

A Green Industry Guide to Plant Patents and Other Intellectual Property Rights

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Introduction

Walk into any garden center today and you are likely to see shrubs with large, colorful tags featuring the plant in bloom and a catchy name. If you look closely, you might notice “PP” and a series of numbers or “PPAF.” What does this mean for landscape contractors, garden center owners or nursery producers? In this publication, we will explain the concept of intellectual property and the related concept of copyright and trademark protection, how intellectual property affects day-to-day business, and ultimately how the use of branding programs has changed the Green Industry.

The USDA defines intellectual property rights as “the legal protection for inventions, including new technologies or new organisms (such as new plant varieties). The owner of these rights can control their use and earn the rewards for their use. This encourages further innovation and creativity for the benefit of us all. Intellectual property rights protection includes various types of patents, trademarks, and copyrights.” For nurseries, the term intellectual property rights applies to plant breeder rights, which primarily include patents and trademarks. Different classifications of intellectual property have different requirements and regulations associated with them. Understanding these differences is important in order to benefit from the advantages of protected plants while remaining compliant and avoiding monetary penalties or legal action.

Plant Patents

Plant patents are granted to those who discover or invent a new and distinct cultivar and asexually reproduce it. Plant patents allow the patent holder to prevent others from asexually reproducing the new plant without first entering into a licensing agreement. Plant patents protect the entirety of the plant and last for 20 years. The limited life of a patent contributed to the widespread adoption of trademarking plants in recent years. Patent lifespan is particularly relevant for trees, given that they may not gain market share as quickly as shrubs, which develop their highly marketable characteristics in a shorter period of time than trees, and those desirable attributes are often visible at the point of sale.

The following are requirements for receiving a plant patent:

1. The plant can be produced asexually.
2. The plant was invented or discovered, and if discovered, it was in a cultivated area (not the wild); however, the person who identified the plant does not need to be the owner of the cultivated land on which the plant was discovered.

3. The plant is not excluded from the statute; specifically, the part of the plant used for asexual reproduction is not a tuber food part (e.g., potato, Jerusalem artichoke).
4. The person, company or nonprofit entity filing the patent invented or discovered the plant and asexually reproduced it.
5. The plant has not been patented, in public use or for sale, or otherwise available to the public more than one year prior to the effective filing date.
6. The plant is novel and has at least one inherent, distinguishing characteristic (i.e., beyond that which is induced by varying environmental conditions).
7. The invention would not have been obvious to a skilled horticulturist.

Presentations, trade show demonstrations, lectures, statements broadcast on the radio, and online videos and other web-based content constitute making the plant available to the public.

What if...?

I remove suckers from patented brambles and give them away, is this infringement?

Planting, selling or giving away the plants would be considered infringement; you would be liable for damages and could incur legal penalties.

I prune suckers from patented brambles and some of them in the cull pile take root, can I be penalized?

This would still be considered infringement even though the reproduction is unintentional.

What would happen if I allowed my patented brambles to go to seed and instead of buying plants the following year, I plant the seeds from the previous year?

This is NOT considered infringement BUT there is the risk of claims of infringement if the resulting plants are similar to the patented parent plants.

Did you know?

According to the 8th International Code of Nomenclature for Cultivated Plants, the cultivar name doesn't have to be an existing word; it can be developed solely for the purpose of creating a cultivar name. The cultivar name can also be a code of up to 10 characters.

A plant patent may refer to one or more novel characteristics, but is limited to one claim. The entirety of the plant is protected, but not the reproductive subparts of the plant (i.e., seeds, flowers and fruit are not protected by plant patents) such that patented plants can be used by other plant breeders to produce new hybrids. Under a plant patent, the owner has the exclusive right to make, use, offer for sale, sell or import the plant. Patent owners also have the right “to assign, or transfer by succession, the patent and to conclude licensing contracts.”

Patent owners are not required to label their patented plants, but if they don't label them, they cannot get infringement damages for the time they were not labeled. If they were to notify a grower that they hold a patent for plants the grower was producing, the patent holder can collect damages if that grower continues to grow the plant, but they can't take damages from the grower for the time prior to being notified as an infringer. For plants that are patented or in the process of being patented, the label will typically have PP for “plant patent,” then a series of numbers or PPAF for “plant patent applied for” (Figure 1). More than likely, if you buy plants as a nursery owner, you will know it is patented by a license agreement or royalty fee, increasing the plant price as well as an additional price for tags and, in most cases, containers in which the plants must be sold. Verify with your supplier if you have any doubt as to whether or not a plant is patented. As you will see in Plant Patent Case Study 2, finding out after the fact can be costly, even if a grower is not at fault.

Whenever someone asexually reproduces a patented plant without permission, it qualifies as infringement. Unauthorized asexual reproduction is infringement, *even if the reproduction is unintentional* (Figure 2). Sexual reproduction is not an infringement on plants with a current patent, but if the resulting plants are almost identical to a patented parent plant, there's a risk the patent owners could claim infringement, which may necessitate an expensive legal defense.

Key aspects of plant patents center on protecting plants (intellectual property) when the plant is discovered in a cultivated area and thereafter asexually reproduced. Proper notification or labels are needed in order to collect damages if infringement occurs. Last, the patent owner has exclusive right to make, use, offer for sale, sell or import the plant, but they can transfer the patent and can license its sales to others. Sexual reproduction is not protected by current patent law.



Figure 1. “PP” followed by a series of numbers or “PPAF” may be found on labels and indicate Plant Patent and Plant Patent Applied For, respectively.



Figure 2. Even unintended propagation, such as when a blackberry cane roots, is technically a patent infringement.

Plant Patent Case Study 1

Mark works at Torchbearer Nursery and takes a plant home that is patented. He then roots cuttings of that plant. He pots them and sells them under a different name. Someone notices that the plant looks like Torchbearer Nursery's patented plant, and Torchbearer Nursery sues Mark for patent infringement. Torchbearer Nursery files for "equitable relief." Mark must stop selling plants until a decision has been made. Torchbearer Nursery gathers proof that the plant was stolen (i.e., genetic testing or phenotypic characteristic measurements) and presents it in court. The judge finds Mark guilty and determines that he owes damages in the form of royalties, estimated profit lost, and any attorney's fees.

Plant Patent Case Study 2

Maria buys tissue culture-produced liners. There is no tag denoting that the plant is patented nor an item in the invoice indicating a royalty fee. Maria takes cuttings from these liners, and after growing them to a #3 size, sells both the purchased and propagated plants. Maria is notified that the plant is patented and stops reproducing and selling the plant. Despite existing orders and the labor and other inputs invested in growing these plants, Maria cannot sell any of her inventory. However, Maria is not responsible for damages since she was not initially notified of their status as patented and stopped selling the plants immediately after being notified. If Maria had continued to sell the plants after being notified, she would be liable for damages.

Utility Patents

Utility patents are another form of federal intellectual property protection available for plants and plant materials. Utility patents are typically used for transgenic or genetically engineered plants but can be used for other plants, although it's rare. Utility patents protect specific attributes of the plants, such as a disease-resistance trait. Unlike plant patents, utility patents are not limited to a single claim. To receive a utility patent, a plant must be considered a unique and new invention, and the specifications that describe the invention must be written in such a way that those skilled in the field can learn how to duplicate that specific invention. Thus, a utility patent holder is trading protection for a limited time with full disclosure to the public on how to replicate the invention. With utility patents, the reproduction strategy does not matter (i.e., the trait is protected from any unlicensed reproduction). Utility patent protections last 20 years, yet can be renewed. While this may seem irrelevant to nursery management at the moment, transgenics were recently used to develop an American chestnut tree resistant to blight, which is awaiting approval.

There are three requirements for a plant trait to be eligible for a utility patent:

1. The plant is an invention with a detailed description.
2. The plant and trait of interest are novel.
3. The plant has not been available to the public, shared with, or sold to a third party prior to patenting.

As with plant patents, various forms of in-person or digital educational presentations or promotions and other content constitute making the plant available to the public.

In some cases, utility patents also require a deposit of seed to "enable" their patent application. Upon receiving the patent, the owner may exclude others from making, using, selling, importing or offering to sell the invention. Doing any of these actions would be infringement and the owner can recover damages. A plant protected under a utility patent can be sold by a licensed propagator in seed form and the buyer can sell the resulting plants, but they cannot use those plants as a source for seeds. The resulting seed is protected and cannot be resold, given away or replanted. *Remember, the invention is the trait, so the utility patent covers more than direct descendants.* The patent will cover any plants with that trait even if the traits were developed independently with no intent to infringe. This stipulation gives utility patents a broader scope of reach than plant patents. In some cases, this will increase the commercial value. Additionally, the utility patent holder can sell the rights to the trait to another breeder or to a company for a set dollar figure or portion of royalties.

When dealing with utility patents, remember that they protect all forms of reproduction. Plants cannot be reproduced for research or for any reason including using saved seeds. The invention is the trait. Therefore, the utility patent covers any plant with that added trait (even if it is not labeled as such).

What if...?

I am growing plants with a disease resistance trait that is covered by a utility patent next to a different variety of the same plant, if these plants unintentionally cross pollinate and I plant the resulting seeds from the unpatented variety, could I be liable for damages?

Yes, plants with traits that are protected by utility patents cannot be used in breeding (or research). Although the breeding was unintentional, this protection still applies and you are infringing on the utility patent.



Utility Patent Case Study

In *Bowman v. Monsanto Company*, a grower bought bulk soybeans from local grain elevators that he knew had the Monsanto RoundUp Ready technology and used them as seed rather than as feed. This infringed on Monsanto's patent. The grower argued that "first sale doctrine" (i.e., the buyer can do whatever they want with a product after purchase) applied to these soybeans. His strategy was not successful. The Federal Circuit Court ruled that the first sale doctrine does not apply to subsequent generations of self-replicating technology.

The main takeaway from this case is do not use a plant with a utility patent to produce seeds that you intend to grow into plants. Additionally, safeguard your nursery by buying utility-patented plants from the patent owner or a licensed seller, and do not take cuttings to produce more of the plant to sell.

Plant Variety Protection (PVP) Certificates

The Plant Variety Protection Act (PVPA) is a federal law that was established to protect the intellectual property of new sexually reproduced plants and tubers. This act was amended in 2019 to protect the intellectual property of new asexually produced plants as well. To be protected by the PVPA and eligible for a certificate, the plant variety has to be new, uniform (i.e., true to type), stable, and differ from the parent plants and other plants resulting from cross pollination.

A plant variety may be *ineligible* to receive a PVP certificate if:

1. The variety is made available to others in the U.S. more than one year before applying,
2. The variety is made available to someone outside the U.S. more than four years from the filing date if it is a shrub, herbaceous perennial or annual, or
3. The variety is made available outside the U.S. more than six years after the filing date if it is a tree or vine.

What if...?

I cross pollinate a PVP-protected variety with another variety and plant the resulting seed. Is this allowed?

This is a bit tricky. You are allowed to save seed and replant on your own property (but not sell the seed or other propagating material); HOWEVER, a PVP-protected variety cannot be used to produce an F1 hybrid that will be marketed as a new variety.

PVP includes protections against the following acts: selling or marketing the protected variety; importing or exporting the plant from the U.S.; sexually or asexually multiplying the plant; using the variety to produce a hybrid; using a seed marked "Unauthorized Propagation Prohibited"; and dispensing the variety to another in a form that could be propagated.

If any of the above actions are taken, it is considered infringement and can result in damages that the infringer must pay.

There are a few *exceptions* included in the PVP law. The following are *not acts of infringement*:

1. A farmer saving and replanting seed protected by a PVP certificate.
2. A sale of seed produced on a farm for purposes other than reproduction (e.g., feed).
3. Use in research.

However, a PVP-protected plant cannot be used to make an F1 hybrid that would be sold as a new variety. The plant would have to differ from the parents and other offspring, such as from a mutation, to be marketable as a new variety. The hybrid could be used for further breeding, but the resulting progeny must be different from the hybrid and the PVP-protected plant in order to be marketed as a new variety. It is important to note that the allowance of keeping seed and breeding is different than with utility or plant patents.

To summarize, if a plant is protected by PVP, you cannot sell or give away your seed, except as noted, or sexually multiply the plants for distribution. You are allowed to keep seed year after year, but only for yourself. The plants can be used in breeding experiments but can't be used as the parent of an F1 hybrid that is to be PVP-protected.

Trademarks

Trademarks are defined as, “any word, name, symbol, or device which a person has the intention to use in commerce and who applies to register the trademark to identify and distinguish his or her goods.” Despite common misconception, trademarks identify the source of a product rather than the specific product itself. Trademarks last 10 years but can be renewed indefinitely, and that is the reason they have become widely used by the Green Industry.

Two main symbols are used to indicate trademark status. The ® symbol means “Registered” and signifies that the trademark is registered with the U.S. Patent and Trademark Office and the rights are owned exclusively. The TM symbol indicates that a word or graphic is being claimed by a company or individual to signify the source of their goods, but it has not been federally registered or that registration is still pending. An unregistered trademark gives very limited rights to the company or individual. Companies or individuals can still sue for common-law infringement within the region where the goods are produced and sold, but

they must be able to prove they were the first to use the trademark and that the infringing party's use of the trademark confuses the public from distinguishing the goods' source. Varieties and cultivars are treated identically for trademark purposes and cannot be trademarked. In other words, cultivar names are considered generic. For example, if a new cultivar of hydrangea is created and the name is *Hydrangea* 'Joey's Joy', then the name Joey's Joy cannot be trademarked. Additionally, once a name is established and used by the general public it cannot be trademarked. *Moreover, once a trademarked name becomes generally used as the common or generic name for a product, the company risks losing their trademark.* For example, both “escalator” and “trampoline” were once trademarked but are now recognized as generic names. The trademarked name must be unique and must have never been used as a cultivar name or in connection with a plant patent, utility patent or certificate for plant variety protection. Descriptive names cannot be trademarked. The best trademarks are names completely unrelated to the item (e.g., Kellogg's®). *Remember that a trademark should help inform customers where a plant is from, not what the plant is.*

A good example of a properly used trademark is American Beauties Native Plants®. American Beauties Native Plants® is followed by the registered trademark symbol on all plant labels to identify the source along with the common and scientific names. This is an appropriate way to use trademarks. Some growers trademark a plant name and use it in conjunction with the cultivar name as their name for that cultivar. Using both the trademarked name and the cultivar name on tags and in all advertising should help ensure that the trademarked name is not recognized as the generic

® or ™, Does It Matter?

® = Registered trademark

Can only be used for a trademark that has been registered with the USPTO. Using a registered trademark without permission is a federal offense and could result in litigation.

™ = Unregistered trademark

For use with trademarks that an individual or company does not intend to register and trademarks for which registration is pending. Affords only slim common-law rights within a region.

What Should You Do?

A local college buys plants for a new building based on the lowest bid. When the order is delivered, the campus grounds manager notices that plants she knows to be trademarked are not in branded containers and do not have the branding program's label that is normally required with the sale of plants in that program. What should she do?

Even though these plants aren't going into a retail environment and it takes time to remove labels at the job site prior to planting, all branded plants should be delivered with their respective containers and tags.

The campus grounds manager should require that the seller provide these items or reject the plants. Contacting the license holder may be appropriate.

name for the plant (Figure 3). This combination on the tag should also help consumers identify the source of the plant, but it doesn't always do that. An example of this would be Gertrude Jekyll® rose. The scientific name is *Rosa* and the cultivar name is 'Ausbord'. Gertrude Jekyll followed by the registered trademark symbol is supposed to denote the source of the plant, but it is commonly called Gertrude Jekyll instead of 'Ausbord'. The trademarked name Gertrude Jekyll® does not help a customer recognize that the source is David Austin® roses. Additionally, the name 'Ausbord', while listed online and on plant labels in conjunction with the trademark name, is not widely recognized as the cultivar name for Gertrude Jekyll®.

If you own a trademarked name, keep in mind it is supposed to state where a plant is from, not identify the plant. If you do not own a trademarked name, be sure you use the cultivar name and do not use others' trademarked names without a license agreement. Remember, anyone can sell under a cultivar name, as long as the plant is not patented, but you need permission to use a trademarked name.

When buying plants, it's best to keep track of the cultivar name as well as the trademarked name, just like you would stay current on common and brand names for pesticides because two sources could be selling the plant under two different names. For example, in 2008 when the patent on *Rosa* 'Ausbord' expired, David Austin® roses could continue selling the plant as the trademark Gertrude Jekyll® while another company markets it as 'Ausbord'.



Figure 3. This label contains the cultivar and branded name on it, which should help prevent the plant from becoming known generically by the trademarked name.

Trademark Case Study

Problems can arise when a plant becomes known generically by its trademarked name. An example in which this became an issue is the court case *Van Well Nursery Inc. v. Mony Life Insurance Co.*, in which Mony Life Insurance Co. advertised an apple cultivar, ‘Snipes’, by its trademarked name, Scarlet Spur®. Van Well Nursery Inc. sued the insurance company for trademark infringement, but the judge ruled that the cultivar was known as its trademarked name in the public domain so the trademark was cancelled.

This case study illustrates the delicate balance required to use trademarks to outlive plant patents. The Green Industry and their customers must come to associate the trademark with the cultivar name, but not to the extent that the plant becomes known generically by the trademark name.

Comparing Different Types of Intellectual Property

	Plant Patents	Utility Patents	Plant Variety Protection
Type of plant eligible for protection	Asexually propagated plants except for tubers	Any type of plant trait(s) showing utility	Seed, tuber and asexually propagated plants
Can the plant be used for breeding/research?	Yes	No	Yes, but F1 hybrid cannot be marketed as new variety.
Can the plant be reproduced sexually for distribution?	Yes, not protected by current patent law.	No	No
Can the plant be reproduced asexually for distribution?	No	No	No
Can growers save seed?	Yes, but risks infringement claims if next generation is similar to parent plants.	No	Yes, but cannot sell or give away; can only plant it on their land.
Issuing agency	U.S. Patent and Trademark Office	U.S. Patent and Trademark Office	U.S. Plant Variety Protection Office

Licenses

In order to work with PVP-protected or patented plants you often need a license. The two types of licenses are distribution licenses or production licenses. A **distribution license** typically doesn’t give the right to propagate or reproduce. If you buy liners and there’s a license, you probably have a distribution license, which means you can’t produce your own cuttings or liners. For that purpose you would need a production license. **Production licenses** can have extra details, such as exclusivity and territory, but these typically only apply in contracts to large propagation nurseries. Not every license will give all these rights, so be sure to read the license carefully.

Royalties

In order to legally grow plants that are patented or under PVP certificates, the growers will pay up-front fees, royalties on sale, or a combination of the two. Royalties are payments made to a patent owner for allowing a grower to produce or sell their plants. It’s typically a small cost but could quickly add up on large orders. The royalty fee can roughly double the cost of a hydrangea liner, substantially increasing production costs. Additionally, because the fees associated with a distribution license are paid up front, whether the crop is ultimately sold or not, a crop failure or other interruption to sales could be more costly with a patented plant.

Compliance

To remain compliant with patent laws, growers need to pay royalties, record sales and post patent numbers on tags and in catalogs. Growers should also take care to not reuse containers with patented or trademark names on them for other plants (Figure 4). Compliance inspectors visit nurseries and garden centers in Tennessee every year to ensure these rules are followed. Be sure you know the contents of and understand your license agreements. Consult with a legal professional if necessary.

Open Source Seed Initiative

Open Source Seed Initiative (OSSI) is an effort to support access to cultivars and plant genetics to anyone. *It disallows patent or PVP protection and allows all uses for free* (i.e., planting, seed saving, developing new cultivars). It is used when someone either doesn't want to mass produce a new cultivar or wants to prevent others from doing so.

Copyright Protection

Federal copyright protection is for “original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or a device.” Copyright applies to a product as soon as the item exists as a tangible medium (something that can be seen or heard) and lasts for the life of the author, plus 70 years. It does not require any paperwork for it to be active. In other words, you do not need to apply for copyright protection; it automatically exists as soon as the work exists. Copyright protects authors or publishers, if authors have assigned rights to a publisher, who fix an image of a plant or other subject in a tangible medium (e.g., photograph or painting) by protecting the “original work,” which is the image of the plant – not the plant itself. Generally, copyright is used with images, video and art.

Exclusions to copyright include protection of an idea, process, system, principle and so on that is embodied in the work. A good way to remember this is the



Figure 4. Contact the patent or trademark holder about returning containers or recycle them. Do not reuse containers from branding programs. Photo credit: Grace Pietsch (bottom)

image you created is protected, but not the object of the picture or photo. For example, if you were to create a new technique for wrapping and pinning burlap around the root balls of field-grown trees and you photographed the process, the images would be protected by copyright, but not the burlapping process itself. Another exclusion to copyright is the “fair use doctrine.” This doctrine allows for the reproduction of the copyrighted work without the consent of the author and applies to criticism, comment, news reporting, teaching, scholarship and research.

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Disclaimer

The information in this publication is provided for educational purposes only. While the content of this publication involves issues of a legal nature, it should not be relied upon as legal advice, nor should this information be used as a substitute for the services provided by a qualified legal or other professional familiar with your individual circumstances.

Laws are subject to change and may have changed since this publication was prepared. Be sure to follow current local, state and federal laws regarding patent law and all other topics discussed in this publication.

Always refer to a lawyer or qualified professional for proper application of the concepts in this publication to your specific situation.

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