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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
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ADMINISTRATIVE AND LEGAL COMMITTEE

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THE NOTION OF BREEDER AND COMMON KNOWLEDGE

Document prepared by the Office of the Union

1. At its forty-second session held in Geneva on October 23 and 24, 2000, the Administrative and Legal Committee (hereinafter referred to as "the Committee") considered the "Notion of Breeder and of Common Knowledge" on the basis of document CAJ/42/2.
2. The document contained in its Annex a draft position paper of UPOV on "The Notion of Breeder in the Plant Variety Protection System Based upon the UPOV Convention" designed to be formally adopted by the Council as a UPOV position to be taken into consideration in various fora concerned with plant genetic resource issues.
3. The Committee made a small number of suggestions for improvements to the position paper (see in this context paragraphs 8 to 15 of the draft report of the session, document CAJ/42/7 Prov.). These suggestions have been incorporated in the revised version of the position paper which is set out in the Annex to this document.
4. *The Committee is invited to approve the said document and to recommend to the Consultative Committee that it be formally adopted by the Council at its next session.*

[Annex follows]

THE NOTION OF BREEDER IN THE PLANT VARIETY
PROTECTION SYSTEM BASED UPON THE UPOV CONVENTION

The Aims of Plant Variety Protection

1. The protection of plant varieties was primarily conceived with a view to the development of agriculture. That aim is set out as follows in the preamble to the original 1961 text of the UPOV Convention:

“The Contracting States,

“Convinced of the importance attaching to the protection of new varieties of plants not only for the development of agriculture in their territory but also for safeguarding the interests of breeders [...]”

The Technical Bases for Plant Breeding and the Protection of New Plant Varieties

2. The subject matter of the protection system is, in all cases, a variety, that is to say a plant grouping within a single botanical taxon of the lowest known rank, such grouping being defined on the basis of agro-botanical criteria and characterized by the fact that it is distinct from other groupings and is sufficiently uniform and stable. The notion of variety covers a genetic structure theoretically corresponding to a single genotype (clone, line, F₁ hybrid) or a particular combination of genotypes (complex hybrid, synthetic variety, population variety, etc.).

3. The objective of plant breeding (plant improvement) is to produce such genetic structures. To do so, it must always start from genetic variability, which may be already existing or created.

Background

4. The invitation to participate in the first session of the International Conference, held in Paris from May 7 to 11, 1957, that was to lead to the signing of the UPOV Convention on December 2, 1961, was accompanied by an “Aide-mémoire on issues arising from the protection of new plant varieties” that had been drafted by the State Secretariat for Agriculture of France, and which asked *inter alia* the following questions as the basis for discussion in the Conference:

“1. Is it desirable to grant to every person who is able to prove that he is the first to bring a new variety of plant into cultivation, a right analogous to that which is accorded to the person making an industrial invention?”

“2. Should the right granted to [this person] the “*obtenteur*” be limited or unlimited in time?”

“3. The following are generally considered as sources for the “*obtention*” of new varieties of plants:

- (a) bulk or pedigree selection within an existing population;
- (b) the discovery of a natural mutation;
- (c) the inducing of an artificial mutation using a specific method;
- (d) chance cross-pollination;
- (e) deliberate cross-pollination;
- (f) any combination of the above methods.

“Should one consider as true creations only those *obtentions* which result immediately and directly from a process acting on the genetic structure of the plant or should the concept be broadened?”

In the first session, delegates opted to adopt a broad interpretation of *obtention* without regard to the method of *obtention*. What mattered was the result achieved, which should be different from what was previously known. Delegates contrasted the proposed plant variety protection system, in which discoveries should be protectable, with the patent system, which protected inventions but not discoveries. It was necessary to devise a special (*sui generis*) system in order to encourage all forms of plant improvement including discoveries.

5. Paragraph 4 of the Final Act of that session stated that

“The Conference considers that, since the essential work of the *obtenteur* is that of improvement, protection should apply whatever the origin (natural or artificial) of the initial variation that eventually results in the new variety.”

6. Subsequent sessions of the Committee of Experts set up by the first session of the Conference repeatedly studied the same subject. It noted that the reference to “improvement” in paragraph 4 of the Final Act did not imply that the grant of protection should be conditional upon the value for cultivation and use of the variety. The Committee also endeavored to identify an element of creative activity that should exist before the *obtenteur* would be entitled to protection. The possibilities of restricting protection to the fruits of “creative selection work” or “effective work on the part of the breeder” were proposed.

7. To some extent the subject was complicated by the language used. “*Obtenteur*” in French means a person who achieves a result particularly as a result of trials or research. It is usually translated into English as “breeder.” “Breeding” in its strict sense connotes a process involving sexual reproduction as a source of variability but in practical usage the activity of plant breeding is much wider and includes, in particular, selection within pre-existing sources of variation. “*Obtenteur*” might be better translated into English as “plant improver” rather than breeder (subject to the reservation referred to above that “improvement” is not a condition of protection).

8. Perusal of the early chapters of Allard’s classic “Principles of Plant Breeding” establishes that he considered all the methodologies described in the French *Aide-mémoire* to be part of the activity of plant breeding. Allard would also have included “plant introduction” (the simple multiplication and testing of an existing variety in a different environment) as an appropriate activity for plant breeders. Such an activity was not listed as a source of *obtention* in the *Aide-mémoire*. It is clear that the “introducer” of a variety is not entitled to protection under the UPOV Convention since the introduced material will not be distinct from the existing known variety.

9. It is also clear that, when the text of the UPOV Convention was eventually adopted in 1961, it established a system that was intended to provide protection for the fruits of all forms

of plant improvement, including selections made within natural, that is to say, pre-existing variation. Discoveries accordingly became eligible for protection as selections made within natural sources of variation.

The Text of the 1961 and 1978 Acts

10. The notions of “effective breeding work” or “creative selection,” referred to in paragraph 6 above, were not maintained by the second session of the International Conference that adopted the 1961 Act of the Convention, of which the principles and language were substantially maintained in the 1978 Act. The relevant provisions of the 1978 Act are as follows:

(a) Article 1(1):

“The purpose of this Convention is to recognize and to ensure to the breeder of a new plant variety or to his successor in title [...] a right under the conditions hereinafter defined.”

(b) Article 5(3):

“Authorization by the breeder shall not be required either for the utilization of the variety as an initial source of variation for the purpose of creating other varieties or for the marketing of such varieties. [...]”

(c) Article 6(1) (a):

“Whatever may be the origin, artificial or natural, of the initial variation from which it has resulted, the variety must be clearly distinguishable by one or more important characteristics from any other variety whose existence is a matter of common knowledge at the time when protection is applied for. Common knowledge may be established by reference to various factors such as: cultivation or marketing already in progress, entry in an official register of varieties already made or in the course of being made, inclusion in a reference collection, or precise description in a publication. The characteristics which permit a variety to be defined and distinguished must be capable of precise recognition and description.”

11. It should be noted that the 1978 Act contains no definition of “breeder” or “breeding” so that these words have their natural meaning and include all the classes of activity included in the French *Aide-mémoire*. There is equally no express reference to the protection of “discoveries.” The protection of discoveries is inferred from the fact that the opening words of Article 6(1)(a) accept the possibility that the variety may result from a natural source of initial variation, for example, a mutation.

12. The fathers of the UPOV Convention therefore deliberately chose to open up the system of protection to all varieties, whatever their method of breeding (thereby including the varieties that are “discoveries”), and whatever the effort expended by the breeder to create the variety. The language of the Convention establishes that there should have been a source of variability, which may have been created by the breeder or be pre-existing and that the breeder’s selection must be clearly distinguishable from any other commonly known variety.

13. The UPOV Convention differs from the patent system in its treatment of discoveries. Discoveries are not patentable. This difference is the logical result of the aim of the

Convention which is to secure the development of agriculture. The “discovery” of mutations or variants in a population of cultivated plants is indeed a source of varieties of great economic importance for agriculture. The UPOV Convention would have failed in its mission if it had excluded such varieties from protection and withheld from discoverers the incentive to preserve and propagate useful discoveries for the benefit of the world at large. The United States Congress adopted the same approach in 1930 when it made the plant patent available to “whoever invents or discovers and asexually reproduces any distinct and new variety...”

14. It is important to emphasize the language used at the beginning of Article 6(1)(a): “Whatever may be the origin, artificial or natural of the initial variation from which it has resulted ...”. The language implies a need for variation and for selection within that variation in order that the resulting plant material be the basis of a protectable plant variety.

The Text of the 1991 Act

15. When the Convention was revised in 1991, notwithstanding the fact that the making of selections within pre-existing variation was regarded as a standard activity for plant breeders, it was thought to be useful to include a definition of breeder in order to emphasize the fact that the UPOV Convention also provided protection for varieties that had been “discovered”. However, at the Diplomatic Conference, attention was drawn to the fact that the apparent protection of bare discoveries could be controversial in circles concerned with the definition of the ownership rights in genetic resources. Delegates were, however, conscious that, in practice, a discovery must be evaluated and propagated before it can be exploited and that the making available of discoveries was an important source of plant improvement that must be encouraged by the UPOV Convention. Intensive discussion led to the definition of “breeder” as the person who “bred, or discovered and developed” a variety. The reference to the “origin,” artificial or natural of the initial variety from which [the variety] has resulted in Article 6(1)(a) of the 1978 Act no longer appears. In the 1991 Act “discovery” describes the activity of “selection within natural variation” while “development” describes the process of “propagation and evaluation.”

16. It has been suggested that the criterion of “development” is only satisfied if the discovered plant itself is subsequently changed in some way and that the propagation of the plant unchanged would not constitute “development.” This approach would require the discovered plant to be propagated sexually and for a selection to be made in the progeny in order to demonstrate development. It is suggested that this approach cannot be correct since selection in the progeny would constitute “breeding.” This approach would also deny protection to most mutations, since the mutation is usually propagated unchanged.

17. The definition of breeder has made it possible to simplify the provision setting out what is meant by distinctness. The relevant provisions of the 1991 Act therefore read as follows:

(a) Article 1(iv):

“For the purposes of this Act:

[...]

- (iv) “breeder” means
– the person who bred, or discovered and developed, a variety,”

[...]

- (vi) “variety” means a plant grouping within a single botanical taxon of the lowest known rank, which grouping, irrespective of whether the conditions for the grant of a breeder’s right are fully met, can be
- defined by the expression of the characteristics resulting from a given genotype or combination of genotypes,
 - distinguished from any other plant grouping by the expression of at least one of the said characteristics and
 - considered as a unit with regard to its suitability for being propagated unchanged

(b) Article 7:

“The variety shall be deemed to be distinct if it is clearly distinguishable from any other variety whose existence is a matter of common knowledge at the time of the filing of the application. [...].”

(c) Article 15(1)(iii):

“The breeder’s right shall not extend to

[...]

“(iii) acts done for the purpose of breeding other varieties and, except where the provisions of Article 14(5) apply, acts referred to in Article 14(1) to (4) in respect of such other varieties.”

The Administrative Operation of the System of Protection

18. Protection is therefore available to the person(s) who claim(s) to be the breeder(s) of a variety, irrespective of its mode of creation. The breeder is usually required in a technical questionnaire that accompanies his application for protection to provide information concerning the breeding history and genetic origin of the variety.

19. In a very large number of States, an applicant who claims to be the breeder is assumed to be the owner of the right to protection, unless proved otherwise (only the successor in title is required to prove his title). The administrative procedure for the grant of protection typically includes a series of measures enabling concerned persons to rebut this assumption. These measures particularly include publicity (publication of a gazette, public inspection of files) and the possibility of filing observations, objections or opposition or, where a title has already been granted, of instituting an administrative or judicial procedure for annulment or judicial transfer.

20. A fundamental feature of the UPOV Convention, now embodied in Article 12 of the 1991 Act, is that protection shall only be granted after an examination to determine if the variety is novel, and clearly distinguishable from all other varieties that are a matter of common knowledge. The system of plant variety protection based on the UPOV Convention seeks to ensure, save error or omission on the part of the administrative services, that all

varieties protected in the system are clearly distinguishable from all other varieties whose existence was a matter of common knowledge at the date of the application for protection. Each variety is also given a detailed description drawn up in accordance with standardized procedures and protocols.

21. Article 6(1)(a) of the 1978 Act (see paragraph 10) did not define “common knowledge” but provided a non-exhaustive list of examples of how a variety could become a matter of common knowledge. When the Convention was revised in 1991, it was noted that the list of examples included events which would not necessarily be known to the public, for example, the addition of a variety to a reference collection. Accordingly, the 1991 text leaves “common knowledge” undefined and specifies only that certain acts (which are not likely to be known to the general public) shall be deemed to render varieties a matter of common knowledge. “Common knowledge” has its natural meaning. It is a worldwide test. A variety that is a candidate for protection must be clearly distinguishable from any variety whose existence is a matter of common knowledge at the date of the application for protection anywhere in the world. [Reference should be made to the revised General Introduction to the Assessment of Distinctness, Uniformity and Stability in New Varieties of Plants (document TG/1/3 now under preparation) to ascertain how this requirement is now approached in practice.]

22. In applying the notion of common knowledge in cases of dispute and particularly applications for a declaration of nullity, UPOV member States are recommended to be prepared to take into account not only knowledge that exists in documented form, but also the knowledge of relevant communities around the world provided that this knowledge can be credibly substantiated so as to satisfy the standard of proof of the civil law courts.

23. The definition of “variety” introduced in Article 1(vi) of the 1991 Act plays an important role in this context. The words “irrespective of whether the conditions for the grant of a breeder’s right are fully met” make it clear that commonly known varieties which are not clearly distinguishable from other known varieties, sufficiently uniform and stable so as to qualify technically for protection are still varieties from which a candidate variety must be clearly distinguished. This means, for example, that land races which are capable of satisfying the definition of “variety,” and which can in consequence be defined and propagated unchanged should be regarded as varieties of common knowledge for distinctness purposes.

The Effect of the UPOV Protection System

24. The effect of a grant of protection in conformity with the UPOV Convention is that the authorization of the holder of the protection right is required before acts of exploitation can be effected with material of the variety. The grant of protection should not give to the holder or his licensee a positive right to exploit the variety; it is open to UPOV member States to regulate the exploitation of varieties being part of a genetic resource falling within the provisions of Article 15 of the Convention on Biological Diversity where the prior informed consent of the person providing the resource has not been obtained.

25. Since the UPOV Convention was created in 1961, it is thought that some 100,000 grants of protection have been made in UPOV member States. Some 9,000 grants of protection per annum are currently made. Certain organizations unsympathetic to the system of intellectual property rights have alleged that the UPOV system of plant variety protection permits or

encourages the improper taking of plant material and its use as the basis for securing plant variety protection in UPOV member States. These allegations have not been substantiated.

26. The UPOV protection system seeks to protect varieties resulting from the various forms of plant improvement activity which have been of such benefit to humanity, particularly over the last century as an understanding of plant genetics has grown. The member States of UPOV emphatically reaffirm the notions of “breeder” and of activities which may legitimately result in the breeding, or discovery and development of a protectable variety outlined in this paper.

[End of Annex and of document]