A licence to life: Monsanto's seed patents

As a farmer's challenge to Monsanto's licence on its patented seeds hits the US Supreme Court, **Peter Corless** and **Ralph Loren**, partners at Edwards Wildman Palmer, wonder whether the case will take root

On 19 February 2013, the US Supreme Court heard oral arguments in the patent exhaustion case *Bowman v Monsanto*. During those arguments, the justices appeared to be quite one-sided in favour of Monsanto prompting speculation that perhaps a 9-0 decision affirming Monsanto's position will result.

The case has received substantial publicity from its intriguing consideration of the patent exhaustion doctrine as applied to self-replicating technology (genetically modified soybean seeds), with the hope that the court would shed some new light on the doctrine's scope. In particular, not just the crop industry but the pharmaceutical and biotechnology industries hope that there would be clarification as how this doctrine applies to self-replicating genetically modified products, including cells and seeds.

The case is also intriguing because of the participants, who have been characterised as David (76-year-old farmer Bowman) versus Goliath (Monsanto).

Significant questions presented by the case include: 1) what is the scope of the patent exhaustion doctrine; 2) how does the patent exhaustion doctrine apply to self-replicating subject matter; and 3) how do contractual restrictions on licensed purchasers create liability for downstream purchasers that are not a party to the contract.

Monsanto sued soybean farmer Vernon Bowman for infringement of two patents directed to Monsanto's Roundup Ready soybean seeds that are resistant to glyphosphate-based herbicides, including Monsanto's Roundup herbicide. This is one of a number of suits Monsanto has filed against farmers but this is the first that will provide Supreme Court guidance on the issue.

Bowman purchased so-called commodity soybean seeds from a local grain elevator. These commodity seeds were priced lower than Roundup Ready soybean seeds available from Monsanto or its authorised distributors. Bowman had purchased the higher price Roundup Ready seeds from a Monsanto distributor for an earlier season crop, but for a second, late season crop, Bowman relied on the less expensive commodity seeds. Bowman also treated this second crop with a glyphosphate-based herbicide and found that many of the plants were resistant. For the following several years, for the late season crop, Bowman continued to use commodity seed purchased from the grain together with seed saved from the prior harvests.

In 2007, during litigation, Monsanto confirmed that Bowman's second-crop soybean seeds contained the patented Roundup Ready technology.

In addition to its patent rights, Monsanto contractually restricts purchasers of first generation Roundup Ready seeds by executing a Technology Agreement at the time of seed purchase. Under such agreements, purchasers may consent: 1) to use the seed containing Monsanto gene technologies for planting a commercial crop only in a single season; 2) to not supply any of this seed to any other person or entity for planting; 3) to not save any crop produced from this seed for replanting, or supply saved seed to anyone for replanting; and 4) to not use this seed or provide it to anyone for crop breeding, research, generation of herbicide registration data, or seed production.

Monsanto has actively sought to protect its patent rights. By 2010, Monsanto had filed 136 infringement lawsuits against 400 farmers and 53 small-farm businesses.

Federal circuit

In 2009, the District Court granted summary judgment of infringement of the Monsanto patents. In September 2011, the US Court of Appeals for the Federal Circuit affirmed the grant of summary judgment in favour of Monsanto.

Bowman had argued, as had others before him, that once the seeds are sold, the patent exhaustion doctrine applies, and therefore Monsanto has already received its patent royalty and it has no further rights in the seeds. The Federal Circuit found that Monsanto's patent rights in the seeds were not exhausted once sold to a commodity dealer. The Federal Circuit further reasoned that although Monsanto's patented seeds can replicate themselves, a buyer cannot use the product of replication for its intended use because it would eliminate or reduce Monsanto's patent rights because the new generations would still have the patented technology. The court concluded that Bowman or the commodity broker retained the right to sell second-generation seeds as feed or for any other number of uses, but Bowman was prohibited from replanting them in any form without a licence from Monsanto. The court deemed that Monsanto was entitled to damages for patent infringement.

Supreme Court

The Supreme Court granted *certiorari* in 2012. Nineteen amici briefs were submitted in advance of oral arguments.

During the arguments on 19 February, the justices pressed Bowman's counsel on a variety of fronts. For instance, chief justice John Roberts asked, "Why in the world would anybody spend any money to try to improve the seed if as soon as they sold the first one anybody could grow more and have as many of those seeds as they want?"

Justice Scalia indicated that patent law does not provide the right to make copies of seeds, stating, "That's all he is prevented from doing... He can plant and harvest and eat or sell. He just can't plant, harvest, and then replant."

Patent exhaustion: use versus make

Patent exhaustion provides limits on the rights of patent holders by eliminating the ability to control or prohibit use of the invention after an authorised sale. As Bowman acknowledged, however, the exhaustion doctrine does not extend to the right to "make" a new product.

That is, the fact that a patented product is the subject of a legitimate sale that exhausts the patent rights does not give the purchaser the right to use that original as the source for generating subsequent copies. Rather, the creation of those additional copies will be deemed counterfeit and infringing.

In this case, the Federal Circuit refused to find exhaustion where a farmer used seeds purchased in an authorised sale for a foreseeable purpose, such as planting. In doing so, the Federal Circuit held that each new generation of seed represented an infringing act of "making" or "using" and that the doctrine of patent exhaustion, even if applied to the commodity seed, did not permit the formation of new infringing products.

This was recognised by Justice Sotomayor during the oral arguments on 19 February, where she stated:

> I'm sorry. The Exhaustion Doctrine permits you to use the good that you buy. It never permits you to make another item from that item you bought. So that's what I think Justice Breyer is saying, which is you can use the seed, you can plant it, but what you can't do is use its progeny unless you are licensed to, because its progeny is a new item.

"In this case, the Federal Circuit refused to find exhaustion where a farmer used seeds purchased in an authorised sale for a foreseeable purpose, such as planting."

Bowman had previously argued that growing the seeds does not constitute a "making" under 35 U.S.C. § 271(a) due to the seeds' self-replicating characteristics. Bowman wrote in a brief in support of petition for *certiorari*:

> The case does not support the conclusion that Bowman's activities actually constituted construction of a new article, rather than use of articles he owned following purchase in a sale authorised by the patent holder.
>
> The terms "make," "construct," and manufacture" do not describe the process by which progeny are created through self-replicating technologies. To be sure, Monsanto licensed seed producers "make" or "construct" seeds do not describe the process by which progeny are created through self-replicating technologies. To be sure, Monsanto-licensed seed producers "make" or "construct" seeds containing Monsanto's patented traits when they artificially insert patented germplasm into naturally occurring soybean seeds... The activity of these companies in making seeds differs in fundamental ways from the activities of farmers in using them.

Bowman further wrote in its brief on the merits to the Supreme Court:

> If patent rights in seeds sold in an authorised sale are exhausted, patent rights in seeds grown by lawful planting must be exhausted as well. Due to the self-replicating nature of the invention, subsequent generations of seeds are embodied in previous generations... The seeds at issue here will self-replicate or "sprout" unless stored in a controlled manner to prevent this natural occurrence. Humans can (and most often do) assist in the process of self-replication. For instance, Bowman planted Roundup Ready seeds and treated them with glyphosate. This activity led in part to the creation of new soybeans having the patented Roundup Ready trait. But it was the planted soybean, not Bowman, that "physically connected" all elements of the claimed invention into an "operable whole".

Unintended infringer

The Supreme Court also voiced concern regarding unknowing infringers resulting from the self-replicating nature of the technology, as Justice Kagan posed to Monsanto's counsel:

> [T]here is a worrisome thing on the other side, though, too. And that is the Bureau position has the capacity to make infringers out of everybody. And that is highlighted actually in this case by how successful this product is and how large a percentage of the market it has had.
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> So that, you know, seeds can be blown onto a farmer's farm by wind, and all of a sudden you have RoundUp seeds there and the farmer is infringing, or there's a 10-year-old who wants to do a science project of creating a soybean plant, and he goes to the supermarket and gets an edamame, and it turns out that it's Roundup seeds.

Monsanto's counsel responded that such activities would result in negligible damages and therefore not pursued by the patentee.

Part of the interest in this case is that seeds are not the only self-replicating products. The patents at issue here are utility, not plant patents that merely cover asexually produced plants. The utility patents like those at issue also cover the cell lines and reproducing constituents that form the basis of the biotechnology industry. A ruling that allows one to purchase a self-replicating product and use the subsequent generations without a fee would effectively hamstring the biotechnology industry.

The Supreme Court may provide its decision by June.

Authors


Peter Corless is a partner and co-chair of the patent practice group at Edwards Wildman. His practice is devoted to patent prosecution and patent licensing and litigation in the technology areas of pharmaceuticals, specialty chemicals, biotechnology, medical devices and other mechanical and electro-mechanical innovations.

Ralph Loren has practiced in intellectual property for over 30 years. His current practice is in litigation and deal work, with an emphasis on licensing and due diligence in the life sciences and computer fields. He also has years of patent prosecution experience. Loren's IP litigations include lead counsel in numerous infringement actions related to biotechnology, chemical analysers, computers, electronic equipment and mechanical devices.