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## Induced Nuisance: Holding Patent Owners Liable for GMO Cross-Contamination

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## **INDUCED NUISANCE: HOLDING PATENT OWNERS LIABLE FOR GMO CROSS-CONTAMINATION**

### **ABSTRACT**

*The landscape of modern organic farming changed drastically with the introduction of genetically modified organisms (GMOs). Today's organic farmer must be constantly vigilant of the threat of GMO cross-contamination. Genetic drift and cross-contamination from GM crops will render organic crops unmarketable, resulting in economically damaged organic programs. Current regulatory systems are unable to protect against the risk of GMO contamination, relegating the judicial system to address the resulting damage. However, many organic farmers who find their crops contaminated are reluctant to seek redress for fear of possible patent infringement suits by the GMO patent owner (typically Monsanto). This is understandable considering that Monsanto continues to find support in the courts when enforcing its patent rights in GMOs.*

*The unique nature of self-replicating GMOs has spurred many legal questions that lie at the intersection of patent owner and organic farming rights. This Comment explores the recourse currently available to the organic farmer harmed by GMO cross-contamination and argues for a new theory of liability: induced nuisance. The theory of induced nuisance would allow the organic farmer to hold the GMO patent owner directly liable for harm stemming from the activities of its GMO licensees. Arguably, this would result in an overall efficient outcome. The organic farmer, who may face the near impossible task of proving from what neighboring farm a particular GMO originated, could easily link it to the patent owner. Additionally, holding the patent owner liable for GMO contamination places liability on the party in the best position to assess and control the risk of future contamination.*

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## INTRODUCTION

Organic farmers produce crops for a specific market and farm without the use of pesticides, herbicides, or genetic modifications.<sup>1</sup> But since the introduction of genetically engineered “frankenfoods” into the agricultural landscape, organic farmers have had to vigilantly ensure the continued integrity of their crops.<sup>2</sup> Unwelcome pollen from genetically engineered plants frequently makes its way onto neighboring lands.<sup>3</sup> If an organic farmer’s land or crops are contaminated by genetically modified pollen from a neighboring farm, he may find remedy in a tort action against his neighbor. But this approach omits an important party to the creation of the harm—the owner of the patented genetic modification. Companies such as Monsanto, along with the courts, have made clear that it is the patent owner who maintains a property interest in any and all “genetic drift”—not the farmer who works under a license.<sup>4</sup> And given that it is the patented genetic modification that created the inherent and foreseeable harm to organic farmers in the first place, the patent owner should be held liable.

It has been over thirty years since the Supreme Court held that genetically engineered organisms were patentable subject matter.<sup>5</sup> Incentivized by the patent system, scientists have since introduced the world to a vast number of artificial and transgenic life forms also known as genetically modified organisms (GMOs).<sup>6</sup> Plant varieties of GMOs are examples of such novel creations.<sup>7</sup> Biotech scientists engineer the genes of known plant species to create new life forms—a process much different than classical selective

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<sup>1</sup> *Organic FAQs*, ORGANIC FARMING RES. FOUND., <http://ofrf.org/organic-faqs> (last visited Sept. 2, 2014).

<sup>2</sup> Tom Laskawy, *Frankenfoods: Good for Big Business, Bad for the Rest of Us*, GRIST (May 9, 2013, 1:05 PM), <http://grist.org/food/frankenfoods-good-for-big-business-bad-for-the-rest-of-us/>.

<sup>3</sup> Ben Lilliston, *Farmers Fight to Save Organic Crops*, PROGRESSIVE, Sept. 2001, at 26, 26–27, available at <http://www.progressive.org/0901/lil0901.html>.

<sup>4</sup> *Monsanto Co. v. Bowman*, 657 F.3d 1341, 1348 (Fed. Cir. 2011), *aff’d*, 133 S. Ct. 1761 (2013); *Monsanto Co. v. Scruggs*, 459 F.3d 1328, 1336 (Fed. Cir. 2006); *Monsanto Co. v. McFarling (McFarling II)*, 363 F.3d 1336, 1343–44 (Fed. Cir. 2004); *Monsanto Co. v. McFarling (McFarling I)*, 302 F.3d 1291, 1296–99 (Fed. Cir. 2002).

<sup>5</sup> *See Diamond v. Chakrabarty*, 447 U.S. 303, 310, 318 (1980) (holding that genetically engineered bacteria were patent eligible subject matter under 35 U.S.C. § 101(1976) (codified as 35 U.S.C. § 101 (2012)).

<sup>6</sup> Steve Gilman, *Know GMOs!*, NORTHEAST ORGANIC FARMING ASS’N (Dec. 2011), <http://www.nofa.org/advocacy.php>. Some examples are inserting fish genes into tomatoes and strawberries, combining spider genes with those of goats, and combining human genes with those of pigs and rice. *Id.*

<sup>7</sup> *Id.* In 2001, the Supreme Court confirmed that utility patents extended to both sexually and asexually reproducing plants. *J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred Int’l, Inc.*, 534 U.S. 124, 145–46 (2001).

breeding and hybridization.<sup>8</sup> A modified plant's genetic makeup will include artificially introduced genes, possibly from a completely different species such as insects, bacteria, fungi, or viruses.<sup>9</sup> The motivation behind altering plant DNA may vary, but many crops have been specifically engineered to tolerate pests and weed killers, thereby increasing crop yields.<sup>10</sup> Due to self-replication, this genetically modified DNA will then pass to future plant generations.<sup>11</sup>

Although the concept and development of genetically modified crops has been a notable innovation in farming,<sup>12</sup> the advent of new technology can also usher in a host of unanticipated problems.<sup>13</sup> The deregulation of GMOs for use in the U.S. food supply has stirred a huge controversy over food safety and the public's right to be informed.<sup>14</sup> On the consumer end, opposition to GM crops has translated into a market divide between products that do contain GMOs and those that do not.<sup>15</sup> Farmers who employ organic farming processes have capitalized on this growing market divide and now produce goods that compete directly with genetically modified food sources.<sup>16</sup> But the inherent nature of GMOs introduces an interesting twist to this developing market competition. The very GMOs that helped establish higher demand for organic products are, by design, inherently dangerous to competing organic crops.<sup>17</sup> To illustrate this point, consider the promiscuous nature of plant reproduction. GMO pollen can

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<sup>8</sup> Gilman, *supra* note 6.

<sup>9</sup> *Id.*

<sup>10</sup> *Id.* Although this may seem like a desirable trait, natural selection has resulted in strains of "superweeds" and "superbugs" which now require farmers to use more toxic herbicides and pesticides. *Id.*; see also Margaret Sova McCabe, *Superweeds and Suspect Seeds: Does the Genetically-Engineered Crop Deregulation Process Put American Agriculture at Risk?*, 1 U. BALT. J. LAND & DEV. 109, 111 (2012).

<sup>11</sup> Gilman, *supra* note 6.

<sup>12</sup> Matthew Rich, Note, *The Debate Over Genetically Modified Crops in the United States: Reassessment of Notions of Harm, Difference, and Choice*, 54 CASE W. RES. L. REV. 889, 892–93 (2004).

<sup>13</sup> Elizabeth A. Rowe, *Patents, Genetically Modified Foods, and IP Overreaching*, 64 SMU L. REV. 859, 868–70 (2011).

<sup>14</sup> *Id.*; see also *The Case for Labeling Genetically Engineered Foods*, LABEL GMOs, (July 2014), [https://d3n8a8pro7vnmx.cloudfront.net/labelgmos/pages/4189/attachments/original/1406822654/7.31.14\\_The\\_Case\\_for\\_Labeling\\_\(1\).pdf](https://d3n8a8pro7vnmx.cloudfront.net/labelgmos/pages/4189/attachments/original/1406822654/7.31.14_The_Case_for_Labeling_(1).pdf) (discussing a recent California proposition to require clear labels on genetically engineered food).

<sup>15</sup> See Press Release, Organic Trade Ass'n, Consumer-Driven U.S. Organic Market Surpasses \$31 Billion in 2011 (Apr. 23, 2012), available at [http://www.organicnewsroom.com/2012/04/us\\_consumerdriven\\_organic\\_mark.html](http://www.organicnewsroom.com/2012/04/us_consumerdriven_organic_mark.html) ("Consumers are increasingly engaged and discerning when they shop . . . it matters [to them] whether foods are genetically engineered, or produced using practices that are good for their families.").

<sup>16</sup> *Id.* (noting that "[d]riven by consumer choice," the organic market grew by 9.5 percent overall in 2011 and continued a growth trend that outpaced comparable conventionally grown products).

<sup>17</sup> Paul J. Heald & James Charles Smith, *The Problem of Social Cost in a Genetically Modified Age*, 58 HASTINGS L.J. 87, 88–89 (2006).

travel for miles, enter organic farmland, and “cross-pollinate” organic crops.<sup>18</sup> The resulting contamination renders those crops unfit for the organic market.<sup>19</sup> In other words, GMOs can quite literally “seek out” and destroy the competition—a harm not well tolerated in most markets. But as stated above, new technology can introduce new and unique problems.<sup>20</sup> The question is how will the legal system adapt?

Genetically engineered crops currently fall under the regulation of the Federal Food, Drug, and Cosmetics Act (FDCA), the Plant Protection Act (PPA), the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), and the National Environmental Policy Act (NEPA).<sup>21</sup> Many scholars and commentators have criticized the current regulatory framework for not adequately addressing the problems that accompany GMO farming, namely the issue of cross-contamination.<sup>22</sup> Although scholars have suggested that new legislation should be drafted to specifically address the introduction of genetically engineered crops, the federal government has relied on the preexisting framework to regulate new genetic engineering technology.<sup>23</sup> There is no legal framework that directly addresses cross-contamination by GMOs,<sup>24</sup> and the current regulatory framework is not able to prevent GMO cross-contamination of non-GM crops.<sup>25</sup> Not surprisingly, if cross-contamination under the current regulatory framework is basically inevitable, issues and harms resulting from cross-contamination will ultimately be brought before the courts.<sup>26</sup>

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<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

<sup>20</sup> See *supra* notes 10–13 and accompanying text.

<sup>21</sup> McCabe, *supra* note 10, at 113.

<sup>22</sup> See generally *id.* (analyzing the weaknesses of the current regulatory framework as applied to GMO farming and noting the framework is especially ineffective at preventing cross contamination and the introduction of “superweeds”).

<sup>23</sup> *Id.* at 113.

<sup>24</sup> See Douglas A. Kysar, *Preferences for Processes: The Process/Product Distinction and the Regulation of Consumer Choice*, 118 HARV. L. REV. 525, 558–59 (2004) (“[P]olicymakers determined that no new laws were required to regulate GM organisms. Instead, federal agencies would share regulatory oversight duties by exercising their authority under a pastiche of existing statutes.” (footnote omitted)).

<sup>25</sup> See Claire Hope Cummings, *Are GMOs Being Regulated or Not?*, CCOF MAG., Summer 2003, at 12, 12–13 (providing background information as to why no new regulatory framework was implemented with the advent of biotechnology and discussing the general shortcomings of the current regulatory framework).

<sup>26</sup> Some countries such as Germany, Austria, and Switzerland have addressed the issue of contamination by creating strict liability provisions for damage caused by GMOs. See Michael Faure & Andri Wibisana, *Liability for Damage Caused by GMOs: An Economic Perspective*, 23 GEO. INT’L ENVTL. L. REV. 1, 10–11 (2010).

This Comment addresses the legal recourse that should be available to an organic farmer whose land is contaminated by GMO pollen drift that originates from a neighboring farm. Specifically, this Comment argues that the organic farmer should have a direct cause of action against the GMO patent owner under a theory of induced nuisance. To arrive at that claim, Part I examines what the current case law reveals about the patent owner's rights and interest in GMO pollen drift as well as the foreseeability that contamination will occur. Part II examines the unique nature of GMOs under current common law doctrines and further proposes a theory of induced nuisance for cross-contamination. Finally, Part III explores the economic implications of holding the patent owner liable for cross-contamination.

## I. CROSS-CONTAMINATION—INSIGHT FROM THE COURTS

Two distinct lines of lawsuits have emerged from the issue of GMO cross-contamination: patent infringement suits brought by GMO patent owners and tort suits brought by farmers economically harmed due to contamination. Section A will summarize how courts have addressed the unique patent enforcement issues that arise with self-replicating technology. This section will also highlight that the GMO patent owner is the party who maintains a legal interest in genetic drift and will further explore the legal implications for organic farmers whose land may become contaminated. Section B will then summarize prevalent tort cases that have been brought due to economic harms suffered by non-GMO farmers.<sup>27</sup>

### A. *The Patent Cases—Who “Owns” Genetic Drift?*

The promise of GMO seed patents has been a catalyst in the agricultural industry's shift from small farming outfits toward large agribusiness.<sup>28</sup> Large companies, such as Monsanto Company (Monsanto), are able to obtain patent protection for both their genetically modified creations and the herbicides

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<sup>27</sup> Note that the tort cases to be discussed are cases that involve GM crops that were still under federal regulation and not approved for human consumption. *See infra* Part I.B. The suits were brought directly against the patent owner. This is not the type of scenario this Comment is presupposing for the application of induced nuisance. This Comment specifically addresses the organic farmer whose land has been contaminated by deregulated GMO pollen drift from a neighboring farm. Farmers in this situation would normally be relegated to bring suit against the neighboring farmer, not the patent owner. However, the cases are discussed in section B to illustrate the uncontrollable nature of GMOs and the foreseeability of contamination.

<sup>28</sup> Dorothy Du, Note, *Rethinking Risks: Should Socioeconomic and Ethical Considerations Be Incorporated into the Regulation of Genetically Modified Crops?*, 26 HARV. J.L. & TECH. 375, 387 (2012).

designed for companion use.<sup>29</sup> Monsanto is considered one of the “big four” biotech seed companies, along with DuPont/Pioneer, Syngenta, and Dow AgroSciences, which together control eighty percent of the U.S. corn market, seventy percent of the U.S. soybean market, and more than half of the world’s seed supply.<sup>30</sup> Worldwide, 282 million acres are planted using Monsanto’s patented seeds.<sup>31</sup> This translates into an eighty percent control of the GM corn market and ninety-three percent control of the GM soybean market.<sup>32</sup> In attaining such an overwhelming market share, Monsanto has vigorously enforced its patent rights, ensuring its patented technology is maintained within the bounds of licensing agreements.<sup>33</sup> Courts have held that licensees of self-replicating technology, such as GMOs, are entitled to the use of only the *initial embodiment* of the technology—the purchased seeds.<sup>34</sup> Therefore, the practice of traditional “seed saving” has been supplanted by patent law, and courts have decided that Monsanto maintains rights in any replications of the patented technology, including the genetic drift.<sup>35</sup> Additionally, courts have

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<sup>29</sup> *Id.*

<sup>30</sup> Ken Roseboro, *GE Seed Monopoly: Fewer Choices, Higher Prices*, SOUND CONSUMER (PCC Nat. Markets, Seattle, Wash.) Sept. 2013, [http://www.pccnaturalmarkets.com/sc/1309/ge\\_seed\\_monopoly.html](http://www.pccnaturalmarkets.com/sc/1309/ge_seed_monopoly.html).

<sup>31</sup> *U.S. and Monsanto Dominate Global Market for GM Seeds*, ORGANIC CONSUMERS ASS’N (Aug. 7, 2013), [http://www.organicconsumers.org/articles/article\\_28059.cfm](http://www.organicconsumers.org/articles/article_28059.cfm).

<sup>32</sup> *Id.*

<sup>33</sup> CTR. FOR FOOD SAFETY, *MONSANTO V. U.S. FARMERS 2012 UPDATE* (2012), available at [http://www.centerforfoodsafety.org/files/monsanto-v-us-farmer-2012-update-final\\_98931.pdf](http://www.centerforfoodsafety.org/files/monsanto-v-us-farmer-2012-update-final_98931.pdf). The Center for Food Safety’s report documents Monsanto’s “unprecedented use of patents and restrictive licensing agreements to investigate and sue farmers for suspected seed-saving.” *Id.* at 1. Notably, Monsanto has sued farmers in at least twenty-seven different states collecting judgments against farmers totaling \$23 million and additional out of court settlements estimated between \$85 and \$160 million. *Id.* at 1–2.

<sup>34</sup> *Monsanto Co. v. Bowman*, 657 F.3d 1341, 1348 (Fed. Cir. 2011). Self-replicating technology presented a novel question for courts: Do the patent holder’s rights in the patented article expire after an authorized sale? Normally the answer would be a resounding “yes” since this question strikes at the heart of the doctrine of patent exhaustion. The doctrine of patent exhaustion provides that “the initial authorized sale of a patented item terminates all patent rights to that item.” *Quanta Computer, Inc. v. LG Elecs., Inc.*, 128 S. Ct. 2109, 2115 (2008). But in the case of next generation seeds containing patented genes, the Federal Circuit, in a decision affirmed by the U.S. Supreme Court, refused to apply patent exhaustion, finding instead that by planting a patented GMO seed “the grower has created a newly infringing article.” *Bowman*, 657 F.3d at 1348, *aff’d*, 133 S. Ct. 1761 (2013); see also *Monsanto Co. v. Scruggs*, 459 F.3d 1328, 1336 (Fed. Cir. 2006); *McFarling I*, 302 F.3d at 1296–99.

<sup>35</sup> Adam Liptak, *Saving Seeds Subjects Farmers to Suits over Patent*, N.Y. TIMES, Nov. 2, 2003, § 1, at 18, available at <http://www.nytimes.com/2003/11/02/us/saving-seeds-subjects-farmers-to-suits-over-patent.html>; *Bowman*, 657 F.3d at 1348 (finding that planting Monsanto’s patented technology “create[s] newly infringing genetic material, seeds, and plants” and citing to the specific patented claims); McCabe, *supra* note 10, at 116–17; see, e.g., U.S. Patent No. 8,455,728 col.28 ll.48–50 (filed June 4, 2013) (claiming a plant part of a soybean “defined as a protoplast, ovule, cell, *pollen grain*, embryo, cotyledon, hypocotyl, meristem, root, pistil, anther, flower, stem, pod or petiole” (emphasis added)). Note that the patent owner retains rights in the

decided that when GMO pollen drift further contaminates the crops of a non-licensee, Monsanto can recover for patent infringement—a strict liability offense in patent law.<sup>36</sup> In other words, a plant (which contains patented genetic material) found growing on a non-licensee’s land qualifies as making or using the patented gene. Since there is no knowledge requirement for direct patent infringement, when a non-licensee’s crops are genetically contaminated, he can be liable to the patent owner.<sup>37</sup>

Perhaps the most infamous and illustrative case of this type of infringement is the Canadian case, *Monsanto Canada Inc. v. Schmeiser*.<sup>38</sup> The Canadian Supreme Court upheld the lower court’s finding that Mr. Schmeiser was guilty of patent infringement despite evidence that the GM corn growing on his land was inadvertent and not intentionally planted as such.<sup>39</sup> This decision again highlights Monsanto’s legal interest in any genetic material that may drift after a licensed use. So armed with the court-enforced strength of its patents, Monsanto aggressively seeks out any growers that may either intentionally or *unintentionally* infringe upon those patents.<sup>40</sup>

With Monsanto’s undeniable property rights in the genes embodied in GMO pollen drift and with the high probability of cross-contamination, organic farmers necessarily find themselves between a “rock and a hard place.” This is because seeking any type of legal remedy for cross-contamination could be an open invitation for a patent infringement suit. As one organic cotton farmer from Texas recently stated, “None of us farmers want to stand up and admit that we’re contaminated, but I’ve got a lot less at stake than

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genetic material so long as the patent has not expired or been invalidated. If either condition occurs, farmers can return to seed saving practices. However, it is very plausible that Monsanto may transition to a new generation of patented GMOs and could use its market share to force farmers into purchasing or licensing the new generation patented seeds.

<sup>36</sup> See 35 U.S.C. § 271(a) (2012) (“[W]hoever without authority makes, uses, offers to sell, or sells any patented invention . . . infringes the patent.”); see also *Organic Seed Growers & Trade Ass’n v. Monsanto Co.*, 718 F.3d 1350, 1356 (Fed. Cir. 2013) (“[W]e will assume (without deciding) that using or selling windblown seeds would infringe any patents covering those seeds, regardless of whether the alleged infringer intended to benefit from the patented technologies.”).

<sup>37</sup> See 35 U.S.C. § 271(a) (“[W]hoever without authority makes, uses, offers to sell, or sells any patented invention . . . infringes the patent.”).

<sup>38</sup> See *Monsanto Can. Inc. v. Schmeiser*, [2004] S.C.R. 902 (Can.).

<sup>39</sup> See *id.* at 903. Monsanto still holds a special place for Mr. Schmeiser on its website—noting that he’s “simply a patent infringer”—and tells its side of the story. *Percy Schmeiser*, MONSANTO, <http://www.monsanto.com/newsviews/Pages/percy-schmeiser.aspx> (last visited Sept. 2, 2014).

<sup>40</sup> CTR. FOR FOOD SAFETY, *supra* note 33, at 2 (“Press reports and Monsanto’s own statements suggest that the company investigates roughly 500 farmers each year.”).

most . . . [and] I'm admitting I'm contaminated."<sup>41</sup> Other farmers express frustration with a legal system that inadequately addresses their problems. As the president of the Texas Organic Cotton Marketing Cooperative stated, "You're not going to beat Monsanto in court, you're not going to beat them in the political arena . . . . I don't fight battles I know I can't win."<sup>42</sup>

Recently, however, one large group of organic farmers did challenge Monsanto in court. The Organic Seed Growers and Trade Association (OSGTA) brought suit against Monsanto as a preemptive measure, seeking declaratory judgments from the court.<sup>43</sup> OSGTA cited, *inter alia*, potential suits for inadvertent infringement as a foreseeable harm.<sup>44</sup> On June 10, 2013, the Court of Appeals for the Federal Circuit affirmed the dismissal of the suit, but the outcome was proclaimed somewhat of a "win" for OSGTA.<sup>45</sup> The case was dismissed because the court found OSGTA lacked standing, an issue that arose *after* Monsanto disclaimed any intent to sue for inadvertent contamination.<sup>46</sup> But in dismissing the case, the panel noted that Monsanto's disclaimer not to sue was now binding as a matter of judicial estoppel.<sup>47</sup> It is unclear how broadly such estoppel will apply, but it may have the effect of freeing farmers to instigate tort claims for GMO contamination without fear of infringement countersuits.<sup>48</sup>

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<sup>41</sup> Eva Hershaw, *Seeds of Discontent: A Texas Organic Cotton Farmer Takes On Monsanto*, TEX. OBSERVER (Feb. 7, 2013, 3:59 CST), <http://www.texasobserver.org/seeds-of-discontent/> (interviewing LaRhea Pepper, a Texas organic cotton farmer who joined more than sixty other farmers in *Organic Seed Growers & Trade Association v. Monsanto*).

<sup>42</sup> *Id.* (interviewing Jimmy Wedel, president of the Texas Organic Cotton Marketing Cooperative).

<sup>43</sup> *Organic Seed Growers & Trade Ass'n v. Monsanto Co.*, 718 F.3d 1350, 1353 (Fed. Cir. 2013). Appellants sought declaratory judgments for patent invalidation, unenforceability, and non-infringement. *Id.*; see also McCabe, *supra* note 10, at 129 (using *Organic Seed Growers and Trade Association* as an illustrative example of the weakness of the current regulatory system in that traditional farmers must preemptively litigate their own opposition to GE crops).

<sup>44</sup> *Organic Seed Growers & Trade Ass'n*, 718 F.3d at 1353. Appellants noted the severe threat of genetic cross-contamination and the costly precautions they must take to avoid contamination. Appellants further contended that if they forego such precautions, they not only risk contamination but also infringement suits by Monsanto. *Id.* at 1353–54.

<sup>45</sup> David Corson-Knowles, *Justice Begins with Seeds: A Letter from Organic Farmer Jim Gerritsen*, THE GOOD FOOD WEB (Aug. 5, 2013), <http://goodfoodweb.com/justice-begins-with-seeds-a-letter-from-organic-farmer-jim-gerritsen/>.

<sup>46</sup> *Id.*

<sup>47</sup> *Organic Seed Growers & Trade Ass'n*, 718 F.3d at 1358 ("While Monsanto's representations are not a covenant not to sue, they have a similar effect. If we rely on Monsanto's representations to defeat . . . declaratory judgment claims . . . , those representations are binding as a matter of judicial estoppel.").

<sup>48</sup> The Federal Circuit noted that one problem with Monsanto's disclaimer was its limited scope—that "it applies only to growers or sellers of 'trace' amounts of seed." *Id.* at 1359. Specifically noting that Monsanto

Undoubtedly, the unique nature of self-replicating GMOs has spurred many legal questions that lie at the intersection of patent owner and non-GMO farming rights. Courts, thus far, have upheld and enforced patent owner interest in the offspring of self-replicating GMOs.<sup>49</sup> However, patent owner interest is only a portion of the overall quandary that self-replicating technologies can create. As the following section illustrates, unbridled GMOs can also lead to great economic harm for modern U.S. farmers.

### *B. The Tort Cases—Foreseeability of Genetic Drift*

A number of prevalent tort cases have been initiated by groups of farmers economically damaged by genetic contamination. But note that the tort cases discussed in this section are cases that involve cross-contamination by GM crops that were still in an experimental phase or not approved for human consumption—contamination that negatively impacted entire U.S. markets. Even though the underlying fact patterns may involve issues of federally regulated GMOs, and so vary from the scenario of an organic farmer contaminated by a neighboring farm's deregulated GM crops, these cases illustrate the uncontrollable nature of genetic drift.<sup>50</sup> In addition, the cases highlight the inability of the current regulatory framework to prevent cross-contamination.<sup>51</sup>

One such example of inadvertent contamination is the StarLink corn debacle, which spurred the *StarLink Corn* litigation. StarLink corn was modified with a protein that was toxic to an insect's stomach cells.<sup>52</sup> The corn was in essence its own pesticide.<sup>53</sup> StarLink was only approved for animal feed, ethanol production, and seed increase, and was prohibited for human consumption.<sup>54</sup> Because of the potential for cross-contamination, the EPA

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resisted the court's efforts to clarify if growers with more than "trace" amounts were at risk of infringement suits, the court concluded that it could not say that Monsanto had "disclaimed any intent to sue a conventional grower who never buys modified seed, but accumulates greater than trace amounts" from contamination. *Id.*

<sup>49</sup> See *supra* note 34 and accompanying text.

<sup>50</sup> *Monsanto Co. v. Geertson Seed Farms*, 130 S. Ct. 2743 (2010); *Ctr. for Food Safety v. Vilsack*, 734 F. Supp. 2d 948 (N.D. Cal. 2010); *In re Genetically Modified Rice Litig.*, 666 F. Supp. 2d 1004 (E.D. Mo. 2009); *In re Starlink Corn Prods. Liab. Litig.*, 212 F. Supp. 2d 828 (N.D. Ill. 2002).

<sup>51</sup> McCabe, *supra* note 10, at 141.

<sup>52</sup> Rebecca M. Bratspies, *Myths of Voluntary Compliance: Lessons from the StarLink Corn Fiasco*, 27 WM. & MARY ENVTL. L. & POL'Y REV. 593, 598–99 (2003).

<sup>53</sup> *Id.*

<sup>54</sup> *In re Starlink Corn*, 212 F. Supp. 2d at 834.

imposed special regulations for StarLink corn.<sup>55</sup> The precautionary measures included mandatory separation to prevent commingling with other breeds of corn in “cultivation, harvesting, handling, storage and transport,” as well as a 660-foot “buffer zone” surrounding all StarLink crops.<sup>56</sup> However, in October 2000, StarLink corn was detected in the public food supply—in Kraft taco shells.<sup>57</sup> All food production that could have possibly been touched by the contamination was halted and corn products were pulled from retail shelves.<sup>58</sup> Exports of U.S. corn were rejected or limited, costing farmers “tens of millions of dollars.”<sup>59</sup>

Following on the heels of StarLink corn was the invasion of LibertyLink rice and the ensuing *Genetically Modified Rice* litigation.<sup>60</sup> In 2006, the Secretary of Agriculture announced that LibertyLink rice, an unapproved genetically engineered strain of rice, was discovered in U.S. rice crops intended for human consumption.<sup>61</sup> International markets responded by either rejecting U.S. rice or requiring additional certification.<sup>62</sup> Rice futures dropped fourteen percent after the contamination was announced.<sup>63</sup>

In 2010, an interesting case of alfalfa deregulation reached the Supreme Court. In *Monsanto v. Geertson Seed Farms*, Geertson Seed Farms, along with other environmental groups, challenged the deregulation of Monsanto’s genetically modified alfalfa.<sup>64</sup> Although the case turned more on a question of agency action than on direct liability, it is important to note that the Supreme Court recognized that the farmers had standing to support an injunction because they had “established a reasonable probability that their organic and conventional alfalfa crops [would] be infected” with GM alfalfa.<sup>65</sup> The Court

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<sup>55</sup> *Id.*

<sup>56</sup> *Id.* (internal quotation marks omitted).

<sup>57</sup> See Du, *supra* note 28, at 380–81.

<sup>58</sup> *Id.*

<sup>59</sup> *Id.*

<sup>60</sup> *In re Genetically Modified Rice Litig.*, 666 F. Supp. 2d 1004 (E.D. Mo. 2009).

<sup>61</sup> McCabe, *supra* note 10, at 141.

<sup>62</sup> *Id.*

<sup>63</sup> *Id.* Additionally, Bayer paid a \$750 million settlement. *Id.*

<sup>64</sup> *Monsanto Co. v. Geertson Seed Farms*, 130 S. Ct. 2743 (2010).

<sup>65</sup> *Id.* at 2754–55 (“We therefore conclude that respondents have constitutional standing to seek injunctive relief from the complete deregulation order at issue here.” (internal quotation marks omitted)).

also recognized that the additional cost of ensuring the farmers' crops were not contaminated was a foreseeable harm.<sup>66</sup>

Recently, in June 2013, Ernest Barnes, a Kansas wheat farmer, filed suit against Monsanto in federal court for contamination.<sup>67</sup> A genetically modified strain of wheat was found growing among commercial crops.<sup>68</sup> Lab results confirmed the wheat was in fact Monsanto's genetically modified creation.<sup>69</sup> Neither the United States nor its trading partners had approved genetically modified wheat for human consumption.<sup>70</sup> When this contamination was discovered, Japan and South Korea cancelled wheat purchase contracts with the United States, and more countries were expected to follow.<sup>71</sup> Apparently, the wheat escaped from Monsanto's open-field experiments that were abandoned years ago.<sup>72</sup>

As the preceding cases illustrate, GM crops present the modern U.S. farmer with many issues not known to prior generations. GMOs have stimulated two competing markets that are now laced with liability and harm.<sup>73</sup> Many scholars and commentators question and debate the viability of coexistence between GM and non-GM crops.<sup>74</sup> Whether a future regulatory framework will be able to balance the interest of patent owners, GMO farmers, and non-GMO farmers

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<sup>66</sup> See *id.* at 2755 ("Such harms, which respondents will suffer even if their crops are not actually infected . . . are sufficiently concrete to satisfy the injury-in-fact prong of the constitutional standing analysis."); McCabe, *supra* note 10, at 131.

<sup>67</sup> Complaint, Barnes v. Monsanto Co., No. 13-CV-1218-MLB-KMH (D. Kan. June 6, 2013).

<sup>68</sup> *Id.* at 9.

<sup>69</sup> *Id.*

<sup>70</sup> *Id.* at 2.

<sup>71</sup> *Id.* at 2, 11; Mike Adams, *It's On! Farmers Begin Suing Monsanto over Genetic Pollution of Wheat Crops*, NAT. NEWS (June 5, 2013), [http://www.naturalnews.com/040625\\_lawsuit\\_monsanto\\_genetic\\_pollution.html](http://www.naturalnews.com/040625_lawsuit_monsanto_genetic_pollution.html).

<sup>72</sup> Complaint, *supra* note 67, at 6–7 ("Monsanto planted its GE Wheat in fields across the United States . . . from approximately 1998 to 2005. . . . Following field trials of GE Wheat, Monsanto decided not to commercially market any of its genetically modified wheat and never submitted it to the relevant federal agencies . . . for commercial approval."); see also Adams, *supra* note 71. While Barnes voluntarily dismissed his case in February 2014, see Minute Order, Barnes v. Monsanto Co., No. 13-CV-1218-MLB-KMH (D. Kan. Feb. 10, 2014), Dkt. No. 8, other actions raising similar allegations have been filed. See, e.g., Complaint, Crouch v. Monsanto Co., No. 2:14-cv-02285 (D. Kan. June 13, 2014).

<sup>73</sup> See Rich, *supra* note 12, at 912–13 (noting that a lacking regulatory structure coupled with the proliferation of genetically modified crops impairs the market's ability to self-regulate in response to consumer concerns).

<sup>74</sup> See, e.g., Miguel A. Altieri, *The Myth of Coexistence: Why Transgenic Crops Are Not Compatible with Agroecologically Based Systems of Production*, 25 BULL. SCI., TECH. & SOC'Y 361 (2005).

is uncertain. However, with the inevitable and ongoing contamination of non-GM crops, farmers must be able to seek redress for the harm.

## II. GMOs—INHERENTLY HARMFUL TO THE ORGANIC MARKET

The creation and introduction of GMOs has presented a host of issues not likely anticipated at the time of GMO conception. But anticipated or not, GMOs are now part of the U.S. agricultural landscape and pose a continual threat of contamination for farmers who participate in non-GMO markets.<sup>75</sup> As the many examples above illustrate, companies such as Monsanto have “unleashed” genetically altered organisms that have the ability to seek out and harm competing products—potentially affecting entire markets.<sup>76</sup> Regardless of whether this, in and of itself, should be viewed as a form of unfair competition, the underlying question of legal recourse for the organic farmer remains.<sup>77</sup>

Below, section A begins to address this question by exploring the unique nature of transgenic organisms and the types of liability that may apply to genetic drift. Section B continues with a discussion of how the unique nature of transgenic organisms, patent law, and licensing agreements affect the liability associated with genetic drift. Finally, section C proposes a theory of induced nuisance that links the GMO patent owner to the harm caused by genetic contamination.

### A. Contamination by Transgenic Organisms—Theories of Liability

A genetically modified organism is just that—an *organism*. A genetically modified plant lives, grows, and reproduces just as a natural, unmodified version of itself would. In nature, cross-pollination among certain species of

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<sup>75</sup> See Daniel Winters, *GMO Proliferation an Existential Threat to Organic Farmers*, MAN. CO-OPERATOR (Mar. 29, 2012), <http://www.manitobacooperator.ca/2012/03/29/gmo-proliferation-an-existential-threat-%E2%80%A8to-organic-farmers%E2%80%A9/>; see also *GMO Threat Increases Costs, Decreases Options for ND Organic Farmer*, ORGANIC & NON-GMO REPORT (Oct. 2007), [http://www.non-gmoreport.com/articles/oct07/gmo\\_threat\\_for\\_farmers.php](http://www.non-gmoreport.com/articles/oct07/gmo_threat_for_farmers.php).

<sup>76</sup> See *infra* Part I.B.

<sup>77</sup> See Heald & Smith, *supra* note 17, at 146–50 (discussing the possibility of asserting patent misuse and anti-competitive behavior claims against Monsanto); *Monsanto Accused of Unfair Business Practices*, INT’L CENTRE FOR TRADE & SUSTAINABLE DEV. (Jan. 22, 2010), <http://www.ictsd.org/bridges-news/biores/news/monsanto-accused-of-unfair-business-practices>.

plants is very common.<sup>78</sup> However, if genetically modified plants cross-pollinate organically grown crops, the “natural process” can result in harm to the organic farmer.<sup>79</sup> Contamination will not only put the farmer’s current crops at risk of being rejected by the organic market, but the farmer is left with decontamination clean-up costs if he is to use his land for future organic crops.<sup>80</sup> In the absence of a regulatory system that assigns liability for GMO cross-contamination, damage due to genetic contamination will be addressed by the courts.<sup>81</sup> Outcomes will therefore turn on the theory of liability and the selection of the proper defendant. Furthermore, for each theory discussed below, the organic farmer must prove the origin of the contamination, which may be extremely difficult and costly if there are several GMO farms in the vicinity of the plaintiff’s crops.<sup>82</sup> For example, corn pollen is able to drift for miles, making it nearly impossible for an organic farmer to identify the source without the tremendous expense of employing investigators, industry experts, and scientific laboratory testing.<sup>83</sup> Following is a brief discussion of the theories of negligence, strict liability, trespass, and nuisance as applied to genetic drift.

### 1. Negligence

For a negligence claim, the plaintiff must usually prove that the defendant breached a duty—normally the exercise of reasonable care under the given circumstances.<sup>84</sup> In the case of genetic drift and cross-pollination, it could be difficult for an organic farmer to recover on a negligence claim in light of the

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<sup>78</sup> See, e.g., R. Fujita et al., *The Extent of Natural Cross-Pollination in Wild Soybean* (Glycine soja), 88 J. HEREDITY 124 (1997), available at <http://jhered.oxfordjournals.org/content/88/2/124.full.pdf> (assessing natural cross-pollination of wild soybeans in Japan).

<sup>79</sup> Du, *supra* note 28, at 381–82 (“If an organic farmer’s crops are contaminated, he could lose his certification and, with it, the premiums that consumers are willing to pay for organic produce.”); Heald & Smith, *supra* note 17, at 88–89.

<sup>80</sup> Lilliston, *supra* note 3, at 27.

<sup>81</sup> Faure & Wibisana, *supra* note 26, at 11.

<sup>82</sup> Margaret Rosso Grossman, *Genetically Modified Crops in the United States: Federal Regulation and State Tort Liability*, 5 ENVTL. L. REV. 86, 104 (2003).

<sup>83</sup> Heald & Smith, *supra* note 17, at 97.

<sup>84</sup> For example, in the StarLink class action suit (discussed in Part I.B), the plaintiffs argued that the defendant had failed to comply with the regulatory standard of care, which included segregation methods to prevent commingling and “buffer zones” around StarLink crops to prevent cross-pollination. See *In re Starlink Corn Prods. Liab. Litig.*, 212 F. Supp. 2d 828, 834 (N.D. Ill. 2002); see also Faure & Wibisana, *supra* note 26, at 12.

unclear scope of a GMO farmer's duty to control approved GM crops.<sup>85</sup> However, because cross-pollination is a foreseeable harm, arguably the foreseeability might trigger a duty of care for farmers planting GM crops.<sup>86</sup> If a duty of care does exist, the plaintiff would then need to show that the GMO farmer failed to act reasonably with respect to his conduct in handling the GMOs.<sup>87</sup> For example, failing to maintain required buffer zones or reserve areas could qualify as unreasonable activity.<sup>88</sup> In contrast, if the GMO farmer abided by the external requirements imposed by the purchase and planting of GMO seeds, proving unreasonable activity could be a challenge.<sup>89</sup> Additionally, the organic farmer must prove causation by identifying the source of the contamination, which could be an extremely expensive undertaking.<sup>90</sup>

## 2. *Strict Liability*

Strict liability applies to harm resulting from an “abnormally dangerous” or “ultra-hazardous” activity, even if the activity is conducted with reasonable care.<sup>91</sup> Courts normally weigh factors such as likelihood of harm, inability to eliminate risk, context of use, and community value when deciding if an activity rises to “ultra-hazardous.”<sup>92</sup> Therefore, to apply a theory of strict liability a court must first determine if making, selling, or handling GM crops is an abnormally dangerous activity.<sup>93</sup> To assess such a categorization, a comparison between GM crop contaminants and pesticide drift is useful since the particulate size and nature of propagation of both substances are similar.<sup>94</sup> Some states already allow the application of strict liability to contamination from aerial pesticide spraying.<sup>95</sup> However, other states have not recognized pesticide application as an “ultra-hazardous” activity and require proof of

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<sup>85</sup> Grossman, *supra* note 82, at 104.

<sup>86</sup> If the GM crop has pesticidal properties and is registered under FIFRA, negligence cases based on failure to warn (state labeling requirements) are preempted by FIFRA. However, other claims based on negligence per se are not preempted. *See id.* at 105.

<sup>87</sup> *Id.* at 104.

<sup>88</sup> *Id.*

<sup>89</sup> *Id.*

<sup>90</sup> *See supra* text accompanying notes 82–83.

<sup>91</sup> Grossman, *supra* note 82, at 105.

<sup>92</sup> *Id.*

<sup>93</sup> *Id.*

<sup>94</sup> *Id.*

<sup>95</sup> *See id.* at 105–06 (citing *Langan v. Valicopters, Inc.*, 567 P.2d 218 (Wash. 1977) (affirming a jury award of damages to an organic farmer whose farm was contaminated by pesticide drift)).

negligence instead of the imposition of strict liability.<sup>96</sup> Additionally, the fact that GMOs have been approved for wide use through the federal regulatory system may weigh heavily against finding that planting GMOs is an abnormally dangerous activity.<sup>97</sup>

### 3. *Trespass*

Trespass is an intentional tort that involves the interference with the plaintiff's exclusive possession of his land.<sup>98</sup> A cause of action can arise if the defendant intentionally enters or causes something to enter the land of another.<sup>99</sup> Courts have awarded damages for trespass when airborne pollutants, such as pesticides, entered and harmed a plaintiff's property.<sup>100</sup> Similarly, a plaintiff could argue that any contamination by genetic drift from a neighboring farm interferes with the plaintiff's right to exclusive possession.<sup>101</sup> If the plaintiff can show that the defendant farmer knew of the substantial certainty of cross-contamination, the defendant may be liable for trespass and all resulting harm.<sup>102</sup> However, many courts require a level of directness in trespass such that the interference of the plaintiff's possession flows directly from the defendant's acts, without the intervention of other factors—for example, “natural and inevitable forces” like wind, in the case of pollen drift.<sup>103</sup>

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<sup>96</sup> See *id.* at 106 (citing *Bennet v. Larsen Co.*, 348 N.W.2d 540, 553 (Wis. 1984)). In addition to being unable to qualify the planting of GMOs as an abnormally dangerous activity, defendants may argue that organic farming is an activity with an “abnormally sensitive character,” which would render strict liability inapplicable. See *Faure & Wibisana*, *supra* note 26, at 14.

<sup>97</sup> However, use of unapproved GMOs or noncompliant practices can create foreseeable risks and may warrant strict liability as well as negligence. *Grossman*, *supra* note 82, at 106.

<sup>98</sup> *Id.* at 103.

<sup>99</sup> *Id.*

<sup>100</sup> *Id.*

<sup>101</sup> *Id.*

<sup>102</sup> See *Jeremy de Beer*, *Biotrespass*, 27 BULL. SCI. TECH. & SOC'Y 287 (2007). *Jeremy de Beer* puts forth very convincing arguments for the applicability of trespass to GMO cross-contamination in his paper on “biotrespass.” He acknowledges the unique nature of transgenic drift and the novel issue this presents to the courts. *Id.* at 287–89. In exploring doctrinal hurdles to the use of “molecular biotrespass,” *de Beer* makes analogies to the law of cybertrespass as well as established laws concerning wandering or dangerous animals. *Id.* at 291–92. *De Beer* not only argues that a theory of trespass should apply to genetic drift but also that the patent owner would be the appropriate defendant. *Id.* 292–94. This is discussed further in Part II.B.

<sup>103</sup> See *Faure & Wibisana*, *supra* note 26, at 15 (citing *Hoffman v. Monsanto* to illustrate how some courts refuse to apply trespass to pollen drift).

#### 4. *Private Nuisance*

Private nuisance is “[a]n invasion of a person’s interest in the private use and enjoyment of land by any type of liability-forming conduct.”<sup>104</sup> A claim will often result from some type of “activity on [the] defendant’s land that unreasonably interferes” with the plaintiff’s use of his neighboring land.<sup>105</sup> Courts have held that airborne contaminants such as pesticides do constitute a nuisance when they impair the use of or cause actual harm to property.<sup>106</sup> Here, GMO pollen drift is again analogous, and an organic farmer’s harm would be the loss of his organically certified crops as well as cleanup cost for the continued use of the land.<sup>107</sup>

Although a theory of nuisance may be a suitable fit for GMO contamination, suits against neighboring farmers may implicate “right to farm laws,” which are now enacted in every state.<sup>108</sup> These laws encourage the agricultural use of land by protecting farmers against nuisance claims.<sup>109</sup> Many of these laws embody the “coming to the nuisance” defense and protect existing farming operations from changed circumstances in the surrounding land.<sup>110</sup> However, these laws normally only protect farmers who engage in practices that are not negligent or improper.<sup>111</sup> The GMO–organic dichotomy presents an interesting case for “right to farm” laws considering both parties are farmers.<sup>112</sup> In this scenario, it is unlikely that the nuisance claim would be

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<sup>104</sup> RESTATEMENT (SECOND) OF TORTS § 822 cmt. c (1979).

<sup>105</sup> Grossman, *supra* note 82, at 101.

<sup>106</sup> *Id.*

<sup>107</sup> *Id.* The judge in the StarLink class action suit (discussed in Part I.B) denied the motion to dismiss the private nuisance claim, noting that “drifting pollen can constitute an invasion” that can interfere with neighbors’ use and enjoyment of land. *In re Starlink Corn Prods. Liab. Litig.*, 212 F. Supp. 2d 828, 845 (N.D. Ill. 2002).

<sup>108</sup> Grossman, *supra* note 82, at 102. A person’s right to farm may in fact soon be affirmed in multiple state constitutions. In August 2014, Missouri voters approved a constitutional amendment guaranteeing Missourians’ right to “engage in farming and ranching practices.” See Julie Bosman, *Missourians Approve Amendment on Farming*, N.Y. TIMES, Aug. 7, 2014, at A16, available at <http://www.nytimes.com/2014/08/07/us/right-to-farm-measure-passes-in-missouri.html>.

<sup>109</sup> For an early overview of right to farm laws, see Margaret Rosso Grossman & Thomas G. Fischer, *Protecting the Right to Farm: Statutory Limits on Nuisance Actions Against the Farmer*, 1983 WIS. L. REV. 95 (1983).

<sup>110</sup> Grossman, *supra* note 82, at 102.

<sup>111</sup> *Id.*

<sup>112</sup> Because of the policy underlying the “right to farm” laws, some courts have held that they do not apply to suits between farmers. See Heald & Smith, *supra* note 17, at 121 (citing *Buchanan v. Simplot Feeders Ltd. P’Ship*, 952 P.2d 610, 614 (Wash. 1998)).

the result of changed circumstances or a coming to the nuisance.<sup>113</sup> But because the laws can vary across jurisdictions, the applicability to GMO farmers can be uncertain.<sup>114</sup>

In summary of the foregoing review, negligence, strict liability, trespass, and private nuisance may all be viable theories of liability for the contaminated organic farmer. Arguably, the choice would depend on the jurisdictional view of genetic drift as well as the elements necessary to establish a given theory. However, these liability doctrines are most applicable if the organic farmer chooses to sue other neighboring farmers for contamination. Alternatively, if the organic farmer wishes to directly sue the patent owner for GMO cross-contamination, as this Comment proposes, these doctrines would not likely reach beyond the neighboring GMO farmer.

### *B. Identifying the Proper Defendant*

At the risk of looking too narrowly at liability for GMO contamination, it is helpful to consider the broader picture of the GMO's lifecycle. It is, in fact, this living organism's unwelcome presence on organic farmland that is causing so many problems. A consideration of the chain of events that eventually leads to contamination will be informative in selecting the proper defendant.

Patent law entitles Monsanto to exclude others from making, using, or selling its genetically modified creations.<sup>115</sup> Once a seed is genetically engineered by Monsanto scientists, the seed is considered an embodiment of Monsanto's patented technology.<sup>116</sup> Monsanto then sells the seed to farmers under a Technology Stewardship Agreement (TSA).<sup>117</sup> The TSA places strict limits on the farmer's use of the seeds—he may sell the crop he harvests from the purchased seeds as animal feed or as a commodity, but he is prohibited from saving, reselling, or sharing the purchased seeds.<sup>118</sup> Therefore, the TSA,

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<sup>113</sup> Grossman, *supra* note 82, at 102.

<sup>114</sup> *Id.*

<sup>115</sup> 35 U.S.C. § 271(a) (2012).

<sup>116</sup> *See* *Monsanto Co. v. Bowman*, 657 F.3d 1341, 1348 (Fed. Cir. 2011) (“The court disagrees with Bowman that a seed ‘substantially embodies’ all later generation seeds . . .”).

<sup>117</sup> *Product Stewardship*, MONSANTO, <http://www.monsanto.com/products/Pages/product-stewardship.aspx> (last visited Sept. 2, 2014); *Seed Patent Protection*, MONSANTO, <http://www.monsanto.com/products/Pages/seed-patent-protection.aspx> (last visited Sept. 2, 2014); *see* Faure & Wibisana, *supra* note 26, at 42 n.160.

<sup>118</sup> As the Federal Circuit explained:

to large extent, gives Monsanto control over its licensees' conduct.<sup>119</sup> The farmer then uses the seed per the TSA and plants it. The seed sprouts, grows, and in an attempt to reproduce itself, produces pollen, which may be carried off the farmer's land by the wind or insects.<sup>120</sup> Contamination occurs when the pollen finds its way onto neighboring non-GM crops.

While it is the farmer who actually plants the seed that eventually produces the contaminating pollen, mounting evidence shows that Monsanto intends to maintain control over the transgenic organism throughout its entire lifespan.<sup>121</sup> For example, in attaining such an overwhelming market share, Monsanto has vigorously enforced its patent rights, ensuring its patented technology is maintained within the bounds of licensing agreements.<sup>122</sup> As discussed in Part I.A of this Comment, many court decisions have highlighted Monsanto's legal interest in the genetic material that may drift after a licensed use.<sup>123</sup> Monsanto's own patents lay claim to the entire perpetuated lifecycle of its genetically modified seeds.<sup>124</sup> Additionally, the Supreme Court has tied up any loose ends by affirming that Monsanto's patent rights further extend to seed progeny—self-replication is deemed to have birthed a new embodiment of the

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Under the [TSA], the licensed grower agrees: (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 restricts the grower's use of the licensed Roundup Ready® seed to a single commercial crop season because the patented Roundup Ready® genetic trait carries forward into each successive seed generation.

*Bowman*, 657 F.3d at 1344–45 (internal citation omitted).

<sup>119</sup> See Faure & Wibisana, *supra* note 26, at 42 n.160; see also Katie Black & James Wishart, Commentary, *Containing the GMO Genie: Cattle Trespass and the Rights and Responsibilities of Biotechnology Owners*, 46 OSGOODE HALL L.J. 397, 420 (2008) (noting that Monsanto's agreements "have been criticized as a form of serfdom wherein farmers provide only labour, land, and license fees to a biotech demesne lord, who oversees and derives the bulk of the benefit from the whole process").

<sup>120</sup> See Fujita et al., *supra* note 78.

<sup>121</sup> Faure & Wibisana, *supra* note 26, at 42 n.160.

<sup>122</sup> CTR. FOR FOOD SAFETY, *supra* note 33; see also *supra*, note 33 and accompanying text.

<sup>123</sup> See *supra* notes 34–40 and accompanying text.

<sup>124</sup> See, e.g., '728 Patent col.28 ll.48–50 (claiming a plant part of a soybean "defined as a protoplast, ovule, cell, pollen grain, embryo, cotyledon, hypocotyl, meristem, root, pistil, anther, flower, stem, pod or petiole" (emphasis added)).

patented technology.<sup>125</sup> Therefore, if Monsanto is able to claim ownership of its patented genetic material, regardless of where it is or how it got there, shouldn't Monsanto also be held responsible for the resulting damage?

The courts continue to uphold and enforce (and arguably strengthen) Monsanto's patent rights in view of bedrock patent law policy—namely to encourage and reward innovation.<sup>126</sup> However, some scholars argue that the current legal treatment of transgenic crop contamination represents a “trend away from accountability for technological innovation”—a movement especially harmful in the case of self-replicating technology.<sup>127</sup> Patent rights, though they be rights in intangible property, are not so unlike traditional property rights that the owner is excused from responsibility of ownership.<sup>128</sup> “*Sic utere tuo ut alienum non laedas*”—“use your own property so as not to harm others”—is a maxim often associated with the law of nuisance.<sup>129</sup> Failing to hold the patent owner liable for the harms caused by GMO cross-contamination creates an “imbalance between . . . [a patent owner's] rights and responsibilities.”<sup>130</sup> It should be clear that “but for” the genetic manipulation and creation of a transgenic organism, there would be no GMO cross-contamination harm to traditional farmers. Monsanto's patents give exclusive control over making, using, and selling its technology. Monsanto chooses to exploit these rights through patent law and contract law, licensing its technology while maintaining a high degree of oversight and control of product use. It is therefore appropriate and proper for Monsanto to be held accountable for the resulting harm of GMO cross-contamination.

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<sup>125</sup> See *Bowman v. Monsanto Co.*, 133 S. Ct. 1761, 1764 (2013) (holding that patent exhaustion does not permit a farmer to reproduce patented seeds through planting and harvesting without the patent holder's permission).

<sup>126</sup> See *id.* at 1768 (stating that the Court's holding that patent exhaustion does not permit a farmer to reproduce patented seeds through planting and harvesting without the patent holder's permission “will allow farmers to benefit from Roundup Ready [seed], even as it rewards *Monsanto for its innovation*” (emphasis added)).

<sup>127</sup> See Black & Wishart, *supra* note 119, at 399 (quoting Jeremy de Beer, *The Rights and Responsibilities of Biotech Patent Owners*, 40 U.B.C. L. REV. 343, 345 (2007)).

<sup>128</sup> See de Beer, *supra* note 127, at 359–61.

<sup>129</sup> *Id.* at 367.

<sup>130</sup> *Id.* at 372; see also Heald & Smith, *supra* note 17, at 90 (“[M]onsanto is in the unique position of being able to take a problem that it created—the contamination of non-GMO plants by pollen drift from GMO plants—and use it to its advantage by prosecuting those bystanding farmers whose crops become contaminated.”).

### C. *Induced Nuisance*

With Monsanto, or similarly situated producers of GMO seeds and crops, identified as the proper defendants for GMO cross-contamination, the most applicable theory of liability for the resulting harm will be grounded in nuisance law. As noted above,<sup>131</sup> a private nuisance claim results from “an invasion of a person’s interest in the private use and enjoyment of land by any type of liability-forming conduct.”<sup>132</sup> An advantage of nuisance theory is that it encompasses a broad range of harmful activity that may not fall within other liability doctrines or regulatory schemes.<sup>133</sup> Additionally, the general application of nuisance law focuses on the harm caused and not necessarily on the defendant’s actions.<sup>134</sup> Depending on the jurisdiction, a defendant’s actions may be proved either negligent or intentional, but for states that require “intentional conduct,” it is not necessary that the defendant intended the resulting harm.<sup>135</sup> A plaintiff need only show that there was a substantial likelihood of harm from the defendant’s actions.<sup>136</sup> Building on the foundation of the nuisance doctrine, this section argues that Monsanto should be held liable for the inducement of its licensees to engage in activities that result in GMO cross-contamination.

#### 1. *Viability of a Private Nuisance Claim for Cross-Contamination*

For the GMO-contaminated farmer, private nuisance is a particularly viable theory since the court accepted a nuisance claim in the *StarLink Corn* litigation.<sup>137</sup> The court agreed that drifting GMO pollen can constitute an

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<sup>131</sup> See *supra* Part II.A.4.

<sup>132</sup> RESTATEMENT (SECOND) OF TORTS § 822 cmt. c (1979).

<sup>133</sup> 1-1 SCOTT D. NOBLE, CALIFORNIA ENVIRONMENTAL LAW & LAND USE PRACTICE § 1.01(1) (2014).

<sup>134</sup> *Id.*; see also 6 TURNER W. BRANCH & MARGARET MOSES BRANCH, LITIGATING TORT CASES § 67:7 (Roxanne Barton Conlin & Gregory S. Cusimano eds., 2013); Richard W. Wright, *Private Nuisance Law: A Window on Substantive Justice*, in RIGHTS AND PRIVATE LAW 491, 497 (Donal Nolan & Andrew Robertson, eds., 2012) (“[T]he private nuisance action is often described as a field of tort liability, defined by the type of injury suffered regardless of the type of tortious conduct involved.”).

<sup>135</sup> BRANCH & BRANCH, *supra* note 134, § 67:7 & n.8.

<sup>136</sup> See *id.* The authors discussed *Scribner v. Summers*, where the court found the defendant’s conduct was “intentional in origin” when the defendant’s periodic cleaning of furnaces contaminated the plaintiff’s downstream property. 84 F.3d 554, 556, 559 (2d Cir. 1996). The court found that the defendant’s actions were “substantially certain” to contaminate the plaintiff’s property and constituted a private nuisance. See *id.* at 558–59.

<sup>137</sup> See *In re StarLink Corn Prods. Liab. Litig.*, 212 F. Supp. 2d 828 (N.D. Ill. 2002). The court found that corn farmers’ allegations that drifting pollen from GM corn, which was toxic to insects, crossed property lines onto their land supported the farmers’ state law private nuisance claims against the GM corn manufacturer

invasion of property and that the ensuing contamination interferes with the owner's enjoyment of land.<sup>138</sup> The real issue for the court was whether the defendant, the GMO patent owner and manufacturer, was responsible for contamination caused beyond the point of product sale.<sup>139</sup> The defendant argued against liability for any nuisance caused by StarLink corn since it was no longer in control of the seed product after the sale to farmers.<sup>140</sup> Countering this argument, the court pointed out that an actor can be liable for nuisance "not only when he carries on the activity but also when he participates to a substantial extent in carrying it on."<sup>141</sup> However, the court did acknowledge that the "paradigm private nuisance case" involves a suit between neighboring landowners and further noted that "suing the manufacturer of the product that the neighbor was using appears to be an extension of nuisance law into an area normally regulated by product liability."<sup>142</sup> But after considering precedent in cases dealing with topics such as asbestos and electromagnetic radiation, the court decided the manufacturer's control (dictated by FIFRA<sup>143</sup> limited registration) positioned it as the proper defendant for the private nuisance claim.<sup>144</sup> Therefore, the *StarLink* case establishes that a private nuisance claim is not only valid for genetic drift, but that under some circumstances nuisance can be broadened to encompass a patent owner as the defendant.

## 2. *Inducement Through Licensing*

The *StarLink* precedent is a strong foundation for the organic farmer who faces loss due to GMO contamination and seeks redress against the GMO

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under Restatement law. *Id.* at 834–35, 843–47. The manufacturer had an affirmative duty, through limited FIFRA registration, to enforce the GM corn farmers' compliance with warnings to keep such drift from occurring. *Id.* at 847.

<sup>138</sup> *Id.* at 845.

<sup>139</sup> *Id.*

<sup>140</sup> *Id.*

<sup>141</sup> *Id.* (quoting RESTATEMENT (SECOND) OF TORTS § 834 (1979)).

<sup>142</sup> *Id.*

<sup>143</sup> Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C.A. §§ 136–136y (West, Westlaw, current through Pub. L. No. 113-121).

<sup>144</sup> *StarLink*, 212 F. Supp. 2d at 845–47; *see also* Page Cnty. Appliance Ctr., Inc. v. Honeywell, Inc., 347 N.W.2d 171, 177 (Iowa 1984) (rejecting defendant's "lack-of-control" argument where defendant manufacturer maintained an ongoing service contract for computer equipment which was allegedly emanating radiation that adversely affected a neighboring appliance store's products); Northridge Co. v. W.R. Grace & Co., 556 N.W.2d 345, 352 (Wis. Ct. App. 1996) (finding that asbestos constituted a nuisance and holding that "manufacturers can be liable for a nuisance long after they relinquish ownership or control over their polluting products").

patent owner, producer, or both. But the *StarLink* court, in finding that the patent owner could be held liable, looked *ex post* the manufacture and sale of the GMOs—where the affirmative duty imposed by the FIFRA registration “arguably gave . . . [the defendant] some measure of control over *StarLink*’s use, as well as a means to abate any nuisance.”<sup>145</sup> This Comment further argues for an *ex ante* look at liability in which foreseeability and the duty not to harm play important roles in holding Monsanto accountable for the contamination caused by its deregulated GMOs. Liability should attach when Monsanto, through its licensing agreement, induces farmers to engage in acts that have a high likelihood of causing foreseeable crop contamination.

In building the theory of induced nuisance, the foundational elements for the claim should be clearly defined. Inducement, generally, is the act or process of causing someone to do something or, alternatively, causing something to happen.<sup>146</sup> To knowingly induce a party to engage in an unlawful activity is an unlawful act itself. For example, in patent law an actor who actively induces another party to infringe a patent is also held liable as an infringer.<sup>147</sup> Courts have contoured this theory of indirect patent infringement by requiring evidence that the defendant not only induced an act of direct patent infringement but also had the required knowledge, or intent, to induce the infringement.<sup>148</sup> Paralleling with patent law, a reasonable showing for induced nuisance should require similar elements: evidence of a nuisance (cross-contamination of an organic farmer’s crops), a showing that the patent owner induced the acts that created the nuisance, and a showing that the patent owner had the required knowledge that those acts would lead to the creation of a nuisance. The required knowledge for a private nuisance claim is that the injury or harm is “*substantially certain* to occur as a result of [the defendant’s]

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<sup>145</sup> *StarLink*, 212 F. Supp. 2d at 847.

<sup>146</sup> The MERRIAM-WEBSTER ONLINE DICTIONARY breaks down the definition of “inducement” into two separate parts. First, the dictionary defines “inducement” as “the act or process of inducing.” See MERRIAM-WEBSTER ONLINE DICTIONARY, <http://www.merriam-webster.com/dictionary/inducement> (last visited Sept. 2, 2014) (definition “2”). Second, the dictionary defines “inducing” as causing something to happen or exist. See MERRIAM-WEBSTER ONLINE DICTIONARY, <http://www.merriam-webster.com/dictionary/inducing> (last visited Sept. 2, 2014).

<sup>147</sup> 35 U.S.C. § 271(b) (2012) (“Whoever actively induces infringement of a patent shall be liable as an infringer.”).

<sup>148</sup> *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060 (2011). The Supreme Court recently raised the specific intent, or knowledge, requirement for induced infringement from a “deliberate indifference” standard to that of “willful blindness,” where the defendant (1) must subjectively believe that there is a high probability that a fact exists and (2) must take deliberate actions to avoid learning the fact. Of course, actual knowledge will satisfy the specific intent requirement. *Id.* at 2068–72.

conduct or activity.”<sup>149</sup> As the following discussion illustrates, the GMO patent owner’s conduct and knowledge easily meet the elements for induced nuisance.

The promiscuous nature of GMOs and the substantial harm from cross-contamination are now realities of modern farming. StarLink corn was first planted in 1998 and later found to have contaminated human food products in 2000.<sup>150</sup> Since that time, numerous cases of mass GMO contamination have been litigated.<sup>151</sup> In 2010, the Supreme Court held that organic and traditional alfalfa farmers had standing to challenge the deregulation of genetically modified alfalfa due to a “reasonable probability that their organic and conventional alfalfa crops [would] be infected with the engineered gene” if deregulated.<sup>152</sup> Thus, the farming community and the courts have recognized that GMO cross-contamination is substantially certain and foreseeable.<sup>153</sup> Monsanto itself recognizes the likelihood, as it employs its army of inspectors to police U.S. farms for patent “infringement.”<sup>154</sup> However, Monsanto continues to enlist and direct countless farmers to engage in acts that have a substantial certainty of cross-contaminating surrounding farmland. As discussed in Part II.B of this Comment, Monsanto maintains an extremely high degree of control over farmers’ conduct via its TSA.<sup>155</sup> Furthermore, licensing

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<sup>149</sup> Wright, *supra* note 134, at 502 (emphasis added); *see also* BRANCH & BRANCH, *supra* note 134, § 67:7 n.8 (citing *Scribner v. Summers*, 84 F.3d 554, 556, 559 (2d Cir. 1996)).

<sup>150</sup> *In re StarLink Corn Prods. Liab. Litig.*, 212 F. Supp. 2d 828, 834–35 (N.D. Ill. 2002).

<sup>151</sup> *See supra* Part I.B.

<sup>152</sup> *Monsanto Co. v. Geertson Seed Farms*, 130 S. Ct. 2743, 2754–55 (2010) (internal quotation marks omitted). The Court also held that even if the farmers were not directly contaminated, the cost of testing to ensure that the crops remain free of contamination was a foreseeable harm. *Id.*

<sup>153</sup> *See supra* Part I.B.

<sup>154</sup> CTR. FOR FOOD SAFETY, *supra* note 33, at 2 (“Press reports and Monsanto’s own statements suggest that the company investigates roughly 500 farmers each year.”); *see also* Heald & Smith, *supra* note 17, at 89–90 (“Monsanto Corporation, the world’s leading agricultural biotech company, has been particularly active in using federal law to police anyone it finds to be growing its patented plants. . . . Monsanto, and other commentators, took the position that a bystander farmer could be liable for patent infringement stemming from *windblown GMO pollen.*” (emphasis added)); *supra* note 33 and accompanying text.

<sup>155</sup> *See supra* notes 115–20 and accompanying text. Indeed, as the Federal Circuit explained in detail:

Again, at oral argument, when asked by the panel whether a grower “exceeds the license by selling to the grain elevator without securing some promise from the grain elevator not to sell the seeds for planting,” Monsanto’s attorney responded: “No, I don’t think the grower is exceeding his authority there . . . that is a *channel of commerce that Monsanto has authorized.*” Based on Monsanto’s statements, the only permissible reading of the Technology Agreement for purposes of this appeal is that it authorizes growers to sell seed to grain elevators as a commodity.

the GMO in no way alters the GMO's inherent harm to non-GM crops. Licensing only expands the geographic locations where the harm might occur.

Therefore, Monsanto (and other similarly situated GMO patent owners, producers, or both) should be held liable under a theory of induced nuisance for GMO cross-contamination. In meeting the elements for induced nuisance, Monsanto, through its TSA, induces its licensees to engage in acts that result in contaminating neighboring farmland. Monsanto also has the required knowledge that those acts are substantially certain to lead to cross-contamination. Finding liability under this theory not only affords the organic farmer direct access to the source of the harm, but is especially fitting since it is born from both the aggressive patent assertions and rigid contractual directives that Monsanto itself establishes with GMO farmers.

### III. ECONOMIC IMPLICATIONS OF PATENT OWNER LIABILITY

As the *StarLink* court recognized, the “paradigm private nuisance case” involves a suit between neighboring landowners.<sup>156</sup> This Comment presents a case for circumventing the neighboring landowner and attaching liability directly to the patent owner.<sup>157</sup> This is not an unreasonable claim because Monsanto, via its directed and strictly enforced licensing agreements, orchestrates the planting and handling of its patented GMOs. Local GMO farmers essentially operate as extensions of Monsanto and are subsequently induced into creating nuisance whenever GMO cross-contamination occurs. Holding the patent owner liable on a theory of induced nuisance directly targets the source of the contamination.

But channeling liability to the patent owner addresses other issues a contaminated farmer may face as well. If the organic farmer were limited to suit against neighboring farmers, determining the source of contamination could prove very expensive and therefore deter contaminated farmers from seeking redress.<sup>158</sup> Additionally, a contaminated farmer would face a much

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Monsanto Co. v. Bowman, 657 F.3d 1341, 1345 (Fed. Cir. 2011) (alteration in original) (emphasis added) (citations to record omitted).

<sup>156</sup> *In re StarLink Corn Prods. Liab. Litig.*, 212 F. Supp. 2d 828, 845 (N.D. Ill. 2002).

<sup>157</sup> Although this Comment generally argues that liability should attach to the “patent owner,” liability should also extend to GMO producers even after patent expiration. It is likely that GMO producers would continue to control access to and handling of GMO seeds via contractual agreements with farmers.

<sup>158</sup> Faure & Wibisana, *supra* note 26, at 34 (“[Establishing liability] will be less difficult for the plaintiff if liability is channeled to the seed company, since the trait of the GM crop is identifiable and usually

higher probability of a financially risky defendant if he were to bring suit against a neighboring farmer versus the corporate patent owner. Furthermore, Monsanto is in the best position to assess and manage the risk of external harms that result from the creation and licensing of its GMOs.<sup>159</sup> Ensuring that Monsanto internalizes those externalities will afford an efficient recourse for recovery to innocent organic farmers who face loss of marketable crops and subsequent cleanup costs.

*A. The Problem of Multiple Actors—The GMO Farmers*

If liability for cross-contamination were limited to GMO farmers, an organic farmer could face an expensive and potentially impossible task of proving the source of contamination, additionally having to sue each tortfeasor separately. Noting the inefficiency inherent to this type of causal uncertainty, some scholars have suggested holding GMO farmers liable under theories such as joint and several liability or market share liability.<sup>160</sup> But whereas these approaches may ease the burden on the organic farmer, such theories can result in the inequitable treatment of GMO farmers who are not responsible for particular contaminations, exposing them to unknown risk and liability.<sup>161</sup>

Under joint and several liability, the organic farmer would only need to claim full compensation from one GMO farmer, who in turn could exercise a right of recourse against other parties that contributed to the loss.<sup>162</sup> Exercising a right of redress under joint and several liability would then, theoretically, result in the same type of proportional liability that market share liability would create.<sup>163</sup> Importantly, either approach would in essence shift the burden of proof for contributory contamination to the GMO farmer, displacing that

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corresponds to the damage in question.”); Heald & Smith, *supra* note 17, at 97 (“In the case of a crop like corn, which casts its pollen for miles, it may be impossible for an organic farmer to identify and bring to the table all the possible GMO farming firms that might be the cause of contamination.” (footnote omitted)).

<sup>159</sup> See Faure & Wibisana, *supra* note 26, at 42 (“Applying liability to the producers is, thus, similar to applying liability to those who benefit the most from an activity and those who are in a better position to control the activity.”).

<sup>160</sup> See *id.* at 36–38. Market share liability is a form of proportional liability based on the farmers’ market share of GMO crops grown in the geographical area. *Id.*

<sup>161</sup> *Id.* at 37–38.

<sup>162</sup> *Id.*

<sup>163</sup> See *id.* at 37 (“One may argue that a distinction should be made between the situation of full solvency of all the contributing tortfeasors on the one hand and the situation in which either one or more of them is insolvent.”).

obstacle from the victim.<sup>164</sup> A further argument for this approach is that joint and several liability might provide *ex ante* incentives for mutual monitoring among potential contaminators since the risks of uncertainty in proving causation would fall on the GMO farmers.<sup>165</sup>

But consequently, under either joint and several liability or market share liability, individual farmers could very well be held liable for damage for which they were not responsible.<sup>166</sup> Essentially, all GMO farmers would face potential liability with unknown costs, which may or may not be attributed to their own actions.

Therefore, holding multiple farmers liable under some type of joint or proportional liability—which *would* benefit and be more efficient for the victims of contamination—is arguably an overall inefficient system that would lead to overdeterrence.<sup>167</sup>

### B. Channeling Liability

When multiple actors are potentially involved in committing a tort, another possible solution is to impose liability on one party to the exclusion of all others.<sup>168</sup> This “channeling of liability” has been used in the environmental arena with respect to the operation of nuclear power plants as well as oil tankers.<sup>169</sup> Normally, liability channeling in these contexts is imposed by statutory or regulatory schemes. However, this Comment’s proposal to hold a patent owner, producer, or both liable for its GMO contamination under a theory of induced nuisance would essentially result in the same type of channeling.<sup>170</sup> Liability channeling is often defended as a “device that would make the life of the victim easier,” in that parties would know *ex ante* who

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<sup>164</sup> *Id.* at 38.

<sup>165</sup> *Id.* at 37–38.

<sup>166</sup> *Id.* Under joint and several liability, an individual defendant could be held liable for 100% of the damage and in turn seek redress against other injurers. *Id.* However, the risk of insolvency has now shifted to the defendant. If the other injurers are insolvent, the defendant must then compensate for damage he has not caused. *Id.* Under market share liability, a defendant’s liability would be assessed by his proportion of the market and not necessarily whether he actually caused the harm.

<sup>167</sup> *Id.*

<sup>168</sup> *Id.* at 38–39.

<sup>169</sup> *Id.*

<sup>170</sup> *See id.* at 39 (“[I]t appears that only a few countries have indeed statutorily channeled liability to the manufacturer of GMOs.”).

would be involved in the lawsuit.<sup>171</sup> For the case of multi-actor causation, this would mean that contaminated organic farmers could avoid difficult and costly procedural issues.<sup>172</sup>

This Comment presents the efficiency of channeling liability to the patent owner (e.g., Monsanto) in support of a theory of induced nuisance. However, the general application of liability channeling is met with some negative treatment when viewed from an economic perspective.<sup>173</sup> Some commentators argue that inefficiency stems from the fact that actors, who may play a role in the risk of harm, are no longer incentivized to take necessary care if they are excluded from liability.<sup>174</sup> More specifically, by placing exclusive liability on Monsanto and removing it from GMO farmers, the farmers may be less attentive to precautionary measures with respect to cross-contamination.<sup>175</sup> But this argument is easily countered when one considers Monsanto's contractual relationship with the farmers growing its GMOs.<sup>176</sup> Not only is Monsanto in the unique position to assess GMO contamination risk and privately reallocate liability through contract, Monsanto is also able to stipulate the activity of the farmers.<sup>177</sup> Furthermore, in the case of GMOs, the patent owner, producer, or both are better positioned than courts to determine the level of care necessary to reduce the risk of cross-contamination.<sup>178</sup>

Additionally, it could be argued that channeling liability to Monsanto would actually allow GMO farmers to better assess their own participation in the GMO market. Combining basic principles of products liability law can further this proposition. First, products liability law has the potential to correct a market's failure in regulating useful products with hidden risks.<sup>179</sup> Where risks are hidden or harm is not internalized, there is no incentive for consumers

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<sup>171</sup> *Id.*

<sup>172</sup> Another advantage offered for channeling liability is that it would increase the insurability of certain risks, since only one party would need coverage. *Id.*

<sup>173</sup> *Id.*

<sup>174</sup> *Id.*

<sup>175</sup> *Id.*

<sup>176</sup> *Id.* at 39–40.

<sup>177</sup> *Id.* at 39–42.

<sup>178</sup> *Id.* at 21 (“[F]or the judge to efficiently set a due care standard, high information costs would be involved. Given the highly technical nature of the risk, it may be impossible for the judiciary to set care standards adequately.”).

<sup>179</sup> Keith N. Hylton, *The Law and Economics of Products Liability*, 88 NOTRE DAME L. REV. 2457, 2458–59 (2013).

or producers to regulate optimally.<sup>180</sup> By assigning liability to product producers, the product liability system can create some market correction in that manufacturers usually pass the costs of liability on to the consumer.<sup>181</sup> In essence, products are “taxed” to cover the manufacturer’s risk, and the increased pricing conveys the risk to the consumer.<sup>182</sup> Likewise, for products that carry obvious risks, the market is likely to effectively self-regulate to optimum levels, assuming the availability of alternative, less risky products.<sup>183</sup>

Applying these principles to liability channeling for GMO cross-contamination would arguably better position the GMO farmer in the market. Due to the likelihood of GMO cross-contamination and the current uncertainty of possible lawsuits, GMO farming can be considered an activity that carries hidden risks. Channeling liability to Monsanto under a theory of induced nuisance mirrors products liability law in that expected damages and distribution of risk will likely be reflected in the licensing contract or prices that Monsanto further establishes with GMO farmers.<sup>184</sup> For the GMO farmer, this shift in liability should result in a contractual offering that clearly informs the financial risk and optimal care required for GMO planting *prior to* engaging in the activity. This would essentially convert GMO farming from an activity that carries hidden risks to one with obvious, known risks. Considering that less risky, alternative means of farming are available, the GMO farming market ideally would regulate to the optimum level.<sup>185</sup>

In summary, channeling liability to Monsanto under a theory of induced nuisance for GMO cross-contamination presents overall favorable economic implications. Channeling liability addresses the risks of all parties and would provide an efficient mechanism for organic farmers’ recovery. The advantages for the contaminated organic farmer are great since the liable party would be easily identifiable. The patent owner is arguably in the best position to assess

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<sup>180</sup> *Id.*

<sup>181</sup> *Id.* Professors Faure and Wibisana have also made this observation. They note:

The price mechanism can have this signaling function to the consumer. If the market price reflects the expected damage, the consumer can know that the producer bears the accident risk. If, however, the market price only reflects the cost price of the product and not the expected damage the well-informed consumer would know that he bears the accident risk himself.

Faure & Wibisana, *supra* note 26, at 25.

<sup>182</sup> Hylton, *supra* note 179, at 2458–59.

<sup>183</sup> *Id.* at 2458.

<sup>184</sup> Faure & Wibisana, *supra* note 26, at 25–26.

<sup>185</sup> Hylton, *supra* note 179, at 2458.

and control activities that influence the risk of cross-contamination. Additionally, in channeling liability to Monsanto, liability costs would most likely be contractually reflected and obvious to GMO farmers, who could then effectively evaluate their decision to enter the market.

### CONCLUSION

This Comment proposes a theory of induced nuisance—a legal recourse that should be available to an organic farmer whose land is contaminated by GMO pollen drift originating from a neighboring farm. Under induced nuisance, liability is channeled away from the neighboring GMO farmer and directed to the GMO patent owner (typically Monsanto). The argument for this particular theory of liability is grounded largely in Monsanto's tight control over its patented GMOs (through both licensing and monitoring of GMO activity) and in the foreseeability that GMOs will cause harm to non-GM crops.

Monsanto (and companies like it) introduced genetically modified self-replicating organisms to U.S. agriculture via the patent system. That introduction truly created an imbalance of equities in U.S. farming. GMOs are living, reproducing, *patented* organisms filled with wanderlust. Cross-contamination is practically inevitable as evidenced by the catastrophic contaminations experienced with GMOs such as StarLink corn and LibertyLink rice. However, Monsanto is able to capitalize on the contamination it genetically engineered by wielding patent infringement wherever its GMOs decide to procreate. Even more perverse is the fact that Monsanto's GMOs have the ability to destroy competing markets. Since the introduction of GMOs into the U.S. market, consumer opposition has created a huge demand for non-GMO foods. To meet this growing demand, organic farmers work diligently to ensure their crops remain GMO-free. Contamination by genetic drift translates into loss of both organic certification and marketability of crops—economic loss endured by the organic farmer. This is the specific harm this Comment attempts to address.

Current legal theories such as negligence, strict liability, trespass, and private nuisance may work well if the organic farmer instituted an action against his neighbor. But this does not address the source of the problem—the GMO creator—who has remained shielded from direct liability. Under induced nuisance, Monsanto would be held liable for the acts it induces its licensees to undertake in growing GMOs. Monsanto already maintains and enforces its

property rights in GMOs through strict licensing agreements and close monitoring of licensees' activities. Induced nuisance essentially channels liability back through this contractual relationship and attaches liability to the licensor. Additionally, holding Monsanto liable for genetic cross-contamination achieves more efficient outcomes by placing liability on the party in the best position to assess and control the risk of future contamination.

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