Property Rights and Plant Germplasm

William H. Elliott, Jr.

Synnestvedt & Lechner, Philadelphia, PA 19107

Horticulturists use several mechanisms to commercialize plant germplasm—contracts, trademarks, and patents. With contracts it is possible for a plant breeder to assert a proprietary right to germplasm even without a patent. A breeder has a common law property right to his “creations” and, so long as he does not unrestrictedly release a newly created plant variety to the public, he can use contracts to prevent the propagation, use, and sale of the variety by others. Thus, the breeder can lease a new fruit tree variety to a grower-lessee under an agreement that acknowledges the proprietary nature of the plants and the breeder’s ownership thereof; that permits the lessee to sell the fruit, but binds the lessee to limit the number of plants propagated and to refrain from selling the trees or propagating material. Since such arrangements create a fiduciary or confidential relationship and impose a duty of trust and confidence on the lessee, they are sometimes referred to as a trade secret agreements. Substantial risks are involved—particularly if there are many lessees. Ownership remains with the lessor and he must bear any catastrophic loss, deal with complicated tax questions, and realize that theft of budwood is difficult to prevent and trace. Contracts are most useful where the plant part sold by the grower is incapable of functioning as propagating material. Patents provide a more practical mechanism for controlling germplasm.

Trademarks can be used in marketing a plant variety and when others are licensed to use the mark—as distinguished from producing and selling plants of the variety—the license fees can provide the breeder with income. By law, a trademark is an indication of origin, i.e., an indicator that the marked product comes from a single source. It is a symbol of the proprietor’s goodwill. The exclusive right to use a trademark is a common law right acquired by using the mark in trade and not by registration. A trademark is not the name of the product to which it is affixed but is a device to identify the producer or seller of the goods. To illustrate, when you see a drum of chemicals emblazoned with the word “Du Pont” in an oval, the word “Du Pont” is not the name of the particular chemical product contained in the drum; it is a symbol indicating that the goods originated from E.I. Du Pont de Nemours & Co.

When a trademark is applied to a label on a plant, the trademark is not the name of plant cultivar. The owner of the trademark for plants generally can prevent others from selling any plants under his trademark, but he cannot prevent others from selling the plant under its varietal name. Any trademark owner can license others to use his mark provided he is willing to control the quality of the goods being sold under his mark. With respect to plants, the trademark licensor can require that the mark be applied to a specific plant variety that meets prescribed quality standards. Periodic inspections must be made by the licensor to ascertain whether or not the licensee’s goods actually meet the specified quality standards and are labeled in a manner that will not damage the trademark. If standards are not met, the license can be terminated. Trademark licensing can generate substantial royalty income, and such income can continue as long as licensee uses the mark.

Where the trademark owner uses the mark only in marketing a single plant variety, the mark should always be used in association with the varietal name of the plant. If not so used, there is a risk that in time it will cease to function as a trademark and become the common name for the variety. This is so because the public will not have a name other than the trademark to identify the variety in commercial dealings. No law prevents a trademark being used only in connection with marketing a single variety, but it is risky to do so unless the trademark is properly used. A trademark can, with proper and extensive use, exert a very powerful role in the distribution of plants. Purchasers can be conditioned to look for and order a trademarked product because they have been favorably im-

pressed from past performance of products that carried the trademark. To horticulturists, a strong valid trademark is an increasingly important marketing mechanism—particularly after the patent has expired and the plant can be freely propagated by everyone.

Problems arise when two parties use the same (or a confusingly similar word) for different functions. Conflicts arise where one party uses the word as a varietal name, and the other party uses it as a trademark for a product distributed as the plant variety through a closely related trade channel. In such conflicts, trademark law controls. If the word was first used in trade as a varietal name, the trademark can be cancelled or invalidated. Conversely, if the word was first used as a trademark, the trademark owner can prevail and enjoin use of the word as a varietal name. Because of the expense involved and since the right to use a word as a varietal name is of relatively little monetary consequence, very few such conflicts have been resolved in reported proceedings.

Under U.S. Patent Law, the inventor must file an application in the Patent Office that describes and claims his invention. One part of the application is a specification, and the Act provides that:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to *enable* any person skilled in the art to which it pertains, or with which it is most nearly connected, *to make and use the same*, and shall set forth the *best mode* contemplated by the inventor of carrying out his invention [emphasis mine].

Until 1930, this language was an insurmountable stumbling block to plant breeders and prevented the patenting of new varieties. Even under today’s biotechnology, words alone are incapable of describing how to replicate a plant variety without having access to and using the parental germplasm. Breeders could not comply with the enablement requirement, and applications seeking protection of new plant varieties would be rejected uniformly. A mistaken belief developed that living matter, per se, was unpatentable.

In the 1920s, legislation was introduced to enable plant varieties to be protected. Opponents urged many of the same arguments that are heard today against issuing patents for biotechnology—ethical considerations, safety concerns, threats to the environment, monopolization, demands for compulsory licensing because of the potential for patents to monopolize the food chain, and dire predictions of a dilution of the germplasm base.

Nevertheless, after debate and many compromises, Congress in 1930 enacted the Plant Patent Act, which provides:

Whoever invents or discovers and asexually reproduces any distinct and new variety of plant, including cultivated sports, mutants, hybrids and new found seedlings, other than a tuber propagated plant or a plant found in an uncultivated state, may obtain a patent therefor, . . .

Protection was limited to asexually reproduced varieties (except potatoes and Jerusalem artichokes). Congress gave pragmatic treatment to the “enablement requirements”. Sexually reproduced plants and seeds could not be protected in order to placate agricultural interests and antimonopolists.

Pursuant to this statute, the Patent Office promulgated procedural rules on what can be protected, who can obtain the protection, and how the protection can be obtained. Upon grant of the plant patent, the breeder will have, for 17 years, the right to exclude others from asexually reproducing the plant or selling or using any plant so reproduced.

In 1980, the U.S. Supreme Court, in a case challenging the patentability of a man-made microorganism, ruled that “anything under the sun that is made by man” is susceptible to protection under the general patent law (*Chackrabarty v. Diamond*, 447 USS 303). This controversial ruling opened the way for horticulturists and genetic engineers to protect inventions relating to plants under the general utility patent law (35 USC 101). Such protection can be considerably broader than that under the Plant Patent Act (35 USC 161). However, it is much more difficult to obtain a utility

patent than a plant patent because there are higher statutory standards as to unobviousness and enablement that must be met. It will become more and more difficult to meet these standards as the store of biotechnological knowledge increases. The fears expressed by those who are opposed to patenting living matter under our general law are based on supposition and may not have a factual basis. When and if actual threatening problems arise down the road, the agricultural community, the biotechnology industry, and the legislature can join in seeking solutions to any blatant abuses.