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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

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Associated Document
to the
General Introduction to the Examination
of Distinctness, Uniformity and Stability and the
Development of Harmonized Descriptions of New Varieties of Plants (document TG/1/3)

DOCUMENT TGP/3

"VARIETIES OF COMMON KNOWLEDGE"*

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ANNEX

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

The Objective of the UPOV System of Plant Variety Protection

1. The objective of UPOV is to provide and promote an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of society.

The Basis 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 by the expression of the characteristics resulting from a given genotype (for example a clone, line, F_1 hybrid) or combination of genotypes (for example a complex hybrid or synthetic variety). The plant grouping should also be distinguished from any other plant grouping by the expression of at least one of the said characteristics and it should be considered as a unit with regard to its suitability for being propagated unchanged.[1]

3. Furthermore, in order for a variety to be protectable, specific criteria need to be satisfied under the UPOV system. The breeder's right shall be granted only if the variety is new, distinct, uniform, stable and it is designated by a variety denomination, as provided in the relevant Articles of the UPOV Convention.[2]

4. 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

5. 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 adoption 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?

[1] Article 1(vi) of the 1991 Act incorporated for the first time in the UPOV Convention the definition of "variety."
[2] Articles 5 to 9 of the 1991 Act, Article 6 of the 1978 Act and Article 6 of the 1961 Act.

"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.

6. 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."

7. 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.

8. 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).

9. 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.

10. It is also clear that, when the text of the UPOV Convention was 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

11. The notions of "effective breeding work" or "creative selection," referred to in paragraph 7 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."

12. 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.

13. 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.

14. The UPOV Convention differs from the patent system in its treatment of discoveries. Discoveries are not patentable. However, the "discovery" of mutations or variants in a population of cultivated plants is indeed potentially a source of new improved varieties. 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 of America 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 …"

15. 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

16. 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." At the Diplomatic Conference, delegates were conscious that discoveries were an important source of variety improvement but they also recognized that, in practice, a discovery must be evaluated and propagated before it can be exploited. This is the reason why the 1991 Act retained, in Article 1(iv), the notion of breeder as including the person who bred, or discovered and developed, a variety. The reference to the "origin," artificial or natural of the initial variation 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."

17. 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.

18. 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

19. Where the application satisfies the requirements for protection, the breeder's right shall be granted, irrespective of the mode of creation of the variety. 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.

20. 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 transfer of rights.

21. 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 clearly distinguishable from all other varieties that are a matter of common knowledge at the date of filing of the application. The system of plant variety protection based on the UPOV Convention seeks to ensure that all varieties are clearly distinguishable. For any cases of error or omission, the Convention provides for the appropriate remedies through the nullity mechanism. Each variety is also given a detailed description drawn up in accordance with standardized procedures and protocols.

22. Article 6(1)(a) of the 1978 Act (see paragraph 11) 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 Act 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.

23. In applying the notion of common knowledge in cases of dispute and particularly applications for a declaration of nullity, UPOV members 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.

24. 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 protectable may, however, still be varieties which meet the criteria of Article 1(vi), 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

25. The effect of a grant of protection, in conformity with the UPOV Convention, is that the authorization of the holder of the breeder's right is required before certain acts of exploitation[3] of the variety can be effected. The grant of protection does not give to the holder or his licensee a positive right to exploit the variety; it is open to UPOV members 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.

26. Since the UPOV Convention was created in 1961, it is thought that some 100,000 titles of protection have been granted in UPOV member States. Some 7,000 titles of protection per annum are currently granted.

27. The UPOV protection system seeks to protect varieties resulting from the various forms of plant improvement activity, which have been of such benefit to society, particularly over the last century, as an understanding of plant genetics has grown. The members of UPOV aim to provide with this paper a better comprehension of the notions of "breeder" and "common knowledge" in order to assist discussions in the various fora concerned with plant genetic resource issues.

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[3] As provided in Article 14 of the 1991 Act, Article 5 of the 1978 Act and Article 5 of the 1961 Act.