Dossier

Intellectual property

Plantum

Access to biological material continues to demand attention

Breeding companies must be able to recoup their investments so that they can re-invest in the development of new varieties. This requires some form of intellectual property rights. At the same time, breeders' access to genetic material should not be restricted. After all, developing a successful new variety entails repeated cross-breeding of plants with the right combination of the desired traits.

Plant Breeders' Rights are a good solution to this problem. For many years, Plantum has been trying to prevent plant-related patents becoming unnecessarily entangled with Plant Breeders' Rights. In February 2017, the European Union decided that plants bred using conventional methods cannot be patented, and the European Patent Office adopted that position in June 2017. Plantum supports these decisions by the European Union and European Patent Office, but continues to keep a critical eye on how the policy is executed.

The system of Plant Breeders' Rights has been used for almost a century to reward breeding companies for developing a new variety. Under Plant Breeders' Rights, a company has the exclusive right to propagate and market its new variety for a certain period of time. The so-called breeders' exemption states that other breeders are free to use the protected variety to breed new varieties. In that case, any new commercial variety they develop must be sufficiently distinct from the protected variety. This exemption enables companies to build on one another's varieties, resulting in ever-better varieties.

The rise of biotechnology over the past 30 years or so has been accompanied by a steady increase in the number of patent applications for genes that companies have identified, and hence for variety traits – such as an extra-long broccoli stem or resistance to a tomato pest. Patent law stipulates that breeders are not free to use a variety with a patented trait in a breeding programme.

Preserving diversity

Taking patent law to the extreme can put small companies at a disadvantage, because they have fewer resources available to direct towards obtaining patents or patent licences. The Dutch sector is currently a very diverse mix of breeding and propagation companies of all shapes and sizes. Plantum believes that this diversity contributes to the industry's innovative strength, which is why Plantum is committed to ensuring that biological material remains readily available for all breeders.

Limited breeders' exemption

Plantum worked tirelessly to secure a so-called breeders' exemption, and with success; since 2014, breeders have been allowed to use patented varieties in a breeding programme without requiring a licence from the patent holder. Although the breeders are not free to take a new variety containing the patented trait to market (which they can do under Plant Breeders' Rights), they can experiment with it freely. This 'limited breeders' exemption' has since been incorporated into the European Union's 'Unitary Patent'.

Patents on natural traits

The European Union recently made an important decision related to the patenting of 'natural traits', i.e. traits obtained by conventional breeding methods ('essentially biological processes'). Encouraged by Plantum, the Dutch government lobbied for a European decision against patents on natural traits. Key steps in this process included the adoption of a resolution by the European Parliament in 2015 and a symposium initiated by the Netherlands in February 2017.

The moment of truth came after that symposium; the European Commission published an interpretation of the European patent law. That notice claims that it was never the intention to award patents on products that are the result of an 'essentially biological process' (the cross-breeding and selection of plants). In early 2017, this explanation was unanimously confirmed by the Council of the European Union.

The European Patent Office has now adopted this position. Since 1 July 2017, the office no longer awards patents on plants that have been obtained using essentially biological processes. All of the European Patent Office's 38 member countries, including the 28 EU member states, have agreed to the amendment of the implementing regulations to the European Patent Convention.

Patenting still possible

In recent years a number of new and highly promising breeding methods have been developed, such as cisgenesis and CRISPR-cas9. Plant traits that are developed through conventional mutagenesis or using these new methods can still be patented. However, patents on traits that are the result of such methods should not be allowed to extend to plants with the same trait that have been developed by conventional breeding methods.

Based on recent patent applications, it appears that it is also possible to obtain a patent on a trait (component substance) that manifests in the end product. This development could once again open the floodgates for applications for patents on plant traits, which would be bad news for the sector.

The European Commission has announced another series of measures for the foreseeable future. It will meet with the European Patent Office, for example, to discuss the general requirements for awarding patents aimed at improving the quality of the assessment process. Further focus areas include increasing transparency around patents (e.g. via the website www.pinto.eu) and licence partnerships (such as within ILP Vegetables: www.ilp-veg.org).

Plantum will continue to keep a critical eye on the implementation of these measures, and calls for systematic evaluation of the patenting of plants, as stated in Article 16c of the European Biotech Directive (98/44/EC).

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