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End-user license agreement on a fruit bag: misleading to consumers?

Perspectives on the border between use & misuse of legitimate powers according to CPVR law

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ABSTRACT

Some rumors have recently outspread over a thought-provoking post on social media depicting a sort of "shrink-wrap" license agreement attached to the front of a fruit bag in the United States. As European consumers and professionals, a few questions spontaneously arise: can the above license be deemed as legitimate and, should it be the case, would it be enforceable against final consumers according to Community plant variety laws? Against this background, the paper will preliminary draw comparative views upon US and Community PVR systems, carefully touching upon the exceptions and limitations to the scope of the breeder's rights, the doctrine of exhaustion and the implications it encompasses within the fruit supply chain, in order to finally take a position on whether or not the licensing trends as the above one may be deemed as solidly grounded from a legal standpoint, in accordance with the applicable PVR law at Community level.

1. COMPARATIVE PERSPECTIVES ON THE PROTECTION OF BREEDING INNOVATIONS

IP rights refer to intangible assets that can be embodied in an unlimited number of tangible goods. In this sense, they can usually qualify as both (i) exclusive, insofar as they allow the right holder to prevent any third party from exploitation of the intangible asset, and (ii) absolute, in the same way as classic property rights in physical goods[1]. Accordingly, absent any rights in *rem* or contractual rights of third parties, the right holder should be free to exercise full control over the IP asset.

In the context of agricultural inventions, the breeder – the person who bred, or discovered and developed a new varietal improvement – will be allowed to get a *jus excludendi alios* as remuneration for his/her activity. This is achieved by means of either patent or PVR protection, depending on the national legislation system in force, as Article 27(3)(b) of the agreement on *Trade-Related Aspects of Intellectual Property Rights* (TRIPS) gives Member States the duty to provide at least one legal remedy for the protection of plant varieties, i.e., "either by patents or by an effective sui generis system or by any combination thereof"[2]. Accordingly, some of the signatories (such as the United States) have opted for a national patent system as an alternative to the plant variety protection system for plants.

1.1. The International System for Plant Variety Rights Protection

PVR systems are conceptually deemed to be a viable solution to strike a fair balance between the diverging interests of breeders and the public at large. The goal is to foster technological development via the implementation of effective reward strategies in respect to the breeders' efforts in research and development, which may ultimately benefit society with successful achievements in the agricultural field.

The protection of plant varieties is mandatory for members of the World Trade Organization (WTO), which are obliged to implement the TRIPS provisions. Generally, Member States have adopted the acts of the *International Convention for the Protection of New Varieties of Plants* ("UPOV Convention")[3] by way of compliance[4].

The UPOV Convention came into force in 1968 and was revised in 1972, 1978, and 1991. Signatories of the UPOV Convention have implemented the relevant provisions within their national legislation: the United States has adopted the "Plant Variety Protection Act" ("PVPA")[5], while European countries have implemented national plant variety protection laws. In addition to the national PVR systems, the Community Plant Variety Rights (CPVR) system was established by Council Regulation (EC) No. 2100/94 on Community plant variety rights in 1994 (the "Basic Regulation" or "BR").

The UPOV Convention (1991) has managed to create an international *acquis* for plant variety protection. As regards eligibility for PVR protection, the plantvariety must be new[6], distinct[7] (i.e., clearly distinguishable from any other variety whose existence is a matter of common knowledge), uniform[8] (in its relevant characteristics) and stable (in the sense that the relevant characteristics

should be genetically fixed and remain unchanged after repeated propagation)[9].

With reference to the scope of PVR protection, the breeder can benefit from an exclusive right to perform and/or authorize any third party to perform a certain set of activities, namely (i) production or reproduction (multiplication), (ii) conditioning for the purpose of propagation, (iii) offering for sale, (iv) selling or other marketing, (v) exporting, (vi) importing, (vii) stocking for any of the above purposes, in respect to the propagating material of the protected variety[10]. In principle, the above rights do not cover the whole of the plant material, but only its reproductive elements, thus excluding other elements, such as the harvested material[11].

However, it has been observed that "in numerous crops of great economic importance (e.g. flowers, fruit and vegetables) the activity of the breeder is aimed, in many cases, at creating and developing new varieties whose added value lies exclusively in the 'harvested material' (final product), which brings advantages in terms of quality, beauty, organoleptic qualities, presentation, conservation, etc., and not in the propagating material." Therefore, in many cases, "the breeder must follow the downstream strategy in order to capture that added value and guarantee the profitability of his investment, by moving closer to the producer, marketer and consumer of the final product as beneficiaries of the advantages generated by the new variety"[12].

Further to the intense debate regarding legislative negotiations in the context of the Diplomatic Conferences and the Working Group Meetings[13] held since the adoption of the UPOV Convention (1968), signatories have finally agreed upon the introduction, within the current version of the UPOV Convention (1991), of the so-called "cascading right" system. This affords the breeder with an additional layer of protection of the harvested material (and, in some circumstances, the products directly deriving from said material) of the protected variety, subject to specific conditions listed within Article 14(2) of the UPOV Convention (1991).

However, it should be noted that breeder's rights are not unlimited, as the UPOV Convention (1991) establishes a set of exceptions and limitations to the breeder's rights.

1 For a jurisprudential application of such a doctrinal view, see Judgment of the Court, 19 September 2013, in case C-661/11 Martin Y Paz Diffusion SA v. David Depuydt, Fabriek van Maroquinerie Gauquie NV, ECLI:EU:C:2013:577, where it was ruled that "Article 5 of First Council Directive 89/104/EEC of 21 December 1988 to approximate the laws of the Member States relating to trade marks, as amended by the Agreement on the European Economic Area of 2 May 1992, precludes a proprietor of trade marks which, in a situation where there has been use shared with a third party, had consented to the use by that third party of signs which are identical to its marks in respect of certain goods in classes for which those marks are registered and which no longer consents to that use, from being deprived of any possibility of asserting the exclusive right conferred upon it by those marks against that third party and of itself exercising that exclusive right in respect of goods which are identical to those of that third party."

2 See "Agreement on Trade-Related Aspects of Intellectual Property Rights" Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 33 I.L.M. 1197, 1869 U.N.T.S. 299. Article 27(3)(b). Available at: https://www.wto.org/english/docs_e/legal_e/27-trips_01_e.htm – accessed on 30 April 2021.

3 See UPOV, International Convention for the Protection of New Varieties of Plants, as revised at Geneva on March 19, 1991, available at: https://www.upov.int/edocs/pubdocs/en/upov_pub_221.pdf – accessed on 30 April 2021.

4 See Blakeney M., Patents and Plant Breeding: Implications for Food Security, Amsterdam Law Forum (2011) 3(3), p. 73.

5 See Plant Variety Protection Act of 1970 (PVPA), 7 U.S.C. §§ 2321-2582.

6 See UPOV Convention (1991), Article 6.

7 Ibid., Article 7.

8 Ibid., Article 8.

9 Ibid., Article 9.

10 Ibid., Article 14(1).

11 As seen below, UPOV Convention (1991) has extended the breeder's right to the harvested material, including entire plants and parts of plants, obtained through the unauthorized use of propagating material of the protected variety, unless the breeder has had reasonable opportunity to exercise his/her right in relation to the said propagating material. It does not, however, define when an opportunity may be considered "reasonable," leading to uncertainties in the application of a fundamental concept within the Convention.

As regards the former, Article 15(1)(i) provides that the breeder's rights shall not extend to acts which are *both* of a private nature *and* for non-commercial purposes: it follows that non-private acts, even when not for profit-making purposes, may be outside the scope of the exception. Similarly, private acts which are carried out for commercial purposes may also be out of the scope set forth in the provision.

Secondly, the use of the protected variety "for experimental purposes" is deemed not to be covered by the breeder's rights, according to Article 15(1)(ii) of the UPOV Convention (1991).

Thirdly, Article 15(1)(iii) refers to "acts done for the purpose of breeding other varieties, and, except where the provisions of Article 14(5)[14] apply, acts referred to in Article 14(1) to (4) in respect of such other varieties." This is a fundamental concept of the entire UPOV system, commonly known as the "breeder's exemption," allowing farmers to freely exploit protected varieties for the purpose of breeding new plant varieties.

Last but not least, Article 15(2) of the UPOV Convention (1991) provides for an optional exception in respect to certain varieties which may be reproduced through the harvested product[15], according to which "each Contracting Party may, within reasonable limits and subject to the safeguarding of the legitimate interests of the breeder, restrict the breeder's right in relation to any variety in order to permit farmers to use for propagating purposes, on their own holdings, the product of the harvest which they have obtained by planting, on their own holdings, the protected variety or a variety covered by Article 14(5)(a)(i) or (ii)." Interestingly, the wording of the Convention expressly refers to the use of the harvested material of the variety in question by the farmer "on their own holdings": thus, it could be argued that the optional exception "may be considered by UPOV Members not to extend to a transfer of the product of the harvest to another farmer for that other farmer to use for propagating purposes"[16].

With reference to the limitations set forth by the UPOV Convention (1991), Article 16 establishes the rule of exhaustion, pursuant to which the breeder's rights shall not extend to "acts concerning any material of the protected variety... ...which has been sold or otherwise marketed by the breeder or with his consent in the territory of the Contracting Party concerned... ...unless such acts (i) involve further propagation of the variety in question or (ii) involve an export of material of the variety, which enables the propagation of the variety, into a country which does not protect varieties of the plant genus or species to which the variety belongs, except where the exported material is for final consumption purposes." As will be further explained below, the rule is aimed at clarifying, on the one hand, that PVR holders can only exercise their rights "once in each stage of propagation" while ensuring, on the other hand, that "the breeder's right to prohibit further or unauthorized propagation of the variety is never exhausted"[17].

[12] See Villaroel A., Experiences of Breeders: Role of Contracts in the Exercise of Breeder's Rights, in UPOV "Symposium on Contracts relating to Breeder's Rights" Geneva, 2008, p. 2. Available at: https://www.upov.int/edocs/mdocs/upov/en/upov_sym_ge_08/upov_sym_ge_08_5.pdf – accessed on 30 April 2021.

[13] This concern was raised by professional groups such as the "International Community of Breeders of Asexually Reproduced Ornamental and Fruit Plants" ("CIOPORA"), arguing that limiting protection to propagating material was "illusive" for vegetable production because plant breeding was a heterogeneous activity and the destination of the crop was not always known. See, on this topic, Sanderson J., *Towards a (Limited) Cascading Right: What is the Appropriate Scope of Protection for Plant Breeding?*, UNSW Law Journal, (2011) Volume 34(3) p. 1108 referring to UPOV, Actes des Conférences Internationales pour la Protection des Obtentions Végétales 1957–1961, 1972, UPOV Publication No 316 (1972), 92.

[14] I.e., essentially derived varieties, varieties which are not clearly distinguishable from the protected variety and those whose production requires the repeated use of the protected variety.

[15] E.g., grains and cereals.

[16] See WIPO *Introduction to Intellectual Property: Theory and Practice* (2nd ed.) Kluwer Law International (2017) p. 261.

[17] *Ibid.*, p. 262.

[18] See UPOV Convention (1991) Article 19.

[19] See Chiarolla C., *Commodifying Agricultural Biodiversity and Development-Related Issues*, 9 J. World Intell. Prop. 25, (2006), p. 28.

[20] *Ibid.*

[21] Ibid., p. 29.

[22] See US Department of Agriculture (USDA) "Plant Variety Protection – Overview" section, available at: https://www.ams.usda.gov/services/plant-variety-protection – accessed on 30 April 2021.

[23] See "Plant Variety Protection Act " of 1970 (PVPA), 7 U.S.C. sections 2321–2582.

[24] See U.S. "Patents Act" 35 U.S.C. §§ 161 et seq. Available at: https://www.wipo.int/edocs/lexdocs/laws/en/us/us176en.pdf – accessed on 30 April 2021.

[25] US Patent Acts of 1790, 1793, 1836, 1952; "Leahy-Smith America Invents Act" (AIA) of 2011; 35 U.S.C. sections 101, 102, 103 and 112.

[26] US Patent and Trademark Office (USPTO), "General Information About 35 U.S.C. 161 Plant Patents" available at: https://www.uspto.gov/patents/basics/types-patent-applications/general-information-about-35-usc-161 – accessed on 30 April 2021.

[27] 35 U.S.C. § 101.

[28] 35 U.S.C. § 102.

[29] 35 U.S.C. § 103.

[30] 35 U.S.C. § 112(a).

[31] Ibid.

[32] Ibid.

[33] 35 U.S.C. § 112(b).

[34] See, on this topic, Holthuis J., Van der Velden M. (general editors) Plant Variety Rights Versus Plant Patents: Legal Developments and Frictions in a Regional Perspective in Business Law International, Vol. 20 no. 2 (2019) p. 105.

[35] Ibid.

[36] Reference is made to 227 USPQ 443, 447 (Bd Pat App & Int 1985). See also, Bugos G.E. and Kevles D.J., Plants as Intellectual Property: American Practice, Law, And Policy in World Context (California Institute of Technology, Pasadena 1991).

[37] See Holthuis J., Van der Velden M. (general editors) Plant Variety Rights Versus Plant Patents: Legal Developments and Frictions in a Regional Perspective, p. 105.

Lastly, as regards the duration of the breeder's right, the UPOV Convention (1991) provides for a minimum period of 20 years from the date of the granting of the PVR protection. In case of trees and vines, the period shall not be shorter than 25 years[18].

1.2. Critical gaps between PVR Protection and Plant Patent Protection

As far as the relationship between PVRs and patents is concerned, it should be noted that the requirements for PVR protection are less strict than those of any patent system, because "the criteria of distinctness, uniformity and stability… …can provide more flexibilities than requirements for patentability"[19]. Therefore, in principle, "plant varieties, including plants growing in the wild, may be eligible for protection simply if they are distinct from earlier known species"[20].

It follows that PVR protection is "softened" as compared with patent protection. Breeders may benefit from one or the other, either as a stand-alone protection or in combination with other protection schemes, depending on the availability within the national legislative system of the territory concerned.

Furthermore, the requirements for patent protection relate to the "solution to a technical problem," as the invention must be new, involve an inventive step and must have an industrial application. On the other hand, the requirements for PVR protection are less demanding and easier to determine. This results in a relatively narrow scope of protection that, aside from the further amendments to the UPOV Convention (1991), does not generally extend to all products (particularly not those for consumption and/or use), but only to the propagating material of the protected variety.

With reference to scope, the protection afforded by the patent system is broader than the standard set of rights obtained via PVR legislation, due to the important exceptions and limitations in the latter system.

Since the objective of PVR systems is to afford legal protection in respect of the propagating material of the variety, breeders' rights do not cover "technical processes for the production of those varieties"[21]. In other words, breeders cannot obtain exclusive rights over particular breeding methods through PVR systems, whereas they can, in principle, apply for patent protection for such a process under national patent laws.

Thus, if national legislation provides for a patent protection system for plants, a breeder could potentially achieve patent protection for both the plant variety and the breeding process involved.

Lastly, patent protection systems allow an applicant to obtain legal protection for both a plant and the genetic material expressed by that plant: the former will qualify as a plant patent, while the latter will qualify as a plantrelated invention. Under PVR systems, plant genetic materials remain unprotected and available to the public for further research and development, in accordance with the "breeder's exemption," whose Community application can be found within Article 15 of the Basic Regulation (the so-called "farmers' privilege").

1.3. Plant Variety Protection Schemes in the United States

In the USA, three types of protection can be obtained for new plant varieties by breeders[22]:

- Plant Variety Protection – for seeds, tubers, and asexually propagated plants[23];
- Plant Patents – for asexually propagated plants except edible tubers[24];
- Utility Patents – for genes, traits, methods, plant parts, or varieties[25].

A plant patent is granted by the United States Patents and Trademarks Office (USPTO) to an inventor. The relevant title, which is valid for 20 years from the filing date of the application, allows the patent holder to exclude any third party from asexually reproducing the plant and from using, offering for sale, or selling the plant so reproduced, or any of its parts, throughout the United States, or from importing the plant so reproduced, or any part thereof, into the United States. This protection is limited to a plant in its ordinary meaning, which is described in the relevant regulation[26].

The requirements for patent protection are different from the conditions established for the PVR system. For a patent to be granted, the variety applied for must comply with the following criteria: 1) utility[27], 2) novelty[28], 3) non-obviousness or inventive step[29], 4) enablement or sufficiency of disclosure[30], 5) written description[31], 6) best mode[32], and 7) specification[33].

The patentability requirements for a plant variety are the same as those for usual patents (so-called utility patents); however, the application of these requirements is less stringent for plant patents.

The USPTO is the office authorized to issue a utility patent: this can cover any plant or plant part, as long as the invention satisfies the basic criteria of patentability under US law (*i.e.*, the invention is unique, useful, non-obvious, and not a product or law of nature). Utility patents can also protect plant traits embodied in a group of plants[34].

The utility patent (which has a 20-year term from the filing date of the application) allows the patent holder to prevent others from making, using, selling, offering for sale, and importing or exporting the patented invention within the relevant territory (*i.e.*, USA). There are no exemptions to these prohibitions relevant to commercial agriculture. Once claims in the application have been granted, the biological deposit becomes publicly available[35].

Since the "*Ex parte* Hibberd" ruling[36], thousands of utility patents have been issued on plants – there is no limitation on the type of plant patented. One important implication is that patent holders can prevent others from using the patented variety for breeding[37].

Plant Variety Protection (PVP) certificates are issued by the Plant Variety Protection Office (PVPO) of the US Department of Agriculture (USDA) under the Plant Variety Protection Act (PVPA), 7 U.S.C. sections 2321–2582. A PVP certificate may be issued on a plant variety that can be sexually propagated, or is tuberous, if it satisfies the criteria of being new[38], distinct [39], uniform[40], and stable[41]. The PVP certificate covers only one plant variety – not a group of plants that share a common trait – and in this sense is more similar to a plant patent than a utility patent[42].

The certificate (which is generally valid for 20 years from the date of issue or for 25 years for vines and trees) grants the holder the right to prohibit others from selling, offering for sale, reproducing, importing, exporting, or using the plant in commercial production. The protection provided is primarily against unauthorized commercial use of the variety[43].

An important feature of PVP is the research exemption[44], pursuant to which the use and reproduction of a protected variety "for plant breeding" or "other bona fide research" shall not constitute an infringement. These acts, as well as private or non-commercial uses[45], are not considered infringements of the PVPA.

Furthermore, the PVR owner must also allow limited seed saving "by authority of the owner of the variety for seeding purposes," as well as subsequent use of such seeds "in the production of a crop for use on the farm of the person, or for sale as provided in this section"[46].

In light of the above, PVR protection seems to be less restrictive than utility or plant patent protection, allowing certain uses of the protected variety in research and agricultural contexts.

From a strategic point of view, it has been argued that utility patent and plant patent protection may partially overlap, insofar as they grant the same rights to a given variety and have the same lifespan. The key difference lies in the scope of the claims. In particular, the plant patent covers "only the entire plant of the new variety as described in the application" while the utility patent allows coverage "beyond a single plant variety," although the process of getting a plant patent is typically less complicated and less costly than that for a utility patent[47].

An advantage of obtaining a utility patent on plant traits is that the coverage can be broad. Multiple varieties with the same trait can be covered in a single application, provided that those varieties are not covered by any other source of IP. Further, the patent can also cover new varieties independently developed from the plant and bearing the same trait.

1.4. The Community Plant Variety Protection System

The European Union formally joined the UPOV system in 2005. However, as early as 1994, the European Union had adopted the Basic Regulation, establishing the Community plant variety rights (CPVR) system, along with the relevant implementing Regulation[48] as well as the Regulation concerning the so-called "agricultural exemption"[49]. As in the case of Community trademarks and designs, the BR allows for an IP right with unitary effects throughout the entire European Union.

As regards the protectable subject matter, CPVRs are granted in respect to "[v]arieties of all botanical genera and species, including, *inter alia*, hybrids between genera or species"[50], where the expression "variety" is commonly intended as "a plant grouping within a single botanical taxon of the lowest known rank, which ... can be: (i) defined by the expression of the characteristics that results from a given genotype or combination of genotypes, (ii) distinguished from any other plant grouping by the expression of at least one of the said characteristics, and (iii) considered as a unit with regard to its suitability for being propa-gated unchanged." In line with the provisions within the UPOV Convention (1991), a variety must be new, distinct, uniform, and stable in order to be eligible for CPVR protection[51] .

As far as the novelty requirement is concerned, the BR provides that "A variety shall be deemed to be new if, at the date of application... ...variety constituents or harvested material of the variety have not been sold or otherwise disposed of to others, by or with the consent of the breeder... ...for purposes of exploitation of the variety: (a) earlier than one year before the above-mentioned date, within the territory of the Community; (b) earlier than four years or, in the case of trees or of vines, earlier than six years before the said date, outside the territory of the Community"[52].

The novelty rule provides for a "grace period" in respect to acts of sale and/or disposal of the variety prior to

[38] 7 U.S.C. § 2402(1).
[39] 7 U.S.C. § 2402(2).
[40] 7 U.S.C. § 2402(3).
[41] 7 U.S.C. § 2402(4).
[42] See Holthuis J., Van der Velden M. (general editors) Plant Variety Rights Versus Plant Patents: Legal Developments and Frictions in a Regional Perspective, p. 106.
[43] Ibid.
[44] 7 U.S.C. § 2544.
[45] 7 U.S.C. § 2541(e).
[46] Reference is made to the "right to save seed" and the "crop exemption" under 7 U.S.C. § 2543.
[47] See Holthuis J., Van der Velden M. (general editors) Plant Variety Rights Versus Plant Patents: Legal Developments and Frictions in a Regional Perspective, p. 108.
[48] See Commission Regulation (EC) No. 874/2009 of 17 September 2009 establishing implementing rules for the application of Council Regulation (EC) No. 2100/94 as regards proceedings before the Community Plant Variety Office.
[49] See Commission Regulation (EC) No. 1768/95 of 24 July 1995 implementing rules on the agricultural exemption provided for in Article 14(3) of Council Regulation (EC) No. 2100/94 on Community plant variety rights.
[50] See Article 5(1) BR.
[51] Ibid., Article 6.
[52] Ibid., Article 10(1).
[53] See European Patent Office (EPO), European Patent Convention, 17th edition/November 2020 Article 55 available at: https://documents.epo.org/projects/babylon/eponet.nsf/0/B415FE40DAEEEC60C125864600479CB3/$File/EPC_17th_edition_2020_en.pdf – accessed on 30 April 2021.
[54] See Article 7 BR.

the relevant application date. Moreover, the concept of "disclosure" of the variety applied for is limited to acts performed by the breeder or with his/her consent (whereas for patents, acts of disclosure performed by third parties are enforceable also against the patent holder, provided that such acts are due to, or in consequence of, an evident abuse in relation to the applicant or his/her legal predecessor and the patent application is duly filed within six months from the disclosure event)[53].

The variety applied for shall be deemed to be distinct "if it is clearly distinguishable by reference to the expression of the characteristics that results from a particular genotype or combination of genotypes, from any other variety whose existence is a matter of common knowledge" on the date of application[54]. Here, the concept of "common knowledge" entails any variety that is comprised within the "state of the art" at the time of the CPVR application, if (i) it was the object of a PVR or entered in an official register of plant varieties, in the Community or any State, or in any intergovernmental organization with relevant competence, or (ii) an application for the granting of a PVR for said variety or for its entering in such an official register was filed, provided that the application has since led to such granting or entering.

As previously mentioned, a variety must be "clearly" distinguishable from the prior art: for this reason, the distinctiveness requirement has been conceptually likened, by some scholars, to the "inventive step" within patent law[55]. The distinctiveness requirement is to be assessed through "the expression of the characteristics that results from a particular genotype or combination of genotypes": according to authoritative doctrine, this clarification[56] should lead to denying CPVR protection whenever the genetic distances between the variety applied for and those in the prior art are of only trivial importance[57].

However, this interpretation has been rebutted by other scholars. It has been argued that even minimal genetic differences, if they translate into phenotypic differences or differences in the main features of the plant variety in question, shall be deemed sufficient to meet the distinctiveness requirement[58]. In line with the above argument, UPOV TG/1/3[59] suggests that the distinctness requirement shall be looked at in relation to "the characteristics expressed by the genotype" rather than the genotype *per se*.

Last but not least, CPVR protection is granted for varieties that are sufficiently uniform "in the expression of those characteristics which are included in the examination for distinctness, as well as any others used for the variety description"[60] and stable, in the sense that "the expression of the characteristics which are included in the examination for distinctness as well as any others used for the variety description, remain unchanged after repeated propagation or, in the case of a particular cycle of propagation, at the end of each such cycle"[61]. As regards those two requirements, some scholars have linked them to the "industrial applicability" requirement in patent law, insofar as both serve to ensure reproduction of the intellectual creation[62].

In line with the relevant provisions of the UPOV Convention (1991), the BR delivers a set of activities which must be subject to the breeder's prior authorization, namely (i) production or reproduction (multiplication) of the protected material, (ii) conditioning for the purpose of multiplication, (iii) sale or marketing, (iv) exportation from or importation to the territory of the Community, and (v) storage for one of the aforementioned purposes[63].

This notwithstanding, the BR provides for the statutory exceptions[64] set forth by the UPOV Convention (1991), namely (i) acts done "privately and for non-commercial purposes" by farmers who may benefit from the availability of protected new varieties, (ii) acts done for experimental purposes, and (iii) acts done for the purpose of breeding or discovering and developing other varieties (i.e., the "farmers' privilege"). The BR also provides for a general clause concerning limitations to the CPVR[65] as

[55] See Floridia G., Il riassetto della proprietà industriale, Milano, 2005, p. 423; Mayr C., La disciplina delle nuove varietà vegetali, Le nuove leggi civ. comm., 2000, 847 e ss., p. 860.

[56] Introduced by the UPOV Convention (1991), probably to take into account the advent of new breeding techniques based on genetic engineering processes: see Mayr C., Commento al Reg. CE n. 2100/94, Riv. dir. ind., 1995 (VI) and Borrini S., La Nuova Disciplina delle Varietà Vegetali, Il dir. ind., 1999, 16 et seq.

[57] See De Benedetti J. - Borrini S., Commento al reg. CE n. 94/2100, Il dir. ind., 1994, 1173, and Ghidini G. - De Benedetti J., Codice della Proprietà Industriale, Milano, 2006, p. 267.

[58] See Morri F., La Privativa Varietale Comunitaria, Riv. Dir. Ind., fasc. 1, 2011, p. 19.

[59] See UPOV, General introduction to the examination of distinctness, uniformity and stability and the development of harmonized descriptions of new varieties of plants, Geneva, 19 April 2002, available at: https://www.upov.int/edocs/mdocs/upov/en/caj_ag_10_5/tg_1_3.pdf – accessed on 30 April 2021.

[60] Article 8 BR.

[61] Article 9 BR.

[62] See Dragotti G., Commento agli artt. 100 e ss. c.p.i., in Scuffi-Franzosi-Fittante, "Il Codice della Proprietà Industriale" Padova, 2005, p. 471, and Floridia G., Il riassetto della proprietà industriale, Milano, 2005, p. 425.

[63] Article 13(2) BR.

[64] Article 15 BR.

[65] Article 13(8) BR.

well as the exhaustion rule[66], pursuant to which the disposal of "any material" of the protected variety, performed by the breeder or with his/her consent, throughout the territory of the Community, will lead to CPVR exhaustion in relation to that material.

Lastly, it seems worthwhile to underline that CPVRs are afforded in respect to living material that is capable of reproducing itself and generating new products. In light of this specificity, in order to establish whether or not the CPVR is exhausted when dealing with varieties whose harvested material may also serve as propagating material, reference must be made to the actual destination of the material in question. If it is intended for final consumption, the CPVR holder will be unable to oppose the subsequent marketing thereof, whereas he/she can do so if the acts of disposal are intended for further propagation of the protected variety[67].

2. THE DOCTRINE OF EXHAUSTION IN PLANT VARIETY RIGHTS

The doctrine of exhaustion (also known as the "first sale doctrine" in common law jurisdictions) represents a key concept in IP law. The application of this doctrine implies that, further to the first act of disposal of an individual good by the title holder or with his/her consent, the IP rights will generally be deemed "exhausted" (*i.e.*, there will be no more rights in favor of the title holder).

Here, it is important to remember that the exclusive rights of the IP owner refer to the exploitation of the intangible good, not the physical item incorporating it: as outlined by respected scholars, the exhaustion of the right "does not apply to the patented object as an abstract category, family or group, but concerns only the specific object, individually and concretely sold"[68].

That being said, the exhaustion rule in relation to PVRs aims at ensuring that the breeder can exercise his/her exclusive rights and be remunerated only in the first propagating stage. On the other hand, PVR exhaustion guarantees the breeder's right, under certain conditions, to prevent further or unauthorized propagation of the protected variety in question[69].

The right to prohibit further propagation is required for an adaptation of the exhaustion rule from the patent law paradigm. In fact, under PVR, problems may arise in case of harvested material which is nonetheless capable of propagating the protected variety.

The above issue has been addressed at the Community level, *inter alia* under the Biotechnology Directive[70], whose Article 10 expressly provides that patent protection shall not extend "to biological material obtained from the propagation or multiplication of biological material placed on the market in the territory of a Member State by the holder of the patent or with his consent, where the multiplication or propagation necessarily results from the application for which the biological material was marketed, provided that the material obtained is not subsequently used for other propagation or multiplication."

Indeed, the exhaustion doctrine in patent law "protects the purchaser from interference in the use of the purchased patented item and in its disposition or sale"[71], whereas in plant variety protection it is necessary to take into consideration that the protected organisms are often able to duplicate themselves. Therefore, a limited interference might be allowed, to protect the PVR holder.

Article 16(1) of the UPOV Convention (1991) provides for a specific provision concerning exhaustion, according to which the breeder's right shall not extend to acts concerning "any material of the protected variety... ...which has been sold or otherwise marketed by the breeder or with his consent in the territory of the Contracting Party concerned, or any material derived from the said material, unless such acts (i) involve further propagation of the variety in question or (ii) involve an export of material of the variety, which enables the propagation of the variety, into a country which does not protect varieties of the plant genus or species to which the variety belongs, except where the exported material is for final consumption purposes."

It is interesting to note that the subsequent paragraph (2), clarifying the meaning of the word "material" within the above provision, refers to "propagating material," "harvested material," and "products obtained directly therefrom." It follows that, no matter how the protected variety was actually put on the market, use of any material involving further propagation will lead to PVR exhaustion.

However, a problem arises in connection to the wording "unless such acts (i) involve further propagation of the variety in question." In this respect, some scholars have argued that "further propagation is closely linked to the acts requiring authorization by the breeder." This would mean that "[t]he sale itself does not involve propagation. The breeder can only sue the buyer propagating (production of propagating material) or cultivating (production of harvested material) the material"[72].

With reference to the corresponding provisions enclosed within CPVR law, it should first be observed that the 14th recital in the preamble to the BR states the following:

"Whereas, since the effect of a Community plant variety right should be uniform throughout the Community, commercial transactions subject to the holder's agreement must be precisely delimited; whereas the scope of protection should be extended, compared with most national systems, to certain material of the variety to take account of trade via countries outside the Community without protection; whereas, however, the introduction of the principle of exhaustion of rights must ensure that the protection is not excessive."

Against this background, Article 16 BR[73] provides that "the Community plant variety right shall not extend to acts concerning any material of the protected variety, or of a variety covered by the provisions of Article 13(5), which has been disposed of to others by the holder or with his consent, in any part of the Community, or any material derived from the said material, unless such acts: (a) involve further propagation of the variety in question, except where such propagation was intended when the material was disposed of[74]; or (b) involve an export of variety constituents into a third country which does not protect varieties of the plant genus or species to which the variety belongs, except where the exported materials is for final consumption purposes."

In other words, if the CPVR holder or his/her licensee has sold or otherwise disposed of "any material" of the protected variety to third parties within the territory of the European Union, CPVRs will be exhausted in respect to that material: the breeder will not be allowed to prevent any third parties from offering for sale and/or selling that material to others, nor from stocking it for any of the listed purposes[75]. In addition, the above wording suggests that if variety constituents of the protected variety are sold by the CPVR holder or with his/her consent, the purchaser will be allowed to sell the harvested material resulting from those variety constituents.

As previously touched upon, the exhaustion rule within the BR is subject to a number of exceptions. In particular, as a result of the first exception under (a), the CPVR holder will always be entitled to prohibit the propagation of the variety. However, Article 16 BR contains a "counter-limitation" to the exception, in case further propagation was intended at the time of the disposal of the material, e.g., in case of a disposal to a licensee by reason of a contractual exploitation right[76]; in such a case, the act of disposal will be considered as leading to CPVR exhaustion[77].

In this respect, relevant case-law of the CJEU[78] has ruled that "the holder or the person enjoying the right of exploitation may bring an action for infringement against a third party which has obtained material through another person enjoying the right of exploitation who has contravened the conditions or limitations set out in the licensing contract that that other person concluded at an earlier stage with the holder to the extent that the conditions or limitations in question relate directly to the essential features of the Community plant variety right concerned. It is for the referring court to make that assessment." Additionally, the Court observed that "[i]f the referring court were to establish that the protected material was disposed of by the person enjoying the right of exploitation in breach of a condition or limitation in the licensing contract relating directly to the essential features of the Community plant variety right, it would have to be concluded that that disposal of the material, by the person enjoying the right of exploitation to a third party, was effected without the holder's consent, so that the latter's right is not exhausted"[79].

66 Article 16 BR.

67 See Morri F., La Privativa Varietale Comunitaria, p. 6.

68 See Germinario C., A Comparative Look at Bowman vs. Monsanto in the European Context, World Intellectual Property Report, 19 June 2013.

69 The role of the exhaustion doctrine has been addressed by the Supreme Court of the United States in BOWMAN V. MONSANTO CO. ET AL. No. 11–796. In this patent infringement case, which occurred in 2013 and was filed by Monsanto, the Court stated that a purchaser of a patented crop might resell the patented material, consume it him-/herself or use it to feed his/her animals, subject to specific limitations. In particular, it has been held that, even if the patented material is naturally able to replicate itself, the purchaser does not have the right to use such copies without the patent holder's permission. In case an unauthorized replication occurs, the breeder's right is deemed not to be exhausted. For further insights into this ruling, see: Blakeney M., 2016, Agricultural Innovation: Patenting and Plant Variety Rights Protection, in Steier G. and Patel K. (eds.), "International Food Law and Policy, Springer International Publishing" pp. 149- 150. See also: Lai J., 2014, The Exhaustion Doctrine and Genetic Use Restriction Technologies: A Look at Bowman v Monsanto, The Journal of World Intellectual Property, 17, 5-6.

70 Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions.

71 Chamber S., Exhaustion Doctrine in Biotechnology, IDEA: The Journal of Law and Technology (1995) p. 35.

72 See Zech, Herbert, Analysis of Court Decisions on Propagating Material and Harvested Material: Switzerland and European Union, (October 24, 2016) p. 6. Proceedings of the UPOV, Seminar on Propagating and Harvested Material in the Context of the UPOV Convention (Geneva, Switzerland), held on October 24, 2016, Available at SSRN: https://ssrn.com/abstract=2964527 or http://dx.doi.org/10.2139/ssrn.2964527 – accessed on 30 April 2021.

73 Implementing the provision of Article 16 UPOV Convention (1991).

74 The additional clarification implies a shift in the burden of proof against the defendant, who is called upon to provide effective evidence of the fact that the act of propagation was intended when the material had been disposed of by the breeder or with his/her consent, cf. Godt C. in: Metzger/Zech, Sortenschutzgesetz, 2016, § 10c SortG point 8.

75 See G. Würtenberger/P. van der Kooij/B. Kiewiet/M. Ekvad, European Union Plant Variety Protection, 2nd ed., Oxford University Press (2016), § 6.92.

76 See Article 27(1) BR.

77 See European Union Plant Variety Protection" 2nd ed. § 6.105.

78 See Judgment of the Court of 20 October 2011, case C-140/10, Greenstar-Kanzi Europe NV v Jean Hustin, Jo Goossens, ECLI:EU:C:2011:677.

79 Ibid., § 43.

However, the CJEU has not delivered any effective guidance on which features are to be deemed as "essential." In the face of this uncertainty, academics in the field have attempted to fulfill the task by qualifying as essential features referring to, *inter alia*, the number of plants to be produced and sold by the licensee, the quality of the plant material and geographical limitations, while excluding conditions concerning the licensee's internal administration, the policing of the territory involved in the license agreement, and the settlement of disputes[80].

As regards the second exception provided for within Article 16(b) BR, it should be observed that such provision has been introduced in order to protect the CPVR holder in case plant material of the protected variety is used for further propagation in a third country where the variety in question does not enjoy any protection and harvested material obtained therefrom is subsequently exported back into the European Union[81]. This could have a serious economic impact on the CPVR holder.

When the above provision has been read in conjunction with Article 13(3) BR, regulating the scope of the breeder's rights in respect of the harvested material "only if this was obtained through the unauthorized use of variety constituents of the protected variety, and unless the holder has had reasonable opportunity to exercise his right in relation to the said variety constituents," it has been argued that if plant material of a protected variety has been propagated illicitly, and the CPVR holder is only informed about the subsequent marketing of harvested material derived therefrom, he/she would not have had a "reasonable opportunity" to exercise his/her exclusive rights in relation to the variety constituents at an earlier stage[82].

Hence, it is clear that protection of the "harvested material" and products obtained from protected plant varieties will apply only in limited circumstances. The rationale behind the current set of CPVR provisions is for breeders to exercise their rights primarily over the "propagating material" of protected varieties. It is also clear that the assessment of whether or not there has been a "reasonable opportunity" for the breeder to exercise his/her exclusive rights over the plant material at an earlier stage is a judicial matter and, in any case, strictly dependent upon the circumstances in each specific case.

This notwithstanding, the exception under Article 16(b) BR is further neutralized by the provision of the "counter-limitation" pursuant to which exhaustion still applies when the exported material is intended "for final consumption purposes."

In this sense, a doctrinal argument has been raised according to which the above ruling would leave exhaustion effective only "when the material is used fraudulently for propagation in the third country... ...The problem could only be solved if the actual use would be taken to change the 'purposes' retroactively. However, taking the actual use into account seems only admissible where the use was already intelligible or tacitly agreed at the time of sale. The actual use can only be taken as an interpretative aid. Therefore, the legal gap cannot be remediated by interpretation"[83].

The provision on CPVR exhaustion refers to "variety constituents" rather than "propagating material." However, most commentators agree that the two expressions should be deemed to be interchangeable[84]. Arguments supporting this position can be found within Article 13(3) BR concerning "harvested material," as well as in the wording of Article 13(2) BR, which expressly differentiates between "variety constituents" and "harvested material." Accordingly, many academics use a definition of "propagating material" which contains at least a reference to either the "destination" or the "actual use" of the material for further propagation.

If this interpretation was to prevail, the additional criteria of the "intended purpose for further reproduction" would be deemed mandatory, while being conceived as a subjective element which must be objectively noticeable at the time of further propagation, allowing the conclusion that "only material which is intended by the buyer (intelligibly for the seller) to be used for cultivation or propagation is to be subsumed as variety constituents"[85] and, if this requirement were not fulfilled, the plant material in question would instead be deemed to be harvested material[86].

[80] See European Union Plant Variety Protection, 2nd ed. § 6.105.

[81] See European Union Plant Variety Protection, 2nd ed. § 6.16.

[82] Ibid., § 6.17.

[83] See Analysis of court decisions on propagating material and harvested material: Switzerland and European Union, Zech H., p. 6.

[84] See European Union Plant Variety Protection 2nd ed. § 6.11; Sabellek A. in: Metzger/Zech, Sortenschutzgesetz, 2016, § 2 SortG point 40; Godt C. in: Metzger/Zech, Sortenschutzgesetz, 2016, p. 10 SortG pt. no. 36.

[85] See Analysis of court decisions on propagating material and harvested material: Switzerland and European Union, Zech H., p. 5.

[86] See Von Gierke K./Trauernicht in: Metzger/Zech (eds.), Sortenschutzrecht, 2015, p. 37 SortG points 23 et seq.

[87] Grace J., Experiences Of Breeders: Role of Contracts in the Exercise of Breeders Rights, in UPOV "Symposium on Contracts in Relation to Plant Breeders' Rights" Geneva, 2008, available at: https://www.upov.int/edocs/mdocs/upov/en/upov_sym_ge_08/upov_sym_ge_08_6.pdf – accessed on 30 April 2021.

[88] See Use of Proprietary Parental Lines of Hybrids, ISF Position Paper, Copenhagen, May 2006.

[89] See Judgment of the Court, 3 July 2012 in case C-128/11, UsedSoft Gmbh v Oracle International Corporation, ECLI:EU:C:2012:407.

[90] Ibid., § 42.

[91] Reference is made to Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs.

[92] See Judgment of the Court, 3 July 2012 in case C-128/11, § 44.

[93] Ibid., § 47.

3. PERSPECTIVES ON THE APPLICATION OF THE EXHAUSTION DOCTRINE IN CASE OF DISPOSAL OF INTANGIBLE GOODS

In the case at issue within the present paper, the right holder seems to (i) qualify the contractual relationship as a license agreement for certain exclusive rights (namely the right to "use" the harvested material of the variety, which is then eaten and/or perishes within a few hours), (ii) associate said license with the actual sale concluded via the transfer of ownership of the grapes against the payment of the price (rights in rem), consequently (iii) asserting his/her rights over said produce, notwithstanding any application of the exhaustion rule seen above.

A few questions may therefore arise: assuming that the license agreement is validly concluded, why would the PVR holder impose a fee designed to obtain only a remuneration corresponding to the economic value of the material goods, rather than a consideration further including the remuneration for the IP rights? In addition, even assuming that the license is conceived as free of charge, the fact remains that it is not subject to any condition and/or limitation: the license agreement appears to be perpetual, non-exclusive, and worldwide. Would it be valid and/or admissible under CPVR laws?

As commonly experienced in the US, through the purchase of a bag of seed, the customer is granted a license over the relevant technology under the "shrink-wrap" language printed thereon. The license in question is usually intended as limited and would not typically allow breeding use, including research or seed production of any seed that may happen to be in the bag. Sometimes, the text on the bag may even restrict the transfer or sale to any third party of the plant material purchased.

As has been observed, the underlying purpose of this is to prevent "the unique genetics in the bag, genetics that may represent twenty years or more of basic research, from being used to create competing products without the permission of and benefit sharing by the owner"[87]. In a 2006 position paper, the International Seed Federation stated that breeders may use any relevant legal mechanisms, including bag tag warnings and/or shrink-wrap agreements, to protect themselves against the unauthorized use of proprietary parental lines for the purposes of breeding[88].

Apparently, there is also an authoritative string of case-law within the US legitimizing the application of such practices within the agricultural sector, which seems quite close to what happens with end-user license agreements (EULAs) for software. However, there is also a strong case against the above trend at the Community level. According to seminal case-law before the CJEU[89], it has been held that (i) the right of distribution of a copy of a computer program is exhausted if the copyright holder who has authorized, even free of charge, the downloading of that copy from the internet onto a data carrier has also conferred, in return for payment of a fee designed to enable him/her to obtain remuneration corresponding to the economic value of the copy of the work of which he/she is the proprietor, a right to use that copy for an unlimited period; and (ii) in the event of the resale of a user license entailing the resale of a copy of a computer program downloaded from the copyright holder's website, that license having originally been granted by that right holder to the first acquirer for an unlimited period in return for payment of a fee designed to enable the right holder to obtain a remuneration corresponding to the economic value of that copy of his/her work, the second acquirer of the license, as well as any subsequent acquirer thereof, will be able to rely on the exhaustion of the distribution right, and hence be regarded as a lawful acquirer of a copy of the computer program and benefit from the right of reproduction.

In the CJEU's line of reasoning, according to a "commonly accepted" definition, a "sale" would qualify as "an agreement by which a person, in return for payment, transfers to another person his rights of ownership in an item of tangible or intangible property belonging to him"[90] . That being said, the CJEU has observed that the commercial transaction which, in accordance with Article 4(2) of the Software Directive[91], gives rise to the exhaustion of a distribution right in respect to a copy of a computer program "must involve a transfer of the right of ownership in that copy." Accordingly, "the downloading of a copy of a computer program and the conclusion of a user license agreement for that copy form an indivisible whole"[92]. In support of this position, the CJEU further held that "downloading a copy of a computer program is pointless if the copy cannot be used by its possessor." Therefore, those two operations must be considered as a whole, in order to be clearly understood from a legal perspective.

In light of the foregoing, the CJEU concluded that "the transfer by the copyright holder to a customer of a copy of a computer program, accompanied by the conclusion between the same parties of a user license agreement, constitutes a 'first sale ... of a copy of a program' within the meaning of Article 4(2)" of the Software Directive, meaning that the copyright is exhausted[93].

Simply put, the CJEU did not limit itself to finding that a property right in an intangible asset was possible, but also assumed that such a property right could be transferred. In particular, it was pointed out that if the term "sale" were not given "a broad interpretation as encompassing all forms of product marketing characterized by the grant of a right to use a copy of a computer program, for an unlimited period, in return for payment of a fee designed to enable the copyright holder to obtain a remuneration corresponding to the economic value of the copy of the work of which he is the proprietor, the effectiveness of that provision would be undermined, since suppliers would merely have to call the contract a 'license' rather than a 'sale' in order to circumvent the rule of exhaustion and divest it of all scope"[94].

Thus, as the distribution right is exhausted against the payment of a fee, any subsequent acquirer of the software license would have to be regarded as a lawful acquirer of a copy of a computer program and could subsequently benefit from the right of reproduction.

The analogical application of the aforementioned concepts may have far-reaching consequences in a situation such as that described in this paper:

- The commercial transaction leading to CPVR exhaustion in respect to plant material (i.e., the grapes) would involve the transfer of ownership of that good in favor of the purchaser.
- The material transfer of the goods, amounting to the in rem effects of a standard sale agreement, along with a corresponding EULA, could be seen as an "indivisible whole," as the sale would be "pointless" if the grapes could not be used by the purchaser.
- According to the EULA, the purchaser of the bag would acquire the right to use the fruit for an unlimited period, against the payment of a fee designed to enable the CPVR holder to obtain a remuneration corresponding to the economic value of the fruit stemming from the protected variety.
- Considered as a whole, the transfer of plant material, performed by the CPVR holder or with his/her consent, accompanied by the conclusion of a EULA, therefore constitutes a "first sale" as required by the exhaustion rule.
- The right of disposal in respect to plant material of the protected variety would be exhausted in case the CPVR holder (i) has authorized, even free of charge, the transfer of that material, and (ii) has conferred the right to use that material, for an unlimited period of time, in exchange for a fee that covers the economic value of both the material of the variety and the IP rights thereto.

4. FINAL REMARKS

The legislative system set forth by the CPVR Regulation seeks to strike a balance between the diverging interests of plant breeders and the general public, through the introduction of a sui generis form of protection for plant varieties subject to a specific set of exceptions and limitations, listed in Articles 15 and 16 BR.

The rationale behind those legislative provisions is evident if we look at, inter alia, the preamble to the BR. There, it is expressly stated that the scope of the breeder's rights should be fairly extended according to the principle of exhaustion, in order to ensure that the protection afforded is not "excessive" and that "free access to protected varieties for the development therefrom, and exploitation, of new varieties" should be safeguarded "in order to stimulate plant breeding." Consequently, "the exercise of Community plant variety rights must be subjected to restrictions laid down in provisions adopted in the public interest" including "safeguarding agricultural production" by means of authorizing farmers "to use the product of the harvest for propagation under certain conditions."

That being said, it may be inferred that the protection afforded by the Community legislator is prominently focused on the economic interests of the breeder, against the underlying need to allow for (i) the free access to breeding innovations, under certain conditions and limitations, (ii) the free movement of goods within the whole territory of the European Union, and (iii) a sustainable technological development within the agricultural field, to the ultimate benefit of the public.

In addition, the statutory exceptions to the breeder's rights, pursuant to Article 15 BR, provide for a specific set of situations where the acts of exploitation relating to plant material of a protected variety cannot be deemed detrimental to the economic interests of the CPVR holder, but rather as capable of delivering positive outcomes, such as in case of experimental use exceptions.

On the other hand, the limitation set forth by Article 16 BR may have considerable impact from a systemic point of view, in all those cases where there is an actual risk that the CPVR in question will be undermined by the performance of any act of exploitation fulfilling the above provision. However, it should be observed that the list of activities preventing exhaustion of the CPVR must be interpreted as comprehensive, which the word "unless" within Article 16 BR seems to suggest.

[94] Ibid., § 49.

[95] As regards the Italian system, for instance, the burden of proof in infringement proceedings is regulated by Article 121(i) of the Industrial Property Code (Legislative Decree no. 30 of 10 February, 2005) expressly providing that "Save for the provision of Art. 67, the burden of proof in infringement proceedings lies on the title holder" (free English translation).

[96] In the United States, see Promega Corp. v. Life techs. Corp., where it was held that "In patent cases, [t]he burden of proving damages falls on the patentee," Lucent Technologies, Inc. v. Gateway, Inc., 580 F.3d 1301, 1324 (Fed. Cir. 2009), "[t]he [patentee] must show his damages by evidence," and Philp v. Nock, 84 U.S. 460, 462 (1873), "[Damages] must not be left to conjecture by the jury. They must be proved, and not guessed at."

[97] See Von Gierke K./Trauernicht in: Metzger/Zech (eds.), Sortenschutzrecht, 2015, p. 37 SortG points 23 et seq.

As a consequence, the general rule is that the breeder's rights will be exhausted after the first sale of the plant material, excepting the rights allowing him/her to control subsequent acts of production and/or reproduction of the protected variety, intended as the core of the CPVR protection, insofar as these rights are meant to preserve the economic interests of the breeder in the residual cases in Article 16 BR.

This notwithstanding, it also appears that two opposing views may be detected at both the Community and the US legislative level: assuming that infringement will occur only when plant variety rights are not exhausted, it could be argued that the whole CPVR system is based on the argument pursuant to which, further to the payment of a royalty as consideration for the exploitation activities relating to the plant material of the variety in question, the exclusive rights of the breeder will be "presumptively" exhausted, except under the circumstances envisaged by the "counter-limitation" of Article 16 BR. The ultimate goal of that article is rewarding (and stimulating) the breeder's efforts in R&D activities aimed at obtaining agricultural improvements with outstanding qualities.

On the other hand, the "presumptive" argument seems not to be applicable, mutatis mutandis, to the US Plant Patent System. There, the title holder seems to benefit from solid legal grounds to adopt misleading and questionable licensing schemes via inclusion of disclaimers such as that addressed in this paper, with the ultimate view of artificially extending control over downstream transactions performed on a "B2C" scale, where the plant material of the protected variety purchased by the consumer is normally intended for final consumption.

The paradigm shift described above may have contradictory outcomes, especially in light of the commonly accepted rules governing the burden of proof in enforcement proceedings relating to IP rights, where both civil law[95] and common law[96] jurisdictions specifically maintain, as a general rule, that the burden of proof for infringement is generally placed on the title holder.

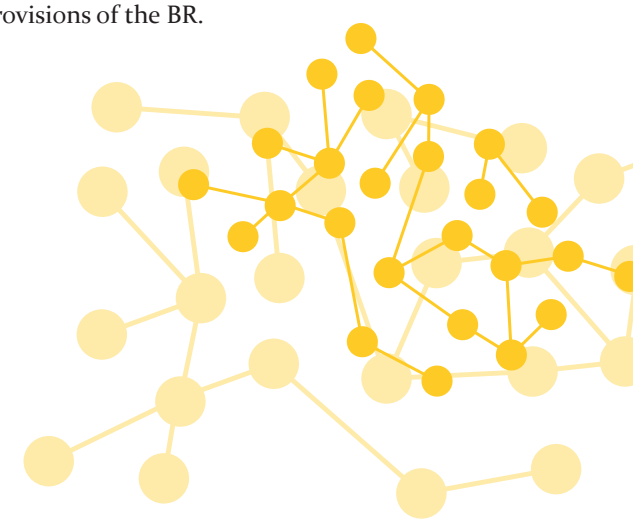
Looking back at the hypothetical posed in the introduction to this paper, it may be concluded that, if the consumer purchases fruit and subsequently sells it to any third party, the breeder's right will be exhausted. Similarly, if the purchaser does reproduce such variety material for private use purposes only, as provided for within Article 15(a) of the BR, the breeder's rights will be exhausted. If the purchaser directly consumes the plant material in question, CPVR exhaustion will inevitably apply.

Only in the event of an act involving further propagation of the variety in question, or an export of variety constituents into a third country which does not protect varieties of the plant genus or species to which the variety belongs, will the exclusive rights of the breeder not be exhausted, unless it is shown that (i) further propagation was intended at the time of the disposal, or (ii) the exported material was for final consumption purposes.

Within this tangled regime, few scholars have attempted to define the situations where the breeder's right may be deemed not to be exhausted. In particular, regard should be paid to transactions involving commercial operators and standard "B2C" transactions, where the exhaustion rule may be deemed as more likely to apply, as the plant material is purchased in a grocery store and ultimately intended for final consumption.

A prospective solution to the *impasse* has been suggested, paving the way for higher standards of certainty beneficial to both consumers and stakeholders within the PVR *acquis*. This would involve replacing the cascading solution – which shows effects mainly upstream in the plant breeding value chain – with an effective exhaustion system which would "cover cultivation and further sales leaving necessary freedom for farmers and consumers. On the positive side, the system would be simpler than the current one. The main difference would lie in the burden of proof"[97].

In the meantime, it is likely that a disclaimer on the front of a fruit bag, such as that described in this paper, for sale in EU stores, would be deemed as lacking any value from a legal point of view, insofar as the protection afforded thereby would "exhaustively" be included within the normative provisions of the BR.



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