

# Patents for plants

While plant varieties are often protected under plant breeder's rights schemes, in some countries (eg the United States, Australia and Europe) plants can also be protected by patent law. In order to obtain patent protection, the plant or plant material must satisfy all of the necessary standards and requirements that exist in that country for patentability. This fact sheet outlines some of the important background, features and issues of patenting plants or plant material. Importantly, though, the patentability of plants varies from country to country, and specific legal advice should be sought to determine the appropriateness and details of patent protection for plants in specific countries or regions.

## What is a patent?

In general terms, a patent is an exclusive right granted by the State for an invention. A patent gives its owner the exclusive right to prevent (or stop others from) making, using, offering for sale, selling or importing a product, based on the patented invention, without the owner's prior permission. The term of a patent is for a limited amount of time, generally 20 years from the filing date of the application.

There is no such thing as a worldwide patent: a patent is granted by a national patent office and is valid only within the territory in which the patent is granted. Generally, however, patents may be available for products and processes (or techniques) that are new/novel, involve an inventive step or are non-obvious and are useful.

## Can plants be patented?

The patentability of plants is not uniform in all countries. In some countries and regions (eg Europe) plant varieties are not patentable. In other countries (eg United States and Australia) plants can be patented as long as the legal criteria for patentability are satisfied. There is a range of patentable subject matter for plants, including new plant varieties; plant components such as genes and chromosomes; reproductive material (eg seeds and cuttings); products from plants including fruit, flowers, oils, chemicals or pharmaceuticals; genetic engineering techniques; and breeding and cultivation methods.

There may be different patent schemes available. These include standard or utility patents, and specific plant patent schemes.

## Standard or utility patents

In some countries plants and plant products can be patented under the general patent scheme,

known as standard (eg Australia) and utility (eg United States) patents, provided the legal criteria for patentability are satisfied.

In Europe, individual plant varieties are not patentable. The *European Patent Convention* excludes plant varieties and essentially biological processes for the production of plants from patent protection. However, the prohibition on the patenting of plant varieties in Europe only applies to claims specifically directed to a particular plant variety. This means that claims to plants will be allowed as long as they do not individually claim specific plant varieties, even if they encompass a plant variety.

To be eligible for a utility or standard patent a plant must satisfy a number of criteria. While the specifics vary from country to country, some general points can be made about the criteria for patent protection:

- **Novel/New:** an invention will be novel/new if it has not been publicly disclosed prior to the date of the patent application anywhere in the world – whether by doing an act or in a document.
- **Inventive step/Non-obviousness:** whether or not an invention involves an inventive step or is non-obvious is judged according to whether a person of ordinary skill in the art (ie plant breeding) would directly be led to the invention claimed.
- **Useful:** generally this means that the invention provides some identifiable and credible use.
- **Not secretly used:** generally, the applicant must not have derived a commercial benefit from the invention before the patent application has been filed. In some countries, 'reasonable trial or experiment' may be allowed.

## Plant patents

Specific plant patents are available in some countries. Most notably, the United States *Plant Patent Act of 1930* provides protection for asexually reproduced plants, with the exception of tuber-propagated plants and plants found in an uncultivated state.

In the United States, a plant patent provides the same rights as a utility patent. And an inventor has the right to exclude others from asexually reproducing the protected plant, and from using, offering for sale, or selling the protected plant so reproduced, or any of its parts, throughout the United States, or from importing the protected plant, or any parts thereof, into the United States. The term of the plant patent is 20 years from the date of filing the application.

In the United States it is possible to get protection for the same plant under both the utility and plant patent schemes. There are, however, some important differences in the requirements of each scheme. For example, the test of non-obviousness and the description requirements are less onerous under the *Plant Patent Act*.

## Patents and plant breeder's rights

In many countries it is possible to protect plant varieties under both patent law and plant variety rights. There are, however, some important differences between the two schemes including:

### **Breeders/research exemption**

Unlike plant variety rights, there is often no statutory research or breeding exemption under patent law. Therefore, any use of a patented invention without the prior authorisation of the patentee will constitute *prima facie* infringement of the patent.

While many countries do not include explicit statutory exceptions under patent law, nonetheless, courts have read exemptions for experimental uses into patent law. At one end of the scale (eg the United States) the experimental use defence is regarded as 'truly narrow' and has no application where the use has 'the slightest commercial implication'. At the other end of the scale lies the approach of a number of European countries, the exception has been

interpreted broadly, taking into account the objectives of the patent system to serve research and further technical development.

In Australia, experimental activities conducted on or after 16 April 2012 are explicitly exempt from patent infringement. Broadly speaking, the exemption applies where the predominant purpose of the research is to gain new knowledge or test a principle about an invention.

### **Farm saved propagating material**

Under plant breeder's rights, in limited circumstances there are exceptions to the rights of the plant breeder, including farm-saved propagating material. In contrast, patent law generally does not include an equivalent exception. As a result, any grower who saves patented propagating material (for any purpose) is infringing the patent holder's right. In some countries or regions (eg Europe) farmers are allowed to use patent protected seeds for their own use.

## Other considerations

As well as the absence of exceptions under patent law, there will be other considerations when deciding whether to patent plants, plant material and breeding methods, including the possibility of prejudicial disclosures, the use (and scope) of licence agreements and identifying a commercialisation strategy.

### **Non-prejudicial disclosures**

A potential concern for scientists is how prior publication may affect the success of future commercial opportunities (for example, patents and confidentiality). As we have seen, under patent law, *novelty/newness* is a requirement for patentability. This is assessed by comparing the claimed invention with the prior art base. Importantly, when identifying the prior art base, one must consider disclosures in documents, articles and conduct available anywhere in the world. Therefore, it is important that researchers understand how their publications may be detrimental to the *novelty/newness* of patent applications. If done carefully, it is possible to publish without prejudicing later patent applications.

*This fact sheet is only for information purposes, and to assist you in understanding your legal rights and obligations in a general sense. It is not tailored to any particular fact, situation or specific requirements, and must not be relied on as legal advice.*

*This Fact Sheet was prepared independently by the Australian Centre for Intellectual Property in Agriculture (ACIPA).*

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