

**American Intellectual Property Law Association
Biotechnology Committee**

**Biotechnology in the Courts Subcommittee
Report**

Summaries of Recent Decisions of Interest to the Biotechnology Community

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C O N T R I B U T O R S

Cathy Kodroff

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Case Summaries

I. *Bowman v. Monsanto Company, et al.*, No. 11-796, Brief for the United States as *Amicus Curiae* Supporting Affirmance

Reported by: Cathy Kodroff

Summary

This case raises a question as to whether a patentee's rights are exhausted as to subsequent generations of seeds after patented seeds have been purchased in an authorized sale for planting. This case has implications for a variety of self-replicating technologies, particularly in the field of nanotechnology and biotechnology.

Invention

Monsanto has invented certain technology which includes chimeric genes, vectors comprising same, and plant cells transformed therewith, which confer upon transformed plant cells resistance to N-phosphonomethylglycine ("glyphosate") based herbicides, such as Monsanto's Roundup® herbicide product. This technology is covered in two patents which are the basis for an infringement assertion made by Monsanto against Bowman in the subject case: US Patent No. 5,353,605 (2004) and Reissue Patent RE 39,247E (a reissue of US Patent No. 5,633,435) (2006).

The claims of US 5,352,605, include:

1. A chimeric gene which is expressed in plant cells comprising a promoter from a cauliflower mosaic virus, said promoter selected from the group consisting of a CaMV (35S) promoter isolated from CaMV protein-encoding DNA sequences, and a structural sequence which is heterologous with respect to the promoter.
4. A plant cell which comprises a chimeric gene that contains a promoter from cauliflower mosaic virus . . .

The '605 patent relates to the use of nucleic acid from cauliflower mosaic virus, a virus capable of infecting plant cells, as a vector for incorporating a chimeric gene into a plant cell.

Monsanto also alleged infringement of 17 claims of the '247E patent, including:

103. A recombinant, double-stranded DNA molecule comprising in sequence:
a) a promoter which functions in plant cells to cause the production of an RNA sequence; b) a structural DNA sequence that causes the production of an RNA sequence which encodes an EPSPS enzyme having the sequence of SEQ ID

NO:70; and c) a 3' non-translated region that functions in plant cells to cause the addition of a stretch of polyadenyl nucleotides to the 3' end of the RNA sequence; where the promoter is heterologous with respect to the structural DNA sequence and adapted to cause sufficient expression of the encoded EPSPS enzyme to enhance the glyphosate tolerance of a plant cell transformed with the DNA molecule.

116. A glyphosate-tolerant plant comprising a DNA sequence encoding an EPSPS enzyme having the sequence of SEQ ID NO: 70.

128. A glyphosate tolerant plant cell comprising the recombinant DNA molecule of claim 103.

129. A plant comprising the glyphosate tolerant plant cell of claim 128.

The technology of the '247E patent involves glyphosate-tolerant 5-enolpyruvylshikimate-3-phosphate synthases (EPSPS), and the transformation of plant cells with these novel protein-encoding gene sequences that encode for this glyphosate-tolerant enzyme (EPSPS).

Procedure

On September 30, 2009, the United States District Court for the Southern District of Indiana granted summary judgment of infringement and entered a judgment for Monsanto in the amount of \$84,456.20 (Bowman, No. 07-cv-0283 (May 12, 2010)). Bowman appealed to the Court of Appeals for the Federal Circuit, which performed a *de novo* review of the district court's order granting the motion for summary judgment.

The Court of Appeals for the Federal Circuit affirmed the decision of the district court [757 F.3d 1341, Case No. 2010-1068, September 21, 2011]. On October 5, 2012, the US Supreme Court granted *certiorari* of an appeal by Petitioner Vernan Hugh Bowman, against the advice of the U.S. Solicitor General who had been asked to brief the issues on appeal [Docket No. 11-796, Supreme Court 2012]. As of this writing, in addition to briefs by the parties, over 20 briefs as *amicus curiae* have been filed.

In granting *certiorari*, the Supreme Court defined the question presented as follows:

Patent exhaustion delimits rights of patent holders by eliminating the right to control or prohibit use of the invention after an authorized sale. In this case, the Federal Circuit refused to find exhaustion where a farmer used seeds purchased in an authorized sale for their natural and foreseeable purpose – namely, for planting. The question presented is:

Whether the Federal Circuit erred by (1) refusing to find patent exhaustion in patented seeds even after an authorized sale and by (2) creating an exception to the doctrine of patent exhaustion for self-replicating technologies?

This will summarize the Brief for the United States as Amicus Curiae Supporting Affirmance filed on January 9, 2013.

Summary of Brief

The Brief prepared by the Department of Justice (DOJ) for the United States as Amicus Curiae Supporting Affirmance defines the question presented as follows:

“Whether the authorized sale of one generation of a patented plant seed exhausts a patentee’s right to control subsequent generations of that seed.”

While taking issue with the Federal Circuit’s past application of a “conditional sale” doctrine as erroneous, the DOJ indicates that in the present case the Federal Circuit’s application of the doctrine of patent-exhaustion is proper. The DOJ states that the Petitioner has not disputed the fundamental of the patent-exhaustion doctrine, *i.e.*, that the authorized sale of an article embodying the patented invention exhausts the patentee’s exclusive right to control that article, which in the present case is a patented soybean (seed). The Brief takes the position that Petitioner’s arguments are unpersuasive as to the subsequent generations derived from the seed which are at issue in this case, because such subsequent generations of the patented seed are not the same article, but different articles. Thus, it is concluded that because such subsequent seed generations are new articles, the patent-exhaustion doctrine does not apply to them.

Petitioner has argued that with respect to the patented seed, the rule in *Quanta Computer, Inc. v LG Elecs., Inc.*, 553 U.S. 617 (2008) should be applied and states that respondent “has authorized the sale of an article that can be used to practice the claimed inventions because seeds will self-replicate by normal use.” The DOJ characterizes Petitioner’s reliance on *Quanta* as misguided, as *Quanta* involved a US Supreme Court holding that the patent-exhaustion doctrine applies to method claims. The DOJ further argues that *Quanta* cannot be interpreted as extinguishing a patentee’s rights as to *new* copies of a patented article.

The DOJ Brief rejects the Bowman arguments that growing new seeds that fully embody the patented invention should not be considered “making” the patented invention. The Brief indicates that while Bowman has taken issue with the government’s definition of “make,” he has not offered an alternative definition which would exclude the intentional reproduction of patented seeds. The definition of the term “make” as presented in The Copyright Act, in *Webster’s Third New International Dictionary* [“to bring about”, “to cause to happen” or “to cause to exist, occur or appear”], and the appearance of the term “reproduce” in the Plant Variety Protection Act (PVPA) are discussed by the DOJ Brief, as are prior court decisions indicating that the protections afforded to patented plants are broader than those afforded to PVPA – protected plants. In wrapping up this analysis, the DOJ Brief concludes that “[w]hatever its outer limits, a patent holder’s right to exclude others from ‘mak[ing]’ the patented invention includes the right to bar others from reproducing the patented invention.”

The DOJ Brief distinguishes another case relied upon by Petitioner, *Deepsouth Packaging Co. v. Laitram Corp.*, 406 U.S. 518 (1972), on the basis that *Deepsouth* addressed a combination patent where a person did not infringe by “making” a product which contains fewer than all of the claimed elements. In contrast, the final patented product was created in the US. The DOJ also takes issue with Petitioner’s arguments that farmers did not “make” the patented seeds because soybean seeds will self-replicate. The DOJ indicates that contrary to Petitioner’s arguments or the arguments presented in Petitioner’s amici (Knowledge Ecology Int’l Amicus Br. 10-11; Center for Food Safety et al, Amicus Br. 28-40), what is at issue in this case is not an “inadvertent” infringement in which seeds replicated themselves without human intervention, but intentional plantings and acts toward saving seeds and replanting conducted over a series of years.

The DOJ Brief discusses the Federal Circuit’s “conditional sale” doctrine and states that it cannot be *reconciled* with the US Supreme Court precedents. However, the Brief continues on to say that these flaws do not cast doubt on the correctness of the court’s decision, again stating that the doctrine of exhaustion does not permit the creation of a new patented article.

The Brief concludes that the Federal Circuit was correct to hold that it was unnecessary to reach the issue of whether respondent’s patent rights in the seed had been exhausted, because Petitioner created newly infringing articles to which the doctrine of exhaustion does not apply. For these reasons, the DOJ Brief argues that the holding of the Federal Circuit is correct and consistent with the Court’s patent-exhaustion precedents.

Commentary

As noted in the DOJ Brief, the potential consequences of adopting Petitioner Bowman’s position is not limited to genetically modified plants. The Court’s decision could also affect patents for genetically engineered cell lines, man-made DNA molecules, and other technologies that involve self-replicating features, including some nanotechnologies. Since the *Diamond v Chakrabarty* decision, 447 U.S. 202 (1980), there have been companies which have invested in and which market patented cell lines capable of replication with limited human intervention. Much of the value of the patent rights in such cell lines, and the other man-made self-replicating technologies could be lost if the decision is rendered in the manner proposed by Petitioner.