

Patenting Life – A Brief History

(Excerpt from “Monsanto versus U.S. Farmers,” Center for Food Safety, 2005, available at: <http://www.centerforfoodsafety.org/Monsantovsusfarmersreport.cfm>)

Over the last two decades, rapid developments in biotechnology have led companies to depend increasingly on patent protections and to fight to expand the boundaries of what can be patented. Historically, however, life forms were excluded from patent laws based on the common belief that they were creations of nature, not human inventions.

With the passage of the Plant Patent Act (PPA) in 1930, both houses of Congress rejected the notion that sexually reproducing plants should be subject to patent protection. Again in 1968, a proposed amendment to the PPA was defeated that would have extended patent applications to include sexually reproducing plants. Following this defeat, however, Congress decided that some form of protection for these plants was warranted. In 1970, Congress enacted the Plant Variety Protection Act (PVPA), an alternative form of plant variety protection for sexually reproducing plants. The act grants a 20-year term of protection for most crops, and grants the owner exclusive rights to multiply and market the seed of that variety.¹ Significantly, Congress created two exemptions to the rights granted under the PVPA that would allow researchers to use PVPA-protected varieties in order to continue the free exchange of germplasm within the research community, and would allow farmers to save patented seed for re-planting.

The first patent on life was awarded in 1980 in the landmark case, *Diamond v. Chakrabarty*, in which the Supreme Court ruled by a 5-4 margin that living organisms (in this instance, a bacterium) could be patented. This decision paved the way for the U.S. Patent and Trademark Office (U.S. PTO) to decide in the 1985 case *Ex parte Hibberd* that sexually reproducing plants are patentable.² Following that decision, the U.S. PTO began accepting patent applications for such plants, despite the fact that Congress had never given the U.S. PTO authority to grant utility patents for sexually reproducing plants. Unlike the statutory exemptions included in PVPA, the plant utility patent allows its holders to exclude others from using the patented variety for research and agricultural purposes.

In 2001, the Supreme Court decision in *J.E.M. Ag Supply v. Pioneer Hi-Bred International* upheld the patenting of plants, concluding that because Congress failed to explicitly exclude plants in the provision of the Patent Act that provides for utility patents there was no reason why extending patents to plants should be viewed as contrary to congressional intent.³

Footnotes

1 Section 2483 of the PVPA states, “Every certificate of plant variety protection shall certify that the breeder has the right, during the term of the plant variety protection, to exclude others from selling the variety, or offering it for sale, or reproducing it, or importing it, or exporting it, or using it in producing a hybrid or different variety therefrom, to the extent provided by this Act.” 7 U.S.C. 2483.

2 *Ex parte Hibberd*, 227 U.S.P.Q. 443 (Bd. Pat. App. & Interferences 1985). *Ex Parte Hibberd* established the right of plant breeders to patent their plant materials under Section 101 of the Patent Act. This provided new opportunities and possibilities for plant breeders and seed companies to protect their products.

3 See *J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred Int'l., Inc.*, 534 U.S. 124, 127 (2001).