Do hybrids fall within the scope of the definition of a plant variety?

Introduction

By article 1 of Council Regulation (EC) 2100/94 ("the Basic Regulation") a system of Community plant variety rights is established "*as the sole and exclusive form of Community industrial property rights for plant varieties*". This provision finds it pendant in article 4 (1(a)) of the so called Biotech Directive[1] : "*The following shall not be patentable: (a) plant …varieties"*. The European Patent Convention contains a similar provision.

The reason to ask, and try to answer, the question that forms the title of this article, is that the Board of Appeal ("BoA") of the European Patent Office ("EPO") in its jurisprudence has expressed , that hybrids are not covered by the definition of "variety". In its decision T0788/07 of 7 January 2008 it concluded as follows" *Hybrid seeds or plants thereof …are not considered as units with regard to their "suitability for being propagated unchanged"…. and are therefore not regarded as plant varieties which are excluded from patentability (Article 53(b) EPC).*" As this quote makes clear the consequence of this opinion of the BoA is that hybrids can be protected with a patent (and would be excluded from protection with a Community plant variety right).

The granting practice of the Community Plant Variety Office (CPVO) shows that this agency has granted a stream of Community plant variety rights for hybrids based on the assumption that hybrids, at least certain types of hybrids, fall within the definition of a plant variety, which makes them protectable subject matter under the Community plant variety protection system.

Since, as will be reasoned in this article, the BoA and the CPVO have based their decisions on the same notion of "variety" as well as of "hybrid", one of the two must have incorrectly interpreted the relevant legislation. It will not surprise the reader that I am of the opinion it is the BoA of the EPO that has based itself on a wrong understanding of the definition of "variety". In the following chapters the arguments supporting this opinion are given.

Definitions

It should be established first, whether the jurisprudence of the BoA and the granting decisions of the CPVO referred to in the introduction are based on the same notion of "plant variety" and "hybrid" respectively.

Plant variety

Article 1 of the UPOV convention 1991 contains the following definition of 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;"*

The Basic Regulation, the Biotech Directive as well as implementing Rule 26 of the EPO contain or refer to a similar definition. The conclusion is that both the EPO and the CPVO have based their decisions on the definition of "plant variety" as laid down in 1991 act of the UPOV convention.

Hybrid

Neither the UPOV convention nor as far as I know any other international convention contains an internationally recognized definition of a hybrid in its broad sense.

The decision of the BoA relates to a specific kind of hybrid : that resulting from a crossing between two different homozygous parent varieties, [2] a so called F1 hybrid.[3]

As the granting practice of the CPVO relates to F1 hybrids as well, the conclusion is that as regards the use of the term "hybrid" the BoA of the EPO and the CPVO have based their decisions on the same notion of hybrid.

The elements of the variety definition and their applicability to hybrids

The next step in the process of answering the question in the title of this article is to have a look at the different elements, or rather conditions, of the variety definition and see in respect of each of them, whether they are applicable in respect of F1 hybrids.

- **"plant grouping within a single botanical taxon of the lowest rank"**

  The notion of plant grouping is not defined in the UPOV convention, but the EU legislator has filled this lacuna as follows: "A plant grouping consists of entire plants or parts of plants as far as such parts of plants are capable of producing entire plants." It seems beyond discussion that a hybrid is such a plant grouping even taking into account that the plants they are capable of producing partly genetically differ from them.

  But is it a grouping "within a single taxon of the lowest rank"?

  Since a hybrid always is the result of crossing on variety level, even in the case of inter specific or inter generic hybrids, and the hybrid is at the same -lowest- botanical rank as its parents, the answer on that question must be in the affirmative.

- **"defined by the expression of the characteristics resulting from a given genotype or combination of genotypes"**

  Whether it concerns the characteristics of one genotype or of a combination thereof, it is clear that a hybrid can be defined by the expression of such characteristics. The descriptions of the hybrids protected under the Community pvp system are the convincing proof of that position.

- **"distinguished from any other plant grouping by the expression of at least one of the said characteristics"**

  Insofar this part of the definition implies that non distinguishable plant groupings cannot be considered as varieties, it seems in conflict with the concept of a variety as envisaged by the UPOV convention legislator. If we would follow the logic of this conditional element of the definition, not only a non distinguishable plant grouping would not qualify as a variety but also the reference plant grouping from which it cannot be distinguished would not qualify as a variety. This would be a peculiar result, certainly if the reference plant grouping would have the status of a protected variety, meeting at the time of application for protection the relevant conditions . Furthermore the question arises how we should call a plant grouping that meets all the elements of the variety definition but the "distinguished" condition? In my opinion such a plant grouping is, or perhaps it is better to say , represents, a plant variety , namely the one from which it is not distinguishable.

  With this reservation in its respect, the conclusion must be that a hybrid fulfills the "distinguished..." condition of the variety definition.

- **"Considered as a unit with regard to its suitability for being propagated unchanged"**

As follows from the decision of the BoA of the EPO, partly cited in the introduction of this article, the interpretation of this element of the definition is the basis for its conclusion that hybrids cannot be considered as varieties.

This element of the definition did not appear in the Basic Proposal that formed the basis of the discussions during the Diplomatic Conference for the revision of the UPOV convention held in March 1991 in Geneva ("the Diplomatic Conference"). It was introduced on the initiative of the working group that was given the task to review the definition of "Variety". The proposal to add this element to the definition was made *"in order to take into account the notion of "reproduction and multiplication" connected with the variety*"[6]

The history of the addition of this part of the variety definition shows unequivocally that it was the intention of those who proposed its addition, that it would not put hybrids outside the scope of the definition of "plant variety". The following quote from the Records [7]may illustrate this: " *Mr. Guiard (Chairman of the Working Group) replied that the Group had held a detailed discussion on whether hybrid varieties could be covered by the sentence as proposed. It had seemed to the Group that the answer was yes … since the sentence referred to a "suitability," that was to say a very broad notion, and used the passive form ("for being propagated" and not "for propagating"). That suggested the possibility of outside intervention making use either of plant groupings that were not necessarily included in the variety or of special techniques*."

There is no indication that the opinion of Mr. Guiard was not shared by the signatories of the final text of the 1991 UPOV convention. This implies that as regards compliance with this element of the variety definition the term "propagated" covers the propagation of hybrids through the crossing of its parental lines. The opinion of the BoA apparently based on the idea that "propagated" refers to propagation by seed of the hybrid itself, is thus not in line with the intention of the fathers of the UPOV 1991 convention.

When considering the intention of the signatories of the convention, it should be taken into account that some years before the diplomatic conference took place, the BoA of the EPO had taken the decision that hybrid seed could not be considered as varieties as they are *" lacking stability in some trait of the whole generation population*."[8] At the time of that decision of the BoA the UPOV conventions in force did not contain a definition of plant variety; reason why the BoA based its decision on a notion of variety developed by itself. It is probable, that the representatives of the European UPOV member states participating in the Diplomatic conference were aware of this jurisprudence of the BoA of the EPO and intentionally deviated from it by accepting the variety definition in its present form. .

Other relevant provisions of the UPOV convention and the Basic Regulation

Confirmation that hybrids are included in the variety concept of the UPOV convention can be found in its article 9. The wording in that provision, "*in the case of a particular cycle of propagation, at the end of each such cycle*" clearly refers to the propagation of hybrids. Also in article 14 (5) (iii) of the convention mentioning "*varieties whose production requires the repeated use of the protected variety* " makes clear that F1 hybrids are varieties as defined in the convention. Similar provisions can be found in the Basic Regulation.

Whereas the UPOV convention does not explicitly make reference to "hybrids" or "hybrid varieties", the Basic Regulation does. In article 5(1) the following provision appears:

"1. *Varieties of all botanical genera and species, including, inter alia, hybrids between genera or species, may form the object of Community plant variety rights."*

Article 10(2) of the Basic Regulation concerning the novelty requirement, refers even twice to a "hybrid variety".

Also Art 14.1 of the Basic Regulation excludes hybrids from the scope of the farm saved seed exemption. If hybrids were not considered to be varieties, there would be no need to make such exemption to the FSS exemption.

Point of view International Seed Federation (ISF)

In reaction on the jurisprudence of the BoA of the EPO and similar decisions of other authorities, ISF adopted in May 2007 in Christchurch at the occasion of its annual meeting the following resolution:

"ISF considers that, for all purposes including intellectual property protection, a hybrid is a variety. Distinctness, Uniformity and Stability of the hybrid can be assessed either on the hybrid itself or on its parents and the formula that associate them. Some protection offices consider that a hybrid is not a variety as it would not be self reproducible without change. This is a misinterpretation of the UPOV Convention. Indeed, by the repeated use of its parents, a hybrid can be reproduced unchanged (UPOV 1978, Art. 5(3) and UPOV 1991, Art. 1(vi) 3rd indent). Consequently, the UPOV criterion of stability is fulfilled by a hybrid."

Conclusion

To consider a hybrid as a plant variety is supported by the legislative history of the UPOV 1991 convention and the wording of some of its provisions. The provisions of the Basic Regulation mentioned above are even clearer in that respect.

The conclusion is that the question that forms the title of this note must be answered in the affirmative. This implies that the Board of Appeal of the EPO by ruling that a patent be granted in respect of the Brassica hybrid, that was the object of its decision of 7 January 2008, did not respect the exclusion from patentability of plant varieties as laid down in Article 53(b) EPC. The same can be said in respect of similar decisions.

As follows from article 138 of the EPC a European patent may be revoked, under the law of a (or more) Contracting State(s), if the subject matter of the patent is not patentable within the terms of Articles 52 to 57. Let's wait and see.

Angers, July 2011

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***This article is written under personal title and does not necessarily reflect the opinion of the CPVO, of which the author was president when writing the article.*

[1] Directive 98/44/EC of the European Parliament and the Council of 6 July 1998 on the legal protection of biotechnical inventions

[2] « The invention, namely a hybrid seed, or hybrid plan thereof , produced by a cross between a plant obtained from one of four seeds …as male parent and a second Brassica plant as a female parent.. » (paragraph 2. Of the Reasons for the decision)

[3] The International Code of Nomenclature for Cultivated Plants (ICNCP) gives the following definition of F1 hybrids:"*the result of a deliberate repeatable single cross between two pure-bred lines*"

[4] See paragraph 18 page 139 of the Records of the Diplomatic Conference for the revision of the International Convention for the Protection of New Varieties of Plants ("the Records")

[5] See paragraph 991.3 (iii) page 328 of the Records

[6] Paragraph 16 page 138 of the Records

[7] Paragraph 1002 page 330 of the Records

[8] Decision of 10 /11/1988 - T0320 (hybrid plants)