Liability Prevention for Agricultural Biotechnology[[1]](#footnote-1)

**I. Introduction**

This article will discuss the history and potential future pathway for seed company liability for biotech crops. Agricultural biotechnology, including new forms of plant breeding that use “genetic editing” could lead to U.S. environmental releases and export of traits lacking import approval in major markets overseas. There will be unique challenges in preventing liability, primarily due to emerging theories of environmental liability that allow recovery of economic damages outside of the economic loss doctrine. The pending decisions in the MDL case involving disruption of US corn exports to China, *in re Syngenta AG MIR 162 Corn Litigation [[2]](#footnote-2)* may be expanding nuisance law to encompass novel claims for economic loss in product liability. This case could impose a duty of care on the applicable biotech seed company and impose negligence liability for failing to foresee the emergence of a major market and get approval there before marketing a new biotech crop. This would apply even for crops that are fully approved in the U.S. and which leading U.S. grower associations want the company to sell.

 The product liability risks for the release of products of these technologies can be massive in scope, with both environmental remediation and food recalls potentially triggered by a release that has yet to be authorized for export to a major export market. Fortunately, these risks are also amenable to management through proactive assessment and management of known and knowable hazards. The 20th century had a long list of product lines that failed to address their environmental and economic liability risks -- such as the use and disposal of toxic substances, from asbestos to various chemicals. The costs associated with the trillion-dollar hazardous waste liability were primarily economic costs associated with restoring property to a pristine state, as opposed to harm to human health. A similar emphasis on economic costs of property damage is evident in the liability associated with release of biotech crops.

 While the 20th Century saw billions, perhaps trillions of dollars paid out in personal injury settlements and judgments for hazardous waste and toxic substances (like asbestos),[[3]](#footnote-3) the vast majority of payments making up the trillion-dollar liability was not due entirely to injuries, but to the need to remove from property the perceived threat posed by traces of such compounds. This was damage to property, however, and not lost profits.

The expansion of nuisance and negligence law to compensate growers of biotech crops is a development worth examining, as a novel expansion of tort law. With the steady expansion of tort law occurring over the past twenty years, the duty of due care to avoid such negligence in managing export-related risks of biotech crops has also expanded to stretch the boundaries of reasonable expectation. This requires an expanded understanding of risk management in order to prevent such liability.

II. **Product Liability in Agricultural Biotechnology**

 In managing the risks of emerging technologies, the trillion-dollar historical liability from asbestos and Superfund that the 20th Century left behind will present the 21st Century with lessons to be learned—including risks that are barely foreseeable today that may nevertheless become serious liability problems in the future. The recent history of agricultural biotechnology illustrates how history can repeat itself as Starlink® corn gives rise to Liberty Link® rice, and leads to Syngenta’s China litigation.

The scope of liability for biotech crops has been determined in three stages over the past 15 years. After Starlink® corn recognized a claim for nuisance and negligence arising from a physical injury and regulatory violation that led to a U.S. recall, Liberty Link® rice trials awarded damages based on that precedent for disruption of major markets overseas (mainly the EU). Syngenta’s China case would impose liability for failing to foresee the emergence of a major market and get approval there.

1. **Starlink’s “Physical Injury” & Economic liability**

The Starlink corn precedent took the first step towards creating biotech seed company liability for failing to foresee the emergence of a major market and get approval there. The court decisions and settlements arising from the sale of Starlink corn by Aventis Crop Sciences USA's predecessor, AgrEvo USA, established that economic injuries could be recovered after commingling of corn that was deemed a “physical injury” to property, including growers’ lost profits.[[4]](#footnote-4) Since the EPA revoked approval for this crop and declared Starlink corn a potential health risk,[[5]](#footnote-5) it was subject to a nationwide and international recalls, with significant disruption of trade.

Starlink corn set the stage for biotech seed company liability by recognizing claims for nuisance and negligence arising from a company’s failure to obtain regulatory approval in overseas markets. Damages paid in settlement were calculated based on the price impacts to commodity corn on the Chicago Board of Trade.

1. **LL Rice® & the Billion Dollar Payout**

This liability risk was expanded to include economic impact from lack of overseas approval in the LL Rice cases. In December 2011, Bayer AG (the German parent company of Bayer Cropsciences) announced that enough growers had signed its proposed $750 million settlement with U.S. rice farmers to confirm that it will compensate them for loss of export rice markets.[[6]](#footnote-6) The decision in *LL601 Rice* established that negligence could apply to crops that the US had eventually approved--but the EU and other major markets had not. This finding of “contamination” from economic impacts was reinforced by language used in a 2010 Supreme Court decision, as is discussed in more detail below at Section II.G.[[7]](#footnote-7)

Bayer failed to prove that farmers should have simply avoided the brief dip in rice prices and suffered no harm. Bayer also lost its argument that prompt U.S. planting approval after years of unauthorized release (commingling across six states in the rice seed supply) would allow Bayer to bar claims for nuisance or negligence using a federal preemption defense. This ground-breaking court decision, *LL601 Rice*,[[8]](#footnote-8) is the first decision in the U.S. to follow *Starlink[[9]](#footnote-9)* and allow mass tort plaintiffs to recover their “economic loss” from the “physical injury” that occurs from commingling a biotech crop (or other crop, like treated seed) where the crop's only flaw -- or material fact, for consumer fraud claims -- is that it was not approved for export to major markets overseas.[[10]](#footnote-10) The settlements Bayer is entering into in *LL601 Rice* exceed $1.2 billion, more than the amount reportedly paid in Starlink corn settlements by Bayer's corporate predecessor Aventis.[[11]](#footnote-11) More recent “bellwether” trials raise risks of liability approaching $1.5 billion in the litigation against Bayer Cropscience USA and its parent, Bayer AG, which deemed to be the legal successor to Aventis (despite the efforts of corporate attorneys to structure the sale of Aventis to Bayer as a sale of assets only, leaving liabilities behind).[[12]](#footnote-12)

 Commentators have warned that growers may also be liable for disrupting trade if the law evolves in that direction:

This negligence-based liability, however, may not stop only with the large biotechnology firm. Farmers or other operators within the broader agricultural supply chain could face similar claims if they were to be found negligent in any future crop commingling litigation. Therefore, basic precautionary strategies, such as following crop planting or marketing restrictions, should be followed and documented, especially if growing a new biotech variety.[[13]](#footnote-13)

1. **Syngenta’s Duty to Foresee**

The culmination of *Starlink’s* precedent and the billion dollars recovered in *LL Rice* set the stage for the putative class action filed on behalf of corn growers (*In Re Syngenta AG MIR 162 Corn Litigation)*.*[[14]](#footnote-14)* The ongoing saga of Syngenta’s disruption of trade with China from its corn event Viptera™ could further expand biotech seed company liability to barely foreseeable economic impacts to growers, extending the boundaries of negligence liability beyond those established in the *Starlink* and *LL Rice* cases.[[15]](#footnote-15)

Starting in late 2014, growers and grain traders sued Syngenta seeking compensation for lost export markets and impacts to corn prices after China turned away U.S. corn exports in November 2013 after finding Syngenta’s unapproved biotech corn trait, Agrisure Viptera™MIR162 (“Viptera™”). Syngenta allegedly failed to follow industry standards for stewardship to keep Viptera™ out of exports and falsely told growers that China would approve the trait in 2012.[[16]](#footnote-16) The federal cases were consolidated in the U.S. District Court for the District of Kansas in Kansas City. Grower claims included public nuisance, negligence, and fraud claims; grain traders sued under consumer protection statutes and negligence.

On September 11, 2015, U.S. District Judge John W. Lungstrum rejected Syngenta’s two primary legal defenses and allowed the multidistrict litigation to proceed towards trial.[[17]](#footnote-17) First, in a lengthy opinion, the court rejected Syngenta’s argument that plaintiffs were “strangers” who could not recover “economic loss” for Syngenta’s corn having disrupted an export market (the “stranger economic loss doctrine” or “SELD”). The court stated that corn growers and Syngenta “were not strangers, but rather were part of an inter-connected industry and market, with expectations on all sides that manufacturers and growers and sellers would act at least in part for the mutual benefit of all in that inter-connected web.”[[18]](#footnote-18) The court did not see “remote and indeterminate liability” so “far out of proportion to the tortfeasor’s culpability” to merit SELD application. Syngenta “actually foresaw these very economic losses” in an inter-connected market of corn and milo that “are regularly traded commodities with readily measurable markets.” Accepting plaintiffs’ allegations as true for this motion to dismiss, the court held that the relevant states would not bar these particular claims under the SELD.[[19]](#footnote-19)

Second, the court endorsed narrow federal preemption under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA),[[20]](#footnote-20) reasoning that “even though plaintiffs …disavow any such claim, the Court nevertheless grants the motions to dismiss [for any] claim based on an alleged failure to warn [if it is] based on a lack of warnings in materials accompanying the products,” citing *Bates v. Dow*.[[21]](#footnote-21)

Syngenta argued that plaintiffs’ claims based on a failure to warn growers of trade disruption risks using its products were preempted under FIFRA.[[22]](#footnote-22) Plaintiffs argued that no direct failure-to-warn claim was alleged, but failure by Syngenta failures in stewardship with poor communication was only one aspect of how Syngenta was negligent. Plaintiffs also noted that plaintiffs who were not purchasers of Syngenta’s products would never have seen any such labels. Since plaintiffs’ core allegations relating to failure to warn were not preempted, the court’s narrow opinion had no effect on their core claims.

The judge recognized that his ruling could have a broad impact on the pipeline of future biotech crop launches in the U.S., (many of which may be specialty, small-scale “new use” crops that are not meant for export, and grown in tight identity-preserved production), stating that “the Court does not believe that the risk of a flood of new litigation is sufficiently great and sufficiently unfair to preclude the recognition of a legal duty here.”[[23]](#footnote-23)

The damages in this case have yet to be assessed, but the grain trade has studied the economic impact. Costs of this trade disruption were estimated at up to $2.9 billion to $3.4 billion in net economic loss through April 2014 from Syngenta’s marketing of Viptera™ corn lacking approval in China. This excerpt of the National Grain & Feed Association’s paper shows how Syngenta tried to claim it would not be liable.

The Syngenta Stewardship Agreement with growers purchasing and planting [Viptera™] seed states that producers are responsible to ‘channel grain produced from seed products…to appropriate markets as necessary to prevent movement to markets where the grain has not yet received regulatory approval for export.’ Further, in a March 11, 2014 letter to member companies of the NGFA and NAEGA, Syngenta North America Inc. stated: ‘…[T]he grower remains responsible for planting, harvesting and stewardship of seed and grain, just as members of the grain handling industry purchasing grain and reselling it remain solely liable for any risks or liabilities arising from their commercial activity.’[[24]](#footnote-24)

If Syngenta had waited to sell Viptera™ corn until after China approval as the grain trader Bunge N.A requested in 2011, Syngenta could have avoided causing a “billion-dollar cataclysm” in corn exports. Syngenta can rightfully claim that from 2011 to 2013, it sold corn that China bought and did so with the full consent of the National Corn Growers Association (NCGA). While Syngenta did not respect the assertions of grain traders that there were “market signals” coming in from China, it is hard to see how containment could be implemented for a widely marketed crop a year or two after its uncontained commercial launch. Syngenta was arguably misled by China’s acceptance of U.S. corn for two years (although mere traces of the 1% of U.S. acres in Viptera™ might elude tests for months or years, depending on sample sizes and frequency of testing).

Past precedents in Starlink corn and Liberty Link rice arguably provide any party in the chain of commodity commerce with ample authority for demanding proof from biotech companies of sound stewardship to avoid billion-dollar trade disruption liability. As a result, well-managed biotech companies are generally very attentive when their customers (for example, soybean growers) alert the company to a potential billion-dollar liability threat that could be created by the biotech company's marketing practices. Unfortunately, Syngenta’s pending case will set the standards for what is “foreseeable” in terms of an export market for any biotech crop sold in the U.S.

 In a subsequent motion and order dated August 17, 2016, the court granted Syngenta’s motion to dismiss in part holding that certain claims by the Phipps plaintiffs were preempted by the U.S. Grain Standards Act. Syngenta successfully argued for FIFRA preemption of claims that it had a duty to warn Viptera™ growers to protect export markets and segregate the corn.[[25]](#footnote-25) This only relates to claims based on a lack of warnings in materials accompanying Syngenta’s products, and plaintiffs do not link Syngenta’s negligence and fraud to statements made on the product packaging. Further explaining its position on FIFRA preemption, the court did not preempt any claim by these plaintiffs based on a duty to limit sales to those who agree to avoid crosspollination, or educate farmers in planting their seeds to avoid cross-pollination, or keep the corn out of exports by not selling their corn across state lines. The Court found plaintiffs’ claims preempted if based on “duties that would require inspection or description of corn by reference to the presence or absence” of Viptera™ such as claims based on a duty to assist more directly in the segregation of corn through contract requirements, education, inspection, or tracing the product through the supply chain. Since preemption would require a nexus to interstate or foreign commerce, such education must involve the activity of selling corn to be preempted.

Despite this minor setback, the type of economic impacts that are being compensated in *LL601 Rice* and may soon be compensated in the Syngenta case. A ten cent drop in corn prices could lead to over one billion dollars in economic loss damages under plaintiffs’ expert’s current formula for calculating economic loss damages.

A hearing on class certification is set for September 13, 2016, and plaintiffs’ counsel expressed confidence in winning this motion to certify the class. Growers who grew MIR 162 are excluded from the class.

Depending on the outcome of pretrial motions and trial, this Syngenta case could pose a serious threat to the pipeline of coming biotech crops, including the new genetically edited-created varieties that are coming soon (but whose overseas regulatory status remains uncertain). If the court decides that Syngenta is liable for billions of dollars in economic loss for failing to foresee that China would become a major market, it would create a standard that no biotech seed company could follow. Even the strict standards for soybean “major market approval” would require some imports, not prospective imports. If the court or jury narrows the claims to those involving Syngenta’s particular wrong acts (e.g., misrepresentations that others relied on to their detriment), then the path ahead is safer for other biotech genetic events.

 In closing, it is worth noting that ChinaChem, a state-owned chemical company, is proceeding with a merger with Syngenta that has cleared the U.S. Congressional oversight process. In the end, China may pay billions for the acts of its predecessor, assuming it takes all the liability on Syngenta’s books.

1. **Monsanto Wheat Woes**

Monsanto has led the way in the seed industry in obtaining major market approval for its soybean genetic events. It has also managed to conduct field trials without widespread commingling and regulatory violations like the one that has led to billion-dollar liability for Bayer. In 2003, Monsanto won a case filed by growers seeking economic loss for corn trade disruption with the EU.[[26]](#footnote-26)

In May 2013, however, a wheat grower in Oregon reported finding Monsanto’s glyphosate-tolerant wheat inexplicably growing in his field after he sprayed glyphosate while pre-planting. Lawsuits were filed in various courts (e.g., in Kansas and Washington), seeking recovery for price impacts nationwide[[27]](#footnote-27) and Monsanto paid settlements of approximately $2.75 million to U.S. wheat growers.[[28]](#footnote-28)

 The discovery of yet another release of Monsanto wheat in 2016[[29]](#footnote-29) by the [U.S. Department of Agriculture’s (USDA) Animal Plant Health and Inspection Service (APHIS) said](https://www.aphis.usda.gov/aphis/ourfocus/biotechnology/brs-news-and-information/ge%2Bwheat%2Bwashington%2Bstate) it has “confirmed the discovery of 22 genetically engineered wheat plants” in a field in the state of Washington. Fortunately, following wheat export disruption to Japan and South Korea in 2016, both Japanese and Korean authorities (i.e., major markets for US wheat exports) and the USDA confirmed that this isolated incident left behind “no evidence of GE wheat in commerce.”[[30]](#footnote-30)

1. **Commingling Incidents involving Plant-Made Pharmaceuticals**

The unauthorized releases of Prodigene’s PMP corn in 2002 illustrates the risks of commingling that have made the food industry leery of the use of food crops to make pharmaceuticals, and caused USDA to revamp its regulations in 2003.

In Nebraska in 2002, APHIS inspectors discovered "pharmaceutical" volunteer corn growing in a soybean field, having resurfaced from the previous year in which Prodigene was field testing its pharma corn to produce a swine vaccine. No one removed the 2002 corn plant volunteers despite a regulatory inspection and order to remove them before the corn commingled with the soybeans being grown there.

With this corn commingling in them, the soybeans were harvested (500 bushels) and commingled with another 500,000 bushels in a local elevator. These were quarantined and destroyed.

In another unauthorized release, USDA made Prodigene burn 155 acres of conventional corn after it cross-pollinated with some of the company's pharmaceutical plants, before it could be harvested. In both cases, Prodigene failed to follow permit protocols so it was fined $250,000 and required to pay approximately $3 million for the cleanup costs and disposal of contaminated corn and soybeans.[[31]](#footnote-31)

 In 2003, responding to public pressures, APHIS imposed stricter field test siting regulations for PMPs and PMIPs, and provided mandatory perimeter conditions (with special consideration for pharmaceutical corn).[[32]](#footnote-32) The USDA required outdoor pharma crops be planted one mile from other food crops and be inspected at least seven times before being harvested using dedicated equipment (i.e., a combine not shared with other fields).

These measures, if followed to the letter, were meant to prevent inadvertent commingling and inadvertent harvesting of food or animal feed with the threat that poses of costly food recalls. In addition to planting distances, APHIS required the dedication of farm equipment and facilities to the production of such crops, not to others. These include requiring cleaning of tractors and tillage attachments under APHIS rules. After use, all equipment and regulated articles must be stored in dedicated facilities for the duration of the field trial. Careful examination of fields for the fallow year after the field trial is required to eliminate any volunteer PMIP or PMP crops that grow in the field.

1. **Past Episodes of EU Trade Disruption in Corn**

In 2006, Herculex™™ maize (DAS 59122-7 Herculex™™ Rootworm) was planted on approximately 1% of the U.S. corn acreage without EU import approval. To avoid trade disruption, U.S. biotech seed companies, farmer trade groups (e.g., the NCGA), corn processors and EU importers jointly worked trying to keep EU maize and maize gluten feed imports free of the unapproved Herculex™ event; delivering Herculex™ to dedicated storage facilities and testing any barges with U.S. corn destined for export markets for this biotech genetic event before shipping. Barges that tested positive were to be diverted to the domestic market or other export markets where that Herculex™ event was approved.

Despite these efforts at preventing commingling of these unapproved-in-EU traits in corn exports, the EU found traces of Herculex™ in U.S. corn gluten feed throughout the 2005-2009 period (with a zero tolerance applying after April 18, 2007) and exports of US maize gluten feed abruptly declined, since the *ex* *post* *facto* stewardship did not prevent commingling. While corn exports restarted briefly following the EU approval of Herculex™ in September 2007, this was short-lived. Trade was disrupted again in late 2007 after harvest of a “new crop” with two new unauthorized biotech events – MIR 604 and MON88017 -- that were planted without EU approval in the U.S. in early 2007.[[33]](#footnote-33)

Similar issues of trade disruption resulted from Syngenta’s seed impurity problem with B.t. 10 corn. This was one of the experimental events contained in laboratories, greenhouses or field trials that were found unexpectedly in the commercial food/feed supply chain (in addition to the ones already discussed -- Bt 10 corn, Prodigene corn, and Liberty Link rice, there were issues with Dow Agrosciences Event 32 maize, China’s Bt rice, and Canada’s FP 967 “Triffid” flax). Typically, such events have not yet received regulatory approval in any country and they did not trigger billion-dollar class actions.

No class actions were brought for this trade disruption, and the NCGA policy of allowing new biotech genetic events without EU approval continued. Claims relating to disruption were reportedly settled quietly and confidentially. Based on this history, Syngenta might have felt that trade disruption in corn exports was somehow different than what was happening with LL rice, where Bayer was fighting trade disruption claims involving comparable economic impacts.

1. **Supreme Court Recognizes Economic “Contamination”**

This section discusses the role of the U.S. federal courts, including Circuit Courts of Appeal, in recognizing the boundaries of biotech liability.

The Supreme Court recognized the economic impacts of biotech crops (including those relating to exports) as worthy of regulatory protection *Monsanto* *Co. v. Geertson Seed Farms[[34]](#footnote-34)* under the National Environmental Policy Act (NEPA). In *Geertson*, the Supreme Court upheld a ruling that Roundup Ready&reg;® (RR) Alfalfa (“RR alfalfa”) could “contaminate” other crops causing undesirable economic impacts, including loss of export markets for alfalfa (even with the tiny percentages – around 1% of U.S. alfalfa acreage – that were headed for exports), affirming a lower court’s “vacatur” order sending USDA back to the regulatory drawing board but rejecting the nationwide injunction against planting the RR alfalfa the lower court had imposed. Monsanto correctly called this a victory insofar as the injunction was lifted.

This decision is notable since the economic impacts of trade disruption, including both non-GMO economic loss and the loss of export markets, were found to be “interrelated” with environmental impacts, and USDA accordingly had a duty to impose management standards to prevent such impacts to prevent this “contamination” before economic losses mounted.

Moreover, the decision could impact insurance for growers. One can only hope that this use of the word “contamination” does not lead to a loss of insurance coverage, under pollution exclusions, for any cross-pollination to another crop causing economic loss. Common usage of words and court interpretations carry significant weight in insurance interpretation.

 The *Geertson* case was not the last word from NEPA plaintiffs. In 2011, another California court enjoined planting of Monsanto’s Roundup Ready® Sugar Beets (“RR Sugar Beets”) nationwide, after anti-biotech activists and organic growers successfully used the National Environmental Policy Act (“NEPA”) again to vacate the United States Department of Agriculture's (USDA) approval. USDA was conducting less rigorous environmental assessments (EA) rather than the more extensive environmental impact statement (EIS).

After this order led to uprooting beets in some locations, U.S. sugar beet growers (over 90% of whom were planting RR Sugar Beets) went “on the offense” and sued to challenge this court decision and confirm USDA's subsequent “partial deregulation” order pending completion of the court-ordered environmental impact statement (“EIS”). Soon thereafter, the USDA issued a nationwide approval, making all pending litigation over RR Sugar Beets utterly moot.[[35]](#footnote-35)

In its proposed rule for RR Sugar Beets (before issuing nationwide approval), USDA seriously considered granting “partial approval” that would have segregated these beets. After hearing from Congress and growers and other stakeholders, however, it decided to allow RR Sugar Beets to be planted nationwide. This shows USDA as being willing to defer to states for segregation, and not dictate regional segregation from a federal regulation. To avoid further problems, however, Monsanto decided to have a regionally limited launch after all (e.g. only particular regions, avoiding seed production in the Pacific Northwest).

Commentators, including Professor Alison Peck, have published ideas that interpreted this *Geertson* decision as opening the door to common law compensation or regulatory protection for non-GMO growers. Peck suggested that “APHIS will have to begin giving a harder look at permitting or deregulating the planting of GE varieties and their potential to contaminate conventional and organic crops”, and that APHIS could, in some cases, “shift some of the burden of segregation for coexistence—and potentially more liability for contamination—onto those growers of GE varieties.”[[36]](#footnote-36)

Professor Peck further suggested that NEPA litigation may signal the end of “fencing out” biotech crops (where organic or non-GMO growers plant buffers to prevent pollination) around the U.S.[[37]](#footnote-37) Exploring possible legal rationales for imposing a duty to “fence in” on a grower of biotech crops, she first suggests that the *Geertson* decision may have eliminated a “presumption in favor of the fence out rule” which would enable the USDA to require containment of biotech crops it had already approved.[[38]](#footnote-38)

She acknowledges that *Geertson* does not expressly require APHIS to “fence in” biotech crops, but suggests:

*Geertson* does, however, require that APHIS make determinations supporting the reasonableness of whatever coexistence standard it relies upon–whether it be a “fence out” rule placing the burden on growers of non-GE crops, a “fence in” rule placing the burden on growers or developers of GE varieties, or some combination.[[39]](#footnote-39)

In other words, the *Geertson* case could set the stage for segregation – make biotech growers fence in their USDA-approved biotech crops in order to protect the economic interests of their non-GMO neighbors. While this decision has led to another decision in a federal court that vacated USDA approval and required it to assess environmental impacts that are “interrelated” with economic impacts, there has not been a run on biotech growers from the non-GMO corner in the United States.

Indeed, the only case in any common law jurisdiction worldwide is the *Marsh v. Baxter* case in Australia, where the court sided with the biotech grower and told the organic grower who claimed economic loss that the problem lay with the unreasonable “zero tolerance” for GM content standard imposed in Australia for organic certification. There, the biotech grower won on appeal and the organic grower was left to sue his certifier for being so unreasonable.[[40]](#footnote-40)

It also seems reasonably clear that the practical implications of imposing any such duty—state or federal—to prevent migration from biotech crops lacks a compelling ethical case for any such state or federal action. Fairness is a concept that runs both ways between two growers, and the biotech grower can make a convincing fairness argument of his own if he does not get any payment for steps taken—like a one-mile buffer—to preserve the purity of his neighbor’s crop.

In reaction to NEPA cases, APHIS and USDA held discussions about coexistence and how to address supposed impacts to the Non-GMO and organic sectors in the U.S. Toward that end, the United States Department of Agriculture’s Advisory Committee on Biotechnology and 21st Century Agriculture (“AC21”)[[41]](#footnote-41)met in 2011 (and recently reconvened) to work on coexistence between biotech and organic agricultural production methods.[[42]](#footnote-42) The AC 21 report stated: “The legal boundaries of common law are necessarily vague and adaptable to meet new situations, while the USDA’s legal authority derives from statute and operates in a federal system that generally leaves land use, nuisance, and contract law to the 50 states.”[[43]](#footnote-43) Although pesticide drift may sometimes trigger liability,[[44]](#footnote-44) there is no recorded instance of pollen drift from an U.S.-approved biotech crop causing compensable injury in U.S. agriculture. As a result, there appears to be little to no room in the current legal system for the USDA to create a compensation fund for non-GM or organic growers.

 USDA considered putting a figurative “fence” around approved biotech crops, but Secretary Vilsack decided not to take that step after consulting with Congress. This means the first legal assertion above—the possibility of a new presumption to “fence in” certain biotech crops—appears to have little room to maneuver under the current regulatory framework. Indeed, given the Ninth Circuit’s decision affirming the recent decision to grant nationwide approval of RR alfalfa, it appears clear that the USDA does not see its current legal authority as allowing it to eliminate the existing “presumption” that non-GM and organic growers have to avoid biotech crops (under the “fence out” rule).[[45]](#footnote-45)

 In 2013, to avoid similar NEPA litigation, the United States Department of Agriculture's Animal and Plant Health Inspection Service told Monsanto and the public that USDA would conduct full environmental impact statements for dicamba-tolerant Roundup Ready 2 Xtend®

(“RR2X”) soybean and Bollgard II XtendFlex® cotton technologies. In so doing, the USDA may have provided a path to liability avoidance for biotech seed companies who hope to avoid either NEPA injunctions (as occurred with RR Alfalfa and RR Sugar Beets) and the nuisance-negligence theories of recovery that led to the Bayer rice settlement discussed above.[[46]](#footnote-46)

Accordingly, both organic and conventional growers, as well as biotech seed companies need to develop and implement coexistence strategies that prevent unwanted commingling to avoid negligence-based nuisance liability.[[47]](#footnote-47) This includes farmers or grain handlers who could face similar claims if they were to be found negligent in causing future crop commingling.

**III. Liability Prevention -- Voluntary Stewardship for Export Markets**

Four organizations involved in promoting U.S. soy exports, the American Soybean Association, the United Soybean Board, the US Soybean Export Council, and the National Oilseed Processors Association (collectively “U.S. soybean organizations”), have developed an “eleven-point plan” to manage the potential liability risks posed by unapproved-in-EU soybeans. This standard has been in place since 1998, when Aventis Crop Sciences USA (“Aventis”) obtained U.S. regulatory approval for its LibertyLink&reg;® Soybean (“LL Soybean”). In 1998, Aventis entered into lengthy confidential negotiations with the American Soybean Association (ASA) that lasted for months and almost reached neutral mediation. The negotiation ended when Aventis' corporate counsel was persuaded that ASA had demonstrated the potential for liability and for regulatory standards to evolve and penalize the marketing of an unapproved-in-EU soybean.

One key element of the 11-point plan is third party certification by qualified bodies of the process used. State affiliates of the American Organization of Seed Certifying Agencies (AOSCA),[[48]](#footnote-48) such as the Illinois Crop Improvement Association, apply AOSCA seed standards to certify seed using identity preservation methods[[49]](#footnote-49) and agronomic practices for removing unwanted plants. Such soybeans are grown within a closed-loop production system established by the seed company that meets the ASA/USB/NOPA's 11-point plan.

These organizations have expertise in ensuring that growers meet tolerance levels for genetic purity, and seed companies have all accepted the necessity for stewardship that ensures major market approval. For example, while currently there are no pest-resistant soybeans in commercial use in the United States, Monsanto has developed a B.t. soybean (incorporating a commonly used protein from a bacillus bacterium that resists insects) and has sold that for several years in South America. Under its stewardship commitment, this insect-resistant soybean was grown commercially for seed in the Southern US in close identity preservation, but only marketed to South American farmers for harvest and export after receiving approval in major export markets. As of this writing, the B.t. soybean and stacks using it in combination with other traits in nearly all major markets for soybeans,[[50]](#footnote-50) which is also expected from grower organizations in South America.[[51]](#footnote-51)

The soybean production system in the United States may provide a model for other nations to follow in assuring thriving organic and non-GMO production, while still reaping the benefits to the environmental, health and economic condition of farmers.

The U.S. soybean industry also goes beyond regulatory requirements in its approach to food safety. The prevailing risk management process follows international standards for detecting allergenicity of protein molecules resultant from genes used in the crop. Companies using this scientifically sound allergen-detection methodology will prevent liability from accidental introduction of allergens at the early stages of production. An example of corporate precaution without regulatory intervention can be found in Pioneer's decision not to market its high-methionine soybean, which led to a published study (funded by Pioneer) by leading allergy researchers at the University of Nebraska. While regulators would have allowed feed-only sales, Pioneer was concerned that it could not completely prevent commingling of the chicken feed-destined soymeal with food products.

Pioneer Hi Bred (now a division of Dupont) also was an early mover in avoiding commingling that could disrupt exports. It proved its commitment to stewardship when it kept the commercial launch of the Plenish™ High Oleic Soybean in 1999 contained within a closed-loop production system using the ASA/USB/NOPA “eleven-point plan” (steps in preventing commingling with export-bound crops) to manage the potential liability risks. Dupont is marketing a new “stack” of Plenish with the off-patent generic Roundup Ready trait in 2017, with EU approval still pending. ASA will expect this trait to stay in a closed-loop production system if it still lacks EU approval in the 2017 planting season (e.g., April-May).

In order to prevent disruption of grain shipments, grain buyers in the U.S. have imposed a contractual compliance mandate upon growers and biotech seed companies. All seed sold to growers in export-oriented production settings must be approved in all “major” overseas markets. To meet this demand for major market approval, growers conduct “identity preservation” in a uniform, coordinated manner using terms specified in seed company contracts with commercial growers. Dedicated grain elevators and transport vehicles may be used to process grain and thereby convey to domestic use any grain that does not have major overseas market approval.

 Going forward, there is a clear need to establish reasonable tolerances for genetic purity, that allow small amounts of grain bearing other genes to hitchhike in seed or commodity shipments at levels that are near the limits of detection. Most nations have zero tolerance for unapproved varieties (this is how China rejected U.S. corn bearing very low levels of Viptera). Some nations (e.g., Korea, Vietnam, the EU from 2003 to 2007 under its Traceability Directive) are using a tolerance of 0.5% for unapproved varieties, only for feed uses, to prevent trade disruption, since that low level of commingling does not pose a health threat to animals. This is a reasonable science-based approach to feed safety, and no animal health effects have arisen from these policies.

**IV. Claims Made in Anticipatory Nuisance for Unapproved Biotech Crops**

The same growers and grain traders suing Syngenta for billions could have possibly sued in 2011 seeking an injunction against the sale, citing the NGFA’s study in support. This section will review the literature and cases allowing an anticipatory nuisance.

The seminal article on anticipatory nuisance law in agricultural biotechnology is Margaret Grossman’s article “Anticipatory nuisance and the prevention of environmental harm and economic loss from GMOs in the United States”,[[52]](#footnote-52) which received the “best paper” award at the annual meeting of the American Agricultural Law Association (“AALA”) 2007.

One of the cases cited by Professor Grossman, *Hoffman & Beaudoin v. Monsanto Canada*,[[53]](#footnote-53) involved a claim for anticipatory nuisance against biotech canola that was unapproved in the European Union. In *Hoffman,* both Bayer Crop Sciences and Monsanto Canada won an important partial victory early in the litigation. The court rejected the idea that defendants substantially contributed to a nuisance when they dropped export-oriented identity preservation and failed to safeguard canola exports to the EU with their voluntary identity-preservation program. In a long, very scholarly decision, the *Hoffman* court cited U.S. case law in support of its decision. Canadian courts are the only ones to address a claim for anticipatory nuisance against biotech seed companies for failure to implement identity preservation for unapproved-in-EU varieties of biotech crops.

Since the Grossman article was written, however, to this author’s knowledge, no other claim for anticipatory nuisance has been filed to stop the commercial launch of a biotech crop.

1. **Negligence**

As Professor Grossman discusses in her ground-breaking article:

A claim of negligence usually requires the plaintiff to prove that the defendant had a duty to conform to a specific standard of conduct (normally, to exercise reasonable care under the circumstances), that the defendant breached that duty, that the plaintiff suffered harm, and that the defendant's breach of duty was the proximate cause of plaintiff's injury.[[54]](#footnote-54)

A biotech seed company could be liable in negligence for violating a standard of care that has existed for nearly 20 years in the entire U.S. soybean seed industry. Every biotech seed company has dutifully followed the standard of care set in 1997 by the American Soybean Association, which was confirmed and supported by grain trade associations, requiring regulatory approval in major overseas markets before commercial launch of a biotech soybean in the U.S. This “major overseas market approval” policy required approval in key soybean export markets (including the EU) prior to commercialization of a new biotech soybean variety. It was understood that companies who disrupt trade could be held liable in negligence for failing to arrange the necessary elements of stewardship to prevent that disruption of trade.

There is recent history for quietly invoking this ancient legal doctrine to restrain negligent launches of biotech crops. The threat of injunctive relief against biotech seed companies with inadequate stewardship was used to restrain the sale of Liberty Link™ soybeans from AgrEvo USA (predecessor to Aventis) in 1998. The legal basis for the ASA's threat of injunctive relief prior to sale was the ancient and rarely invoked doctrine of “anticipatory nuisance,” along with ASA's more credible warning of a massive compensatory damages lawsuit (the latter threat was validated by the billion dollar debacles that the same company, Aventis, later saw in the Liberty Link™ Soybean’s sister crops, Starlink™ corn and Liberty Link™ rice).

1. **Fraud and Negligent Misrepresentation**

In addition to potential negligence and nuisance claims, fraud claims could arise from any misrepresentations – e.g., promises of overseas approval before harvest that lacked a factual basis, or marketing materials with factual misstatements.

Given the added element of inadequate disclosure to farmers that may be present, the consumer fraud statutes of many states might also be invoked. Where no adequate consumer fraud statute is on the books, the law of nuisance can adapt to stop a fraud in progress (if it occurs against a large enough group) on grounds that it constitutes a foreseeable public nuisance.

1. **Syngenta’s Alleged Fraud**

In the pending Syngenta case,plaintiffs allege that Syngenta negligently stated that approval from China was imminent in late 2013 and that Syngenta had a document on its website that purported to be an approval of Viptera™ from the Chinese government. These misrepresentations led growers and corn seed buyers to believe that China had finally approved Viptera™ when actually it had not. China did not approve this event until late 2014. Growers, who relied on these representations in 2013, purchased and planted seed without realizing the risk it could pose to U.S. commodity corn trade to major export markets.

Plaintiffs alleged that Syngenta’s decision to bring Viptera™ to the market crippled the 2013/2014 corn export market to China and caused damage to plaintiffs. Syngenta knew, or should have known, that releasing Viptera™ would lead to the contamination of U.S. commodity corn shipments and prevent U.S. corn from being sold to export markets such as China, which had not granted regulatory approval of Viptera™. Syngenta’s CEO should not have told growers and grain traders that regulatory approval was imminent in 2012 when other employees had stated 2013 at the earliest, given Syngenta’s failure to file the correct field trial data.

According to plaintiffs’ allegations, Syngenta’s CEO at the time, Mike Mack, allegedly told the investing and seed-buying public in late 2011 that he expected approval in China in 2012, in plenty of time for the coming harvest. This representation may not hold up factually, since regulatory compliance employees had reported that approval could not be obtained before 2013, due to a 2011 rejection of field trial data. If the CEO does not have his facts straight, fraud liability can ensue.

1. **Monsanto’s Online Statements**

In addition, complications and misrepresentations can arise from the use of form contracts and online representations. Sometimes a seed advertisement (and seed contract) may caution growers about the lack of overseas approval. This excerpt from a Monsanto ad from early 2016 (before the late July 2016 approval of RR2 Xtend soybean) illustrates how companies warn growers of trade disruption risk:

The single events in Roundup Ready 2 Xtend® soybeans have been approved for import in the EU. As of February 2, 2016, E.U. stack approval for Roundup Ready 2 Xtend soybeans is in the final stage of approval and is expected but not guaranteed to be received in the near future…It is a violation of national and international law to move material containing biotech traits across boundaries into nations where import is not permitted. Growers should talk to their grain handler or product purchaser to confirm their buying position for this product. Growers should refer to http://www.biotradestatus.com/ for any updated information on import country approvals.

Potentially fraudulent complications can arise when the grower refers to the Croplife International “biotradestatus” database and Monsanto has not updated its information. At the time this ad was being marketed, Monsanto had not updated the Croplife database to make sure it was consistent with the marketing materials selling RR2X soybeans – the database wrongly listed the RR2X soybean stack as “not commercialized” in the United States and other markets. The Monsanto section of this website listed four Monsanto soybeans that had import approval in various nations. While the database accurately stated the lack of EU Approval, it was not correct in stating that the RR2 X variety is “Not Commercialized” – in fact, Monsanto had sold around one million acres of this unapproved-in-EU RR2X soybean, most of which was presumably planted and not stored.[[55]](#footnote-55)

If a grain buyer at home or abroad were to rely on this misrepresentation of non-commercial status to their detriment and shipped U.S. soybeans assuming no RR2X were present, they could have suffered economic harm from RR2X-related trade disruption (the detrimental reliance required for a fraud claim). If they seek compensation from Monsanto for their reasonable reliance on the Croplife database (as well as Monsanto’s list of commercialized biotech soybean events, where it would not see RR2X listed)[[56]](#footnote-56) then these online representations could be alleged to support a claim for fraud.

1. **Contractual Liability Disclaimers**

While there are disclaimers of liability on both this Croplife database and Monsanto seed marketing materials, some courts refuse to enforce disclaimers if they consider them “unconscionable” in shifting risk unfairly to consumers.

In its defense, Monsanto would reference the disclaimer on the Croplife database. While there are disclaimers of liability on both this Croplife database and Monsanto seed marketing materials, some courts refuse to enforce disclaimers if they consider them “unconscionable” in shifting risk unfairly to consumers.

In *Oldham's Farm Sausage Co. v. Salco*, Inc., 633 S.W.2d 177 (Mo.App.1982), the court upheld the trial court's refusal to enforce a limitation of liability in connection with the sale of a machine – it was “unconscionable” under MO stat. § 400.2-719(3) being fine print on the back of the signature page of a lengthy contract. The entire Missouri Supreme Court raised issues of unconscionability in a Monsanto herbicide contract, in a decision explaining the basis for remanding the case to the trial court to consider denying enforcement of the disclaimer under Missouri law.[[57]](#footnote-57)

If the courts enforce these seed company disclaimers in future liability cases involving disruption of trade from an unapproved variety, then the net effect of these efforts to shift risk could impose a duty on growers to avoid disruption of export markets. If no measures to prevent export disruption are undertaken, both Monsanto and its soybean producer customers could be liable for negligence. This would help to fulfill the prediction made by Endres and Johnson (supra n.13) of potential grower liability.

1. **Nuisance**

Public and private nuisance are creatures of the common law – both state and federal.

Both forms of nuisance require unreasonable behavior, and either negligence or international conduct will usually suffice. This can include negligent misrepresentations about overseas approval that cause widespread trade disruption, as the court in LL Rice[[58]](#footnote-58) firmly established.

In its 2009 order on summary judgment, the LL Rice court rejected public nuisance but allowed private nuisance given factual disputes regarding “whether contamination of plaintiffs' crops by LLRICE may interfere with their enjoyment of their land.”[[59]](#footnote-59)

**IV. Anticipatory Nuisance and the Mediation Model for Inducing Stewardship**

 Anticipatory nuisance could have been used in past liability debacles to stop a billion-dollar lawsuit before trade disruption occurs. Indeed, where companies have heeded warnings of potential liability and sought major market approval before marketing a new event (as has occurred with soybeans in North and South America), this tool need not be invoked. Where persuasion fails, however, litigation may be needed. These tools may include injunctions under “anticipatory nuisance” laws which seek to stop the commercial launch of a biotech crop in a location that might cause undue harm to neighboring farmers.[[60]](#footnote-60)

1. **Review of Selected State Laws on Anticipatory Nuisance**

As Professor Grossman discusses in her landmark article, Illinois is noteworthy for having recent claims allowing anticipatory nuisance injunctions against agricultural operations (concentrated animal feeding operations, “CAFOs”). Citing decisions involving nuisances threatened by livestock facilities, she found courts in many jurisdictions would enjoin an anticipatory nuisance if its harm is “reasonably certain or highly probable” from defendant’s action.[[61]](#footnote-61) This is discussed in more detail, updating her research, below.

Nuisances can be either *per se* or *per accidens,* and courts are more likely to grant an injunction against a nuisance that is *per se* (i.e., it is a nuisance no matter where it is located) and less likely to grant an injunction against a lawful activity that is causing neighbors concern due to its location, circumstances and other particular facts of its operation.

Anticipatory nuisance actions enjoining CAFOs even if approved by the Illinois Department of Agriculture (IDOA) are allowed under Illinois law, given *Nickels v. Burnett.[[62]](#footnote-62)*

The following states also recognize claims for anticipatory nuisance, with varying levels of proof required.

* Alabama: *Hall v. North Montgomery Materials, LLC,* 39 So.3d 159 (Al. App 2008),
* Florida: *Central Theatres Inc. v. State,* 161 So.2d 558,565 (Fla. Dist. Ct. App. 1964) (White, J. Concurring),
* Georgia: *Southern States-Bartow County, Inc. v. Riverwood Farm Property Owners Ass'n, Inc.* 331 Ga.App. 878 (Ga. App. 2015),
* Iowa: *Simpson v. Kollasch,* 749 N.W.2d 671 (Ia. App. 2008) (denying injunctive relief for an alleged anticipatory nuisance when the petitioners could not show to a certainty that a nuisance would result from plans to develop a hog confinement facility),
* Louisiana: *Olsen v. City of Baton Rouge*, 247 So. 2d 889, 894 (La. Ct. App. 1971), application denied, 252 So. 2d 454 (La. 1971) (emphasizing the “general rule” of not granting injunctions for anticipatory nuisances),
* Maryland: *Adams v. Michael*, 38 Md. 123, 129 (1873) (recognizing the doctrine) and *City of Bowie v. Board of County Commissioners*, 260 Md. 116, 123, 271 A.2d 657, 660 (1970) (applying it),
* Michigan: *City of Jackson v. Thompson-McCully Co.,* 608 N.W. 2d 531,537 (Mich. Ct. App.)
* New Mexico: *State ex rel. Vill. of Los Ranchos de Albuquerque v. City of Albuquerque*, 889 P.2d 185, 200 (N.M. 1994) (stating that "[t]he general rule is that anticipatory nuisance is a valid cause of action" but "that the anticipated nuisance must be proven so as to make any argument that it is not a nuisance highly improbable"),
* Ohio: *Gustafson v. Cotco Enterprises, Inc.* 42 Ohio App.2d 45 (1974) (“clear and convincing” evidence standard),
* Oklahoma: *Sharp v. 251st St. Landfill*, 925 P.2d 546, 552 (Okla. 1996
* South Carolina: *Haley v. South Carolina Department of Health and Environmental Control,*1998 WL 268397 97-ALJ-07-198-CC (1998) (“anticipated nuisance” [chicken processing and composting] is inevitable from the proposed use of the premises … Such nuisance impact would be neither “doubtful, contingent, or conjectural”),
* Utah: *Steffensen–WC, LLC v. Volunteers of America of Utah, Inc.,* 369 P.3d 483 (2016) (“Utah recognizes anticipatory nuisance as a cause of action”), and
* West Virginia: *Duff v. Morgantown Energy Associates,* 421 S.E.2d 253,255 (W. Va. 1992) (Anticipatory nuisance recognized but injunction at trial court reversed on appeal, must have proof of threat “beyond all ground of fair questioning”).

Some states have no recorded cases recognizing anticipatory nuisance. For example, nuisance law in Minnesota operates under statute, and the doctrine of anticipatory nuisance is not precluded, but no Minnesota case appears to have recognized a claim for anticipatory nuisance.

It is worth noting, however, the recent case of [*Johnson v. Paynesville Farmers Union Co-op. Oil Co.*](https://1.next.westlaw.com/Document/I35d9e439dbf811e1b60ab297d3d07bc5/View/FullText.html?navigationPath=RelatedInfo%2Fv4%2Fkeycite%2Fnav%2F%3Fguid%3DI35d9e439dbf811e1b60ab297d3d07bc5%26ss%3D2006303051%26ds%3D2028320314&listSource=RelatedInfo&list=NegativeCitingReferences&rank=0&originationContext=docHeader&transitionType=NegativeTreatment&contextData=%28sc.Keycite%29), 817 N.W.2d 693 Minn., (August 1, 2012), where the court denied an organic grower’s claim for pesticide drift, but in so doing, recognized a claim for trespass via airborne particulate could exist and ruled that injunctive relief would be allowed. This may indicate a willingness in Minnesota to allow injunctive relief in an anticipatory nuisance action.

While a more comprehensive review of this issue might be necessary, the only state that my research found that denied any claim for anticipatory nuisance (i.e., plaintiffs cannot even state a claim), would be North Dakota. See, *Tibert v. Slominski*, 2005 ND 34, 692 N.W.2d 133 (citing *Riffey v. Rush*, 51 ND 188, 199 N.W. 523 (N.D. 1924).)

Given the variation in state approaches to anticipatory nuisance, a practitioner considering a claim in a particular jurisdiction should ascertain the status of the law in their state.

1. **Federal Law of Anticipatory Nuisance**

Since the federal common law of public nuisance allows a claims for anticipatory nuisance, this may be a preferred location for filing a claim for anticipatory nuisance, with jurisdiction imparted via a federal question (i.e. common law nuisance) even without diversity of citizenship.

The US federal courts have developed a federal common law of anticipatory nuisance and, in the rare instances when they are called on to resolve such cause of action with an injunction, have done so more consistently than state courts for the past 120 years. This history starts with the Supreme Court’s decision in *Mugler v. Kansas,[[63]](#footnote-63)* where the court held that to prevent “irreparable mischief” a threat of nuisance could be enjoined.

This decision was followed in *Coosaw Mining Co. v. South Carolina*, 144 U.S. 550, 567 (1892). The Court upheld an anticipatory nuisance injunction prohibiting the mining of phosphate from the Coosaw river. If a grower group were to make a claim under federal common law nuisance, seeking to contain an unapproved variety in several states where it may be planted, the federal courts are the logical forum for getting the injunction needed under the anticipatory nuisance doctrine.

Particular federal jurisdictions may not have granted such injunctions for over 100 years, however. For example, the last time a federal court in Missouri had an anticipatory nuisance claim, Missouri sued Illinois and lost. In *Missouri v. Illinois*, 180 U.S. 208 (1901), the U.S. Supreme Court reversed a motion to dismiss granted against Missouri’s claim for anticipatory nuisance, noting "that it is settled that an injunction to restrain a nuisance will issue only in cases where the fact of nuisance is made out upon determinate and satisfactory evidence." Since then, only a few federal courts have granted anticipatory nuisance injunctions.

The Eighth Circuit Court of Appeals has more recently recognized a claim for anticipatory nuisance in a CAFO case. In *Rutter v. Carroll's Foods of Midwest, Inc.,* 50 F.Supp.2d 876 (1999), residents brought action for anticipatory nuisance and anticipatory trespass to allow an injunction prohibiting construction of a swine containment facility. The court held that they stated valid claims for anticipatory nuisance and anticipatory trespass to enjoin construction of swine containment facility.  Iowa law, which was applied in this case, also requires mediation of farming-related claims before filing in court.

 Various other federal circuit courts have addressed this issue over the past fifty years:

* Cal. Tahoe Reg'l Planning Agency v. Jennings, 594 F.2d 181 (9th Cir. 1979),
* Texas v. Pankey, 441 F.2d 236, 237 (10th Cir. 1971) (enjoining the anticipated nuisance of spraying toxaphene, a pesticide, without actually discussing the doctrine); and

* Cal. Tahoe Reg' Planning Agency v. Jennings, 594 F.2d 181, 193 (9th Cir. 1979) (adopting the determinate and satisfactory standard).

This line of cases shows that some courts may find the facts inadequate for establishing purely economic forms of harm. For example, in *Cal. Tahoe Reg ' Planning Agency v. Jennings,* California sought to enjoin the construction of four hotel-casinos claiming that the added vehicle and human traffic would create a nuisance and "harm the environment” of the region. Distinguishing its facts from those in *Missouri v. Illinois* and *Pankey*, the Ninth Circuit disregarded California's claim that the high-rise hotels would harm the environment. It refused to equate the economic impacts from building high-rise hotels with the environmental impact that come with spills of untreated sewage, noxious gases, and poisonous pesticides. Such environmental impacts were present in other cases. Applying the "determinate and satisfactory evidence" test, the court found that California had failed to establish that the danger of nuisance was "real and immediate," while generally affirming the viability of federal anticipatory nuisance doctrine.

Since only a few anticipatory nuisance cases have reached federal courts, “it is difficult to draw sweeping conclusions from federal courts' treatment of anticipatory nuisance.”[[64]](#footnote-64) As a result, even a federal claim for anticipatory nuisance should be analyzed against applicable law before filing. Given the relatively recent *Rutter* case and the *In re LL Rice Contamination* cases, however, a credible claim for anticipatory nuisance could be filed.

1. **Setting Up Mediation to Establish Stewardship for Exports**

Given the research outlined above, a federal court would probably recognize and possibly support a claim for an injunction under public anticipatory nuisance law to avoid a billion-dollar trade disruption nuisance case. The threat of an impending billion-dollar disruption of trade should be sufficient to state a claim. If a seed company ignores major market approval at planting time, a few months remain before harvest in the Southern U.S. As a result, plaintiff in such a case may see significant time pressure to achieve this outcome, and getting necessary groups prepared in advance to file seems recommended. To sell this concept to reluctant plaintiffs (e.g., a grower or grain group) it helps to explain that such a case would seek confidential mediation through the early neutral evaluation process prevailing in federal courts.

The legal basis for a claim for anticipatory nuisance, if it only seeks to establish mediation, need only meet the lowest standard applicable to scrutiny of complaints (Rule 11). If challenged after mediation fails, such a claim need only be able to survive a motion to dismiss under Federal Rules of Civil Procedure §12(b)(6) and meet the standards for preliminary injunction. For purposes of this analysis, all the grower group needs to do is make a credible claim to mediation is a claim that can survive a motion to dismiss and win the injunction motion.

The plaintiffs filing such a case of anticipatory nuisance need not be soybean growers or grain traders concerned with the loss of key export markets. Given the magnitude of the economic harm caused by an unapproved-in-overseas-markets variety of soybean, the attorney general in a farming state could seek to apply public nuisance law via persuading a sympathetic state or federal court judge to declare the sale of an unapproved-in-E.U. biotech seed to be a public nuisance. It is clear that grain traders or growers could convene a mediation (or arbitration, if the biotech seed company agrees to be bound by the outcome) with any biotech seed company that they think has failed to implement adequate stewardship to protect export markets from commingling an unapproved variety into the U.S. commodity soybean export stream.

If plaintiffs use this court filing to seek documents about the biotech seed company’s list of growers and any information regarding its stewardship program, the biotech seed company might seek a protective order, arguing that grower identities are confidential information. The court would still order production of the list, possibly limiting such disclosure to counsel if it is particularly sensitive. Knowing the identity of growers will be a necessary step in evaluating the seed company’s stewardship for the unapproved variety.

Since court filings are public record, however, attorneys and their clients should not rule out coverage of the filing by the press, even where protective orders are in place for confidential information.

1. **Conclusion**

 In sum, the threat of billions of dollars in liability should spur active industry efforts to manage export-related liability risks. The test will be whether companies not using these industry guidelines extract themselves from costly litigation; Syngenta’s pending case will answer that question.

 In hindsight, much of the billion-dollar liability that has occurred in biotech crop litigation could have been prevented through mediation of stewardship issues before commercial launch. If the filing of a claim for anticipatory nuisance (or the threat of such a filing) can help maintain biotech seed company’s bottom line and prevent disclosing billion dollar mistakes to shareholders, the entire industry would benefit and all the benefits of biotech crops could be reaped.

1. Thomas P. Redick practices solo international environmental law at Global Environmental Ethics Counsel LLC. in St. Louis MO, where he represents corn and soybean growers as well as high tech clients with liability prevention. [↑](#footnote-ref-1)
2. Syngenta AG Case Activity, LAW360, http://www.law360.com/companies/syngenta-ag/dockets (last visited May 16, 2015). [↑](#footnote-ref-2)
3. Stephen Breyer, BREAKING THE VICIOUS CIRCLE (1995). [↑](#footnote-ref-3)
4. *See* In re StarLink Corn Products Liability Litigation, 212 F. Supp. 2d 828 (N.D. Ill. 2002) (“Starlink”). [↑](#footnote-ref-4)
5. Mandel, Gregory N., "Confidence-Building Measures for Genetically Modified Products: Stakeholder Teamwork on Regulatory Proposals, Jurimetrics, Vol. 44, pp. 41-61, (2003). [↑](#footnote-ref-5)
6. Endres and Johnson, “Bayer's Desire to Be Done with Litigation is a Reminder of the 2002 Aventis Crop Science Settlement,” AgFax.com, July 8, 2011, *available at* http://agfax.com/Content/bayer-rice-settlement-offer-is-a-reminder-of-2002-aventis-corn-litigation-07082010.aspx (visited September 7, 2016). [↑](#footnote-ref-6)
7. Monsanto Co. v. Geertson Seed Farms, 130 S. Ct. 2743, 177 L. Ed. 2d 461, 70 Env't. Rep. Cas. (BNA) 1481 (2010) (“Geertson”). [↑](#footnote-ref-7)
8. In re Genetically Modified Rice Litigation, 666 F. Supp. 2d 1004 (E.D. Mo. 2009), adhered to on reconsideration, 2011 WL 5024548 (E.D. Mo. 2011). [↑](#footnote-ref-8)
9. In re StarLink Corn Products Liability Litigation, 212 F. Supp. 2d 828 (N.D. Ill. 2002). [↑](#footnote-ref-9)
10. Cowan, Congressional Research Service, Agricultural Biotechnology: Background and Recent Issues 19&ndash;-21 (July 5, 2011) https://www.fas.org/sgp/crs/misc/RL32809.pdf (visited September 7, 2016). [↑](#footnote-ref-10)
11. Endres and Johnson, [supra](file:///C%3A%5CUsers%5CThomas%5COneDrive%5COMG%5CDocuments%5CTOM-HP%5CDAD%20WORK%5Carticles%5CWest%20Product%20Liability%20Prevention%5C2015%20West%5Csupra) n. 6. [↑](#footnote-ref-11)
12. In re Genetically Modified Rice Litigation, 666 F. Supp. 2d 1004 (E.D. Mo. 2009), adhered to on reconsideration, 2011 WL 5024548 (E.D. Mo. 2011) (“LL601 Rice”). [↑](#footnote-ref-12)
13. Id. [↑](#footnote-ref-13)
14. *In Re Syngenta AG MIR 162 Corn Litigation* MDL No. 2591, Case No. 14-md-2591-JWL (D. Kan. 2016). [↑](#footnote-ref-14)
15. For a more detailed discussion of Syngenta’s perspective on the pending litigation, see Thomas Redick, Gene Summerlin and Megan Galey, The Twisting Path of Biotechnology Crop Liability: Extending the Duty of Care for Trade Disruption Claims (Paper submitted for American Agricultural Law Association’s annual meeting in Oklahoma City OK on October 7, 2016). [↑](#footnote-ref-15)
16. *See, e.g.,* *Hadden Farms Inc. v. Syngenta Corp.*, No. 3:14-cv-03302-SEM-TSH (C.D. Ill. filed Oct. 3, 2014) (class action complaint for damages and injunctive relief), *available at* <http://www.fien.com/pdfs/IllinoisvSyngenta.pdf>. (visited September 7, 2016). [↑](#footnote-ref-16)
17. Syngenta FAQ, http://www.syngentacornlitigation.com/syngenta-lawsuit-faq/. [↑](#footnote-ref-17)
18. In re Syngenta AG MIR 162 Corn Litig., 131 F. Supp. 3d 1177, 1189 (D. Kan. 2015). T [↑](#footnote-ref-18)
19. See id. at 1195-96 (footnotes and citations omitted). [↑](#footnote-ref-19)
20. 7 U.S.C. §136 et seq. (1996). [↑](#footnote-ref-20)
21. Bates v. Dow Agrosciences LLC, 544 U.S. 431 (2005). [↑](#footnote-ref-21)
22. 7 U.S.C. § 136v(b). [↑](#footnote-ref-22)
23. Id. at 15. [↑](#footnote-ref-23)
24. Max Fisher, “Lack of Chinese Approval for Import of U.S. Agricultural Products Containing Agrisure Viptera™ MIR 162: A Case Study on Economic Impacts in Marketing Year 2013/14”, Nat’l Grain & Feed Ass’n, April 16, 2014, *available at* <http://ngfa.org/wp-content/uploads/Agrisure-Viptera-MIR-162-Case-Study-An-Economic-Impact-Analysis.pdf>. (visited September 7, 2016). [↑](#footnote-ref-24)
25. In re Syngenta, 131 F. Supp. 3d at 1193-1207. [↑](#footnote-ref-25)
26. Sample v. Monsanto Co., 283 Fed.Supp.2d 1088 (E.D. Mo. 2003) (summary judgment granted on economic loss defense). [↑](#footnote-ref-26)
27. “Washington Farmers Sue Monsanto over GMO Wheat,” Ins. Journal, June 10, 2013, http://www.insurancejournal.com/news/west/2013/06/10/294881.htm. (last visited June 10, 2015). [↑](#footnote-ref-27)
28. Jan Omega, Monsanto Lose, *Will Pay $350,000 More to Settle More Wheat Lawsuits,* Inquisitr (March 21, 2015) ohttp://ww--w.inquisitr.com/1942875/monsanto-loses-will-pay-350k-to-settle-more-gm-wheat-lawsuits/ [↑](#footnote-ref-28)
29. Monsanto Statement on Discovery of Glyphosate-tolerant Wheat Plants in Washington State, Monsanto Blog, (August 5, 2016) http://monsantoblog.com/2016/07/29/monsanto-statement-on-discovery-of-glyphosate-tolerant-wheat-plants-in-washington-state/(last visited August 30, 2016). [↑](#footnote-ref-29)
30. Id. [↑](#footnote-ref-30)
31. Aziz Elbehri, Biopharming and the food system: Examining the potential benefits and risks. AgBioForum, 8(1), 18-25. (2005). Available on the World Wide Web: http://www.agbioforum.org. (visited September 7, 2016). [↑](#footnote-ref-31)
32. *Draft Guidance for APHIS Permits for Field Testing or Movement of Organisms with Pharmaceutical or Industrial Intent:* *Permit User’s Guide With Special Guidance for ePermits v. 3/7/2012*, (March 31, 2006) is available at http://www.aphis.usda.gov/brs/pdf/Pharma\_Guidance.pdf. (visited September 7, 2016). [↑](#footnote-ref-32)
33. Nicholas Kalaitzandonakes, The Economic Impacts of Asynchronous Authorizations and Low Level Presence: An Overview, International Food & Agricultural Trade Policy Council (October, 2011) <http://www.agritrade.org/Publications/documents/LLPOverview.pdf>

(visited September 7, 2016). [↑](#footnote-ref-33)
34. Monsanto Co. v. Geertson Seed Farms, 130 S. Ct. 2743, 177 L. Ed. 2d 461, 70 Env't. Rep. Cas. (BNA) 1481 (2010). *See also,* Center for Food Safety v. Vilsack, 2009 WL 3047227 (N.D. Cal. 2009) [↑](#footnote-ref-34)
35. USDA approved the Monsanto sugar beet without any restrictions on planting. *See* Animal and Plant Health Inspection Serv., U.S. Dep't of Agric., Glyphosate-Tolerant H7-1 Sugar Beet: Request for Nonregulated Status: Final Environmental Impact Statement (May 2012), *available at* http://www.aphis.usda.gov/brs/aphisdocs/03\_32301p\_feis\_std.pdf. (visited September 7, 2016). [↑](#footnote-ref-35)
36. Allison Peck, *Plant Biotechnology Law After* Geertson Seed Farms*: Potential Impacts on Regulation, Liability, and Coexistence Measures*, Nat’l AgLaw Ctr. 11 (2008), *available at* <http://nationalaglawcenter.org/wp-content/uploads/assets/articles/peck_aftergeertson.pdf>. (visited September 7, 2016). [↑](#footnote-ref-36)
37. Peck, *supra* note 36, at 9, 12. [↑](#footnote-ref-37)
38. *Id.* at 12 [↑](#footnote-ref-38)
39. *Id.* at 9. [↑](#footnote-ref-39)
40. Marsh v. Baxter, WASC 187 (CIV 1561 of 2012)(2014); See also Rachael Oxborrow, Marsh v Baxter: Organic farmer loses appeal, ordered to pay $800,000 as pleas grow for farm ‘co-existence, Farm Weekly, (September 3, 2015) <https://www.geneticliteracyproject.org/2015/09/03/marsh-v-baxter-organic-farmer-loses-appeal-ordered-pay-800000-pleas-grow-farm-co-existence/> (visited September 7, 2016). [↑](#footnote-ref-40)
41. USDA, Advisory Committee on Biotechnology & 21st Century Agriculture(AC21), Plenary Meeting, Draft Meeting Summary-Version 1, 1 (Sept. 9, 2011), *available at* <http://www.usda.gov/wps/portal/usda/usdahome?navid=BIOTECH_AC21&navtype=RT&parentnav=BIOTECH> (visited September 7, 2016). [↑](#footnote-ref-41)
42. *Id.* at 2. [↑](#footnote-ref-42)
43. *See*  Enhancing Coexistence: A Report of the AC21 to the Secretary of Agriculture, *supra* note 38; *see also*, Johnathan Hladik, Ctr. for Rural Affairs, Connect the Dots: Transmission and Rural Communities 18 (2011), *available at* http://www.cfra.org/files/Connect-the-Dots.pdf; *see also*, A. Bryan Endres & Rachel H. Armstrong, Iowa Direct Farm Business: A Legal Guide to Market Access31–33 (2013), *available at* <http://new.nationalaglawcenter.org/wp-content/uploads/assets/articles/IAdirectfarm.pdf> (referencing Iowa laws that will govern the issue). (visited Sept. 7. 2016). [↑](#footnote-ref-43)
44. *See e.g.*, *Pesticide Spray and Dust Drift*, EPA, http://www.epa.gov/pesticides/factsheets/spraydrift.htm (visited Sept. 7. 2016). [↑](#footnote-ref-44)
45. *Roundup Ready Alfalfa History*, *supra* note 2. [↑](#footnote-ref-45)
46. Cowan, supra n.10 [↑](#footnote-ref-46)
47. Cowan, *supra* n 10. [↑](#footnote-ref-47)
48. The AOSCA's Web site can found at http://aosca.org (visited Sept. 7. 2016). AOSCA sets minimum standards for genetic purity and identity and recommends minimum standards for seed quality for the classes of certified seed, working through 42 affiliated entities in the various states of the United States. [↑](#footnote-ref-48)
49. For example, isolation distances from fields of the same crop and the use of buffer rows. [↑](#footnote-ref-49)
50. International Service for the Acquisition of Agrobiotech Applications, MON-87701 Authorizations <http://www.isaaa.org/gmapprovaldatabase/event/default.asp?EventID=175> (visited Sept. 7. 2016). [↑](#footnote-ref-50)
51. Mark A. Pollack, Gregory C. Shaffer, WHEN COOPERATION FAILS: THE INTERNATIONAL LAW AND POLITICS OF GENETICALLY MODIFIED FOODS at 296 (Oxford 2009) (Citing the “mirror policy” in which Argentina would not approve a GM variety until it was approved in Argentina's major export markets—mainly the EU.”) [↑](#footnote-ref-51)
52. Grossman, “Anticipatory nuisance and the prevention of environmental harm and economic loss from GMOs in the United States” Journal of Environmental Law and Practice 2 (2008) [↑](#footnote-ref-52)
53. *Hoffman & Beaudoin v. Monsanto Canada*, 2005 SKQB 225, appeal dismissed, 2007 SKCA 47. [↑](#footnote-ref-53)
54. *Id.* at 110 (citing Drew L. Kershen, Legal Liability Issues in Agricultural Biotechnology, Nat’l Agric. Law Ctr. 1, 10–12 (2002), *available at* http://nationalaglawcenter.org/wp-content/uploads/assets/articles/kershen\_biotech.pdf). [↑](#footnote-ref-54)
55. Monsanto’s four listed events and stacks in the Croplife database are: (1) Roundup Ready Soybeans (40-3-2), (2) Genuity Roundup Ready 2 Yield (MON 89788), (3) INTACTA RR2 PRO Soybeans (MON 87701 X MON 89788) and (4) Roundup Ready 2 Xtend Soybeans (MON 87708 X MON 89788). Of these four soybeans, only the last one (RR2 Xtend) lacked EU approval but was also fully commercialized in 2016. It should be noted that most biotech seed companies, including Monsanto, are members of Croplife International. [↑](#footnote-ref-55)
56. See, Monsanto, Soybean Seeds, [http://www.a biotech seed company.com/products/pages/soybean-seeds.aspx](http://www.monsanto.com/products/pages/soybean-seeds.aspx) (Listing Roundup Ready 2 Yield® soybeans, INTACTA RR2 PRO® soybeans and Vistive® Gold soybeans). (visited Sept. 7. 2016). [↑](#footnote-ref-56)
57. *Bracey v. Monsanto*, 823 S.W.2d 946 (1992) (J. Rendlen, dissenting and saying that “the consequential damages disclaimer is unconscionable”) <http://law.justia.com/cases/missouri/supreme-court/1992/73301-0.html> (visited Sept. 7. 2016). [↑](#footnote-ref-57)
58. *In re Genetically Modified Rice Litigation*, 666 F. Supp. 2d 1004 (E.D. Mo. 2009) [↑](#footnote-ref-58)
59. citing " Wallace v. Grasso, 119 S.W.3d 567, 580

(Mo. Ct. App. 2003). [↑](#footnote-ref-59)
60. Grossman, *supra* note 111, at 107 (discussing creative approaches to nuisance claim). [↑](#footnote-ref-60)
61. *Id.* at 132. [↑](#footnote-ref-61)
62. 343 Ill. App. 3d 654, 798 N.E.2d 817 (2d Dist. 2003). See also, Fink v. Board of Trustees, 218 N.E.2d 240, 244 (Ill. Ct. App. 1966) [↑](#footnote-ref-62)
63. 123 U.S. 623, 673 (1887) [↑](#footnote-ref-63)
64. Andrew H. Sharp, *An Ounce of Prevention: Rehabilitating the Anticipatory Nuisance Doctrine,* 15 B.C. Envtl. Aff. L. Rev. 627 (1988), <http://lawdigitalcommons.bc.edu/ealr/vol15/iss3/6>. [↑](#footnote-ref-64)