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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
GENEVA

TECHNICAL WORKING PARTY FOR VEGETABLES

Thirty-Third Session
Hanover, Germany, July 5 to 9, 1999

REPORT

adopted by the Technical Working Party for Vegetables

Opening of the Session

1. The thirty-third session of the Technical Working Party for Vegetables (hereinafter referred to as "the Working Party") was held in Hanover, Germany, from July 5 to 9, 1999. The list of participants is reproduced as Annex I to this report.
2. The session was opened by Mr. Baruch Bar-Tel (Israel), Chairman of the Working Party.
3. Dr. Johann Habben, Director of the Horticulture Division, welcomed the participants to Hanover and the Bundessortenamt on behalf of the President of the Bundessortenamt.

Adoption of the Agenda

4. The Working Party adopted the agenda of its thirty-third session, as reproduced in document TWV/33/1. It agreed to add a new item "Discussion of the Revised Working Document of a New General Introduction for the Conduct of Tests for Distinctness, Uniformity and Stability of New Varieties of Plants (TC/35/13)" after item 4, and Thyme under item 8. It also agreed to delete Basil, Broad Bean, Celeriac and Celery, Kohlrabi, Lettuce and Rosemary from item 8.

Short Reports on Special Problems or Difficulties Encountered

5. Disease resistance: Several experts reported problems concerning tests of resistance characteristics for the continuously increasing number of new diseases and pathotypes. The expert from France reported on the difficulty of testing resistance for new diseases not observed and classified as quarantine diseases in France, such as the Tomato Yellow Leaf Curl Virus. Several experts emphasized the need for further international cooperation in disease resistance testing. The establishment of central testing systems for special diseases would be an ideal solution.
6. An expert from the Netherlands regretted that disease resistance characteristics were rarely treated as asterisk characteristics or grouping characteristics in UPOV Test Guidelines, on the grounds that all member States would not be able to conduct the same disease resistance tests. He insisted that, considering the importance of disease resistance characteristics, especially for vegetables, the testing of certain disease resistance characteristics should be further expanded through the promotion of cooperation in testing.
7. The Working Party decided to continue the discussion in the next session and asked the expert from the Netherlands to prepare a document summarizing the main problems for international cooperation in resistance tests, for example, the cost of conducting tests for a third country. It also requested the UPOV Office to update the list of resistance tests offered by member States.
8. Reference collection: Some experts reported on difficulties in obtaining propagating material of varieties protected or listed, or other varieties of common knowledge in foreign countries. The reference collections might not contain all propagating material of varieties. In the case of vegetatively propagated varieties, the maintenance of propagating material in the reference collections was a costly and difficult task for the national offices. In addition, the real maintainers of the protected varieties could not be easily identified. In some cases, the maintainers (or the holders of breeders' rights) had not maintained any propagating material of their protected varieties. The Working Party noted that all of the countries represented in the session imposed the same obligation to maintain varieties on the holder of a breeder's right in order to maintain their protection. If the authority noted that no propagating material was kept, in general, the office should cancel the protection and/or delete the variety from any national list. The Chairman concluded that this issue could be partially resolved through the enrichment of information in the UPOV-ROM. In addition, further cooperation concerning reference collections should be pursued among member States.
9. Some experts reported that a list of garden varieties of vegetables (varieties of common knowledge strictly reserved for garden market), containing over 300 varieties, had been established at national level by various countries of the European Union. The listed varieties should be included in lists of varieties of common knowledge.
10. Old varieties: The expert from Poland reported about a problem concerning a candidate variety which seemed to be similar to a very old variety. The problem was that the identity of the very old variety was not certain and that reliable propagating material could not be easily obtained. In this case, two samples of seed of the old variety, which seemed not to be identical, were found in a gene bank.
11. Novelty of parent lines of hybrids: The expert from the CPVO reported on the result of a recent meeting of experts held at the CPVO concerning the effect of the commercialization

of hybrids on the novelty of their parent lines. The interpretation of the CPVO of Article 10 of the Council Regulation on Community Plant Variety Rights on this issue had been that the commercialization of a hybrid did not constitute commercialization of the parent lines so as to destroy novelty. Because of this interpretation, the CPVO were receiving many applications for the protection of parent lines. The aforesaid meeting at the CPVO recommended the opposite, namely that the commercialization of the hybrid should influence the novelty of parent lines. This would, however, require the revision of Article 10 of the Regulation.

12. The Working Party noted the pros and cons of this argument. Typical grounds of the interpretation were that parent lines were not really commercialized on the commercialization of hybrid varieties and that, because one parent line could be used in different formulas of hybrid varieties, commercialization of one hybrid derived from the parent line should not be regarded as a loss of novelty for the entire parent line. However, if the commercialization of hybrids did not influence the novelty of parent lines, the protection of the parent lines after the expiration of the protection period for the hybrid might enable its breeder in practice to double the real protection period of the hybrid.

13. Some experts reported differences among member States as to how the commercialization of hybrid varieties influences the novelty of parent lines. Other experts reported that, because parent lines of vegetable hybrids were seldom traded, breeders of vegetable hybrids were not as eager to protect their parent lines as were breeders of hybrids of agricultural crops.

14. The Working Party finally concluded that it would ask an appropriate UPOV forum to discuss and provide its opinion on this issue.

15. Variety denomination: The experts from the Netherlands and the CPVO reported that guidelines for variety denominations, which would be applied to all new varieties included in the EC Common Catalogue or protected by Community Plant Variety Rights, were being elaborated by the CPVO. The significant points of these guidelines would be:

- (a) to allow the use of codes for variety denominations with certain rules;
- (b) to judge similarity on written appearance rather than phonetic difference;
- (c) not to accept the use of Latin names of any plant nor the common names within the same crop sector (e.g., not allow the common name of agricultural species for agricultural varieties, but allow common names of agricultural species for ornamental varieties).

In particular, it was stressed that a large inflow of varieties with denominations by code from outside the European Union required a change of the practice with regard to the use of codes for variety denominations.

16. Several experts regretted that this guideline was going to be adopted without any consultation with UPOV. In particular, they were concerned about the use of codes, which was not permitted in the UPOV Recommendation. Finally, the Chairman requested the experts from the CPVO and the States concerned to inform UPOV of the proposed guideline and to give an opportunity to discuss it in an appropriate forum of UPOV.

17. Applications from foreign applicants: The experts from the Czech Republic, Hungary, Poland and Slovakia reported that they had received several applications for varieties which had first been applied for by other applicants abroad. It would be very difficult to verify whether the applicant was eligible for the protection of the variety. The Working Party agreed to promote the inclusion of technical information in the UPOV-ROM, which would help the national offices to identify such illegal applications.

18. Varieties requiring a special growing condition for distinctness: The expert from Israel (Chairman) reported that an application for a new variety had been received which required a special growing condition for its distinctness. It raised legal questions as well as cost concerns. The decision as to whether the conducting of a special test under special growing conditions should be allowed was under discussion in his country.

19. Development of new varieties with different modes of propagation: Some experts reported that vegetatively propagated varieties had been developed in species which normally are reproduced by seed. It thus needed the revision of the Test Guidelines for such species. Other experts reported cases where the introduction of different modes of propagation, such as micro-propagation, influenced the expression of some characteristics.

20. Changes in plant variety protection legislation: The expert from Japan reported that the new law which was in conformity with the 1991 Act had entered into force last year and that varieties of all genera and species could now be protected. The expert from Poland also reported on several changes in its legislation. All genera and species would be eligible for protection by the end of this year. VCU tests for vegetables would also become non-obligatory.

21. Changes in national offices and testing stations: The expert from the Netherlands reported that, as a result of the re-organization of the agricultural university and research institutes, the CPRO-DLO would be privatized and become a part of the Plant Research Institute. The expert from Germany also reported that the arrangement of human resources in variety testing stations was under review on the basis of financial efficiency.

22. New participants, US system: The Working Party welcomed the first participants from Mexico, the United States of America and Ukraine. At the request of the Chairman, the expert from the United States of America introduced its plant variety protection system, particularly its breeder's testing system. A summary of the plant variety protection system in the United States is reproduced as Annex II.

GM Varieties

23. The Working Party recalled its decision to distribute a questionnaire on the DUS tests of GM varieties in member States. The draft questionnaire prepared by the expert from France was distributed as a room document. He explained that the proposed questionnaire focused only on technical issues, specifically special requirements and procedures in the DUS tests for GM varieties, i.e., the management of plant material during and after the DUS tests and the management of propagating material of GM varieties in reference collections. One expert proposed adding a question concerning the transportation of propagating material of GM material. Finally, the Working Party decided to ask the expert from France to collect comments and to prepare the revised questionnaire for the next session. The experts in the

Working Party were requested to send comments on the proposed questionnaire, if any, to the expert from France.

24. At the request of the Chairman, the expert from CPVO reported that a moratorium on the approval of new GM varieties for marketing had been decided in the EU Environment Council. On the other hand, this decision related only to Part C approval (approval for placing of new GM varieties on the Community market). This decision might not influence Part B approval (approval for experimental release of GM varieties), which was needed as a minimum for any variety testing of GM variety for plant variety protection.

25. The Working Party noted that the national offices had received only a few applications for GM varieties of vegetables. According to the experts in the session, the applications for protection of GM varieties of vegetables which had been received were as follows:

France 1 (melon), Israel 1 (tomato), Mexico 1 (tomato), Netherlands 5 (tomato, leaf chicory), Spain 1

Bulgaria, Czech Republic, Germany, Hungary, Japan, Poland, and the United Kingdom reported that they had not received any applications for GM varieties of vegetables.

26. Several experts reported on developments in their legislation concerning the regulation of GMOs. The experts from Hungary reported that the new law for GMOs had already come into force. The expert from Slovakia also reported that the revised law for GMOs would come into force in January 2000.

Important Decisions Taken During the Last Sessions of the Working Party (TWA), the Technical Working Party on Automation and Computer Programs (TWC), the Working Group on Biochemical and Molecular Techniques and DNA Profiling in Particular (BMT) and the Technical Committee (TC)

27. Mr. M.-H. Thiele-Wittig presented a brief report on the main items discussed during the previous session of the Technical Committee and referred participants needing further details to the full report reproduced in document TC/35/12. He also reported on several points discussed in the previous session of the TWA, the BMT and the TWC. The main points of his report, each followed by discussion, are described below.

Application of COYD and COYU Analysis

28. The Working Party noted that the Technical Committee had clarified, in reply to strong objection from horticultural experts against the mandatory use of COYU and COYD, that the application of COYU and COYD were recommended, especially for cross-fertilized species and, within this group, mainly for forage species. Moreover, the TWC had been requested to examine alternative recommended statistical methods in case national offices could not or did not wish to apply the COY method.

Judgement of Phytoplasm or Endophyte

29. The Working Party noted that the Technical Committee had discussed the judgement of phytoplasm or endophytes. The Technical Committee had recommended that any difference which might be caused only by a phytoplasm should not be used as the basis of distinctness, because an infection by a phytoplasm closely resembled a virus infection.

30. The expert from Germany insisted that a difference solely due to a phytoplasm could be accepted from a legal viewpoint. The Working Party noted the discussion in the TWA on this matter, that the judgement of phytoplasm should be made on a case-by-case basis. The basis of the judgement should be whether the phytoplasm could easily be inserted and removed.

Question, in the Technical Questionnaire, on the Status of the Variety under the Legislation on the Protection of the Environment and on Human and Animal Health

31. The Working Party noted that the Technical Committee had decided to place a question requiring information on the status of the variety under the legislation on the protection of the environment and on human and animal health at the end of the Technical Questionnaire as a new section with the heading "8. Authorization for release." As a consequence, from now on, all new or revised Test Guidelines or their drafts should contain this question as Section 8 in the Technical Questionnaire.

Duration of DUS Tests

32. The Working Party noted that the Technical Committee had discussed whether tests in one year in two different locations could be substituted for tests in two different years in the same location. It also noted that the TWC had discussed it from a statistical viewpoint. The general views of statisticians were that the two different approaches might result in different judgements on uniformity, while they would make little difference in the assessment of distinctness. On the other hand, further information, especially concerning the nature of the species, would be needed for the statistical judgement.

33. Some experts insisted that the principle of the arrangement of tests should be flexible, considering different existing national practices and the differing natures of vegetable species. They also stressed that the arrangement of tests should depend on the judgement of the testing experts. For example, if a new variety showed highly uniform and significantly distinct characteristics, one test in one location might be enough for the judgement.

34. One expert questioned why for ornamental species generally only one test was required, while vegetable species required two tests in two similar growing seasons. He wondered if vegetables might require only one test in order to make the rules for vegetables and ornamental plants consistent. Several experts stated the difference between vegetables and ornamental plants might originate in the difference in their typical modes of propagation (ornamental plants – mostly vegetatively propagated varieties, vegetables – mostly seed propagated varieties). However, there existed many vegetatively propagated varieties of vegetables. If testing experts followed the explanation, for such vegetable varieties one test might be sufficient.

35. The expert from the Netherlands reported that the reality was not a simple choice between different location tests and tests in two years at the same location. Although only one-year tests in testing stations were requested in the Netherlands as a minimum, over 30% of new varieties had required the second year tests because one year test was not enough for a decision. He insisted that what should be harmonized was not a strict principle, but the reliability of decisions.

36. The Working Party noted that the harmonization on the basis of one fixed principle on the arrangement of tests seemed impossible in view of the differing national practices. Therefore, it agreed that the basic principle requiring two-year tests in the same place should be kept as it was in the UPOV Test Guidelines. However, different national practices should be respected. In addition, possible exceptions from this basic principle should be discussed in the preparation of individual Test Guidelines.

Bulk Samples

37. The Working Party also noted that the Technical Committee had discussed the problem of bulk samples for the testing of the uniformity of characteristics. The Technical Committee had concluded that, if chemical characteristics were used for distinctness, the characteristics needed be tested on a plant-by-plant basis for the assessment of uniformity.

38. Several experts reported that, practically speaking, some chemical characteristics, such as essential oil content, could not be assessed on a plant-by-plant basis, due to insufficient raw material for extraction per plant in some species. However, many experts strongly insisted on the importance of keeping such chemical characteristics in the UPOV Test Guidelines, because they were the main breeding target in some species. Some experts also insisted that bulk sampling was not limited to chemical characteristics. For example the assessment of dry matter content would also fall into this category. Considering the importance of both the uniformity criteria and such characteristics, the Working Party decided to request the TWC to develop a statistical method for estimating the uniformity of a variety from the data of several bulk samples. In addition, for the statistical method, the relationship between the number of the samples, the plant number per sample and the probability of an error of judgement on uniformity needed to be analyzed.

Species to be Discussed in the BMT

39. The Working Party heard a brief report on the fifth session of the BMT. It noted that the Technical Committee had decided on the continuation of the BMT in the light of its usefulness as a forum for exchanging views among molecular scientists, statisticians and UPOV experts and the need for further discussion on the possible application of biochemical and molecular techniques for DUS tests. One expert from the Netherlands expressed the fear that electrophoresis and DNA fingerprinting characteristics might not be able to be used solely for the establishment of distinctness because of the argument that these characteristics show lower uniformity.

40. The Working Party also noted that the BMT had requested each Technical Working Party to choose one or two priority species to be taken up in the discussions in the BMT. It decided to choose lettuce and tomato as priority species in vegetables, taking into account the existence of on-going research projects on these species.

UPOV-ROM and Taxon Code

41. The UPOV Office reported that it had received very few comments on the proposed UPOV taxon code. It had requested all experts to submit comments, if any, to the Office. It also warned that, if no comments were received, the Office would consider that the national offices agreed with the proposed taxon code system.

42. The expert from the Netherlands made two requests to the UPOV Office concerning UPOV-ROM. Firstly, any big changes relating to UPOV-ROM should be reported to the users by e-mail or circular. Secondly, each issue of UPOV-ROM should not always require re-installation of all information. He stated the benefit of only installing information that had been updated. The UPOV Office answered that the first request would be taken into account from now on, but that it was not able to follow the second request.

Inclusion of Technical Information in UPOV-ROM

43. The Working Party discussed the possible inclusion of technical information in UPOV-ROM, which was requested by Circular U 2830. In general, many experts strongly favored the inclusion of technical information in UPOV-ROM taking into account the necessary workload in the national offices.

44. Technical information provided by applicants: The Working Party discussed whether technical information provided by applicants in the Technical Questionnaire could be included in the UPOV-ROM before verifying that information in the national office. Most experts insisted on the need for the verification of information by the national office. The expert from the United States of America explained that the information on candidate varieties was confidential until the granting of rights. The Working Party decided to propose that the technical information contained in UPOV-ROM be limited to protected varieties.

45. The extent of the data provision: The Working Party differed in opinion on how much technical data should be included. Some experts insisted on full data on characteristics, while others preferred to limit the data to grouping characteristics. Finally, the Working Party decided to propose that each member State should provide as a minimum either information on grouping characteristics or on characteristics contained in the Technical Questionnaire, but that it could also provide additional information.

46. Payments for the information: The Working Party also discussed possible problems relating to legislation requesting payment for access to technical information and for the provision of test reports to other countries. Some experts proposed that the UPOV-ROM should be issued in two different versions - with and without technical information. The use of the UPOV-ROM containing technical information should be available only for the national offices. Other experts insisted that all information should be made available to the public, following the general principle of intellectual property rights (especially patents), that the description of the protected innovation should be available to the public.

47. Inclusion of addresses of applicants: The expert from ASSINSEL suggested adding information on addresses and telephone numbers or e-mail addresses of applicants or maintainers. The expert from the United States of America stated that the information on addresses and telephone numbers of applicants could not be provided because of their

confidentiality. The UPOV Office explained that several countries had already provided such detailed information on applicants for UPOV-ROM.

New General Introduction for the Conduct of Tests for Distinctness, Uniformity and Stability of New Varieties of Plants

48. The Working Party noted document TC/35/13 and proposed the following changes in the document:

(a) Objectives of UPOV Test Guidelines: In order to balance the objectives of UPOV Test Guidelines between guidelines for the assessment of DUS and those for the harmonization of variety descriptions, the first and second sentences of paragraph 6 should be shortened as follows: “The Test Guidelines are a tool for harmonizing variety descriptions and for assessing distinctness, uniformity and stability.” In addition, the final sentence of the third paragraph of the explanation immediately after paragraph 6 should read as follows: “Therefore the yardstick of two states of expression in quantitative characteristics is silent on the size of the difference needed for distinctness.”

(b) Treatment of a new variety selected from existing varieties or populations: The Working Party had a lengthy discussion on the remark in paragraph 25 concerning the treatment of a new variety selected from an existing variety or population. The Working Party basically agreed to the principle that “For at least one reliable characteristic, the average of the candidate variety must be significantly different from the one of the population and the improvement of the uniformity observed in the candidate variety is not considered as sufficient to assess distinctness.” It should be clear that a subgroup selected from (protected) varieties would not be protected if the difference from the original variety was only in the degree of uniformity. However, the question was how a new variety selected from “(local) population” should be handled. The main questions raised by experts were as follows:

- (i) How the term “variety of common knowledge” should be defined especially in conjunction with populations, which were not as uniform as protectable varieties?
- (ii) What kind of cases with regard to the selection of a new variety from a population could be accepted for the protection of the new variety; in particular, how to apply distinctness and uniformity criteria between a new variety and the original population?
- (iii) How a candidate variety could be compared in practice with local populations which were regarded as a part of common knowledge?

The Working Party noted that this issue had been discussed in the previous session of the Administrative and Legal Committee (CAJ) and would be handled in a document “Common Knowledge (TGP/3)” a draft of which would be presented in the next session of the Technical Working Party for Ornamental Plants and Forest Trees (TWO). The Working Party decided to ask the experts to make contributions or comments on the document being prepared.

(c) Prescreening: As for paragraph 27, the expert from the Netherlands stressed that the information for prescreening should not be limited to grouping characteristics selected from the Table of Characteristics. For example, the growth type was used for grouping in the UPOV Test Guidelines for Rose and Lettuce. He would propose the revision of this paragraph.

49. The schedule did not allow the Working Party to discuss the contents after paragraph 25. The UPOV Office strongly requested all experts to carefully study document TC/35/13 again and to send comments to the UPOV office by August 15, 1999. The comments received by August 15, would be discussed in the next *ad hoc* meeting to be held on October 1, 1999.

50. Contribution to the preparation for the complementary documents: The Working Party also discussed its contribution to the preparation of the complementary documents to the General Introduction indicated in Annex II of document TC/35/13. The following experts would contribute to the preparation of these documents:

- TGP/3 Common Knowledge (the expert from France to contribute to the document to be prepared by the expert of the TWO).
- TGP/4 Rule for Pre-screening of Varieties: the expert from the Netherlands to prepare a document concerning other information to be used for pre-screening other than characteristics in the Table of Characteristics.
- TGP/13 Relative tolerance for uniformity, comparable varieties: the expert from the Netherlands to prepare his contribution based on document TWV/31/6.

51. The Working Party proposed the following opinions on the preparation of the complementary documents:

(a) It proposed to delete document TGP/5(e) "Reference Book and Document for Testing of Varieties" from the list.

(b) As for document TGP/7, many experts opposed the preparation of a shorter document with stricter harmonization in expression and requested leaving flexibility in the choice of expression.

(c) Regarding document TGP/10, the Working Party questioned the need for the document. In the case of visually assessed characteristics, one single observation was often made on a plot basis, which would not necessitate any statistical methods. The need for this type of document was limited to the rare case of observing visually assessed characteristics on a plant by plant basis.

(d) In conjunction with document TGP/16, some experts expressed the need for clarifying correspondence between different color chart systems - RHS color chart and JHS (Japan color standard for horticultural plants).

(e) One of the important terms for TGP/18 that needed an explanation in relation to vegetable species would be "resistance."

Example Varieties in UPOV Test Guidelines

52. The UPOV Office introduced a sentence in document TC/35/13 concerning example varieties, "Example varieties can only be combined for one characteristic if they have been tested at the same location." The Working Party basically agreed to this principle. It

accordingly noted that propagating material of important example varieties should be provided to the leading expert at an early stage for the preparation of new or revised Test Guidelines, which would enable the leading expert to check all proposed example varieties in the field. On the other hand, several experts insisted that, in the light of the expansion of the UPOV system, example varieties grown in different regions be contained in UPOV Test Guidelines.

Final Discussions of Draft Test Guidelines

Industrial Chicory

53. The Working Party noted document TG/172/1(proj.) and comments on that document submitted by the experts from France and South Africa and made the following main changes to that document, prior to its submission to the Technical Committee for final adoption:

(i) Methods and Observations: The proposal from the TWA concerning the addition of the general sentence on uniformity criteria for cross-pollinated varieties was rejected, because the paragraph referring to the General Introduction seemed too obvious.

(ii) Table of Characteristics:

Characteristic

- 7 To have the Notes 3, 5, 7 kept as there was a continuous change among the states of this characteristic
- 9 To have the asterisk deleted
- 11 To have “weak” and “strong” replaced by “few” and “many” respectively
- 14 To have the word “maximum” deleted
- 19 To have “ramification” replaced by “branching”

(iii) Explanation on the Table of Characteristics:

Ad. 16 Considering that one plant assessment was possible, this characteristic would be kept as it was except for the change “bruto weight” into “gross weight.”

(iv) Technical Questionnaire: The spelling of the Latin name should be corrected.

54. The expert from the Netherlands would check example varieties which had been proposed by the expert from France and inform the Office of UPOV of the results by the end of September 1999.

Witloof, Chicory

55. The Working Party noted document TG/173/1(proj.) and comments on that document submitted by the expert from France and South Africa and made the following main changes to that document, prior to its submission to the Technical Committee for final adoption:

(i) Methods and Observations: The words “before exposure to daylight” should be added at the end of the third paragraph.

(ii) Table of Characteristics:

Characteristic

- 1 To have an explanation on the state “white or black” prepared by the expert from France.
- 13 To have the Notes 3, 5, 7 kept as there was a continuous change among the states of this characteristic
- 20 To have the order of the states reversed.
- 24 To have “ramification” replaced by “branching”
- 32 To have the order of the states reversed with Notes 1, 2, and 3
- 33 To be deleted
- 35 To have a new intermediate state “green” added and to read the states as “green (1),” “yellow (2)” and “red (3)”

(iii) Explanation of Table of Characteristics: Necessary drawings for characteristics with (+) sign had been received from the expert from the Netherlands.

(iv) Literature: The following two additional items had been also received:

- Leteinturier, J. E. A., 19...: “L'endive (chicorée witloof),” 3e ed., CTIEF, Paris, France
- Annon, C. R., 1970: “La chicorée de Bruxelles,” Symposium International à Gembloux (B), 17 et 18 février (Eucarpia), Ed. Min. de l'Agriculture, Recherche Agronomique, Bruxelles

The year of the first publication would be forwarded to the UPOV Office by the end of September 1999.

(v) Technical Questionnaire: The spelling of the Latin name should be corrected.

56. The expert from the Netherlands would check example varieties which have been proposed by the expert from France and inform the Office of UPOV of the result by the end of September 1999.

Discussion of Working Papers on Test Guidelines

Fennel

57. The Working Party noted documents TWV/30/6 and TWV/33/3 prepared by the expert from the Netherlands and comments from the expert from Germany and made the following main changes in document TWV/33/3:

(i) Subject of these Guidelines: The following two sub-species should be added at the end of sentence:

“including varieties with grumolo (*Foeniculum vulgare* Miller sep. *vulgare* var. *azoricum*) and medicinal/aromatic varieties (*Foeniculum vulgare* Miller sep. *vulgare* var. *dulce*)”

(ii) Methods and Observations: The number of plants to be observed should be 20 instead of 40.

(iii) Table of Characteristics:

Characteristics

1(a), 1(b) To have the order of the characteristics 1a and 1b reversed and to have “(Seedling)” added after “Youngplant”

1(b) To have the proposal to add an asterisk rejected

1 To receive an asterisk and to have “low” and “high” replaced by “short” and “tall” respectively

2 To have the Notes re-numbered 1, 3, 5

2(a) To be deleted and to have a new characteristic (modified 4(d)), reading “Leaf: curvature of tip” with states “absent (1),” “weakly expressed (2),” and “strongly expressed (3)”

3 To have words “intensity of” deleted and to have the two states “very light (1)” and “very dark (9)” added

4 To be deleted

4(d) To be moved to 2(a)

7 To have the example variety “Kompolti törpe” checked

8(a), 8(c) To be deleted

8(b) To have “traversal” replaced by “traverse”

11 To have “surface” replaced by “ribbing” and to have state “smooth” replaced by “weak”

14 To read “Only for varieties with grumolo: Time of grumolo maturity”

15 To read "Only for varieties with grumolo: Bolting tendency"

Add. I To be deleted

Add. II To read "Main stem: height at flowering" with states "short (3)," "medium (5)" and "tall (7)"

Add. III To read "Main stem: thickness at base" and to have the states "narrow" and "large" replaced by "thin" and "thick" respectively

Add. IV To be deleted

To have a new characteristic "male sterility" with the states "absent (1)" and "present (9)" added and also the following new characteristics, which should be applied only for medicinal/aromatic varieties:

		<u>Note</u>
-	Plant: number of umbels	few 3
		medium 5
		many 7
-	Main umbel: diameter	small 3
		medium 5
		large 7
-	Main umbel: number of peduncles	few 3
		medium 5
		many 7
-	Seed: adherence	weak 3
		medium 5
		strong 7
-	Seed: thousand seed weight	low 3
		medium 5
		high 7
-	Time of appearance of main umbel	early 3
		medium 5
		late 7
-	Time of beginning of flowering	early 3
		medium 5
		late 7

The expert from Germany would check whether both characteristics: "Time of appearance of main umbel" and "Time of beginning of flowering" were needed.

58. The experts from Germany and France would provide additional example varieties for the expert from the Netherlands. The expert from the Netherlands would check these proposed additional example varieties. The revised draft would be given to the UPOV Office by the end of December 1999.

Tomato (Revision)

59. The Working Party noted document TWV/33/4 prepared by the expert from the Netherlands and comments from the expert from France and made the following main changes in document TWV/33/4:

(i) Subject of these Guidelines: The synonym of the Latin name should be added at the end of the sentence with a parenthesis, reading “(*Lycopersicon esculentum* P. Mill.)”

(ii) Material required:

(a) The minimum quantity of plant material should be changed as follows:

- | | |
|---|---------------|
| “(a) vegetatively propagated varieties: | 25 plants |
| (b) seed propagated varieties: | 10 g of seed” |

(b) Before the fourth sentence, the following sentence should be imported from the previous version of the Test Guidelines for Tomato (TG/44/7): “The Plant material/seed supplied should be visibly healthy, not lacking in vigor or affected by any important pest or disease.”

(iii) Methods and Observations:

(a) A new paragraph should be added after the first paragraph, reading

“2. For the assessment of uniformity a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 20 plants, the maximum number of off-types allowed would be 1. In the case of a sample size of 40 plants, the maximum number of off-types allowed would be 2.”

(b) Another new paragraph should be added, reading

“4. All observations on the leave should be made before ripening of fruit.”

(iv) Table of Characteristics:

Characteristics

1, 2, 5, 14, 17, 28, 30, 33, 34, 35, 37, 37(a) To receive an asterisk

2 To receive an explanation on this characteristic to be provided by the expert from France (Different interpretations on “semi-determinate” variety were exposed. In particular, the experts had two different views as to whether the example variety “Prisca” should be categorized as “determinate variety” or “semi-determinate variety”).

3 To have “nodes” replaced by “inflorescence”

4 To have “Indeterminate variety only” replaced by “Indeterminate varieties and semi-determinate varieties only” and to have a new characteristic “Determinate varieties

only: Plant: speed of growth” with the states “slow (3),” “medium (5)” and “fast (7)”
 [The example varieties would be given by the expert from Spain]

- 10(a) To have two extreme states “very small (1)” and “very large (9)” added with the example variety “Minitom” for Note 1 and the example variety “Dombo” for Note 9.
- 13 To have the state “erect (1)” deleted
- 14 To have “generally” replaced by “mainly”
- 17 To receive a new example variety “Pieri cherry” for Note 2
- 19 To have “Pedicel” replaced by “Peduncle” and to have the following information added in Explanation on the Table of Characteristics: short (7-9 mm), medium (9-14 mm), long (14-18 mm)
- 21 To read “Fruit: ratio length/diameter”
- 22 To have example variety “Cobra” replaced by “Valenciano”
- 23 To read “Fruit: ribbing at peduncle”
- 25 To read “Fruit: depression at peduncle”
- 26 To have two extreme states “very small (1)” and “very large (9)” added
- 31 To have the states “two” and “more than four” replaced by “only two” and “four, five and six” respectively and to have an additional state “more than six (5)”
- 34 To have “weak” and “strong” replaced by “light” and “dark” respectively
- 36, 37 To have the additional states “cream” added before “yellow” and “brown” after “red” and to have all states renumbered 1 to 6
- 36(a) To be deleted
- 37(b) To have a new characteristic “Fruit: long shelf-life” with the states “very short (1),” “short (3),” “medium (5),” “long (7)” and “very long (9)” and to have an explanation and example varieties prepared by the expert from Spain
- 38 To have an explanation prepared by the expert from France
- 47.4 To be deleted
- 54 To receive an asterisk and to have an explanation for the characteristic prepared
- 55, 56 To have the following two new characteristics and to have explanations on these characteristics to be prepared by the expert from France:

- Resistance to <i>Leveillula taurica</i>	
absent	1
present	9

- Resistance to <i>Oidium lycopersicum</i>	
absent	1
present	9

(v) Explanation on the Table of Characteristics: All drawings and explanations would be imported from the previous version of the Test Guidelines for Tomato (TG/44/7). In the explanation for the characteristic of *Meloidogyne incognita*, an additional remark “Temperature not over 28 °C” should be added. In addition, the harvesting stage for characteristic 37a should read: “fruits should be harvested when they are completely colored”

(vi) Technical Questionnaire: An additional choice “pot plant” should be added in the question on “(ii) Main use” in section 7.2.

(vii) Others: The revised draft containing additional information and example varieties would be given to the UPOV Office by the expert from Netherlands by the end of December 1999.

Garlic

60. The Working Party noted documents TWV/32/7 and TWV/33/5 and made the following main changes in document TWV/32/7:

(i) Table of Characteristics

Characteristics

- 1 To read “Foliage: attitude,” to have this characteristic moved after characteristic 2 and to have an explanation prepared
- 5, 6 To have the words “(longest leaf)” added in parenthesis
- 9, 11, 12, 13 To have “scape” replaced by “flowering stem”
- 12 To read “Flowering stem: bulbils”
- 13 To have the state “small” replaced by “absent” and to have the states numbered 1 and 9
- 9 to 13 To have the order of characteristics 9 to 13 changed as follows: 10, 9, 13, 11 and 12
- 15 To have “ovate” replaced by “oblate”
- 17, 20, 25, 26, 27, 28, 30, 31, 32, 34 To have the word “globe(s)” replaced by “clove(s)”
- 29 To have “bulblet” replaced by “clove”
- 30 To read “Clove: intensity of color of scale”
- 34 To have an explanation prepared

Globe Artichoke

61. The Working Party noted documents TWV/32/2 and TWV/33/6 prepared by the expert from France and made the following main changes in document TWV/33/6:

(i) Subject of these Guidelines: The synonym of the Latin name should be added at the end of the sentence with a parenthesis, reading “(*Cynara cardunculus* var. *scolymus* L.)”

(ii) Material requested: The minimum quantity should be changed as follows:

(a) vegetatively propagated varieties: 60 plants

(b) seed propagated varieties: 50 g of seed

(iii) Methods and Observations:

(a) One standard for the assessment of uniformity should be applied to all varieties of different modes of propagation. The second and third paragraphs should be replaced by a new sentence, reading

“For the assessment of uniformity, a population standard 5% with an acceptance probability of at least 95% should be applied. In the case of a sample size of 40 plants the maximum number of off-types allowed would be 4.”

(b) The fifth paragraph should be deleted.

(c) The words “outer” and “of the central flower head” should be added before “bracts” and at the end of the sixth paragraph respectively.

(iv) Table of Characteristics:

Characteristics

1 to 6 These characteristics had been discussed in the previous session of the Working Party. The changes to these characteristics are explained in document TWV/32/9

8 To have the words “including terminal lobe” added after “lobes”

9 To have the words “excluding terminal lobe” added after “shape of tip” and to have “medium” replaced by “nearly right angle”

10, 11 To have explanations on these characteristics added

11 To read “Lobe: shape of tip of secondary lobe”

12, 13, 14 To have these three characteristics moved immediately after characteristic 8 and to have “lobe” replaced by “leaf” in characteristics 12 and 13

12 To read “Leaf: length of the longest lobe (excluding terminal lobe)”

- 13 To have “large” replaced by “broad” for Note 7
- 16 To read “Main stem: height including the central flower head”
- 17 To read “Plant: height”
- 18 To read “Main stem: diameter (at about 10cm below central head)”
- 19 To read “Main stem: distance between central flower head and first well developed leaf”
- 20 To read “Central flower head: shape in longitudinal section” and to have the states “globular (1),” “ovoid (3)” and “conical(4)” replaced by “circular (1),” “ovate (3)” and “triangular (4)”
- 21 To have “flower” inserted between “central” and “head”
- 21(a) To have a new characteristic “Central flower head: time of beginning of opening” with the states “early (3),” “medium(5)” and “late (7)”
- 22 (a)+(b) To have characteristic 22 replaced by the following two new characteristics:
- | | | |
|---------------------------------|--------|---|
| - Central flower head: length | short | 3 |
| | medium | 5 |
| | long | 7 |
| - Central flower head: diameter | short | 3 |
| | medium | 5 |
| | long | 7 |
- 22 (c), (d), (e) To have the following three new characteristics with regard to outer bract added:
- | | | |
|--------------------------|--------|---|
| - Outer bract: length | short | 3 |
| | medium | 5 |
| | long | 7 |
| - Outer bract: width | narrow | 3 |
| | medium | 5 |
| | broad | 7 |
| - Outer bract: thickness | thin | 3 |
| | medium | 5 |
| | thick | 7 |
- 23 To have the states “violet” and “super violet” replaced by “mainly violet” and “entirely violet” respectively
- 26 To be deleted
- 29 To have “intensity” replaced by “size” and to have the states amended as “absent or very small (1),” “small (3),” “medium (5),” and “large (7).”

32 To read “Central flower head: density of inner bracts” and to have “loose” replaced by “sparse”

39, 40, 41 To have “Lateral head” replaced by “Flower head on lateral”

39 To read “Flower head on lateral: shape in longitudinal section” with the states “circular (1),” “elliptic (2),” “ovate (3),” “triangular (4),” and “transverse elliptic (5)”

40(a)+(b) To have the following two new characteristics added:

- | | | |
|-----------------------------------|--------|---|
| - First head on lateral: length | short | 3 |
| | medium | 5 |
| | long | 7 |
| - First head on lateral: diameter | short | 3 |
| | medium | 5 |
| | long | 7 |

To have the following two new characteristics:

- | | | |
|--|--------|---|
| - Plant: tendency to produce basal stems | weak | 3 |
| | medium | 5 |
| | strong | 7 |
| - Plant: number of laterals of main stem | few | 3 |
| | medium | 5 |
| | many | 7 |

(v) Explanation on the Table of Characteristics: The words “lateral head” should be replaced by “flower head on lateral.”

(vi) Technical Questionnaire:

(a) Section 4: to have new questions added as follows:

- 4.1 Method of maintenance
- (a) vegetative propagation []
- (b) seed propagation
- hybrid []
- open pollinated []

4.2 Other information

(b) Section 7: to have the question concerning the type of multiplication deleted and the question concerning the main use changed as follows:

- 7.1 Main use
- (a) Fresh market
- large flower head []
- small flower head []
- (b) Canning
- receptacle []
- bottom []

- pickling artichoke []
- (c) Industrial use
 - leaf extraction []
 - biomass []
- (d) Other (please specify) []

(vii) Others: The expert from France will send the revised draft to the UPOV Office by the end of August 1999.

Swede, Rutabaga

62. The Working Party noted documents TWV/31/4, TWV/32/5, TWV/33/7 and TWV/33/8 prepared by the expert from the United Kingdom and made the following main changes in document TWV/33/7:

(i) Cover page: An additional common name “Rutabaga” should be added after “Swede.”

(ii) Characteristics and Symbols: The address of the Genebank should be deleted.

(iii) Table of Characteristics:

Characteristic

- 3 To read “Leaf: lobbing” with the states “absent (1)” and “present (9)”
- 11 To have “weak” and “strong” replaced by “shallow” and “deep” respectively
- 19 To have “salmon” replaced by “orange pink”
- 20 To have “in longitudinal section” added after “shape”
- 23 To read “Pseudostem: length”
- 24 To read “Pseudostem: anthocyanin coloration between leaf scars”
- 26 To have the words “weak” and “strong” replaced by “light” and “dark” respectively
- 27 To have the parenthesis moved to chapter VIII

(iv) Explanations on the Table of Characteristics:

Ad. 24 The explanation should read as follows:

“Ad. 17 and 24 Root: anthocyanin coloration of skin above soil and Pseudostem: anthocyanin coloration between leaf scars

These two characteristics are combined for skin color classification as follows:”

(v) Technical Questionnaire:

- (a) Section 5: to have characteristic 24 added
- (b) Section 7: to have the question concerning the main use amended as follows:

- 7.2 Main use:
- Agriculture/fodder []
 - Vegetable
 - Fresh []
 - Processing []
 - Other (Please specify) []

Turnip

63. The Working Party noted documents TWV/32/6, TWV/33/9 and TWV/33/10 prepared by the expert from the United Kingdom and made the following main changes in document TWV/33/9:

- (i) Subject of these Guidelines: The sentence should read as follows:

“These Test Guidelines apply to all varieties of *Brassica rapa* L. var. *rapa* L. with swollen roots.”

- (ii) Table of Characteristics:

Characteristics

- 5 To read “Leaf: lobing” with the states “absent (1)” and “present (9)”
- 18 To read “Root: thick cork layer around skin” with the states “absent (1)” and “present (9)”
- 20, 23 To have “weak” and “strong” replaced by “light” and “dark” respectively
- 25 To have the states changed to “transverse elliptic (1),” “oblate (2),” “circular (3),” “broad elliptic (4),” “obovate (5),” “tankard (6),” and “long tankard (7)”
- 30 To have “crown” replaced by “top”
- 32 To read “Root: harvest maturity” with the states “early (3),” “medium (5)” and “late (7)”
- 33 To have “low” and “high” replaced by “short” and “tall” respectively
- 41 To have this characteristic moved immediately before characteristic 39

- (iii) Technical Questionnaire: The choice “Leafy Vegetable” should be deleted from the section 7.2 “Main use.”

Curly Kale

64. The Working Party noted documents TWV/31/7, TWV/33/11 and TWV/33/12 prepared by the expert from the United Kingdom and made the following main changes in document TWV/33/11:

- (i) Subject of these Guidelines: The sentence should read as follows:

“These Test Guidelines apply to all varieties of *Brassica oleracea* L. convar. *acephala* (DC.) Alef. var. *sabellica* L.”

- (ii) Material Required: The minimum quantity of seed should be unified at 25g.

- (iii) Table of Characteristics:

Characteristic

- 4 To have this characteristic applied only to varieties with the shape of dome, pyramid or column (in characteristic 3) and to have the states reversed and revised as “level (1),” “slightly below (2)” and “deeply below (3)”
- 5 To read “Leaf: anthocyanin coloration”
- 6 To read “Leaf: distribution of anthocyanin coloration” with revised states “only petiole and midrib (1),” “only petiole, midrib and leaf blade margin (2)” and “entire leaf (3)”
- 10 To be deleted
- 11 To have the limitation of the variety type deleted
- 16 To be deleted

(iv) Technical Questionnaire: The section 7.2 and 7.3 should be deleted because the subject of these Test Guidelines was limited only to Curly Kale.

Thyme

65. The Working Party noted documents TWV/33/14 and TWO/31/8 prepared by the expert from France and made the following main changes in the proposed Table of Characteristics in document TWV/33/14:

- (i) Table of characteristics:

Characteristic

- 2 To have “horizontal” replaced by “prostrate” and to have the notes renumbered 1, 3 and 5
- 3 To have “volume” replaced by “size”

- 5 To have “small” and “large or broad” replaced by “short” and “long” respectively
- 8 To have the state “gray blue” replaced by “gray green”
- 10 To read “Plant: distribution of leaves along stem” with the states “only at base (1),” “only at middle (2),” “only at upper part (3)” and “along whole stem (4)” and to be moved to after characteristic 3
- 13 To have “Stem” replaced by “Plant” and to be moved to immediately after the old characteristic 10
- 14 To read “Stem: distribution of flowers” with the states “only terminal (1),” “only apical (2),” “along upper half (3),” “along upper two thirds (4),” “along whole stem (5)”
- 15 To read “Stem: density of flowers”
- 16 To read “Stem: length of flowering part”
- 17 To have the state “bisexual” replaced by “hermaphrodite” and to be moved to after characteristic 40
- 19 To have “sepal” replaced by “petal” and to have the states amended as “white or slightly pink (1),” “pink (2),” “violet (3)” and “purple (4)”
- 20 To have “sepals” replaced by “petals”
- 22 To have the states revised as “white (1),” “pink (2),” “violet (3),” and “purple (4)”
- 24 To read “Flower: position of more intense colored zone of style” with the states “only at tip (1),” “only at upper half (2)” and “among whole style (3)”

(ii) Others: The expert from France will prepare a draft Working Paper with Technical Notes and the above-mentioned revisions by the end of July 1999. The draft Working Paper would then be discussed in the Technical Working Party for Ornamental Plants and Forest Trees.

Plant Number in Each Plot and Sample Size

66. The Working Party noted the need to establish principles on how to determine the amount of plant material required, plant number in each plot and sample size to be used for the assessment of distinctness and uniformity. The expert from the Netherlands will summarize the numbers in the existing Test Guidelines for vegetables for the discussion in the next session.

Status of Test Guidelines

67. The Working Party agreed that the revised draft Test Guidelines for Industrial Chicory and Witloof, Chicory should be sent to the Technical Committee for adoption. It agreed that

the draft Test Guidelines for Curly Kale, Fennel, Garlic, Globe Artichoke, Swede, Tomato and Turnip should be sent to the professional organizations for comments and that the draft Test Guidelines for Thyme should be sent to the professional organization for comments, subject to finishing its preparation in the forthcoming session of the Technical Working Party for Ornamental Plants and Forest Trees.

Preparation for the Next session

68. In order to advance discussions on Test Guidelines, the Working Party agreed, as was the case last year, to select for each of the species in the planned list of species one leading expert and to ask the other countries whether they had a special interest in that species and would be willing to cooperate with the leading expert by correspondence in the preparation of a more advanced document. The document would only be discussed in the full session of the Working Party if it was in a fairly final stage and only a few changes might be required before its presentation to the professional organizations for comments. For details of the leading expert and the species concerned, see the table in Annex III to the report. Other countries not having participated in the session were invited to inform the leading expert if they were interested in participating in the preparation of a document for a given species.

69. With respect to the preparation of working papers and draft Test Guidelines, the expert from the Netherlands requested the Office of UPOV to prepare an instruction paper or a circular concerning the format of UPOV Test Guidelines.

Future Program, Date and Place of Next Session

70. At the invitation of the expert from France, the Working Party agreed to hold its thirty-fourth session at Angers, France, from September 11 to 15, 2000. The Working Party agreed to discuss the following items at that session:

- (a) Short reports on special problems or difficulties encountered.
- (b) Updating of lists of resistance tests offered by member States and of species on which technical knowledge has been acquired
- (c) Report on the last session of the Technical Committee and recommendations resulting from that session.
- (d) New General Introduction for the Conduct of Tests for Distinctness, Uniformity and Stability of New Varieties of Plants (the main document and the complementary documents (TGP/...) to be discussed)
- (e) Cooperation in disease tests (document to be prepared by the expert from the Netherlands)
- (f) GM varieties (revised questionnaire to be prepared by the expert from France)
- (g) Survey on required amount of plant material to be submitted, plant number in the field and sample size in the existing UPOV Test Guidelines (document to be prepared by the expert from the Netherlands).

- (h) Final Discussions on the draft Test Guidelines for:
- (i) Curly Kale
 - (ii) Fennel
 - (iii) Garlic
 - (iv) Globe Artichoke
 - (v) Swede
 - (vi) [Thyme]
 - (vii) Tomato
 - (viii) Turnip
- (i) Discussions on Working Papers on Test Guidelines for:
- (i) Basil (working paper to be prepared by the expert from France)
 - (ii) Broad Bean (Revision) (TG/8/4, TWV32/6, new working paper to be prepared by the expert from the United Kingdom)
 - (iii) Celeriac and Celery (Revision) (TG74/3, TG/82/3, TWV/30/3, working paper to be prepared by the expert from Germany)
 - (iv) Chinese Cabbage (Revision) (TG/105/3, new working paper to be prepared by the expert from China in cooperation with the expert from Germany)
 - (v) Horse Radish (TWV/33/2, new working paper to be prepared by the expert from Hungary)
 - (vi) Husk Tomato (working paper to be prepared by the expert from Mexico)
 - (vii) Kohlrabi (Revision) (TG/65/3; working paper to be prepared by the expert from Germany)
 - (viii) Lentil (TWV/33/13, new working paper to be prepared by the expert from France)
 - (ix) Lettuce (Revision) (TG/13/7; working paper to be prepared by the expert from the Netherlands)
 - (x) Rosemary (working paper to be prepared by the expert from Israel)
 - (xi) Squash (working paper to be prepared by the expert from the Netherlands)
- (j) Species for which national Test Guidelines are being developed
- (k) Future program, date and place of next session

71. The Working Party noted that the experts from China were willing to revise the Test Guidelines for Chinese Cabbage so that it could be applied more easily to varieties in the Asian region. It therefore decided to start revision of these Test Guidelines in the next session. The expert from Germany expressed its willingness to contribute to the preparation of the working paper by the experts from China.

Visits

72. On Monday, July 5, the Working Party visited the fields and greenhouses in the testing station at Hanover and saw VCU and DUS trials for vegetables and ornamental plants. On Tuesday, July 6, it visited the testing station at Rethmar and saw the reference collection of rose. On Wednesday, July 7, it visited the testing station in Scharnhorst and saw the VCU trial for grass and cereal species. On Thursday, July 8, the participants were given a

demonstration and explanation of image processing systems and electrophoresis tests in the testing station at Hanover.

73. This report has been adopted by correspondence.

[Three Annexes follow]

ANNEX I

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[Annex II follows]

PLANT VARIETY PROTECTION IN THE UNITED STATES OF AMERICA (USA)

Presented at the July, 1999, TWV Meeting
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In the USA, intellectual property protection for plants is provided through plant patents, plant variety protection and utility patents. Plant patents provide protection for asexually reproduced varieties excluding tubers. Plant variety protection provides protection for sexually reproduced varieties including tubers, F₁ hybrids, and essentially derived varieties. Utility patents currently offer protection for any plant type or plant parts. A plant variety can also receive double protection under a utility patent and plant variety protection. This document will address plant variety protection.

For additional information concerning utility and plant patents please contact the Patent and Trademark Office at Patents and Trademarks, Washington, D. C., 20231 or their Internet web site at: <http://www.uspto.gov>. Their web site provides answers to frequently asked questions concerning patents, guides to filing utility and plant patent applications, and access to their database.

Plant Variety Protection (PVP)

The owner of a PVP protected variety has exclusive rights to multiply and market the seed or tuber of that variety. Without explicit consent from the owner of a PVP protected variety, a person is prohibited from: selling, marketing, offering, delivering, consigning, exchanging, or exposing the variety for sale. In addition, a person is prohibited from soliciting an offer to buy the variety or transfer or possess it in any way. It is also illegal to import or export the variety, sexually multiply it, propagate it by tuber, use the variety in producing a hybrid (as distinguished from developing), or condition the variety for the purpose of propagation. The current term of protection is 20 years for most crops and 25 years for trees, shrubs, and vines.

Additionally, PVP has two exemptions to the protection provided. A research exemption to allow the use for breeding to develop a new variety; and, a farmer's exemption to allow the saving of seed for the sole use of replanting the farmer's land. Neither plant patents nor utility patents provide these exemptions.

PVP Application

A complete PVP application consists of a completed and signed form SD-470, which includes: 1) Exhibits A, B, C, & E (Exhibit D is optional); 2) a sample of at least 2500 viable seeds capable of propagating the application variety, for a tuber propagated variety a verification that a viable cell culture will be deposited; and 3) the current fee of \$2450.00 (application and examination fee).

Form SD-470

The applicant is required to give their name, address, representative, the variety's genus, species, and name except that a temporary name will suffice until the certificate is to be issued. Additionally, the applicant must complete a statement for the basis of the claim that the variety is new. A variety may be considered new if propagating or harvested material of the variety has not been sold or otherwise disposed of to other persons for purposes of exploitation of the variety for more than 1 year in the USA or 4 years outside of the USA.

Exhibit A – Breeding History

The applicant is required to provide: 1) a full disclosure of the genealogy back to publicly known varieties, lines, or clones, including the breeding method; 2) the details of subsequent stages of selection and multiplication used to develop the variety; 3) a statement of uniformity reporting the level of variability in any characteristics of the variety (commercially acceptable variability is allowed); 4) a statement of genetic stability showing the number of cycles of seed reproduction for which the variety has remained unchanged in all distinguishing characteristics; 5) the type and frequency of variants observed during reproduction and multiplication; and 6) the frequency of off-types observed or known to occur.

Exhibit B – Statement of Distinctness (formally “Novelty Statement”)

The applicant is required to give a summary of the application variety's distinctness, clearly stating how the application variety may be distinguished from all other varieties in the same crop. If the application variety is most similar to one variety or a group of varieties the applicant must: 1) identify these varieties and state all differences objectively; 2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and 3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

Exhibit C – Objective Description of Variety

The PVP Office has prepared forms for the applicant to provide a botanical description of the variety for most crops. These forms list the botanical characteristics for a particular crop kind and the degree of expression of each characteristic. These forms also provide a list of recommended varieties that the applicant should compare to the application variety. Normally these forms include some measure of the grouping characteristics from the *UPOV Guidelines for the Conduct of Tests for Distinctness, Uniformity and Stability* for that crop. The applicant needs to complete the form for his/her variety as thoroughly as possible.

Exhibit D - Optional Supporting Information

The applicant may provide additional information, specimens and / or material in support of the claims of the application.

Exhibit E – Statement of Ownership

The applicant is required to furnish a statement for the basis of the applicant's ownership. The PVP Office has prepared a form to simplify this requirement. The form also includes a statement to verify the applicant is eligible to file for PVP in the USA.

PVP Crop Databases

The PVP crop databases are used to scrutinize the most similar varieties to the application variety and verify the application variety is distinct. These databases contain descriptions of varieties for all PVP applications in the USA and the descriptions for all varieties that are publicly known or a matter of common knowledge. A publicly known variety, according to the PVP law, is "a variety that is adequately described by a publication reasonably considered to be a part of the public technical knowledge in the United States." The PVP law requires that the description include a disclosure of the principal characteristics by which a variety can be distinguished.

As time permits, the PVP Office is posting a public version of the crop databases on their Internet web site. The posted public crop databases do not contain an applicant's description for a variety unless a PVP certificate has been issued for that variety, as they are confidential. Currently only the soybean and wheat public crop databases are posted in a searchable format. Additionally, the maize, sorghum, and lettuce public crop databases have been posted, but only in a downloadable form.

World Wide Web – PVP Office's Web Site

The PVP Office's web site provides access to: General information concerning PVP in the USA, answers to frequently asked questions, the PVP public crop databases, and the status of PVP applications and certificates at <http://www.ams.usda.gov/science/pvp.htm>.

Additional Information

For additional information concerning PVP in the USA please contact the Plant Variety Protection Office at 10301 Baltimore Ave., Rm. 500, Beltsville MD, 20705-2351, telephone: 301-504-5518, facsimile: 301-504-5291, or access the Office's web site.

For further information specifically on the examination process in the USA please see the UPOV document TWA/20/7, "The United States System of Examination for Plant Variety Protection.

[Annex III follows]

TWV/33/15

ANNEX III

Species	Existing Working Papers	Leading experts (for addresses see Annex II)	Interested experts (countries) (for name of experts see Annex II)	Final document to be sent to the UPOV Office before the end of	Note
Basil		Mr. Brand, FR	DE, HU, NL (v. E.) , PL	December 1999	
Broad Bean	TWV/32/6	Mr. Green, GB	DE, FR, NL (v. M. +v. E.) , PL, (TWA: CZ, DE, ES, FR)	December 1999	
Celery and Celeriac	TWV/30/3	Mr. Pfülb, DE	ES, FR, GB, NL (v. M. + v. E.) ,PL	December 1999	
Chinese Cabbage	(TG/105/3)	Experts from CN + DE	DE, JP, KR, NL (v. M. + v. E.)	December 1999	
Husk Tomato		Mr. Cruz Garza, MX	FR, PL	December 1999	
Kohlrabi	(TG/65/3)	Mr. Pfülb, DE	CZ, FR, NL (v. E.)	December 1999	
Lentil	TWV/33/13	Mr. Brand, FR	ES, HU, IN, PL	December 1999	
Lettuce	(TG/13/7)	Mr. van Marrewijk, NL	All	December 1999	
Rosemary		Mr. Bar-Tel, IL	DE	December 1999	
Squash		Mr. van Ettehoven, NL	ES, FR, IL, MX, NL (v. M.), US	December 1999	

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