Patenting Life: GMOs

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Introduction

GMO Background
The ethical debate surrounding genetically modifying any type of organism is nearly never-ending. Both advocates and opponents provide valid arguments for their case; however, the ethical debate is an entirely different argument than the issue of patents for these organisms. The science behind developing these organisms is impressive and impressive to say the least but issuing patents on these organisms should be evaluated more carefully. The intellectual property of these companies has the right to be protected, but it should not come at the cost of the livelihoods of farmers and the security of global biodiversity. The scientific advances have the right to be protected but there should also be protection for farmers, biodiversity, and consumers.

Patent Policy
Patent laws have evolved since their inception. The first patent act in the U.S was passed in 1790. The law was designed to resemble the English Statute of Monopolies Act. Patent Laws were designed to protect the intellectual property of inventions, ideas, and innovations. The U.S Patent and Trademark office works with inventors in a mutually beneficial relationship. In a trade for full public disclosure, inventors are granted certain rights for a given length of time. A patent is a form of a limited monopoly. Once a patent is granted, the holder is granted exclusive rights to the product or idea. These rights include the ability to make, use, and sell the innovation for a given length of time. To be eligible for patent, there are five very specific traits that must be met.

- **Patentable Subject Matter:** In a 1980 case, the Supreme Court and Congress defined patentable subject matter as “anything under the sun that is made by man” (Patent).
- **Utility:** Any object with patent potential must be useful to consumers or users
- **Nonobviousness:** Not added to patent policy until 1952, this indicates that the material must not be obvious to a person of ordinary skill or knowledge
- **Enablement:** The final characteristic that must be met by patentable material is that there must be full disclosure regarding all elements of development and use of the material.

For several hundred years, biological discoveries have not been eligible for legal patents.

The Problem With Current Policy

In 1980, the Supreme Court narrowly decided to allow a patent of genetically modified bacteria. The modified bacteria had been altered to digest oil. The court decided that the bacteria was no longer to be considered a product of nature, but a commodity, because the oil digesting genes did not occur naturally. The acceptable patent on the bacteria opened a floodgate of patents on living organisms. This became especially popular for agricultural crops; the genetic modification was intended to increase resilience to chemicals, pests, weather extremes, and to increase overall crop yields.

Since patents have been allowed on a variety of crops, the impact on farmers has been immense. Genetic Modification is prominent among crops including, corn, soybeans, tobacco, papaya, tomatoes, and many others. For farmers, using GM seeds has increased farming costs by up to 325 percent. Patents on the seeds causes farmers to purchase new seeds on a yearly basis due to the "Suicide Gene," which causes seeds to self-destruct after on season of growth. Farming costs have also increased greatly due to the lawsuits caused by patent infringement.

Alternative Polices

Return to Original Policy: To protect consumers, biodiversity, and farmers, a possible remedy to the policy problem is a return to the original policy. The original patent policies of the U.S did not include living organisms as eligible for patent. The inclusion of living organisms is unprecedented around the world. It has been common practice since the dawn of time for someone to own an individual member of a species; however, the 1980 court case allowed for the ownership of an entire strain of species. This practice is not only unusual but unethical. Regardless of whether of not an organism has been genetically modified, it is still a living organism, indicating that it should not be eligible for patent.

Remove Corporate Ability To Test: Currently, most lawsuits against farmers are caused by a corporate ability to test crops for traces of GMOs. Genetically modified crops traditionally promise major growing improvements, including drought and disease resistance, however, in many cases, farmers unknowingly obtain these seeds through unidentified circumstances that occur in farming. Patenting genes could be acceptable, if patent infringement is not used as a weapon. In 2013, the U.S Organic Farmers sued the Monsanto Corporation to remove the ability for the corporation to sue for accidental seed contamination. The organic farmers and many other farmers have spent many years concerned about unintentional patent infringement. In the case against the U.S Organic Farmers and Monsanto, the court ruled that farmers would have to accept Monsanto’s assurances stated on their website that there would be no lawsuit for less than one percent of biotech seeds on a farm. The court ruled that the website assurance is adequate and that there would be no legal assurance (Leader).

GMO Records: Corporate entities should keep a detailed record of all GMO sales. In doing this, corporations could keep track of where GMOs and being grown and sold. This practice would keep farmers using GMOs responsible and ensure that they are not illegally selling or distributing seeds. This would also provide protection for farmers preferring to maintain conventional seeds. GMO records could provide the capability of patents to continue without the potential to use patents as a weapon for farmers that prefer to maintain traditional methods.

Conclusions

Patenting GMOs is a very dangerous concept. Not only does it compromise the integrity of the American farmer, for fear of unintentional patent infringement, but it is also a unprecedented practice with no scope for consequences. Many other nations around the world have required the GMOs be labeled or prohibited their use completely; however, the U.S is still encouraging their use. GMOs promise big results, but according to the United Nations, they are not necessary to feed the growing population. Continuing to allow patents on GMOs is dangerous. The potential for global questions lies in the fact that there will be no trademark on a GMO. Without a trademark, the GMO will be patented with the solution to the global problem, but the original organism will be lost forever. Regardless of whether or not an organism has been genetically modified, it is still a living organism, indicating that it should not be eligible for patent.

References


