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WORLD INTELLECTUAL  
PROPERTY ORGANIZATION



INTERNATIONAL UNION  
FOR THE PROTECTION OF  
NEW VARIETIES OF PLANTS

**COMMITTEE OF EXPERTS ON THE  
INTERFACE BETWEEN  
PATENT PROTECTION AND PLANT BREEDERS' RIGHTS**

**Geneva, January 29 to February 2, 1990**

**QUESTIONS CONCERNING THE INTERFACE BETWEEN  
PATENT PROTECTION AND PLANT BREEDERS' RIGHTS**

Document jointly prepared by the  
International Bureau of WIPO  
and the Office of UPOV

**I. Introduction**

1. During recent years, the question of the protection of innovations in the field of plants has been examined by both the International Union for the Protection of New Varieties of Plants (UPOV) and the World Intellectual Property Organization (WIPO). In 1983, WIPO was entrusted with undertaking a study on the industrial property protection of biotechnological inventions, it being understood that this term would include inventions in the field of plants. That study was carried out in four sessions of the WIPO Committee of Experts on Biotechnological Inventions and Industrial Property (hereinafter referred to as the "WIPO Committee of Experts"). In 1987, the Council of UPOV entrusted

the UPOV Administrative and Legal Committee with the task of preparing proposals for the revision of the UPOV Convention which revision raises questions relating to the protection of biotechnological inventions. The said Committee has held four sessions for this purpose.

2. In October 1988, the UPOV Council and the WIPO Committee of Experts agreed that the question of the interface between patent protection and plant breeders' rights should be studied jointly by the two organizations. As a first step, the Office of UPOV, in cooperation with the International Bureau of WIPO, prepared in April 1989 a draft memorandum on the interface between patent protection and plant breeders' rights (document CAJ/XXIV/4), which was submitted for comments to the UPOV member States, to several other States and to the European Patent Office. Both the said document and the comments received can be obtained from either the International Bureau of WIPO or the Office of UPOV. A summary of the comments is contained in document WIPO/UPOV/CE/I/3.

3. In September/October 1989, the General Assembly of WIPO and the Assembly of the International Union for the Protection of Industrial Property (Paris Union), as well as the Council of UPOV, approved the proposal to hold a meeting jointly organized by the two organizations to examine the question of the interface between patent protection and plant breeders' rights.

4. What is meant by the expression "interface" which has been adopted in the decisions referred to above is the whole relationship between the two forms of protection, the extent to which they meet, conflict, overlap or present gaps in protection. In the decision of the UPOV Council of October 1988, this question was referred to as the "relationship between patent protection and plant variety protection" (see UPOV document C/XXII/14, paragraph 128(i)). The recommendation of the WIPO Committee of Experts of October 1988 states that the joint study "should, in the measure possible, ascertain the legal situation relating to the interface between the two forms of protection, identify key areas for discussion, describe the arguments raised in discussions to date, in both WIPO and UPOV, for and against suggested approaches to the interface between the two forms of protection" (see WIPO document BioT/CE/IV/4, paragraph 132).

5. A number of questions have been raised with respect to biotechnological inventions, some of which have an impact on the protection of inventions in the field of plants and thus concern the interface between patent protection and plant breeders' rights. In this connection, reference is made to the documents prepared for the WIPO Committee of Experts, in particular the newly revised Report on Industrial Property Protection of Biotechnological Inventions (document BioT/CE/IV/2) and the Revised Suggested Solutions Concerning Industrial Property Protection of Biotechnological Inventions (document BioT/CE/IV/3). Those documents may be obtained from the International Bureau of WIPO.

6. Attention is also drawn to the current process of revision of the UPOV Convention, in connection with which questions concerning the interface between patents and plant breeders' rights are being considered. A document (IOM/IV/2), which can be obtained from the Office of UPOV, sets out possible revision proposals and was discussed in October 1989 at a UPOV meeting with international non-governmental organizations.

7. The present document outlines the questions that, it is proposed, this Committee of Experts should consider.

II. Questions to be Considered Relating to the Interface

8. Should both patents and plant breeders' rights be available in respect of plant varieties? If yes, should they be available cumulatively (that is to say, should both rights be available in relation to the same concrete object) or alternatively (that is to say, the same person must choose which right to seek in relation to the same concrete object)?
9. What justifications, if any, exist for any limitation of the rights which might be conferred by intellectual property systems in relation to plants or plant varieties in order to take into account considerations with respect to the general nature of biological material and of the agricultural and horticultural industries?
  - (a) What impact might any such limitations, which are considered to be justified on account of the general nature of the agricultural and horticultural industries, have upon the operation of intellectual property systems in other sectors of economic activity?
  - (b) What justifications, if any, exist to deny to the holder of intellectual property rights in a plant or plant variety the exercise, wholly or partially, of his rights over the production of reproductive or propagating material on a grower's farm for the purpose of replanting on his farm?
  - (c) If such justifications exist, could a derogation from intellectual property rights in plants or plant varieties be established according to which farmers would automatically be entitled to use such material so produced for their own purposes? Should such usage be free of charge or subject to payment?
  - (d) What justifications, if any, exist to deny to the holder of intellectual property rights in a plant or plant variety the exercise of his right, if any, to withhold authorization for the use of his plant or variety for research purposes?
  - (e) If such justifications exist, should or should not a derogation from such intellectual property rights in plants or plant varieties be established according to which researchers would automatically be entitled to use such plant or plant variety for research purposes? Should such usage be free of charge or subject to payment?
10. What, if any, difficulties arise with the application of the inventive step/non-obviousness requirement or the requirement of enabling disclosure to plant varieties?
11. What, if any, difficulties arise with the application of the novelty criterion of the patent system, or with the distinctness criterion of the plant breeders' rights system, if plant varieties are protectable both by patent and plant breeders' rights? In what other respects, if at all, does the protection of plant varieties in two systems with different criteria present problems?
12. It would seem to be possible to claim patent protection for plants which exhibit a specific characteristic and thus to secure exclusive rights in relation to that characteristic; this is not possible in the plant breeders' rights system. What advantages and disadvantages flow from a grant of exclusive rights in a plant characteristic? Is it or is it not

desirable in this context to distinguish between characteristics which are the expression of a sequenced and cloned gene the subject of a claim of a product or process patent and those which result from the recombination of genes?

13. Should patent protection for processes for the production of plant varieties extend to a plant variety directly obtained by the process?

14. How should "plant variety" be defined

(i) for the purposes of exclusions from patent protection?

(ii) for the purposes of plant variety protection?

(a) Is it desirable for definitions for the above-mentioned purposes to be the same?

(b) Is it acceptable to define a plant variety for the purposes of exclusion from patenting as a variety which is distinct, homogeneous and stable, that is to say, a variety that is protectable under the UPOV Convention?

(c) Is a definition of "plant variety" acceptable which embraces the existing general traditional concept of plant variety, e.g., "any group of plants belonging to a cultivated species that is regarded as an independent unit for cultivation purposes," but which also recognizes that varieties can be represented at any one time by one or more plants or by one or more plant parts which incorporate the complete genetic code of plants?

(d) Should it be possible, in the presence of an exclusion from patenting of plant varieties, to obtain patent protection by describing the subject matter of an invention as a "plant," or as a plant "part" containing the complete genetic code of a plant, e.g. a cell or protoplast?

(e) Is a definition of "plant variety" acceptable which includes cell lines of plants which are solely used in industrial processes and in relation to which no claims are made for a whole plant?

(f) Should the breeder's right in relation to his plant variety extend to any part of the plants of his variety which incorporates the genetic code of such plants?

15. WIPO Suggested Solution No. 9\* addresses possible problems within the patent system in relation to self-replicating material. Is such an extension or clarification of patent protection desirable in relation to plant varieties? What is the likely effect of such an extension or clarification where plant varieties are excluded from patent protection?

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\* Suggested Solution No. 9 reads as follows:

"Genetic Information as an Essential Feature of the Patented Product.— Patent protection for a product that consists of, or contains, particular genetic information as an essential feature of the invention shall extend to any matter containing the patented product or obtained from the patented product provided that the said genetic information is contained and expressed in the said matter."

16. What will be the effects upon the patent/plant breeders' rights interface of the proposed introduction to the UPOV Convention of the "essential derivation" principle\*\* (otherwise known as the "dependence" principle)?
17. Can WIPO Suggested Solution No. 9 together with the essential derivation principle provide the basis of a balanced system of reward and incentive to biotechnological inventors and plant breeders?
18. Should there be dependency licenses under patents for biotechnological inventions in favor of a plant breeder whose variety cannot be exploited without such a license? What terms and conditions are appropriate?
19. Should the developer of a variety which is "essentially derived" from a protected variety (perhaps by the incorporation into the protected variety of genetic information which is an essential feature of a patented invention) be invariably entitled, subject to the payment of equitable remuneration, to exploit the derived variety?
20. Should patentees and holders of plant breeders' rights in the dependency and essential derivation situations, referred to in paragraphs 18 and 19 above, be able to negotiate freely the grant or withholding of licenses? Should the party seeking a license be able to obtain it
  - (i) under all circumstances?
  - (ii) only if public interest so requires?
  - (iii) only if the invention represents a significant technical advance or if the new variety shows a substantial improvement?
21. Should owners of plant breeders' rights have a defense against owners of patents so that no act concerning a variety for which a plant breeder's right has been granted may be prohibited on the basis of a patent (see Article 5(5) in document IOM/IV/2)?

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\*\* The essential derivation principle is contained in Article 5(3) of the UPOV Convention revision proposals, which reads as follows:

"(3) If a variety is essentially derived from a [single] protected variety, the owner of the right in the protected variety

[Alternative 1] may prevent all persons not having his consent from performing the acts described in paragraph (1) above in relation to the new variety.

[Alternative 2] shall be entitled to equitable remuneration in respect of the commercial exploitation of the new variety.

[Alternative 3] may prevent all persons not having his consent from performing the acts described in paragraph (1) above in relation to the new variety. However, where the new variety shows a substantial improvement over the protected variety, the owner of the right shall only be entitled to equitable remuneration in respect of the commercial exploitation of the new variety."

Paragraph (1) referred to above describes the general effect of the right granted to the breeder.