be added under Ad.10 in Section 8.2
Char.14	to receive illustration under Section 8.2
Char.15	to be deleted
Chars.18, 19	to be deleted
Char.20	Japan to provide example varieties with orange fruit for states 1 and 2
Char.21	the QN to be deleted
Char.23	to receive new pictures for Ad.23 in Section 8.2
Chars23 to 27	to retain the words (before maturity)
Char.24	state 1 to read "very small"
Char.24,25	the asterisk to be deleted; the example variety "Daniela" not to be included
Char.26	to read: "Fruit, green stripes"
Char.27	to read: "Fruit: intensity of green color excluding shoulder"
Char.29	the states of expression to read: "very small (compressed)(1), small (moderately compressed)(3), medium (5), large (moderately elongated)(7) and very large (elongated)(9)" with the reversed order of the example varieties
Char.30	the states of expression to be rearranged as follows: cordate (1) renamed from "heart-shaped"; ovate (2) renamed from "obovate"; elliptic (3); circular (4); oblate (5) merged from "flattened" and "slightly flattened"; cylindric (6) renamed from "cylindrical"; square (7) renamed from "rectangular"; obovate (8) renamed from "ovate"; obcordate (9); pyriform (10) renamed from "pear-shaped"; trapezoid (11) and flattened (12); states to be illustrated in a grid form, under Ad.30 in Section 8.2 as well as in Technical Questionnaire
Char.32	to be deleted
Char.37	to receive new pictures under Ad.37 in Section 8.2
Char.38	ISF to provide an example variety for note 1
Char.39	MG to be replaced with MS
Chars.40, 41	to read " (at maturity)"; the state "green" to receive note 7

Char.41	Before this characteristic a new characteristic to be inserted reading "Fruit: stripe at maturity" with the states of expression "absent (1) and present (9)"
Char.42	to read: "Only varieties with red-colored fruit: Fruit: hue of red color"; to be placed after Char.40
Char.46	explanation on how to examine this characteristic to be provided
Char.48	(+) to be replaced with (c)
Char.49	to be deleted
Char.50	to be retained with explanation under Section 8.2 that this characteristic might not be observed under Southern climate
Char.51	note 3 to read "highly resistant"
Char.53.2	numbering of the characteristic to be corrected
Char.54	the code of the pathogen to be (For <u>l</u> )
Char.55	to be retained
Char.55.6	the asterisk to be deleted; the inclusion of strain 2-4-5 to be further examined
Char.56.1	the asterisk to be deleted
Char.66	to be included subject to additional information provided
Ad.5	the definition proposed by the Netherlands to be retained
Ad.6	the definitions proposed by the Netherlands and France to be combined
Ad.7	new pictures to be inserted together with definition provided by the Netherlands
Ad.17	the second picture to be deleted
Ad.23	the pictures to be replaced with new pictures
Ad.25, Ad.27	the second sentence to read: "This means that the note for intensity of green color of shoulder should be higher than the note for intensity of green color excluding shoulder, or in exceptional cases the same if the difference in intensity is very small"
Ad.30	drawings to be a arranged in a grid
Ad.37	pictures to be reviewed
Ad.39	the notes under the pictures to be removed
Ad.48	full explanation to be provided

## Assessing Uniformity by Off-Types on the Basis of More Than One Sample or Sub-Samples

## 47. The TWV considered document TWV/43/14.

48. The TWV agreed that the questionnaire should provide a further example to illustrate options where uniformity was assessed in a plant sample of 40 plants in each of two independent growing cycles, in two separate plantings. In the first option, the uniformity would be assessed in 80 plants over the two growing cycles. In the second option, the uniformity would be assessed in 40 plants in each of the two years, with a decision rule that failure in one year would lead to a third year of examination., with the final decision being based on two years out of three.

## Method of calculation of COYU

49. The TWV noted the report on developments concerning the method of calculation of COYU, as set out document TWV/43/15.

### Applications For Varieties With Low Germination

50. The TWV received an oral report from the Netherlands on its plans to prepare a document on applications for varieties with low germination, focused on parent lines, for consideration by the TWV at its forty-fourth session. The TWV agreed that proposals should be developed on the basis of that document for consideration by the other Technical Working Parties and the Technical Committee, as considered appropriate by the Technical Committee, with a view to their possible incorporation in a future revision of document TGP/7.

## Nomenclature of pathogens

51. The TWV considered documents TWV/43/13 and TWV/43/16 and concluded that the proposal should be presented to the Technical Committee and other Technical Working Parties for consideration for a possible future revision of TGP/12. It also agreed that the states of expression for quantitative characteristics with 3 notes might be reviewed, if appropriate.

#### **Variety Denominations**

52. The TWV noted the proposals of the Technical Committee concerning variety denomination Class 211 "Edible Mushrooms" and Class 202 "Panicum, Setaria" in the "Explanatory Notes on Variety Denominations under the UPOV Convention" (see document UPOV/INF/12/1, Annex I, Part II "Classes encompassing more than one genus"), as set out in document TWV/43/5.

#### **UPOV** Information Databases

- 53. The TWV noted the report on developments concerning UPOV information databases as set out in document TWV/43/4 and agreed to provide comments on additions and amendments to the UPOV codes, as set out in that document, by October 23, 2009.
- 54. The TWV noted that the Office was investigating means of including variety denominations in non-Roman alphabet in the UPOV-ROM. It also noted that a decision on accessibility and cost of access to a web-based version of the Plant Variety Database would be considered by the members of the Union before the web-based version was published.

#### Variety Description Databases

- 55. The TWV noted the report on developments provided in document TWV/43/6.
- 56. An expert from the Netherlands reported that the Netherlands intended to publish its variety descriptions on its website. The TWV agreed that consideration should be given to how a link to that information could be provided on the UPOV website. In response to a question from ISF, the expert from the Netherlands explained that particular consideration would be given to the publication of variety descriptions of parent lines. It was explained that descriptions

of parent lines only submitted as a part of an application for a hybrid variety would not be published.

- 57. The TWV noted the importance of the availability of variety description information, while recognizing in particular that variety descriptions from different locations would not necessarily be harmonized.
- 58. The TWV also noted the difficulties that could arise in obtaining example varieties and noted that that matter would be considered in the discussions on document TGP/7, GN 28.

## Exchangeable Software

59. The TWV considered document TWV/43/8 and UPOV/INF/Software/Draft 2 and agreed that document UPOV/INF/Software/Draft 2 represented a suitable basis to develop a list of exchangeable software.

#### **Electronic Application Systems**

60. The TWV welcomed the developments concerning electronic application systems, as set out in document TWV/43/9

#### Combinations of Lines or Varieties

61. The TWV noted the developments concerning combinations of lines and varieties as set out in documents TWV/43/7 and TWA/37/7 Add..

# Review of Grouping, Technical Questionnaire and Asterisked Characteristics in the Test Guidelines for Pea

62. The TWV agreed that Mr. Francois Boulineau (France) should prepare a questionnaire survey, to be issued to the TWV by the Office by March 26, 2010, on characteristics used for grouping in Pea. Mr. Boulineau was requested to prepare a document summarizing the results of the survey for the forty-fourth session of the TWV as a basis for considering a partial revision of the Test Guidelines for Pea.

#### Recommendations on Draft Test Guidelines

- (a) Test Guidelines to be put forward for adoption by the Technical Committee
- 63. The TWV agreed that the following draft Test Guidelines should be sent to the TC for adoption at its forty-sixth session, to be held in Geneva in April 2010, on the basis of the following documents and the comments in this report:

Agaricus L.	TG/AGARIC(proj.3)
Asparagus (Revision)	TG/130/4 (proj.1)
Black salsify (Revision) (Scorzonera hispanica L.)	TG/116/4(proj.1)
Dock (Rumex L.)	TG/RUMEX (proj.4)
Lettuce (Partial revision)	TWV/43/10
Sweet potato ( <i>Ipomoea batatas</i> (L.) Lam.)	TG/SWEETPOT (proj.4)

- 64. In the case of the Test Guidelines for *Agaricus* L., the TWV agreed with the proposal of the subgroup that the information concerning Ad. 23 should be circulated to the TWV by the end of August 2009, for approval by correspondence. Subject to agreement by correspondence, the Test Guidelines would be put forward for adoption by the Technical Committee in 2010. If the information was not provided or not agreed, the characteristic would be deleted and the Test Guidelines put forward for adoption without that characteristic.
- 65. With regard to the Test Guidelines for Dock, the TWV agreed with the proposal of the subgroup that the draft Test Guidelines incorporating the requested information should be circulated to the TWV by the end of August 2009, for approval by correspondence. Subject to agreement by correspondence, the Test Guidelines would be put forward for adoption by the Technical Committee in 2010.
- 66. The TWV agreed that a proposal for the partial revision of the Test Guidelines for Lettuce, based on document TWV/43/10 as amended by Mr. François Boulineau (France), should be circulated to the members of the TWV (see paragraph 42). If there was no objection to that proposal, the draft revised Test Guidelines for Lettuce would be put forward for adoption by the TC in 2010 on that basis.
- (b) Test Guidelines to be discussed at the forty-fourth session
- 67. The TWV agreed to discuss the following draft Test Guidelines at its forty-fourth session:

Echinacea
*French Bean (partial revision: diseases)
*Globe Artichoke (Cynara scolymus L.) (Revision: including Cardoon)
*Lettuce (partial revision: <i>Bremia</i> resistance)
Lycopersicon (excluding Lycopersicon esculentum Mill.)
*Onion (Partial revision: skin color of onion)
*Pea (Partial revision: grouping characteristics)
Pleurotus
*Raphanus sativus L. (Revision)
*Rosemary
Shiitake ( <i>Lentinula edodes</i> )
*Spinach (Partial revision: <i>Peronospera</i> disease)
*Tomato (revision)
*Watermelon (revision)

- (c) Test Guidelines to be discussed at the forty-fifth session
- 68. The TWV agreed to discuss the following draft Test Guidelines at its forty-fifth session:

|--|

69. The leading experts, interested experts and timetables for the development of the Test Guidelines, are summarized in Annex V. The TWV agreed that, for less well known species, it would be helpful for the Leading Expert to provide a brief introduction to the species at the start of the subgroup discussions.

#### Guidance for drafters of Test Guidelines

70. The TWV received a presentation by the Office of the Union on the TG Drafters' Webpage.

### Date and Place of the Next Session

71. At the invitation of the expert from Bulgaria, the TWV agreed to hold its forty-fourth session in Veliko Tarnovo, Bulgaria, from July 5 to 9, 2010.

#### Future program

- 72. 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. UPOV information databases
  - 8. Variety description databases
  - 9. Exchangeable software
  - 10. Electronic application systems
  - 11. Applications for varieties with low germination (Netherlands to prepare a document)
  - 12. Nomenclature of pathogens (Netherlands to prepare a document)
  - 13. Guidance on the quantity of plant material to be provided for Test Guidelines (Netherlands to prepare a document)
  - 14. Review of grouping characteristics in the Test Guidelines for Pea (document to be prepared by France)
  - 15. Proposals for Partial Revisions / Corrections of Test Guidelines
  - 16. Matters to be resolved concerning Test Guidelines adopted by the Technical Committee

- 17. Discussion on draft Test Guidelines
- 18. Recommendations on draft Test Guidelines
- 19. Date and place of the next session
- 20. Future program
- 21. Report of the session (if time permits)
- 22. Closing of the session.

# Celebration of the 10th Anniversary of the UPOV membership of China

- 73. On Thursday, April 23, 2009, the TWV was invited to participate in the ceremony to celebrate the  $10^{\rm th}$  anniversary of the UPOV membership of China.
  - 74. The TWV adopted this report at the close of the session.

[Annexes follow]

#### ANNEX I

#### **MEMBERS**

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[Annex II follows]

### TWV/43/17

### ANNEX II

# Speech of Mr. Shi Yanquan, Deputy Director General of the Department of Science, Technology and Education, Ministry of Agriculture

Distinguished Vice Secretary-General Mr. Rolf Jördens, Ladies and gentlemen,

We are very pleased today to witness the opening of the 43rd Session of the UPOV-Technical Working Party for Vegetables in Beijing. On behalf of the Plant Variety Protection Office of Ministry of Agriculture (MOA) of China, I would like to extend warm welcome to guests from home and abroad and congratulations on the convening of this meeting.

Ten years ago, China became a party of the International Convention for the Protection of New Varieties of Plants, and put into effect the Regulations of the People's Republic of China on the Protection of New Varieties of Plants. Over the past decade, under the leadership of the government and at the support of the whole society, in particular, plant variety protection (PVP) practitioners, China has developed PVP from scratch and made significant progress. The phased goal of establishing a PVP system has been basically achieved. All those developments have been encouraging and showing the commitment of the Chinese government and people to respecting and protecting intellectual property rights.

Up to date, the Ministry of Agriculture of China has announced 7 lists for PVP that include 74 genera or species in total, while the State Forestry Administration announced 4 lists with 78 genera or species. As the scope of PVP in China expands gradually, the number of variety right applications and authorizations increases year by year. By March 2009, the number of China's PVP applications has reached 6348, of which 2312 has been authorized. China's PVP system has been playing an increasingly significant role in encouraging innovation, facilitating transferring and bolstering development. When talking about the huge achievements China has made in PVP, we should never forget the support to China's PVP and assistance to the MOA Office on PVP given by other UPOV members, Mr. Jördens and the Secretariat of UPOV under your leadership. On behalf of the whole staff of the MOA Office on PVP, I would like to express my most sincere gratitude to the Secretariat of UPOV, Mr. Jördens, and experts from countries around world for your attention and support to the PVP activities in China.

While in 2008 the Chinese government launched the Outline of the National Intellectual Property Strategy, of which PVP is one of the key issues, the Second Session of the Eleventh National People's Congress that closed not long ago decided to continue the implementation of the national intellectual property strategy, which includes PVP. Following the requirements set by the Outline, we will strengthen foreign exchanges and cooperation on PVP and particularly exchanges and cooperation with the Secretariat of UPOV and UPOV members and persistently improve the capability of innovation, protection and utilization of new varieties, thus making joint contribution to global PVP development.

Finally, I wish this meeting a complete success!

### ANNEX III

# Protection of New Varieties of Agricultural Plants in China Lin Xiangming Deputy Director Division of GMO Biosafety and IPR, Department of Science, Technology and Education, Ministry of Agriculture, China

# Contents Regulations Current PVP System Statistics DUS Testing International Cooperation

# Regulations

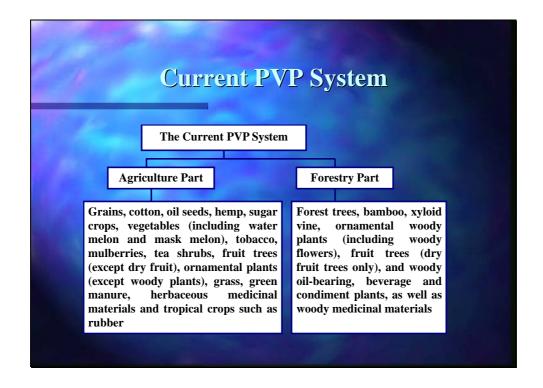
■ "Regulations of the People's Republic of China on the Protection of New Varieties of Plants"

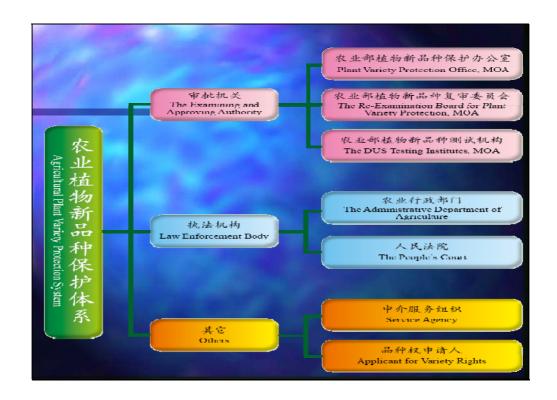
# Regulations

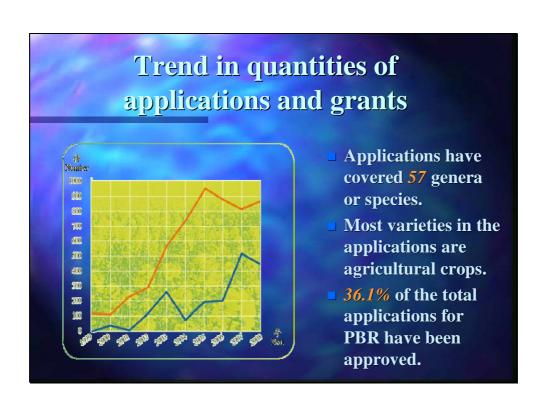
- "Detailed Rules for Implementation of the Regulations of the People's Republic of China on the Protection of New Varieties of Plants (Agriculture Part)"
- "Provisions of the Ministry of Agriculture on Examination of the Re-Examination Board for New Varieties of Plants"
- "Provisions of the Ministry of Agriculture on Handling Cases of Infringement upon Agricultural Plant Variety Rights"

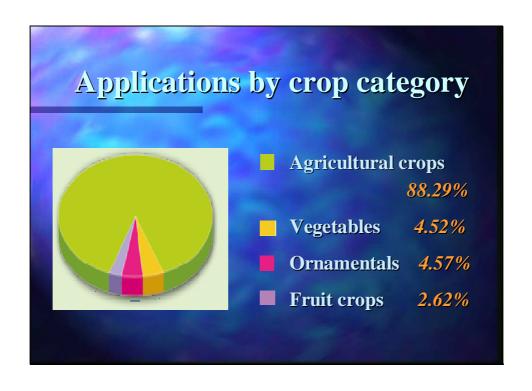
# Regulations

- "Interpretation of the Supreme People's Court on Issues regarding Trying of Cases of Disputes over New Varieties of Plants"
- "Provisions of the Supreme People's Court on the Specific Application of Relevant Laws in Trying Cases of Infringement upon Plant Variety Rights"







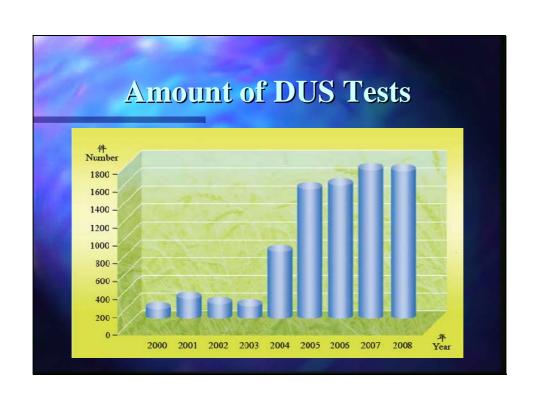








# Test Guidelines Test Guidelines Test Guidelines Test Guidelines Test Guidelines Test Guidelines



# **International Cooperation**

- Sino-Dutch Project
- TWA Beijing, 2006
- **UPOV TG Development: Tea**

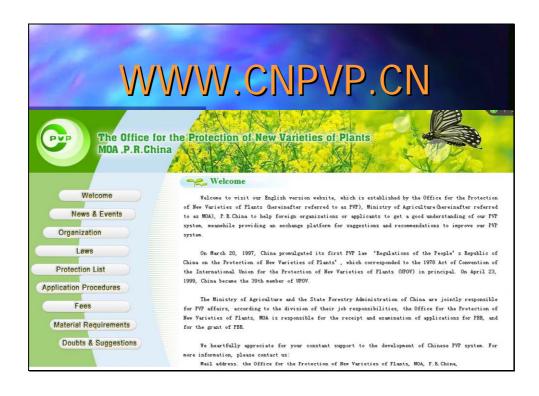
**Foxtail Millet** 

Attendance at UPOV meetings

# **International Cooperation**

- The 2<sup>nd</sup> East Asia PVP Forum

  Beijing, April 22-23, 2009
- Training course on PVP
  Guangzhou, May 2009





### ANNEX IV



# RECENT DEVELOPMENTS IN UPOV



### **OVERVIEW**

- UPOV Membership
- Council
- Consultative Committee
- CAJ (information materials)
- Symposium on Contracts
- Second World Seed Conference
- Bioversity (GIGA project)
- TC / Test Guidelines



### MEMBERSHIP OF UPOV

### **67 Members**

(66 States and the European Community)

### New Members:

Georgia November 29, 2008 Costa Rica January 12, 2009

Draft Laws examined Council Session Advice

FYR Macedonia October 30, 2008 positive

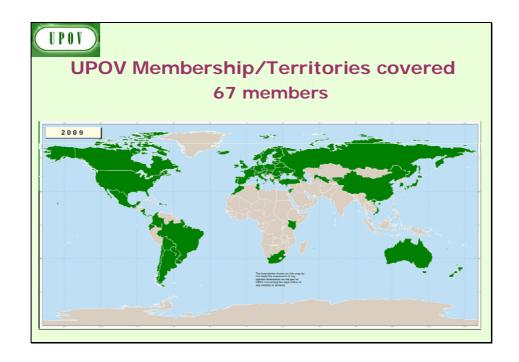
Bosnia and Herzegovina October 30, 2008 amendments of draft law required

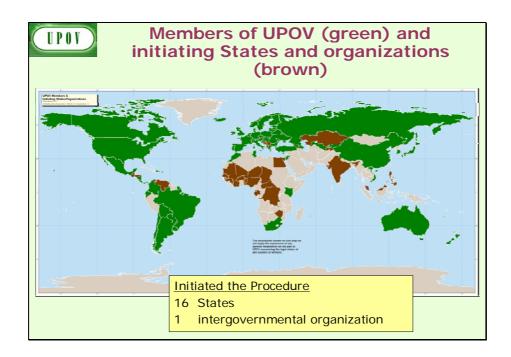
- to be resubmitted to Council

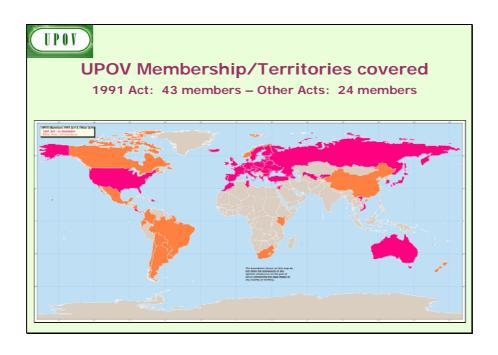
Peru April 3, 2009 positive

### India, Zimbabwe

Opinion on whether India and Zimbabwe have acted expeditiously to complete their legislation and any UPOV formalities and to effect the deposit, to be the responsibility of the Consultative Committee









## COUNCIL



### COUNCIL

Mr. Francis Gurry appointed as the new Secretary-General of UPOV for the period from October 30, 2008 to September 30, 2014.

Appointment of **Vice Secretary-General**, **Mr. Rolf Jördens** extended until November 30, 2010.



### COUNCIL

### The Council elected:

Mr. Jöel Guiard (France),
 Vice-Chairman of the Technical Committee (2008-2010).

### and

- Mr. Dirk Theobald (European Community), Chairman, TWA;
- Mr. Gerie van der Heijden (Netherlands), Chairman, TWC;
- Mrs. Bronislava Bátorová (Slovakia), Chairperson, TWF;
- Ms. Andrea Menne (Germany), Chairperson, TWO;
- Mrs. Radmila Safarikova (Czech Republic), Chairperson, TWV;
- Mr. Andy Mitchell (United Kingdom), Chairman, BMT for the period October 2008- October 2011



### COUNCIL

### **Statistics**

In 2007, the total annual number of titles issued by UPOV members exceeded 10,000 for the first time.



### COUNCIL

### Convention on Biological Diversity (CBD)

Peer review of the draft "Study on the relationship between the ABS International Regimen and other international instruments which govern the use of genetic resources: The WTO; WIPO; and UPOV".

see http://www.upov.int/en/about/key\_issues.htm



# **CONSULTATIVE COMMITTEE**



## **Consultative Committee**

# Assistance webpage

- to provide information on relevant forms of assistance in the development of plant variety protection according to the UPOV Convention and an approach to seek to enhance extra-budgetary sources of funding for assistance
- Mr. Minwook Kim, Deputy Director, Foodgrain Policy Division, Ministry for Food, Agriculture and Fisheries, Republic of Korea

(internship: November 3, 2008 to November 2, 2010) **to investigate extra-budgetary resources** and to assist in the development of proposals to access such funding.



### **Consultative Committee**

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



- Endorsed preparation of the draft program and budget of the Union for the 2010-2011 biennium
- Endorsed medium-term work program of the Office of the Union for the period 2012-2015
- Approved procedure for the appointment of a new Vice Secretary-General



# ADMINISTRATIVE AND LEGAL COMMITTEE (CAJ)



### **CAJ**

**INFORMATION MATERIALS** 

⇒ Guidance for the preparation of laws based on the 1991 Act of the UPOV Convention (document UPOV/INF/6/1 Draft 2)

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

proposed for adoption by the Council in October 2009

(will be available in English, French, German, Spanish, Arabic, Chinese and Russian)



### **CAJ**

### INFORMATION MATERIALS (CAJ/59/3: Annex)

Novelry under the UPOV Convention

Article 6(2) of the 1991 Act "Varieties of secent creation": example provision CAJ by correspondence (May 2009) Right of Priority under the UPOV Convention UPOV/EXN/PRI UPOV/EXN/PRP Provisional Protection under the UPOV Convent Article 13 of the 1991 Act "Provisional Protection": example provision(s) CAJ by correspondence (May 2009) LPOV/EXN/EDV Essentially Derived Varieties under the UPOV Convention Approved by CAJ CAJ-AG (October 2009) to consider a possible revision UPOV/EXN/EXC Exceptions to the Breeder's Right under the UPOV Convention Approved by CAJ Approved by CAJ Cancellation of the Breeder's Right under the UPOV Convention

Enforcement of Breeders' Rights under the UPOV Convention

Genera and Species to be Protected under the 1991 Act of the UPOV Convention Approved by CAJ

To be considered by CAJ/59 (April 2009)

CAJ by correspondence (May 2009) UPOV/EXN/CAN UPOV/EXN/ENF Draft 2 CAJ by correspondence (May 2009) National Treatment under the 1991 Act of the UPOV Convention UPOV/EXN/NAT Draft1 Draft 3 CAJ correspondence (May 2009)and Draft 4 to be considered by CAJ-AG (October 2009) Draft 4 to be considered by CAI-AG (October 2009)

CAI by correspondence (May 2009)

Draft 2 to be considered by CAI-AG (October 2009)

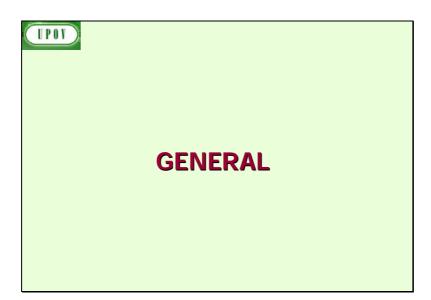
Draft 2 to be considered by CAI-AG (October 2009)

To be considered by CAI-AG (October 2009)

CAI-AG (October 2007) agreed out to pursue the development of a document

Status

Advanted to the Control Restrictions on the Exercise of the Breeder's Right under the UPOV Con UPOV/EXN/RES Draft1 Definition of Variety under the 1991 Act of the UPOV Convention
Conditions and Limitations Concerning the Breeder's Authorization
Conditions of Protection under the UPOV Convention UPOV/EXN/VAR Draft 1 UPOV/EXN/... Draft 1 UPOV/EXN/COND Draft 1 Guidance on how to become a member of UPOV and accede to the 1991 Act of the UPOV Convention CAJ by correspondence (May 2009) CAJ by correspondence (May 2009) Guidance on how to ratify, or accede to, the 1991 Act of the UPOV Convention (for members of UPOV only) UPOV/INF/... Deaft 1





# **Symposium on Contracts in relation to Plant Breeders' Rights**

 Purpose: provide information to authorities and breeders on practices and experiences under different jurisdictions

(October 31, 2008, UPOV headquarters, Geneva)

http://www.upov.int/en/news/2008/ upov\_symposium\_contracts\_2008







### **BIOVERSITY**

GIGA (Germplasm Information on Germplasm Accessions) project to define a minimum set of characterization and evaluation standards for 22 crops of major economic importance

Crop specific experts invited from UPOV

- Bean
- Faba bean
- Cultivated potato
- Yam
- Rice
- Cowpea
- Chickpea
- Maize
- Pearl millet
- Pigeon pea
- Sorghum
- Sweet potato
- Finger millet
- Lentil

01)	BIOVERS	ITY	
Crop (Bioversity list)	Relevant UPOV Test Guidelines	TWP	Leading Expert
Bean (?)	Phaseolus coccineus L. (Runner bean) (TG/9/5) / Phaseolus vulgaris L. (French bean) (TG/12/9)	TWV/ TWA	Kees van Ettekoven (NL) / Francois Boulineau (FR)
Faba bean (Vicia faba L.)	Vicia faba L. var. major Harz (Broad bean) (TG/206/1) / Vicia faba L. var. minor Harz (Field bean) (TG/8/6)	TWV/ TWA	Niall Green (GB) / Beate Rucker (DE)
Cultivated potato (Solanum tuberosum L.)	Solanum tuberosum L. (TG/23/6)	TWA	Beate Rücker (DE)
Yam (Dioscorea spp.)	Dioscorea alata L.; Dioscorea polystachya Turcz.; Dioscorea japonica Thunb. (TG/YAM (adopted 2009))	TWV	Mitsuo Yuasa (JP)

BIOVERSITY			
Crop (Bioversity list)	Relevant UPOV Test Guidelines	TWP	Leading Expert
Rice (Oryza sativa L.)	Oryza sativa L. (TG/16/8)	TWA	Luis Salaices (Spain)
Cowpea (Vigna unguiculata L.)	Vigna unguiculata (L.) Walp. subsp. sesquipedalis (L.) Verdc.) (TG/COWPEA (adopted 2009))	TWV	Mitsuo Yuasa (JP)
Chickpea (Cicer arietinum L.)	Cicer arietinum L. (TG/143/4)	TWV	Francois Boulineau (FR)
Maize (Zea mays L.)	Zea mays L. (TG/2/7)	TWA (/TWV)	Joël Guiard (FR)
Pearl millet (Pennisetum glaucum L.)	Pennisetum glaucum (L.) R. Br. (TG/PRL_MIL(proj.5))	TWA	Mr. Luís Gustavo Asp Pacheco (BR)
Pigeon pea (Cajanus cajan (L.) Millsp.)	-		



## **BIOVERSITY**

Crop (Bioversity list)	Relevant UPOV Test Guidelines	TWP	Leading Expert
Sorghum (Sorghum bicolor (L.) Moench)	Sorghum bicolor L. (TG/122/3)	TWA	Joël Guiard (FR)
Sweet potato (Ipomoea batatas)	Ipomoea batatas (L.) Lam. (TG/SWEETPOT(proj.3))	TWA/ TWV	Keun-Jin Choi (KR)
Finger millet (Eleusine coracana (L.) Gaertn)	-		
Lentil (Lens culinaris Medik)	Lens culinaris Medik. (TG/210/1)	TWV	Francois Boulineau (FR)



Developments at the 45th session (March 2009)

of the

# **TECHNICAL COMMITTEE**

(not on the TWP agenda)



# Test Guidelines adopted by Technical Committee in 2009

### New Test Guidelines:

Status	Document No.	English	Drafter	TWP
Information provided	TG/COWPEA(proj.4)	Asparagus-bean	JP/NL	TWV
Complete	TG/HEVEA(proj.6)	Rubber	BR	TWO
Information requested	TG/NERIUM(proj.5)	Oleander	FR	TWO
Information requested	TG/PASSI(proj.6)	Passion Fruit	ZA	TWF
Asterisked chars. to be agreed	TG/PHLOX(proj.3)	Phlox	NL	TWO
Information requested	TG/PRUNU_PAD(proj.4)	Bird cherry	HU	TWO/ TWF
Information provided	TG/TARO(proj.4)	Taro	JP	TWV
Information provided	TG/YAM(proj.4)	Yam	JP	TWV

### UPOV Test Guidelines adopted by **Technical Committee in 2009** Document No. English Drafter TWP Status Revisions: TG/2/7 FR/HU Complete Maize TWA/ TWV **UA** comments TG/7/10 GB TWV/ Pea to be resolved TWA Information TG/28/9 Zonal Pelargonium DE TWO Illustration to TG/45/7 Cauliflower FR TWV be provided Partial revisions Complete TG/89/6 Rev. Swede TWV TG/155/4 Rev. Pumpkin TWV Complete Complete TG/209/1 Rev. Dendrobium TWO Complete TG/220/1 Rev. Verbena, Vervain TWO



# Other Test Guidelines considered by Technical Committee in 2009

Status	Document No.	English	Drafter	TWP
Referred back to TWO	TG/ANUBI (proj.5)	Anubias	SG	TWO
Referred back to TWF	TG/FIG(proj.4)	Fig	ES	TWF
Referred back to TWO	TG/MOKARA(proj.5)	Mokara	SG	TWO



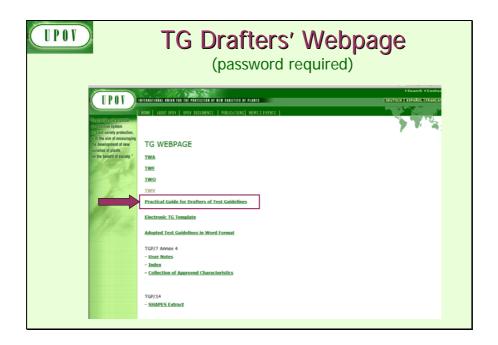
# Test Guidelines corrections notified to Technical Committee in 2009

Status	Document No.	English	TWP
Published	TG/26/5 Corr.	Chrysanthemum	TWO
Published	TG/86/5 Corr.	Anthurium	TWO
Published	TG/94/6 Corr.	Ling, Scots Heather	TWO
Published	TG/176/4 Corr.	Osteospermum	TWO
Published	TG/225/1 Corr.	Waxflower	TWO
Published	TG/238/1 Corr.	Tea	TWA
Published	TG/241/1 Corr.	Nemesia	TWO



### **Test Guidelines**

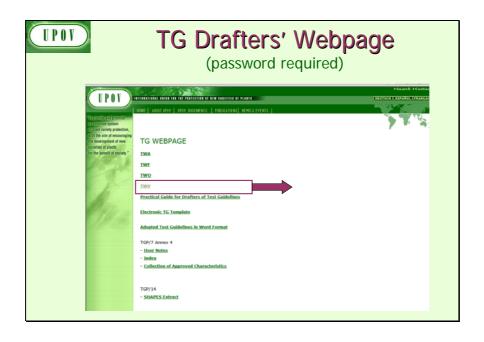
- 257 Test Guidelines adopted
- Further 64 to be discussed in 2009
  - 39 new Test Guidelines
  - 22 Revisions
  - 3 Partial revisions(31 "final" draft stage)

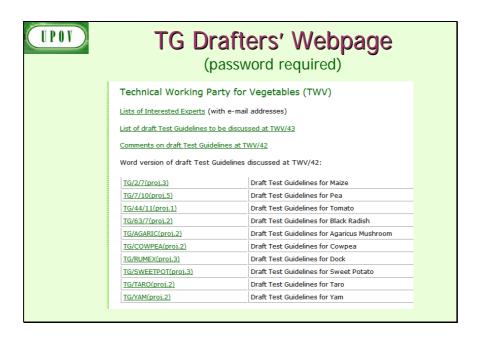


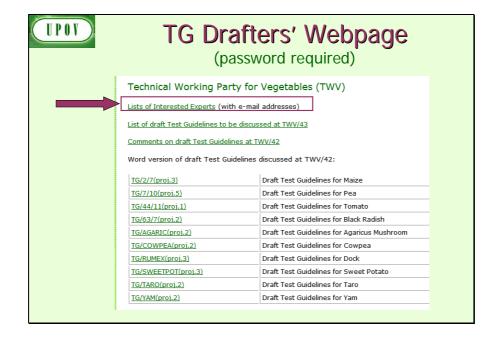


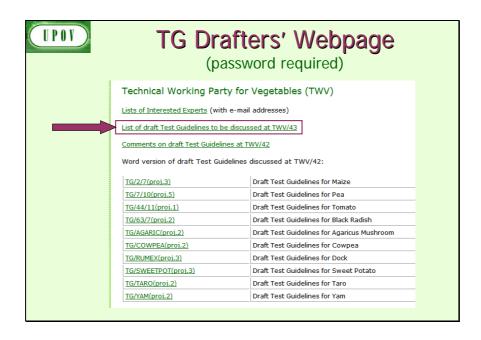


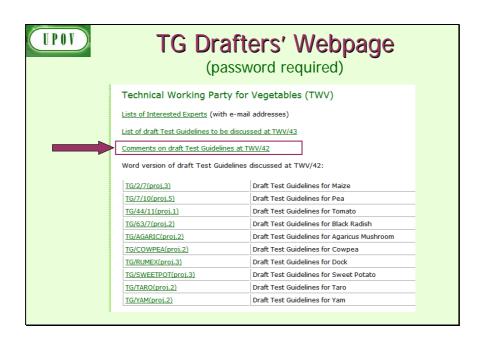


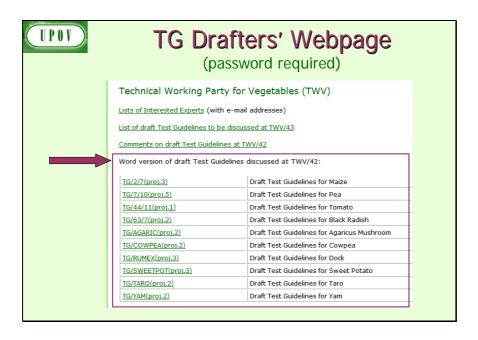














### ANNEX V

### LIST OF LEADING EXPERTS

### DRAFT TEST GUIDELINES TO BE SUBMITTED TO THE TECHNICAL COMMITTEE IN 2009

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

### before June 5, 2009

Species	Basic Document	Leading expert(s)	Interested experts (State / Organization) <sup>1</sup>
Agaricus L.	TG/AGARIC(proj.3)	Sergio Semon (QZ)	ES, HU, JP, KR, NL, PL, ISF <sup>2</sup> , Office
Asparagus (Revision)	TG/130/4 (proj.1)	Kees van Ettekoven (NL), Swenja Tams (DE)	ES, FR, IT, JP, QZ, UA, ISF <sup>2</sup> , Office
Black salsify (Revision) (Scorzonera hispanica L.)	TG/116/4(proj.1)	Kees van Ettekoven (NL)	DE, FR, ISF <sup>2</sup> , Office
Dock (Rumex L.)	TG/RUMEX (proj.4)	Nadiya Leschuk (UA)	CZ, HU, NL, PL, ISF <sup>2</sup> , Office
Lettuce (Partial revision)	TWV/43/10	François Boulineau (FR)	BR, CZ, DE, ES, IT, JP, NL, PL, QZ, UA, ZA, ISF <sup>2</sup> , Office
Sweet potato ( <i>Ipomoea batatas</i> (L.) Lam.)	TG/SWEETPOT (proj.4)	TWA (KR)	BR, CN, JP, KE, MX, ZA, ISF <sup>2</sup> , Office

 $<sup>^1</sup>$  for name of experts, see List of Participants (Annex I)  $^2$  to be circulated to  $\underline{isf@worldseed.org}$  and to the ISF representatives included in the List of Participants (Annex I)

### DRAFT TEST GUIDELINES TO BE DISCUSSED AT TWV/44

(\* indicates possible final draft Test Guidelines)

New draft to be submitted to the Office of the Union

### May 21, 2010

# (Guideline date for Subgroup draft to be circulated by Leading Expert: March 26, 2010 Guideline date for comments to Leading Expert by Subgroup: April 23, 2010

Species	Basic Document	Leading expert(s)	Interested experts (State / Organization) <sup>3</sup>
Echinacea	New	Julia Borys (PL)	DE, HU, ISF <sup>2</sup> , Office
*French Bean (Partial revision: diseases)	TG/12/9	François Boulineau (FR)	
*Globe Artichoke ( <i>Cynara</i> scolymus L.) (Revision: including Cardoon)	TG/184/4(proj.1) / TG/CARD/(proj.2)	Chrystelle Jouy (FR)	AR, DE, ES, IL, IT, NL, QZ, RU, ISF <sup>2</sup> . Office
*Lettuce (partial revision: <i>Bremia</i> resistance)	TG/13/10	Kees van Ettekoven (NL)	
Lycopersicon (excluding Lycopersicon esculentum Mill.) (Tomato rootstock)	new	Kees van Ettekoven (NL)	ES, FR, IT, QZ, ISF <sup>2</sup> , Office
*Onion (Partial revision: skin color of onion)	TG/46/7	Kees van Ettekoven (NL)	
*Pea (Partial revision: grouping characteristics)	TG/7/10	Francois Boulineau	
Pleurotus	New	Hyun-Joo SHIN (KR)	BE, JP, QZ, ISF <sup>2</sup> , Office
*Raphanus sativus L. (Revision)	TG/63/7(proj.3) – TG/64/7(proj.2)	Swenja Tams (DE)	CN, CZ, ES, FR, GB, , HU IT, JP, KR, NL, PL, QZ, , ZA, ISF <sup>2,</sup> Office
*Rosemary	TG/ROSEMARY (proj.4)	Zsuzsanna Füstös (HU)	DE, FR, GB, NL, PL, QZ, ZA, ISF <sup>2</sup> , Office
Shiitake (Lentinula edodes)	TG/SHIITK(proj.1)	Mr. Niwa (JP)	QZ, HU, KR, UA, ISF, Office
*Spinach (Partial revision: Peronospera disease)	TG/55/7	Kees van Ettekoven (NL)	
*Tomato (revision)	TG/44/11(proj.2)	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 <sup>2</sup> , Office

<sup>&</sup>lt;sup>3</sup> for name of experts, see List of Participants (Annex I)

Species	Basic Document	Leading expert(s)	Interested experts
			(State / Organization) <sup>3</sup>
*Watermelon (revision)	TG/142/4	` ′	BG, BR, CN, ES, FR, HU, JP, KR, QZ, SK, ISF <sup>2</sup> , Office

### DRAFT TEST GUIDELINES TO BE DISCUSSED AT TWV/45 (2011)

Coriander	TG/CORIA(proj.1)	Ricardo Zanatta	DE, FR, HU, NL, PL, QZ,
(Coriandrum sativum L.)		Machado (BR)	ZA, ISF <sup>2</sup> , Office

[End of Annex V and of document]