Plant Variety Rights in the EU and UK

Plant Variety Rights (PVRs) are available to breeders of new plant varieties that meet certain conditions. In most countries, plant varieties are not patent-eligible, so PVRs are the only intellectual property (IP) available for new varieties[1]. However, though laws vary globally, some patent claims to plants may nonetheless be available, alongside patents and trade marks for other IP in the agricultural sector. PVRs[2] are therefore an important component of an overall IP strategy in plant science and agriculture.

Drawing comparisons with patent law, this briefing explores the basics of PVRs in the EU and UK. J A Kemp has extensive expertise in both of these, and can obtain rights for clients in both jurisdictions via its French and UK entities, respectively. We also routinely coordinate global filing programmes via our local attorney contact network and can advise on cost-effective prosecution strategies, e.g. by maximising the re-use of DUS test results among a variety portfolio.

PVRs in the EU

EU plant variety rights are granted by the Community Plant Variety Office (CPVO) in Angers, France, and are known as Community Plant Variety Rights (CPVRs). They are available for all species of plants (and also for fungi). Like Community Trade Marks (CTM), they are unitary rights valid in the entire territory of the EU, and must also be renewed, enforced, or challenged as whole single entities. A CPVR can also only be assigned or otherwise transferred as a whole, though it can be licensed for all or part of the EU.

The criteria for obtaining a CPVR are in line with the latest (1991) Act of the UPOV Convention and hence also with international norms. Each EU member state also has its own national PVR system, but the CPVO is the predominant route as it offers wider and more cost-effective protection.

Fundamentals of CPVR protection

CPVRs are granted under EU Council Regulation No 2100/94 of 27 July 1994, which is known as the "basic regulation". In line with the UPOV Convention, it sets out the following "DUS" criteria.

To be protectable, a variety must be:

- **Distinct** in morphology from known varieties,
- **Uniform** between individuals in respect of those distinctions, and
- **Stable** over generations.

Distinctness is comparable to novelty in patent law, but there is no requirement for inventive step or non-obviousness. Stability and uniformity go more to ensuring reproducibility and are similar to sufficiency of disclosure or enablement.

To be protectable via PVRs, a variety must also be new or **novel**, but novelty is a very different concept than in European patent practice, where any disclosure prior to filing destroys novelty. In relation to a CPVR filing, **a variety is novel if it has not been commercialised in the EU more than one year prior to filing, or more than four years prior to filing outside the EU** (or six years in the case of tree and vine species, which typically have longer breeding and commercialisation timelines).

Within a 12-month period, priority can be claimed from the first (PVR or patent/other) application for protection of the variety. This is, however, of less significance than in patents because of the novelty periods above. In particular, if a one-year priority period is missed, a CPVR application can still succeed as long as its novelty period has not expired. It is therefore common to file PVRs in different countries at different times, in particular when commercialisation has not yet occurred, as novelty is then not a consideration. However, the chance to claim priority is generally taken where possible in case two applicants file for the same variety; in such a case, the one with the earliest priority date prevails.

Subject to the payment of annual renewal fees, CPVRs in general have a term of 25 years from grant[3], but a 30-year period from grant is provided for trees, vines, potatoes, asparagus, flower bulbs, woody small fruits, and woody ornamentals[4].

Scope of protection and infringement

A CPVR entitles its holder to prevent third parties from carrying out acts including production/reproduction, sale/offer for sale, and import/export of the variety. These provisions also apply to varieties "essentially derived" (see below) from the protected variety.

All of these rights centre around whole plants or propagating material of the variety, but also apply in some circumstances to harvested variety constituents, such as fruit or cut flowers. Acts relating to harvested material are infringing acts only if the harvested material was obtained through the unauthorised use of (propagating) material of the protected variety, and if the right-holder has not had reasonable opportunity to exercise rights in relation to this material. This applies, for example, if unauthorised use of the variety has taken place in a jurisdiction where the right-holder has no equivalent PVR protection and the harvested material has been imported into the EU.

There are, however, a number of exemptions to infringement. Some of these are in common with European patent laws, in that acts that are experimental or private and non-commercial in nature do not infringe. There is also a farm-saved seed provision that permits farmers to use the product of one harvest to propagate a crop and obtain a future harvest on their own holding. This, however, applies only to a defined list of arable

crop species, not all varieties protected by CPVRs. Following national implementation of the EU Biotechnology Directive of 1998, parallel farm-saved seed provisions also exist in European patent laws.

However, there is an important difference between patent and PVR law in respect of the so-called breeder's exemption. Under a CPVR, and globally, it is **not an infringement to use the protected variety for the purpose of breeding**, or discovering and developing other varieties. Similar exemptions exist in the national patent laws of some European countries[5], but not all.

Essentially derived varieties (EDVs)

An EDV is a variety that is distinct (see above) from an initial variety but is predominantly derived from the initial variety (or a variety itself predominantly derived from the initial variety) and, except for the differences which result from the act of derivation from that initial variety, conforms essentially to the initial variety in terms of the expression of its essential characteristics. An EDV may be obtained, for example, by the selection of a mutant or variant individual of the initial variety, by backcrossing, by transformation, or by genetic engineering or gene editing.

If an initial variety has PVR protection, its EDVs fall within the scope of that protection. Therefore, the permission of the holder of the CPVR on the initial variety is required to commercialise an EDV of it in the EU. However, the mere act of creating the EDV in the first place is of course not an infringement of the initial PVR because of the breeder's exemption (see above).

An EDV can itself be the subject of PVR protection if it meets the DUS criteria (see above). As it can only ever be an EDV if it is distinct, this requires only that uniformity and stability are additionally present. The PVR on the EDV can be owned by a different person than that on the initial variety. In this situation, the EDV-holder needs a licence from the holder of the initial CPVR to effect commercialisation, and a third party needs licences from both right-holders.

Procedure for obtaining CPVR protection

While paper filing is still possible, CPVR applications are generally filed via an online platform provided by the CPVO. They can also be filed using UPOV's PRISMA system. The latter can be advantageous if simultaneous filings in foreign jurisdictions are also needed, as it allows details to be transferred between them as well as collaborative online working to complete the application documents.

By contrast to patents, there is no free-text specification. Rather, the filing takes the form of a collection of forms. The most important of these are the application form, which contains bibliographic details such as the names of the applicant and the breeder(s) of the variety, but also any details regarding prior commercialisation that might be relevant to the novelty determination, and a **Technical Questionnaire** (TQ). The TQ is a complex document tailored to the species in question, which is used to capture the morphological details of the variety, to compare it in a standardised way with known reference varieties, and to allow any information needed for physical DUS testing to be recorded (see below). The TQ usually needs to be completed by the breeder(s) or someone else with close familiarity with the morphology and growth of the variety in question. Photographs and associated legends are also normally included.

A name, or **variety denomination** (VD), must also be provided. This can be a "fancy name" or a code, and must be kept available for public use/reference. If trade mark protection is also sought, the VD and mark should be different[6].

It is normally also necessary to provide an authorisation (power of attorney) for any representative and an assignment document to confirm that the applicant's right to the variety has been transferred from the breeder(s). An official filing fee is payable on filing, in addition to a fee for using the UPOV PRISMA platform, if applicable.

Once the CPVO is satisfied that all of these details are correct, a filing date is awarded and the application moves forward to DUS testing (see below). This is **one reason that it is advisable not to file too close to any novelty deadline**: sometimes minor formal deficiencies can impose a short delay to the filing date; this seldom matters in practice, but could be critical if a novelty deadline is imminent.

DUS testing and grant/refusal of rights

Another key difference between patent and CPVR protection is that **physical provision of plant material is usually required to obtain a CPVR**, whereas this is rare in patent filings[7]. Soon after a filing date is awarded, the CPVO will write with details of what plant material is required and where it needs to be sent for testing. The material required varies between species and may be seeds in some cases or cuttings or saplings in others. The time at which the material must be supplied also varies. Often, this is in the first few months of the calendar year, so that DUS testing can begin in the spring.

The CPVO may be prepared to rely on the DUS test results of another PVR office (PVRO) instead when DUS testing is not possible in one of its approved test centres. In general, however, if a DUS test can be carried out at a CPVO-entrusted test centre in Europe or abroad, the applicant will have to supply material for such a test even if DUS tests have already been performed elsewhere in the world.

The CPVO publicises the requirements for most species on its website by means of its S2/S3 publication. This includes details of what material will be requested, the "closing date" for its submission, and where testing can take place. Applicants can request allocation to a particular country or test centre for testing, if desired. The official examination fees vary by species, and are also published by the CPVO.

Taking this into account, it is **very important to plan ahead for the provision of the material** to the test centre. If the deadline set by the CPVO is not met, it can only be extended under strictly limited conditions such as imposed quarantine requirements, failing which the application is refused or can be withdrawn for a refund of the examination fee. If the novelty period has not expired, a new application can be filed, but this incurs additional costs and is of course not an option if the novelty period is by then over. This is **another reason not to delay filing until too close to the end of the novelty period**.

Before filing an application, therefore, **applicants should in practice either have plant material in place in Europe ahead of time or be sure that they know how to get material to Europe (or even elsewhere) on the timescale the CPVO will require**, including physical availability at the right time of year and considering any phytosanitary requirements and import restrictions to enable international transit.

Sometimes, it is better to delay filing until after the relevant closing date in order to put off DUS testing for a year and allow more time for the provision of material to be organised. It is in general also not possible to replace deficient plant material during the examination procedure. For this reason, it is **best if applicants have a high degree of confidence in the uniformity and stability of their plant material before filing for a CPVR**.

Once received, the plant material is grown up at a testing centre for a period long enough to verify that the DUS criteria are met. Depending on the species, this will be one or more growing seasons, with multiple cycles often required. An examination fee is payable for each testing cycle. After each testing cycle, a report is issued to summarise the status of the test. When the CPVO is satisfied that the DUS criteria have been met, a final, positive DUS test report/variety description will be issued, and the application can proceed to grant. The first year's renewal fee will be due around the same time, and a further renewal fee is payable each year to keep the CPVR in force.

If DUS testing is unsuccessful, a negative report is issued instead, and the application will be refused, but not without giving the applicant an opportunity to comment. Any refusal may be appealed (see below) but, if the novelty period is still running, it is also an option to file a new application that relies on fresh plant material which may not suffer from the deficiencies that caused the first DUS test to fail.

Enforcement and challenge of CPVRs

Litigation of CPVRs is rare, but not unknown. Enforcement against infringement takes place in national courts[8], which can as necessary refer questions to the Court of Justice of the European Union (CJEU) if to ensure uniform application of the law.

CPVRs can also be challenged by third parties in several ways. Pre-grant, objections[9] can be filed, on the grounds that DUS and/or novelty criteria are not complied with, in relation to issues with the variety denomination, or in cases of alleged lack of entitlement. Post-grant, nullification by the CPVO can also be requested on similar grounds. In both of these procedures, one ground for refusal or nullification is that there was a lack of uniformity or stability at the filing date. Another procedure, cancellation, applies in cases where these conditions were originally met, but have ceased to be complied with. Cancellation proceedings can be initiated at the request of a third party or of the CPVO's own motion.

The outcome of nullification and cancellation procedures can be appealed to the CPVO's boards of appeal, and, if necessary, further to the General Court of the EU (GCU) and CJEU. Appeals from refusal of applications follow the same route(s).

PVRs in the UK

When the UK was an EU member state, CPVRs granted by the CPVO covered the UK and very few UK national PVR applications were filed. Now that the UK has left the EU (through Brexit), the UK's national PVR system has assumed far greater importance.

Pre-Brexit, UK national law (Plant Varieties Act 1997) was in conformity with the CPVR system and aligned with the same international conventions. Therefore, the UK's basic law on PVRs is almost identical to the EU's. The DUS conditions for protectability are the same, as is the duration of protection for many species. However, UK PVR protection for asparagus, flower bulbs, woody small fruits, and woody ornamentals remains only 25 years while a 30-year period from grant is provided for these in the EU (see above). In addition, the period of protection is calculated from the actual grant date in the UK, while the calculation is from the end of the year of grant in the EU.

One further significant difference is that the novelty periods are defined from commercialisation within or outside the UK instead of the EU. Litigation and other disputes are of course also handled within the UK legal system and do not involve EU courts.

Examination and grant of UK PVRs is the responsibility of the UK's Animal and Plant Health Agency (APHA). UK PVR applications are filed online with APHA via UPOV's PRISMA platform.

Although substantive law is largely unchanged, there are significant practical consequences of Brexit.

First, there are currently three subsets of UK national PVRs and applications:

- "Retained EU rights" derived from CPVRs granted before 31 December 2020. All CPVRs that were still in force at that time automatically gave rise to parallel UK rights without the need for action by right-holders. These UK rights benefit from the remainder of their original CPVR term. APHA is in the process of having holders confirm in the process of having holders confirm that they wish to keep them in force and obtaining address for service details.
- UK PVRs and pending applications re-filed based on CPVR applications pending as of 31 December 2020. These applications had to be actively refiled in the UK by 30 June 2021 if UK protection was desired. They take the original CPVR filing date, and UK PVRs will be granted based on the CPVO's DUS test report when available.
- All other PVRs and pending applications, which are not procedurally tied to prior CPVRs – a few were filed nationally pre-Brexit, and many more since.

Second, although APHA is accepting PVR filings for all species, the UK lacks DUS testing capability for most of them. This is because, when the UK was an EU member, it was responsible for testing some species on behalf of the EU, but others were handled elsewhere. At present, only a few agricultural/vegetable crop and ornamental species can be tested in the UK. The UK has therefore agreed to recognise CPVO DUS test reports for other species, and will probably also accept DUS test reports from other jurisdictions if these have been accepted by the CPVO. A separate UK DUS test may, however, be needed for species that can be tested in the UK, or APHA may commission a DUS test at an approved office if there is no DUS testing capability locally and no DUS test report is available from an approved test centre elsewhere.

Most applicants who wish to obtain PVR in the UK will also be interested in the EU market, so UK PVRs should routinely be granted once the CPVO's DUS test report becomes available. This requires waiting for the CPVO to conclude its process, but is advantageous as it is much less expensive than arranging for a separate UK DUS test. In practice, APHA has charged a corresponding DUS test takeover fee shortly after filing, often long before the CPVO's DUS test report becomes available. If the CPVR later fails, the fee is refunded or can be re-allocated to obtain the DUS test report drawn up in any replacement CPVR application upon request. Except where there is a UK DUS test, the procedure means that UK PVRs are generally granted later than parallel CPVRs and may not need to be filed at the same time. However,

any UK filing will still have to be made in time to comply with any novelty deadline. In practice, if the applicant knows that they want protection in both jurisdictions, it is recommended to file CPVR and UK applications together, such that the UK application remains pending until the CPVO process has concluded. J A Kemp can file for both rights via its French and UK entities, respectively, and filing at the same time is more cost-effective.

Third, the UK currently has no renewal fees for PVRs or any imminent plan to introduce them. Renewal fees have existed in the past and may be reintroduced in the future, but for now UK PVRs remain in force automatically unless surrendered, nullified or cancelled. One consequence of this is that, so far, any retained EU rights that are unwanted, but have not positively been surrendered, have remained in force by default. However, once APHA completes its process of gathering addresses for service, it will be able to terminate any right that it is satisfied holders who have not engaged with the process do not want.

National listing of plant varieties

National listing (NLI) is separate from, but related to, PVR protection. PVRs are IP rights that enable the holder to exclude others from using a protected variety, whereas NLI is a legal requirement for permission to market a certain variety in the country in question. Each EU country and the UK has a national list of varieties for which this permission has been obtained. In the EU, NLI applications are made nationally in one or more states, but the results are fed forward into a common catalogue which then enables marketing in the EU as a whole.

Only some species require national listing. In the UK, for example, all of these are agricultural, fodder, oil/fibre, or vegetable crops. Ornamentals and fruit crops are not subject to NLI.

Two of the criteria for NLI are a positive DUS test and a variety denomination. NLI is thus often linked to PVRs in that the same DUS test and VD are used. In the UK, PVR and NLI applications can be made simultaneously using UPOV PRISMA, with only a single filing fee then payable.

For NLI, some crop species also require a further physical test, for value for cultivation (VCU). In the UK, this applies to agricultural crops and potatoes. For a variety to remain on the national list, it must also have a nominated maintainer who takes responsibility for documentation in relation to the variety and providing samples to the authorities if necessary. The maintainer may also be the holder of any parallel PVR, but does not have to be. Applying for an NLI and/or acting as maintainer does not confer power to prevent others from marketing the variety – this is the function of PVRs. Please feel free to contact us if input is needed on the NLI procedure.

Conclusions

Patents vs PVRs

PVRs have in the past been described as weaker IP rights than patents because the breeder's exemption means the holder's variety can be used without permission to develop new and potentially competing varieties. However, PVRs last longer and can be applied for later, and are frequently available in situations where patents are not, in that (a) plant varieties *per se* are not patentable in Europe, and (b) PVR law has no requirement for non-obviousness. European patent law is also increasingly hostile to protecting any plant obtained via breeding rather than biotechnology, so in many cases PVRs are the only IP right available. The gradual introduction of breeder's exemptions into individual countries' patent laws also tends to narrow any gap in strength.

In general, there is therefore not in practice any genuine choice between patents and PVRs. Rather, it is better to think of them as complementary ways of protecting different aspects of a business, e.g. patents for mostly biotechnological conceptual and technical developments, including biotechnological traits relevant for breeding programmes, and PVRs for the concrete practical results of breeding or gene editing programmes. For organisations focused on "traditional" plant breeding, PVRs may be the first and main/only form of protection, but for more biotechnology-oriented plant science businesses, protectable varieties are often a downstream goal even if patents are a more immediate priority.

Summary – key points and problems to avoid:

- The EU and UK both offer UPOV-compliant PVR protection for varieties of all species, but separate applications are required in the UK post-Brexit. In the EU, a centralised filing at the CPVO is recommended over national filings in individual countries.
- In both the EU and the UK, the basic requirements for protection are distinctness, uniformity, and stability (DUS) and novelty defined by reference to commercialisation inside/outside the jurisdiction. Duration of rights is 25 years from grant for most species, but 30 for trees, vines and potatoes, with asparagus, flower bulbs, woody small fruits, and woody ornamentals now protectable for 30 years in the EU but 25 years in the UK.
- Before filing for a CPVR, applicants should ensure that they are in a position to supply physical material for DUS testing at a site somewhere in Europe or internationally to a CPVO-approved test centre abroad on the timescale required by the CPVO. Requirements and timings vary between species.
- If commercialisation has already taken place, applicants are well advised not to file too close to the novelty deadline it sets because: (a) sometimes formalities lead to a short delay to the filing date, and (b) if the DUS test is negative, new plant material probably cannot be provided, but a new application can be filed with fresh material if there is time.
- The UK PVR system is in development following Brexit. Applications are accepted and processed in much the same way as at the CPVO, but the UK currently lacks DUS testing capacity for most species. In most cases, the UK will therefore rely on the DUS test report from any parallel CPVR filing.
- The UK is also in the process of regularising the position of the many retained EU rights that were granted as CPVRs before 31 December 2020 and copied automatically into UK PVR, but has not yet reintroduced renewal fees.
- Although not mandatory as long as there is time within any novelty deadline, in practice we recommend filing at the CPVO and in the UK at the same time for reasons of efficiency.
- National listing is also a consideration for some species.

Please contact our PVR team for further information on PVRs, patents, or NLI.

Footnotes

1. The USA being an exception – there, a plant variety can be the

subject of a utility patent and/or PVP protection and, in some species, alternatively or additionally a plant patent.

2. Also known as Plant Breeders' Rights (PBR), equivalent to Plant Variety Protection (PVP) in the USA. There is no direct analogue of a US plant patent in the EU or UK, but PVR protection serves similar purposes to these, too.
3. Not from filing, in contrast to patents.
4. However, the extended novelty period only applies to trees and vines.
5. For example: Germany, France, the Netherlands, and Switzerland, but not the UK; the UPC agreement that creates the Unified Patent Court in which unitary patents and some "classic" or "bundle" European patents (EP) are litigated also contains a breeder's exemption, so UPs and classic EPs that are not opted out of the UPC's jurisdiction are in effect also subject to a breeder's exemption.
6. For example, the apple variety Cripps Pink is branded Pink Lady®. Cripps Pink is an example of a fancy name, whereas a code name is a reference created by the applicant in the form of a string of numbers and/or letters.
7. Sometimes, a deposit of biological material may be required to guarantee enablement of a patent application, but even then this is not tested as in the PVR system, only stored so that samples can be provided later to third parties.
8. One national court for the entire right; which national court is competent is decided under the Lugano Convention that regulates such matters.
9. Similar to third-party observations against European patent applications.

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