

# MICROFILM DIVIDER

OMB/RECORDS MANAGEMENT DIVISION

SFN 2053 (2/85) 5M



ROLL NUMBER

DESCRIPTION

2304

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Deanna D. Hall  
Operator's Signature

10/22/03  
Date

2003 SENATE JUDICIARY

SB 2304

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10/22/03

Date

2003 SENATE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. SB 2304

Senate Judiciary Committee

☐ Conference Committee

Hearing Date 02/04/03

Tape Number	Side A	Side B	Meter #
1	X		0.0 - End
2	X		0.0 - End
3	X		0.0 - End
Committee Clerk Signature <i>Maria L. Salby</i>			

Minutes: Senator John T. Traynor, Chairman, called the meeting to order. Roll call was taken and all committee members present. Sen. Traynor requested meeting starts with testimony on the bill:

Testimony Support of SB

Sen Bowman Introduced the Bill (meter 6.1 to meter 25.7) Attachment #1. Discussed legal responsibility of bill. Discussed normal farm practices, testing/tolerance Read above attachment. Drew Diagram of wheat and the pollination cross/pollination process on white board (meter 17.3) Senator Thomas L. Trenbeath asked how exactly the bill would work giving the liability to the company that altered the wheat? Contract is only between the provider of the transgenic wheat and the grower of the transgenic wheat. This bill does not shift the liability off of the grower. (meter 23.9) Sen. Bowman stated that the one of the huge issues of this is we are now crossing over from feed grains to human consumption foods. Regardless of what this bill states a neighbor will always have the right to sue a neighbor.

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Senator John T. Traynor, Chairman asked how widespread is the planting in ND? It has not yet been introduced, only in test plots.

Senator Thomas L. Trenbeath asked Sen. Bowman if his intention is to protect in part the grower of the transgenic wheat how do you do that in this bill? Sen. responded that the liability escapes the grower of the transgenic wheat. Where in this bill does it do that? This bill deals totally with the raiser of non-transgenic wheat to sue the manufacture of the transgenic wheat, but it doesn't limit him he can still sue his neighbor? Isn't this bill a way to halt the growing of transgenic wheat? No. Wouldn't the producer of transgenic wheat reflect his risk into the price of the wheat. In other words wont the price of the seed go up to the point where the farmer isn't going to buy it or grow it? Than is a question you would have to ask the company that is going to put the product out? Responded Sen. Bowman. Discussion of company's and liability. Sited his example with overspray of roundup was not an accurate correlation to this product (meter 32)

Senator Dick Dever (meter 34.5) discussed pollination of crops and normal farm practices. Discussed "Tech" agreements, the five good faith points in bill, and testing processes.

Sarah Vogel - Attorney who works with farmers/ranchers. Attachment #2 (meter 49.6) to tape 2, side 1.

Senator Thomas L. Trenbeath asked Ms Vogel if what she wanted was a moratorium. She responded that would be wonderful. Additional questions on her testimony (3.0 meter)

Gail Wiley - Farmer, Jamestown, ND read testimony (meter 5.5) Attachment #4

Jeff Weispfenning - Deputy Commissioner representing the testimony of Roger Johnson, Agriculture Commissioner Read testimony (meter 12.3).

Discussion on testimony (meter 14.9)

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Richard Schlosser - V.P. Farmers Union (meter 16.7) We are not opposed to all biotech research, only this one. I am a farmer from Edgley. Our biggest concern is market acceptance of this product. Sited a neighbor's soybean example (meter 18) Presently the food processors will not take any GMO products. We are at risk of Monsanto bringing the product to the market prematurely.

Todd Leak - ND I.P. Farmer (meter 21.0) Testimony on what quality of seed he needs to produce. He has lost markets due to the GMO wheat talk alone.

Blaine Schmaltz - Seeds man, Rugby, ND (tape 3, side 1, meter 15) They have a zero tollerance in his industry discussed this.

Ann Olmstead - Organic Farmer (meter 23.2)

Testimony in opposition of SB

Cal Rolfson - Bismarck Attorney representing Monsanto. Handed out product brochure (Attachment #6) Read Testimony (meter 32.6) Attachment #7.

Discussion of Rule 66 (meter 40) Patent process/Regulatory process, Liability statute, Act of God, Current seed contracts. Discussed how Monsanto pulled products that did not have market acceptance (tape 3, meter 3.8)

Duane Hauck - NDSU Experiment Station (meter 26.6) Read Attachment #9

Senator John T. Traynor, Chairman asked where are the two locations - Langdon and Casselton, ND.

Bruce Freitag - Organic Farmer, Scranton, ND - President of ND Grain Growers Attachment #10, read testimony (meter 31).

John Mittleider - ND Farm Bureau, Attachment #12, read testimony (tape 4, side b, meter 1.2)

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Terry Wanzek - Farmer, Jamestown, member ND Grain Growers Association. Attachment #11,  
read testimony (tape 3, meter 34).

Testimony Neutral to SB

Albert Schneider - Plant Science Dept., NDSU, Fargo, ND Attachment #8, Read Testimony  
(meter 30)

Testimony Support of SB

Donald Vig - Farmer, Valley City, ND, (meter 6.6) stated his concerns on why the bill is  
necessary.

Mr. Bogm - Farmer, (meter 14.4), Stated that this bill is not about stopping technology it is about  
smart technology.

Sen. Bill Bowman - Closing Statement (Tape 1, side 2, meter 0.1)

Senator John T. Traynor, Chairman closed the hearing

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2003 SENATE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. SB 2304

Senate Judiciary Committee

☐ Conference Committee

Hearing Date 02/04/03

Tape Number	Side A	Side B	Meter #
5	X		4.5 - 14.5
Committee Clerk Signature <i>Maria L Solberg</i>			

Minutes: Senator John T. Traynor, Chairman, called the meeting to order. Roll call was taken and all committee members present. Sen. Traynor requested meeting starts with committee work on the bill: Discussion on Professors from NDSU's testimony (meter 5.6) Thought bill was premature. Discussed how this would actually effect liability the way written.

Senator Dennis Bercier sited two cases (meter 6.5) Discussed language used in bill. Discussed Professors 10 feet bumper Vs organic farmers 10 feet bumper. (meter 9.9)

Would a bill like this in such an early stage hinder the science. Discussed Hybrid.

Motion Made to DO NOT PASS SB 2304 by Senator Thomas L. Trenbeath and seconded by Senator Dick Dever.

Roll Call Vote: 4 Yes. 1 No. 1 Absent

Motion Passed

Floor Assignment Senator John T. Traynor, Chairman

Senator John T. Traynor, Chairman closed the hearing

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*Dennis Bercier*  
Operator's Signature

*10/22/03*  
Date

Date: February 4, 2003  
Roll Call Vote #: 1

**2003 SENATE STANDING COMMITTEE ROLL CALL VOTES**  
**BILL/RESOLUTION NO. SB 2304**

Senate JUDICIARY Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number \_\_\_\_\_

Action Taken DO NOT PASS

Motion Made By Senator Thomas L. Trenbeath Seconded By Senator Dick Dever

Senators	Yes	No	Senators	Yes	No
Sen. John T. Traynor - Chairman	X		Sen. Dennis Bercier		X
Sen. Stanley Lyson - Vice Chair	X		Sen. Carolyn Nelson	A	A
Sen. Dick Dever	X				
Sen. Thomas L. Trenbeath	X				

Total (Yes) FOUR (4) No ONE (1)

Absent ONE

Floor Assignment Senator John T. Traynor, Chairman

If the vote is on an amendment, briefly indicate intent:

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Dennis Bercier  
Operator's Signature

10/22/03  
Date

**REPORT OF STANDING COMMITTEE (410)**  
February 4, 2003 4:29 p.m.

Module No: SR-21-1659  
Carrier: Traynor  
Insert LC: . Title: .

**REPORT OF STANDING COMMITTEE**

**SB 2304: Judiciary Committee (Sen. Traynor, Chairman) recommends DO NOT PASS**  
(4 YEAS, 1 NAY, 1 ABSENT AND NOT VOTING). SB 2304 was placed on the  
Eleventh order on the calendar.

(2) DESK, (3) COMM

Page No. 1

SR-21-1659

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10/22/03

Date

2003 TESTIMONY

SR 2304

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10/22/03  
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Bell becoming the "poster child" for concerns about StarLink and other GMOs. Missouri Attorney General Jay Nixon has also sued Aventis on behalf of Missouri farmers and elevators, claiming that Aventis did not adequately teach farmers how to keep corn intended only for animal feed out of the human food supply.

#### Liability Law in United States Related to GMO Crops

##### Tort Liability

One of farmers' primary GMO-related problems that the StarLink situation revealed is that what a farmer's neighbor plants may seriously affect the farmer's own crops. This is true because certain crops—such as corn and canola—cross-pollinate, causing genetic material to migrate beyond where the crop was planted. Until "genetic fences" are developed that stop genetic drift, or "pollution," from occurring during cross-pollination, disputes may arise between farmers who plant GMOs and their neighbors who do not. Neighbors may suffer damages, for example, by being unable to market their non-GMO crop as they wish if the non-GMO crops test positive for GMOs that came from a neighboring farmer's field. Farmers growing GMO crops should be aware that if effective barriers to genetic pollution are unavailable or these barriers fail, they might face tort liability from their neighbors and others for contaminated crops.

Aventis attempted to create a "genetic fence" for StarLink by having farmers plant a 660-foot buffer strip of non-StarLink corn around StarLink cornfields. Corn grown in the buffer strip was also only approved for animal feed or industrial purposes. The use of buffer strips was to limit cross-pollination to non-GMO corn and also create a refuge where European corn borers and other targeted pests would not as quickly develop resistance to the bio-pesticide *Bacillus thuringiensis* (Bt) found in StarLink corn. Many farmers were reportedly unaware of the buffer strip requirement, resulting in many cases of StarLink corn being planted directly adjacent to a neighbor's non-StarLink corn. This non-StarLink corn then tested positive for the StarLink insecticidal protein Cry9C.

Farmers and seed companies who are responsible for genetically contaminating neighboring fields might be liable for a neighbor's damages based on tort claims of trespass to land, nuisance, negligence, or strict liability.

The tort claim of trespass to land arises when someone intentionally enters another person's land and causes damage. This claim could arise in a GMO context if a farmer and/or seed company knew that genetic traits from a GMO crop would enter a neighbor's property and genetic drift in fact occurs, causing harm to the neighbor's crop. The farmer and/or seed company could then be liable for any resulting harms caused by the GMO crop.

A similar tort is nuisance. Nuisance occurs when someone interferes with another person's use and enjoyment of his or her property. The interference is generally an act that results in obnoxious noise, sights, or smells emanating from the defendant's property and sensed from the other person's land. The interfering act does not need to cause property damages, just affect a person's ability to use and enjoy his or her property. GMO contamination could affect what crops a neighboring farmer can grow, thereby interfering with the farmer's ability to use his or her property.

The negligence tort claim arises when a person fails to act reasonably under the circumstances and this failure causes harm to another. The elements of a negligence claim are: (1) the existence of a duty on the part of the defendant to protect plaintiff from injury; (2) failure of defendant to perform that duty; and (3) injury to the plaintiff resulting from such failure. To prove that GMO contamination was the result of negligence, a person would have to prove that a neighboring landowner had a duty to prevent GMO contamination and that there was a reasonably foreseeable likelihood of injury. Given the potential for certain GMO crops to contaminate neighboring fields, a court could find that farmers have a duty to prevent this injury to their neighbors. If a duty is established, neighbors would then have to show that this duty was breached by the GMO crop grower. Failure to properly select seed, adhere to specified buffer zones, or follow growing and harvesting procedures could mean a breach of that duty. If one of these failures is linked to another person's injuries, the farmer that caused the GMO contamination could be liable for negligence.

Another potential claim related to GMO contamination is strict liability. Strict liability arises when someone engages in an abnormally dangerous activity; in such cases, a person harmed by the abnormally dangerous activity can recover damages from the person who engaged in the activity, without having to prove that the person who did the activity was reckless or negligent. Courts have found abnormally dangerous activities to include housing wild animals, storing and using explosives, or spraying pesticides. Some legal scholars argue that if a farmer and/or seed company know that a GMO crop is difficult to control and that it will likely cross-pollinate with crops in adjacent fields, the farmer and/or seed company should be held strictly liable for any resulting damages.

Courts assessing genetic contamination claims based on strict liability may compare them to past pesticide drift cases.

[REDACTED]

### Contract Liability

#### *Farmers' Liability Under GMO Seed Contracts*

Biotechnology companies and seed distributors that market GMO seeds to farmers usually require that farmers sign grower or technology agreements. These agreements generally give the farmer rights to use the GMO seeds in exchange for complying with all of the company's production methods and management requirements. The contract may

require the farmer to allow company representatives access to fields to inspect crops and determine if the farmer is in compliance with the contract.

The companies are generally seeking to secure a number of protections for themselves through the agreements. These agreements may include provisions designed to ensure that farmers follow specific guidelines directing where and how the GMO seed will be planted, to stop farmers from saving seed from the crop that is produced from the purchased seed, to protect the company's intellectual property rights, and to ensure that disputes arising under the contracts are resolved either through binding arbitration or in a court convenient to the company.

In addition to altering farmers' year-to-year production practices, contract provisions that protect the companies' intellectual property rights in the GMOs and prohibit farmers from saving seed to plant in the following year may also open farmers to liability for breach of contract. Monsanto, a chemical company based in St. Louis, Missouri, has recently brought complaints against farmers for allegedly saving seed in violation of either a technology agreement or Monsanto's intellectual property rights.

#### *Farmers' Liability Under Non-GMO Seed and Marketing Contracts*

Farmers market their crops utilizing a number of different methods. One method is the use of a marketing contract where the farmer agrees to deliver a certain number of bushels on a certain date to the food processor or cooperative. If the end use of the crop is for a non-GMO product, then the farmer will be under contract to deliver a non-GMO crop. Some of these marketing contracts are for identity-preserved crops, which provide the processor with specified characteristics such as high oil content. However, farmers may be unable to fulfill their marketing contracts if their crops are contaminated by GMOs from their neighbors or through the grain handling system. Farmers may face damages for failure to deliver on the contract and may need to find replacement crops or compensate the buyer for the costs of obtaining the crop elsewhere.

#### *Farmers' Liability Under Crop Sales Contracts*

Because of the risks of genetic contamination, discussed above, and a farmer's inability to ensure that he or she receives completely GMO-free seed from a seed supplier, even farmers who did not knowingly plant GMO seed should exercise caution in the guaranties and warranties that they make to the buyer of their crops. The risk is that a farmer may market crops that he or she believes are GMO-free but that later test positive for GMO genes. The farmer who guaranteed or warranted that his or her crops were GMO-free may then have those crops rejected by the buyer, may be liable for the buyer's expenses to replace the purchased crops, and may even be held liable for any further damages incurred by the buyer if the GMO-positive crop mingles with and contaminates other crops. For example, currently the European Union will not allow the importation of certain GMO crops. If farmers attempt to market crops that do not have the necessary regulatory approvals, this could cause entire shipments to be rejected by the importing country. The grain handling industry has shown that it is not yet capable of segregating most major crops. Because of this, one farmer's mistake could cause contamination of millions of bushels. Depending upon the representations made by the farmer when selling

the crop and the terms of the sales contract, the farmer could face significant liabilities if intermixing of GMO and non-GMO crops occurs.

To limit potential liability, when making sales farmers should only make representations about actions that were actually in their control. This might include the fact that the seed planted was represented by their seed company as being non-GMO seed and that care was taken to avoid contamination from GMO crops. For many farmers, taking precautions to clean equipment and bins and test their seed and crops for GMOs will result in significant costs that may not be recouped, but may lower liability exposure. Farmers should avoid promising that a crop contains all non-GMO material or promising that the crops were not genetically contaminated from a neighbor's crop or during harvest and storage.

### Regulatory Liability

The introduction of GMO crops presents potential liability for violation of statutes or regulations related to the companies' genetic intellectual property or the control of GMO crop distribution, including whether the crop has the proper regulatory approvals for various uses including human consumption

When using a technology, for example, Monsanto sued a Canadian farmer, Percy Schmeiser, for growing Roundup Ready canola without a technology agreement. Schmeiser, an organic farmer for over 40 years, claimed that the GMO canola drifted onto his property. In May 2001, a Canadian court ruled in favor of Monsanto and ordered Schmeiser to pay for the alleged profits he received from growing GMO canola. Schmeiser is appealing the ruling. Monsanto has recently brought similar actions in the United States against farmers throughout the nation including farmers in North Dakota, South Dakota, Indiana, and Louisiana. Whether or not the farmers violated Monsanto's intellectual property rights, they still must raise a defense in court ringing up thousands of dollars in attorneys' fees.

On October 3, 2001, the United States Supreme Court heard oral arguments in a case that may also provide biotechnology companies with greater regulatory control over farmers' use of GMO products. The case of *J.E.M. Ag Supply v. Pioneer Hi-Bred International* concerns J.E.M. Ag Supply's resale of 600 bags of Pioneer brand non-GMO corn seed. Pioneer sued J.E.M. for making an unauthorized sale and thereby infringing Pioneer's patent on the seed. Pioneer argues that the seed is covered by a "general utility patent" that prohibits any unauthorized use. In its defense, J.E.M. argues that the resold seed was protected only under the Plant Variety Protection Act of 1970 (PVPA), which specifically exempts certain uses including research and seed saving. If Pioneer wins this case, it will likely open the door for all seed companies to obtain and enforce utility patents for their GMO products. With utility patent protections in addition to PVPA certificates, companies will no longer need the "bargained-for" contract language prohibiting farmers from saving seed, because the utility patents would automatically prevent farmers from making any use of the seed that was not authorized by the company. If J.E.M. wins this case, biotechnology companies' ability to obtain utility patents on plants will be restricted and farmers will have a right to save seed, though presumably this right can still be

waived by contract. Some experts speculate that if J.E.M. wins, the biotechnology companies will lobby Congress to override the Supreme Court's ruling by amending the PVPA. The Supreme Court is expected to issue its decision around spring planting time in 2002.

#### The Aventis Buy-Back Program

The Aventis StarLink corn buy-back program is an example of how all three types of the liabilities discussed above impact farmers. Farmers who planted StarLink corn were supposed to sign Grower Agreements dated April 2000 that required the use of a 660-foot buffer zone and informed farmers that StarLink was not approved for human consumption. Many farmers did not sign these contracts before planting StarLink, and Aventis attempted to have these farmers sign another contract in September 2000. Other farmers who did sign the contract were not aware of the marketing restrictions imposed on StarLink corn. As a result of contract misunderstandings and the regulatory restrictions on StarLink's approved uses, Aventis and perhaps StarLink corn growers face tort liability for contaminating neighboring fields and entire shipments of corn. The legal theories alleged in the various class-action lawsuits against Aventis include public nuisance, consumer fraud, and negligence. The fallout of this debacle may also lead to farmers suing their StarLink-growing neighbors because, despite growing non-StarLink corn, the farmers' grain bins tested positive for StarLink corn.

Aventis attempted to rectify some of the economic damages by providing growers of StarLink corn and growers of StarLink-contaminated corn a per bushel premium to make up for lost marketing opportunities. In an agreement and supplemental agreement with 17 state Attorneys General, Aventis agreed to pay a 25-cent per bushel premium above the October 2, 2000, corn price to StarLink and certain non-StarLink corn growers for corn planted with StarLink seed and in the 660 foot buffer zone area. Aventis has also agreed to reimburse some transportation and storage costs to corn growers and elevators. In the supplemental agreement between the state Attorneys General and Aventis announced on July 24, 2001, Aventis will also reimburse non-StarLink growers who either had seed contaminated with the StarLink Cry9C protein or who had their grain commingled with StarLink corn. Such growers will receive a 5-cent per bushel premium if the corn is fed on the farm (an approved use) and a 10-cent per bushel premium if the corn is marketed to a StarLink Logistics Approved Destination.

While Aventis's buy-back program allows farmers to sell or utilize their StarLink or StarLink-contaminated corn that would otherwise be rejected by major feed buyers such as Tyson, the buy-back program has encountered legal and logistical problems. Farmers have reported difficulty in obtaining timely and prompt payments for their corn. In its agreement with the state Attorneys General, Aventis assured the States that it has sufficient assets to cover any obligations and that the parties will negotiate concerning implementation details. Iowa Attorney General Tom Miller and others have exerted pressure on Aventis to speed up payments, but the agreements do not have a specific timeline. As of September 15, 2001, Attorney General Miller reported that 400 Iowa farmers had still not been compensated by Aventis.

The Aventis buy-back program does not eliminate potential contract liability for farmers. Farmers may be unable to fulfill delivery contracts for their corn because StarLink and



StarLink-contaminated corn is only accepted at limited elevators or for certain uses. For example many corn farmers have delivery contracts with their member-owned ethanol cooperatives. StarLink corn is approved for industrial uses, but many ethanol plants utilize a wet mill system that produce food by-products, such as corn gluten feed, for domestic and export markets. Since StarLink corn is not approved for food consumption, these farmers would not be able to deliver their corn to their ethanol plants. Other farmers who have identity-preserved contracts for a specific type of corn may be unable to fulfill those contracts if their corn was contaminated with StarLink corn.

The Aventis buy-back program similarly does not eliminate potential tort liability for farmers. The January 22, 2001, state Attorneys General agreement disclaims any release of claims against Aventis by the states or any growers or elevators. There is no attempt in the agreement, however, to make Aventis responsible for claims brought against individual growers because of genetic drift or commingling of crops. It is likely that any lawsuit against a grower would also name Aventis as a defendant, and the farmer-defendant could argue that Aventis should be responsible for any damages awarded by a court, but there is no guarantee that this would be successful and the farmer would likely face considerable legal expenses in the meantime.

As for potential regulatory liability, given the buy-back program, it does not appear that Aventis will argue any violation of its intellectual property rights and in fact is working with farmers to eliminate "volunteer" StarLink corn. The United States is similarly not likely to pursue individual farmers for violating regulatory restrictions on the use of StarLink corn, but farmers should not always assume that this will be the case if future breakdowns in the grain handling system occur, especially where farmers are on notice of required regulatory controls. Under the federal regulatory system, farmers who plant Bt crops are required by EPA to set up Bt refuges to limit insects developing resistance to the Bt pesticide. Failure to plant Bt refuges could potentially result in EPA bringing enforcement actions against not only seed companies, but also individual farmers. Another example of farmers assuming responsibility for complying with the regulatory restrictions that apply to their crops is Monsanto's 2001 Technology Agreement, through which farmers growing Roundup Ready corn and canola explicitly agree to "channel grain produced to domestic use as necessary to prevent movement to markets where the grain is not yet approved for import." If a violation of this provision occurs, it is possible other entities besides Monsanto may seek damages from farmers or other responsible parties.

#### Conclusion

This article can only speculate about the potential liabilities farmers may face as a result of growing StarLink corn and other GMO crops. The reason for this is that courts are just beginning to address the complex legal and regulatory issues that GMO crops present. The present abundance of class action and antitrust lawsuits and the potential for individual farmers suing their neighbors and seed companies for GMO contamination problems may begin to sort out these legal issues and provide farmers a better assessment of the legal risks involved in growing GMO crops. State Attorneys General have taken the lead, seeking economic protections for farmers damaged by the StarLink corn

situation, but these efforts do not fully address Aventis's implementation of the buy-back program or clarify legal liability issues.

Legislation has been introduced in Congress and state legislatures that attempts to impose legal liability on the companies that market and sell GMOs. Until legislation is enacted, however, it is premature to assume that these efforts will eliminate farmers' legal liabilities related to GMO crops. The potential for GMO products to cause damage to neighboring farmers and the entire grain handling system is evidenced not only by the StarLink example, but also in the increasing number of questions raised by GMOs including genetic drift distances, insect and weed resistance, and the inability of the current system to segregate GMO and non-GMO crops. Farmers assessing the costs and the benefits of growing GMO crops should base their decisions not only on production costs and expected yields, but also on the legal liability they may incur by planting, growing, and marketing GMO crops. For those farmers who choose not to grow GMO crops, especially organic farmers, caution still needs to be exercised in ensuring that their crops are protected from genetic contamination and that any promises made about the non-GMO crops are accurate representations of factors within the farmers' control.

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## Scientists shocked at GM gene transfer

Paul Brown, environment correspondent

Thursday August 15, 2002

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Weeds have become stronger and fitter by cross-breeding with genetically modified crops, leading to fears that superweeds which are difficult or impossible to control may invade farms growing standard crops.

Two separate teams, one working on sunflowers in the US and the other on sugar beet in France, have shown weeds and GM food crops readily swapping genes.

In the case of wild sunflowers, classed as "weed" varieties in America, specimens became harder and produced 50% more seeds if they were crossed with GM sunflowers which had been programmed to be resistant to seed-nibbling moth larvae.

Allison Snow, who headed the team at Ohio State University, confessed in New Scientist that she was "shocked" by the results. "It does not prove all GM crops are dangerous," she said. "I just think we need to be careful because genes can be very valuable for a weed and persist for ever once they are out there."

Pioneer Hi-Bred, which developed the GM sunflower, has abandoned the idea of selling the strain commercially.

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The sugar beet results show that wild and GM varieties swapped genes, sometimes to the advantage of the wild varieties and the detriment of the GM plants, which produced lower yields. Writing in the Journal of Applied Ecology, the University of Lille team said they had underestimated the likelihood of GM beets swapping genes with the beet weeds that grow among them.

The two sets of results add to the fears of environmental groups and organic farmers that normal crops could be contaminated by GM varieties - and make weeds impossible to control. This is less of a problem in countries where crops have been introduced, for instance soya grown in the US, because no native weed varieties exist. But in Europe,

<http://www.guardian.co.uk/international/story/0,3604,774795,00.html>

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particularly in Britain, where weed species of both beet and oil seed rape exist, the risk is potentially serious.

Adrian Bebb, GM campaigner at the environmental group Friends of the Earth, said GM beet was now being grown at 16 farm-scale trial sites in England. "Once again scientists are discovering new impacts of GM crops," he said. "The government always emphasises the importance of a sound scientific approach to GM crop safety, so they should look at this research seriously and question whether or not we should be testing GM crops out of doors."

Two years ago government research reported that GM crops could cross-pollinate with ordinary crops over larger distances than had been thought. The government is in its final year of trials to investigate the effect of growing GM crops on the countryside.

#### Special reports GM food debate

Full text  
[Royal Society report on GM plants \(pdf\)](#)

#### Comment and analysis

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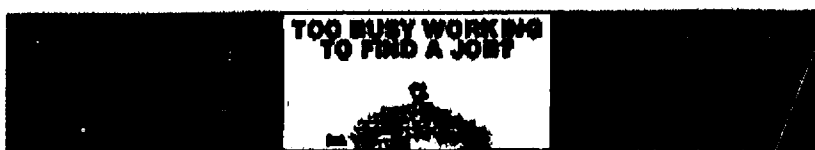
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10/22/03

# Genetically engineered wheat: Miracle or malignancy?

by **Deutch Waddill**

**FLORENCE, Mont.** — The introduction of genetically engineered organisms continues to be a topic of controversy throughout the world. Lately, this controversy has found its way into Montana.

During the 2001 Legislative session, Montana legislators considered two bills regarding the commercial introduction of genetically engineered wheat into the armlands of Montana. House Bill 211 would have established a moratorium on the production of genetically engineered wheat until Oct. 1, 2003. This would have allowed the implementation of House Joint Resolution 6 — a study to determine impacts of genetically engineered wheat on Montana's economy. Both bills were defeated as a result of extensive lobbying by those opposed to any effort to identify potential problems with such an introduction.

## Controversy

The basis for these two pieces of legislation was, and still is, the tremendous controversy surrounding genetically engineered grains. Multinational chemical giant Monsanto plans to introduce genetic

cally engineered wheat into Montana and other major grain-producing states by 2005. Monsanto claims that its engineered wheat strain, Roundup Ready, is resistant to its own well-known herbicide, Roundup. To wheat farmers, the benefits are clear. They can sow their fields with Roundup wheat, then when the time comes, treat the fields with Roundup and, presto, the weeds are taken care of without damaging their valuable crop. This should mean greater yields with less expense — a miracle of modern technology.

To those unfamiliar with genetic engineering, don't confuse it with such natural techniques as hybridization or cross breeding. In genetic engineering, we are in a sense playing God. We are creating an entirely new organism by inserting the genes of one type of organism, such as a fish, into the genes of another, such as a plant. This creates an entirely new organism with a unique genetic makeup, which is then patented, such as Monsanto has done with its genetically engineered wheat, corn and soybeans. If you are not disturbed with the moral aspect of this technology, you may conclude that this truly is a miracle that answers a farmer's dreams. Not so fast!

Whatever our farmers grow, they are

dependent on the market to realize profits. According to the Montana Department of Agriculture, we currently export about 80 percent of our wheat, mixed with wheat from North Dakota, Nebraska, South Korea and Taiwan. Each of these countries requires mandatory labeling for even trace elements of genetically engineered organisms. Further, the Japanese Millers Association, representing 90 percent of Japanese flour millers and bakers, has stated it will not purchase genetically engineered wheat at any level. Wheat buyers in South Korea and the Philippines have indicated a similar intolerance.

## Potential market losses

Because grain shipping systems are not equipped to segregate genetically engineered grains from traditional varieties, the introduction of genetically engineered wheat into Montana could contaminate Montana's entire wheat crop, affecting export markets for all Montana wheat farmers.

Unfortunately, the potential losses of significant grain markets aren't the only disadvantage. Other concerns include lin-

ancial liability that could reach up into the millions of dollars for farmers as Monsanto's contracts specifically state that it cannot be held liable for damages caused by planting genetically engineered crops. In addition, if genetically engineered wheat is herbicide resistant, what can be used to control "volunteer" spreading or even crossing with weeds to create superweeds? And then there is Monsanto's contract that forces farmers to sign away their rights to save or sell seeds, potential permanent field contamination, etc.

Hopefully, by now we are more than a little cautious about taking Monsanto's Roundup miracle for granted. Passing a temporary moratorium in the Montana Legislature to determine the impact of the introduction of genetically engineered wheat is the only prudent measure. We owe it to our Montana wheat farmers and the economy of our great state to take the time to understand the risks involved, before we put our valuable wheat export markets on the line.

For information on how to protect Montana's wheat from genetic contamination, go to [www.northernplains.org](http://www.northernplains.org). □

*Editor's Note: Waddill is a representative of Montana's House District 62 in Florence, Mont.*

*Deutch Waddill*  
Operator's Signature

10/22/03  
Date

# Seed contamination raises control issues

■ Sustainable ag group says gene-altered soybeans spilled onto non-GMO stocks

By Michael Pattee  
Agweek Staff Writer

FARGO, N.D. — A group critical of genetically modified crops say North Dakota State University's Foundation Seedstocks Program has been contaminated with genetically modified crops, so perhaps it cannot be trusted to segregate GM and non-GM wheat seed.



Podoll

NDSU officials acknowledge a problem occurred, but say it was properly handled. They say soybean and wheat programs are not regulated the same for GM characteristics, and that proper precautions are in place.

Theresa Podoll, executive director of the Northern Plains Sustainable Agriculture Society, sent out a news release Nov. 11 saying the NDSU's non-GMO, Natto-type soybeans planted in 2002 may have been contaminated with GM beans.

Natto beans are specialty soybeans destined for premium food grade markets.

The society includes 387 members, largely from North Dakota but including neighboring states and provinces. Most are certified organic producers, but some are in the organic grain trade, or even land-grant universities and agencies. The group has been a strong opponent of the commercialization of GM wheat, much of which must be exported to countries and buyers who don't want it.

Natto is a Japanese food product made from fermented whole soybeans. The Japanese steam and ferment the beans and add a bacteria to make a baked-type product. Nornatto and Nannatto are two NDSU varieties, both released for commercial use in January. Two lots of non-GMO Natto beans were found contaminated with Monsanto's Roundup Ready soybean genetics, Podoll says. NDSU officials say sufficient steps have been taken to minimize the problem and avoid repeating it.

"In soybeans, we make every effort to prevent contamination and — if it occurs — we correct it," says M. Dale Williams, director of NDSU Foundation Seedstocks. "Roundup Ready are two different animals," Williams says. "Roundup Ready soybeans are not regulated. Small amounts of it, or even larger amounts, are allowed in most markets. It's not approached with the same amount of diligence as Roundup Ready wheat."

## Natto beans

The soybean contamination occurred in the winter of 2000 to '01, when the Natto beans were sent to Chile for seed increase. The seeds then were shipped to North Dakota in 2001 and planted at NDSU's Agronomy Seed Farm near Casselton. Those fields produced some off-type plants, but GMO was not suspected, Williams says. Later, when some of the larger, off-type seeds were "scalped" off to be discarded, some of them tested positive for GMO. Natto beans are characteristically small.

Foundation seed from "rogued" 2001 fields were tested and no GMO was detected, Williams says. In 2002, seeds from those fields were sold to about 10 growers who would plant them for export or seed increase. When the Agronomy Seed Farm produced its own seed in 2002, it again was screened for size and again there were GMO positives in the large seeds. In late October, Williams phoned the 2002 customers to inform them "there could be a minor presence" in lots they were sold.

"Although we did not anticipate that the minor amounts that were indicated by what we'd found in our fields would

ever be enough to be detected in very sensitive tests, we wanted them to know so that the 'scalping' of very large seed should not be saved because they might have the presence of the transgenics in them."

Williams says the response from the growers was "very positive," that they were glad to be informed.

## Precautions

Williams says any contamination was in the seed from Chile. NDSU suspects the cooperating Chilean company that produced the seeds, possibly by not cleaning combines. "The seed we got from Chile had the contamination in it. They could have been careless in a number of steps," Williams says.

He says NDSU has changed Chilean cooperators and is starting to test advanced breeding lines as a potential precaution.

Podoll says Williams told her there would be more on-site inspections of cooperators. "That raises the issue of who's going to pay those costs," Podoll says.

She says foundation seedstocks should develop its own set of protocols on how to avoid such contamination, and how to handle contamination when it occurs.

Williams says sufficient precautions are in place. He says the program has increased cold storage stocks of non-GMO soybean breeder seed by six times.

"We have sufficient stocks to go back into immediate production with a clean source, if a presence is detected," Williams says.

Starting in 2002, the program started testing all its breeder seed and all production. Foundation seedstocks are literally the "foundation for entire seed system," Podoll says. She says contamination "strikes at the very heart of the segregation argument."

Podoll says she's troubled by the fact that the "decision to destroy these foundation lots has not been made," despite "statements made, early this spring, that if foundation seedstocks were to become contaminated with transgenic varieties that they would be destroyed."

Podoll says, "It looks like they intend to go ahead with planting them on the market and not recalling them, and/or destroying any seedstocks they have in their possession at this time."

## Drastic measures

Ted Helms, an NDSU soybean breeder who developed NDSU's Natto bean varieties, says such drastic measures probably would not be applied to soybeans, but would involve wheat seeds, because GM wheat seed cannot be legally exported.

Robert B. Sinner, president of SBA Foods Inc. of Casselton, who specializes in identity-preserved shipments of food grade soybeans, acknowledges contamination is a problem. He says the North Dakota State Seed Department must take precautionary measures when certifying and registering seed to "not only verify purity of the variety but also whether it's free of contamination of transgenics."

NDSU, from its initial varietal work, needs to take very strict management procedures and do regular testing to maintain purity, Sinner suggests.

"All the money that is spent to send those increases to Chile are all for naught if it's contaminated," Sinner says.

Sinner says he would be disturbed if NDSU planned to continue to market contaminated seed as certified or registered. "That, to me, goes against the principles of certified and registered seed. You've lost your purity," Sinner says. □

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Wed. June 26, 2002  
B's Tribune

# Biotech farming gains endorsement

by DENNIS T. AVERY

WASHINGTON — The World Food Summit in Rome earlier this month drew scant media attention, which is surprising because it set the stage for finally conquering world hunger by formally endorsing bio-technology and high-yield farming.

In doing so, the delegates dealt a stunning setback to the Green Movement, and then added insult to injury by rejecting activist demands that organic farming be promoted in developing nations.

The summit — quite sensibly — voted in favor of the higher, more stable crop yields now possible with modern conventional farming.

Add in the enormous potential of genetic engineering to help double global food output and there was enormous optimism that the world will be able to feed all of its expected peak population of 8 billion to 9 billion mostly affluent people in 2050.

The summit's closing declaration asserted, "We are committed to study, share and facilitate the responsible use of biotechnology in addressing development needs." The declaration also pressed for more agricultural

research, including biotechnology. The U.N. Food and Agricultural Organization, which hosted the summit, also endorsed modern agricultural methods, saying "The appropriate use of biotechnology offers considerable potential to improve food security," through continuing research in, among other things, drought-resistant and salt-tolerant crops.

The 1997 World Food Summit set a goal of cutting the world's human hunger in half by 2002. Unfortunately, the world still has 800 million people without adequate food, and the numbers of hungry people are declining only slowly.

Nevertheless, thousands of eco-activists had lobbied United Nations to "go organic" for the last two years even though such agricultural produce lower yields.

In Rome, rationality — often a scarce commodity at international gatherings — prevailed.

Delegates from mostly-elected governments of 188 summit nations realized that the world must produce more — not less — food to end the malnutrition now rampant in many areas of South America, Asia and Africa.

Further good news for the chronically hungry: U.S. Secretary of Agriculture Anne Veneman told the summit the U.S. Agency for International Development will launch a 10-year, \$100 million Collaborative Agriculture Biotechnology Initiative to research better crop varieties for the often-difficult growing conditions in Third World countries.

The activists were also up against a group of developing nations that know all too well the low, uncertain yields, grinding poverty and wildlife habitat losses imposed by organic and traditional farming.

After all, they've been doing that kind of farming for years with mixed results at best.

Delegates from such developing countries as Mozambique, Nigeria, Uganda, Zambia, Egypt, Bangladesh, the Philippines and numerous other nations where subsistence farming is still routine, all were unwavering in their support of biotech.

As well they should be. Biotechnology has recently developed crops that are not only salt-tolerant but actually cleanse crop-poisoning salts from the soil.

Researchers at the University of

California-Davis turned on a natural gene in both tomatoes and canola, which directs the plants to store salt in their leaves, so it can be harvested and removed. Thus, 40 percent of the world's food supply, produced under irrigation, can be made fully sustainable for the first time.

The case for organic farming was also undercut by a long-term Swiss organic test published in Science on May 31 and conducted by Switzerland's Research Institute of Organic Agriculture. The experiment produced only 4 tons of wheat per hectare, far less than the Swiss national average of 6 to 7 tons.

Agriculture could still be forced backward by public policies based on present ignorance and a peering nostalgia for the past, but thanks to Rome that seems more and more unlikely.

Food shortages, the clearing of forests for more farmlands and erosion of wildlife caused by human encroachment are convincing both governments and their citizens that higher yields are the only solution for the world's hunger pangs.

(Dennis T. Avery is a senior fellow for the Hudson Institute.)

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10/22/03

Date

NORTH DAKOTA LEGISLATIVE COUNCIL

Minutes of the

AGRICULTURE COMMITTEE

Wednesday and Thursday, July 10-11, 2002  
Roughrider Room, State Capitol  
Bismarck, North Dakota

Senator Terry M. Wanzek, Chairman, called the meeting to order at 9:00 a.m.

Members present: Senators Terry M. Wanzek, Bill Bowman, Duane Mutch, Ronald Nichols; Representatives James Boehm, Michael Brandenburg, April Fairfield, Rod Froelich, Joyce Kingsbury, Phillip Mueller, Jon O. Nelson, Eugene Nicholas, Dennis J. Renner, Earl Rennerfeldt, Arlo Schmidt, Ray H. Wikenheiser

Members absent: Senator Harvey Tallackson; Representatives Thomas T. Brusegaard, C. B. Haas, Edward H. Lloyd

Others present: See Appendix A

It was moved by Senator Bowman, seconded by Representative Mueller, and carried on a voice vote that the minutes of the previous meeting be approved.

GENETICALLY MODIFIED ORGANISMS

Chairman Wanzek said the committee members have received copies of letters from Mr. Steve Strega, North Dakota Grain Dealers Association; Mr. Jim Bobb, Grain Division Manager, Southwest Grain, Taylor; Ms. Nadine Bayer, President, Great River Organic Milling, Winona, Minnesota; and Congressman Earl Pomeroy. Copies of the letters are on file in the Legislative Council office.

Chairman Wanzek said Dr. Robert N. Wisner, Department of Agricultural Economics, Iowa State University, appears before the committee at the suggestion of the Dakota Resource Council.

Dr. Wisner said he has been involved in grain marketing for 35 years. He said the real issue from a marketing perspective is not whether genetically modified crops are safe but rather what customers think about those crops. He said in agriculture, unlike any other industry, the producer makes the decision about what to produce. He said in virtually every other industry the consumer determines what to purchase. He said genetic modification has some exciting possibilities for food production. He said those possibilities include enhancing the nutritional quality of food and enhancing our productivity.

Dr. Wisner said another perspective involves consumer acceptance of the product. He said right now a substantial number of international markets are concerned about genetically modified crops. He said

these include Europe, Japan, China, Korea, and Taiwan. He said those areas have had difficulty with food safety. He said those areas have had to deal with issues such as mad cow disease. He said mad cow disease occurred because the scientific community said it was safe to feed same species proteins to cattle. He said there is a distrust of the scientific community and of governmental regulatory procedures abroad.

Dr. Wisner said the parliament of the European Union took a first step on July 3, 2002, toward lightening of the genetically modified organisms labeling standard from 1 to .5 percent. He said the parliament will have to go through a variety of other steps before this legislation becomes law.

Dr. Wisner said a recent study conducted at the University of Georgia found that pollen from genetically modified canola could drift up to 1.8 miles. He said herbicide resistance spread to 63 percent of the fields within that range. However, he said, the percentage of genetically modified organisms found in those fields ranged from only .20 to .03 percent. He said the conclusion of the study was that this was not a significant amount.

Dr. Wisner said an Australian study found pollen from genetically modified canola could drift up to 1.86 miles. He said the study found that the amount of cross-pollination did not appear to diminish over that distance. He said the maximum distance for isolation is not known. He said it appears as though there is room for additional research in this area.

Dr. Wisner said the vice president of General Mills has stated that food manufacturers receive no marketing advantage from genetically modified organisms at this point. He said this does not mean that there might not be advantages in the future.

Dr. Wisner said 2001 hard red spring wheat exports are going to the European Union, Japan, Philippines, South Korea, Taiwan, and the Philippines. He said all of those countries have or are in the process of developing a labeling-by-genetic-origin program. He said those countries account for almost 80 percent of the wheat exports.

Dr. Wisner said North Dakota needs to determine what will happen if it institutes a moratorium and the other states and Canada do not follow suit. He said North Dakota produces nearly one-half of the country's hard red spring wheat and nearly three-quarters

# 2002 MONSANTO TECHNOLOGY/STEWARDSHIP AGREEMENT

(Limited Use License)

We appreciate your interest in Monsanto's advanced technologies and the exciting benefits they offer. This Monsanto Technology/Stewardship Agreement covers all Roundup Ready® soybeans, YieldGard® Corn Borer corn and YieldGard® Corn Rootworm corn®, Roundup Ready® corn, YieldGard® Corn Borer with Roundup Ready® corn, Roundup Ready® cotton, Bollgard® cotton, Bollgard® with Roundup Ready® cotton, Bollgard® II® cotton, Bollgard® II with Roundup Ready® cotton, Roundup Ready® sugarbeets and Roundup Ready® canola. This Agreement includes stewardship responsibilities and requirements associated with these technologies.

For your convenience, this Agreement remains in effect until either you or Monsanto choose to terminate the Agreement. Once you enroll, information regarding new and existing technologies and any new terms will be mailed to you each year. Continuing to use Monsanto's technologies after receipt of any new terms constitutes your agreement to be bound by the terms. Additionally, by completing this Agreement, you are automatically enrolled in the value package called Roundup Rewards™, designed to bring increased benefits to you.

## YOU RECEIVE:

- Limited Use License to purchase and plant seed containing these technologies ("Seed") and apply Roundup brand and other authorized non-selective herbicides over the top of Roundup Ready crops; (see Monsanto Technology Use Guide (collectively "TUG") for details on authorized non-selective products).
- Opportunity to participate in Roundup Rewards for applicable crop(s).

## YOU UNDERSTAND:

- Insect Resistance Management (IRM): When planting any YieldGard or Bollgard product, the grower must implement an IRM program including planting a non-Bt refuge according to the size and distance guidelines specified in the Bollgard cotton and YieldGard corn sections of the most recent TUG including any supplemental amendments. Grower may lose the limited use license to the product for failure to follow the IRM program required by this Agreement.
- Pollen flow: Growers should refer to the TUG for information on crop stewardship regarding the potential movement of pollen to neighboring crops.
- Patent information: These Monsanto gene technologies are protected under U.S. patent law. Monsanto licenses the grower, under applicable patent law, owned or licensed by Monsanto, to use these technologies subject to the conditions listed below. This Agreement only covers the United States, and does not authorize planting of seed in the United States which has been purchased in another country or planting of seed in another country which has been purchased in the United States.
- Channeling: Grain/commodities harvested from Roundup Ready corn, YieldGard Corn Borer with Roundup Ready corn, Roundup Ready canola and Roundup Ready sugarbeets are approved for U.S. food and feed use, but not yet approved in certain export markets where approval is not certain to be received before the end of 2002. As a result, the grower is required to direct such grain/commodities to the following approved market options: feeding on farm, use in domestic feed lots, elevators that agree to accept the grain, or other approved uses in domestic markets only. The American Seed Trade Association web site ([www.amseed.org](http://www.amseed.org)) includes a list of grain handlers' positions on accepting Roundup Ready corn. For additional information on grain market options, call 1-800-768-6387.
- Regulatory approvals: The gene technologies referenced in this Agreement can only be used in locations within the United States where the products have been approved for use by all required governmental agencies.

## YOU AGREE:

- To channel grain produced to domestic use as necessary to prevent movement to markets where the grain has not yet received regulatory approval for import.\*\*
  - To implement an Insect Resistance Management program as specified in the applicable Bollgard cotton and YieldGard corn sections of the most recent TUG, and to cooperate and comply with Insect Resistance Management programs and research.\*\*
  - To use the seed containing Monsanto gene technologies solely for planting a single commercial crop.
  - To acquire Seed containing these gene technologies only from a seed company with required technology license(s) from Monsanto or a licensed company's Authorized Dealer.
  - To pay any applicable technology fees for cotton, canola, and sugarbeet traits as well as the purchase price of corn and soybeans, part of which is a royalty to Monsanto. (Some Seed licensees may continue to charge a technology fee to growers on soybean Seed and corn Seed and Grower agrees to pay any such technology fee thereon).
  - Not to supply any Monsanto patent protected Seed to any other person or entity for planting, and not to save any crop produced from this Seed for replanting, or supply Seed produced from this Seed to anyone for replanting.
  - Neither to use Monsanto patent protected Seed nor to provide it to anyone else to use for crop breeding, research, generation of herbicide registration data or seed production.
  - To use in Roundup Ready crops only a Roundup® brand or other authorized non-selective herbicide which could not be used in the absence of the Roundup Ready gene. (see TUG for details on authorized non-selective products) Use of any selective herbicide labeled for the same crop without the Roundup Ready gene is not restricted by this Agreement.
- MONSANTO DOES NOT MAKE ANY REPRESENTATIONS, WARRANTIES OR RECOMMENDATIONS CONCERNING THE USE OF PRODUCTS MANUFACTURED OR MARKETING BY OTHER COMPANIES WHICH ARE LABELED FOR USE IN ROUNDUP READY CROPS. MONSANTO SPECIFICALLY DISCLAIMS ALL RESPONSIBILITY FOR THE USE OF THESE PRODUCTS IN ROUNDUP READY CROPS. ALL QUESTIONS AND COMPLAINTS ARISING FROM THE USE OF PRODUCTS MANUFACTURED OR MARKETING BY OTHER COMPANIES SHOULD BE DIRECTED TO THOSE COMPANIES.**
- To read and follow the applicable sections of the TUG, which is incorporated into and is a part of this Agreement, for specific requirements relating to the terms of this Agreement, and to abide by and be bound by the terms of the TUG.

## GENERAL CONDITIONS: *what about cross pollination rights*

Grower's rights may not be transferred to anyone else without written consent of Monsanto. If Grower's rights are transferred with Monsanto's consent or by operation of law, this Agreement is binding on the person or entity receiving the transferred rights.

If Grower violates the terms of this Agreement, in addition to other remedies available to the technology provider(s), Grower's rights under this Agreement will terminate immediately and the grower, in any capacity, forfeits any right to obtain an Agreement in the future and that violation may result in infringement of one or more of the patents that relate to that product. Grower agrees that the technology provider(s) are entitled to recover their full amount of legal fees and other costs of enforcing this Agreement. If the Agreement is terminated, Grower will no longer have a right to purchase or use Seed containing these technologies, however, any obligations that arose before termination will continue in effect. In the event the Grower saves, supplies, sells or acquires seed for planting in violation of this Agreement and license restriction, in addition to all remedies for patent infringement and/or other remedies available to the technology provider(s), Grower agrees that damages will include a claim for liquidated damages that shall be equal to the gross revenue from such seed or fiber produce

\* Final regulatory approvals are pending for YieldGard Corn Rootworm and Bollgard II. These products are not currently registered with the U.S. Environmental Protection Agency and are not currently available for sale or commercial use. UPON APPROVAL, THIS MONSANTO TECHNOLOGY/STEWARDSHIP AGREEMENT (LIMITED USE LICENSE) WILL BE USED AND SHALL GOVERN THE TERMS AND CONDITIONS FOR THE USE OF THE TECHNOLOGIES.

\*\* Refer to the applicable sections of the Monsanto Technology Use Guide, which is part of this Agreement, for specifics relating to these terms.

THIS AGREEMENT IS SUBJECT TO MANDATORY ARBITRATION PURSUANT TO THE PROVISIONS OF THE FEDERAL ARBITRATION ACT, 9 U.S.C. - 88C, 1 et seq.

Please see reverse side for more information



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**If Grower does not agree to be bound by the conditions of purchase or use, Grower agrees to return the unopened bags to Grower's seed dealer per the dealer's return policy.**

As a condition precedent to Grower, or any other person with an interest in Grower's crop, asserting any controversy, claim, action, or dispute against Monsanto and/or any seller of Seed containing Monsanto's gene technologies regarding performance or non-performance of the gene technologies or the Seed in which it is contained, Grower must provide prompt and timely notice to Monsanto (regarding performance or non-performance of the gene technologies) and to the seller of any Seed (regarding performance or non-performance of the Seed) within sufficient time to allow an in-field inspection of the crop(s) about which any controversy, claim, action, or dispute is being asserted. For purposes of this Agreement, such notice shall be insufficient if it is provided more than 15 days after the issue(s) regarding performance or non-performance of the gene technology and/or the Seed in which it is contained is first observed. The notice shall include a statement setting forth the nature of the claim, and the technology and Seed variety in question.

Monsanto warrants that the Monsanto gene technology licensed hereunder will perform as set forth in the TUO when used in accordance with directions. This warranty applies only to Monsanto gene technology contained in planting Seed that has been purchased from a seed company licensed by Monsanto, or such seed company's authorized dealers or distributors and planted from the original sealed bag. EXCEPT FOR THE EXPRESS WARRANTIES IN THE LIMITED WARRANTY SET FORTH ABOVE, MONSANTO MAKES NO OTHER WARRANTIES OF ANY KIND, AND DISCLAIMS ALL OTHER WARRANTIES, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED. THERE IS NO LIMITED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY.

THE EXCLUSIVE REMEDY OF THE GROWER AND THE LIMIT OF THE LIABILITY OF MONSANTO OR ANY SELLER FOR ANY AND ALL LOSSES, INJURY OR DAMAGES RESULTING FROM THE USE OR HANDLING OF A PRODUCT CONTAINING MONSANTO'S GENE TECHNOLOGY (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, PRODUCT LIABILITY, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PRICE PAID BY THE GROWER FOR THE QUANTITY OF SUCH PRODUCT INVOLVED, OR, AT THE ELECTION OF MONSANTO OR ANY SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL MONSANTO OR ANY SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL OR PUNITIVE DAMAGES.

Any controversy, claim, action, or dispute made or asserted by a grower of cotton (or any other person acting on behalf of Grower or claiming an interest in the Grower's cotton crop) against Monsanto or any seller of the cotton Seed containing the technology licensed under this Agreement arising out of and/or in connection with this Agreement, the technology licensed hereunder for use in cotton Seed, or the sale or performance of the cotton Seed in which the technology licensed under this Agreement is contained shall be resolved by binding arbitration. A judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction over the parties. The parties acknowledge that this Agreement evidences a transaction involving interstate commerce, and arbitration conducted under this Agreement shall be conducted pursuant to the provisions of the Federal Arbitration Act, 9 U.S.C. Sec. 1 et seq., and administered under the Commercial Dispute Resolution Procedures established by the American Arbitration Association ("AAA"). The term "seller" as used throughout this Agreement refers to all parties involved in the production, development, distribution, and/or sale of the Seed containing the licensed technology.

- In the event that the claim is not amicably resolved within 30 days of the receipt of the mandatory notice required above under "Notice Requirement," any party may initiate arbitration. Such arbitration shall be heard in the capital city of the state of Grower's residence, or in such other place as the parties decide by mutual agreement.
- At the time of initiation of arbitration, the grower on the one hand and Monsanto/sellers on the other each shall be required to advance one half of the filing fee established by the AAA, unless otherwise waived by the AAA. Similarly, when requested by the AAA, Grower on the one hand and Monsanto/sellers on the other each shall be required to advance one half of the administrative fees and arbitrator compensation, if any. The arbitrator(s) shall have the power to apportion the ultimate responsibility for fees and arbitrator compensation in the final award.
- The arbitration proceedings and results are to remain confidential and are not to be disclosed without the written agreement of all parties, except to the extent necessary to effectuate the decision or award of the arbitrator(s), or as otherwise required by law.
- The remedy of binding arbitration shall be the exclusive remedy available to Grower and anyone acting on Grower's behalf.

THIS AGREEMENT IS GOVERNED BY THE LAWS OF THE STATE OF MISSOURI AND THE UNITED STATES (OTHER THAN THE CHOICE OF LAW RULES). EXCEPT FOR GROWER CLAIMS RELATED TO COTTON WHICH MUST BE ARBITRATED AS SPECIFIED ABOVE UNDER "BINDING ARBITRATION," THE PARTIES CONSENT TO THE EXCLUSIVE JURISDICTION AND VENUE OF THE U.S. DISTRICT COURT FOR THE EASTERN DISTRICT OF MISSOURI, EASTERN DIVISION, AND THE CIRCUIT COURT OF THE COUNTY OF ST. LOUIS, STATE OF MISSOURI, FOR ALL DISPUTES ARISING OUT OF OR CONNECTED IN ANY WAY WITH THE USE OF THE SEED OR THE TECHNOLOGIES AS PROVIDED THROUGH THIS AGREEMENT OR ITS RELATED PARTS.

If any provision of this Agreement is determined to be void or unenforceable, the remaining provisions shall remain in full force and effect.

Thank you for choosing our advanced technologies. We look forward to working with you in the future.

**If you have any questions regarding the technologies from Monsanto, please call the Monsanto Customer Relations Center at: 1-800-ROUNDUP.**

**PLEASE MAIL THE SIGNED 2002 MONSANTO TECHNOLOGY AGREEMENT TO:** Grower Licensing, Monsanto, 722 Emerson Road, Suite 150, St. Louis, MO 63141

[illegible]

THIS AGREEMENT IS SUBJECT TO MANDATORY ARBITRATION PURSUANT TO THE PROVISIONS OF THE FEDERAL ARBITRATION ACT, 9 U.S.C. - SEC. 1 et seq.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. Roundup® brand herbicides with 44% active ingredient are not for use on lawns.

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cal controversy as to the effect of the withdrawal of consent to that portion of the IPSPC regulations "which allocate open fishing times among the various types of gear within the United States Convention waters." Joint exhibit 37. As already pointed out, the controversy was in fact settled by the adoption of an additional regulation for the year 1976.

It follows the appealed judgment dealing with the 1975 IPSPC regulations must be reversed whether or not the trial court's jurisdiction to proceed to judgment survived the entry of the August 6, 1975 stay and injunction order.

STAFFORD and UTTER, JJ., concur.



88 Wash.2d 855

Patrick L. LANGAN and Dorothy Langan, his wife, Respondents,

v.

VALICOPTERS, INC., a Washington Corporation, Appellant,

L. E. Haight and Jane Doe Haight, his wife, Defendants,

and

Simplot Sellbuilders, Robert Thalheimer and Jane Doe Thalheimer, his wife, Robert Lee Thalheimer and Jane Doe Thalheimer, doing business as Thalheimer Farms, and Gene Bepple and Jane Doe Bepple, his wife, Appellants.

No. 44542

Supreme Court of Washington,  
En Banc

Aug. 4, 1977.

Organic crop damage is brought action for damages caused by aerial spraying of agricultural pesticides. The St-

terior Court, Yakima County, Blaine Hopp, Jr., J., entered judgment against defendants and they appealed. The Court of Appeals, Third Division, certified case to the Supreme Court which accepted certification. The Supreme Court, Dolliver, J., held that: (1) evidence supported finding that plaintiffs had suffered damage as result of crop spraying; (2) liability for damage caused by crop dusting or spraying is imposed on basis of strict liability, and (3) plaintiff farmer's testimony that helicopter flew over his house at low level while spray was turned on and administrative rule prohibiting pilots during spraying operations from flying directly over occupied structure except with permission of occupants, supported instruction on wanton misconduct.

Affirmed.

#### 1. Contracts — 149(1)

In contracting contract, intention of parties will be given great, if not controlling, weight.

#### 2. Damages — 188(1)

In action by organic farmers to recover for crop damage allegedly resulting from defendants' crop spraying activities, evidence supported jury's findings that plaintiffs' damage occurred as result of the spraying.

#### 3. Torts — 28

Whether activity is abnormally dangerous is question of law for court to decide in determining whether strict liability should be imposed for damage resulting from the activity.

#### 4. Negligence — 1

Torts — 1

Whether strict liability or negligence principles should be applied amounts to balancing of conflicting social interests, the risk of harm versus utility of activity.

#### 5. Torts — 1

Strict liability is imposed for damage proximately caused by aerial crop dusting or spraying.

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#### 6. Trial — 280(1)

Each party is entitled to have his theory of case presented to jury if there is substantial evidence to support it.

#### 7. Negligence — 138(3)

In action by organic farmers to recover for damage to crops resulting from defendants' crop spraying activities, testimony of one plaintiff that spraying helicopter flew over his house at low level while spray was turned on and administrative rule prohibiting pilot during spraying operations from low flying directly over occupied structure, except with permission of occupants, supported instruction on wanton misconduct.

Brooks & Larson, Terry A. Brooks, Yakima, for appellants.

Felthous, Peter, Schmalz & Leeson, P. S., Douglas D. Peters, Seish, for respondents.

#### DOLLIVER, Associate Justice.

This is an appeal from a judgment against appellants for damages resulting from their crop spraying activities. Patrick and Dorothy Langan, respondents, own a small (2½ to 3 acre) farm in the Yakima Valley. The Langans are organic farmers; that is, they use no inorganic fertilizers, insecticides or herbicides to aid them in their farming but rely on natural fertilizers and natural pest control agents. They had planned to can and sell their produce to organic food buyers.

Valicopters, Inc., is a Washington corporation which engages in the aerial application of agricultural pesticides. Gene Bepple, one of the owners of Valicopters, Inc., was the helicopter pilot at the time of the incident giving rise to this lawsuit. The Thalheimers, doing business as Thalheimer Farms, owned and farmed the land adjoining that of the respondents. It was their land that was being sprayed by Valicopters. Simplot Sellbuilders sold the agricultural chemical to Thalheimers for aerial application.

On June 3, 1973, Bepple sprayed for Colorado beetle infestation on the Thalheimer farm with a chemical pesticide known as Thiodan. A small patch of the farm was sprayed with the chemical Guthion. While applying the pesticides to Thalheimers' property, Bepple traveled approximately 45 miles per hour while 6 to 8 feet off the ground with a 42-foot application boom extending from the sides of the helicopter. Patrick Langan testified that, during one spraying pass, the helicopter began spraying while it was over his property. This testimony was disputed. He further testified that the spray settled on the entire length of their tomato, bean, garlic, cucumber and Jerusalem artichoke rows.

The Langans and other organic farmers founded and are members of the Northwest Organic Food Producers' Association (NOFPA). The bylaws of NOFPA contain the following pertinent provisions:

7. No poisonous insecticides, repellents, herbicides, artificial fertilizers, stimulants or hormones may be used on food or in soil in which products are grown or animals are grazed. If any such item is applied by the grower to any committed acreage that has been previously committed and certified, the acreage will be withdrawn from certification and this farmer cannot be recertified without approval of the Executive Committee.

9. No member shall be allowed to market foods or advertise food as certified organically grown by NOFPA if laboratory tests on the finished crop indicates [sic] the presence of more than ten percent (10%) of the maximum pesticide residue tolerances allowable by the Food and Drug Administration. In the event the finished crop reflects a residue higher than the allowable tolerances set forth in this section, the member's seal for any such crop shall immediately be suspended and public notice made thereof.

NOFPA Bylaws, art. 4, §§ 7, 9.

A laboratory test conducted after the spraying indicated the presence of 1.4 parts per million by weight of [redacted] on the Langans' crop tissue. The [redacted] States



Department of Health, Education and Welfare, Food and Drug Administration's tolerance for Thiodan on tomatoes and beans is 2.0 parts per million. Following the test results, the Board of Directors of NOFPA revoked the Langans' certification as organic food growers in conformance with bylaw No. 7. The Langans' entire property was decertified in conformance with the NOFPA rule which requires decertification when a portion of the land is contaminated.

Due to the decertification, the Langans did not grow their tomatoes and beans to fruition. Instead, they pulled them from the ground to prevent further contamination of the soil. The Langans had no contract to sell the contaminated tomatoes and beans commercially.

After a jury trial, a judgment in the amount of \$5,500 was entered against appellants. They appealed to the Court of Appeals, Division Three. That court certified the case to this court and we accepted certification.

[1] At the outset, it must be determined whether there was substantial evidence to support the jury's finding that respondents' damage occurred as a result of the spraying. Appellants contend that NOFPA erroneously interpreted its own bylaws. They argue that neither rule No. 7 nor rule No. 9 required immediate decertification of appellants' property and that the tomatoes and beans should have been tested for chemicals when those crops had fully matured. The bylaws of that organization are essentially a contract between NOFPA and its members. See *Rodruck v. Sand Point Maintenance Comm'n*, 48 Wash.2d 585, 295 P.2d 714 (1956). In construing a contract, the intention of the parties will be given great, if not controlling, weight. See *Kennedy v. Weyerhaeuser Timber Co.*, 54 Wash.2d 768, 344 P.2d 1025 (1959).

[2] A director of NOFPA testified that their interpretation of rule No. 7, coupled with the basic purpose of NOFPA (to insure consumers that the products are organically grown if they are sold under the organization's seal) is decertification of re-

spondents' farm. The Langans apparently agreed with this interpretation and did not question the legitimacy of the decertification. This decertification, which prompted the Langans to pull the crops, provided substantial evidence for the jury to conclude that they suffered damage as a result of crop spraying.

The next issue is whether the trial court erred by instructing the jury that appellants would be strictly liable for damage that was proximately caused by their aerial spraying. The trial judge gave the following instruction:

If you find that defendants' chemicals fell upon plaintiffs' crops, you are instructed that as a matter of law the defendants are liable for such damage to plaintiffs' crops, if any, as you find was proximately caused by defendants' spray application.

Liability for damage caused by crop dusting or spraying generally is imposed on the basis of either negligence or strict liability. See generally *Liability for Injury Caused by Spraying or Dusting of Crops*, Annot., 37 A.L.R.2d 833 (1971). The courts in most jurisdictions that have held crop dusters liable have used the theory of negligence. See e.g., *Lundberg v. Bolon*, 67 Ariz. 259, 194 P.2d 454 (1948); *Hammond Ranch Corp. v. Dodson*, 199 Ark. 846, 136 S.W.2d 484 (1940); *Miles v. A. Arena & Co.*, 23 Cal. App.2d 680, 73 P.2d 1260 (1937); *Binder v. Perkins*, 213 Kan. 365, 516 P.2d 1012 (1973). However, other opinions which have ostensibly relied upon the principles of negligence have been criticized by legal writers because the reasoning is not clear or more nearly resembles strict liability. Comment, *Crop Dusting: Two Theories of Liability?*, 19 Hastings L.J. 476, 482-89 (1968); Note, *Crop Dusting: Legal Problems in a New Industry*, 6 Stan.L.Rev. 69, 76-80 (1953).

Three jurisdictions have held crop dusting to be an activity to which the principles of strict liability apply. *Young v. Darter*, 383 P.2d 829 (Okla.1961); *Loe v. Leunhardt*, 227 Or. 242, 362 P.2d 312 (1961); *Gotreux v. Gery*, 282 La. 878, 94 So.2d 293 (1957) (applying civil law). In *Loe v. Leunhardt*, su-

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per, Justice Goodwin, writing for the majority, noted that the dangers of spraying agricultural chemicals by aircraft has been the subject of considerable legislative attention nationwide, citing the laws of 29 states. These laws, he concluded, were evidence of the dangerous character of aerial spraying. The court recognized the activity was one capable of inflicting damage notwithstanding the exercise of utmost care by the applicator, and that the damage was within the scope of the risk created by spraying an adjoining field. The court cited *Bodell v. Goulter*, 199 Or. 344, 362-63, 261 P.2d 842 (1963), a case involving strict liability for blasting, in which it stated:

"... Basic to the problem is 'an adjustment of conflicting interests' of the right of the blaster, on the one hand, to pursue a lawful occupation and the right of an owner of land, on the other, to its peaceful enjoyment and possession. Where damage is sustained by the latter through the nonculpable activities of the former, who should bear the loss—the man who caused it or a 'third person', as Judge Hand says, 'who has no relation to the explosion, other than that of injury'."

*Loe v. Leunhardt*, supra 227 Or. at 253, 362 P.2d at 318.

In Washington, this court has adopted the Restatement (Second) of Torts § 519, 520 (Tent.Draft No. 10, 1964). *Pacific Northwest Bell Tel. Co. v. Port of Seattle*, 80 Wash.2d 69, 491 P.2d 1037 (1971); *Siegler v. Kuhlman*, 81 Wash.2d 448, 502 P.2d 1181 (1972). Section 519 of the Restatement provides:

(1) One who carries on an abnormally dangerous activity is subject to liability for harm to the person, land or chattels of another resulting from the activity, although he has exercised the utmost care to prevent such harm.

(2) Such strict liability is limited to the kind of harm, the risk of which makes the activity abnormally dangerous.

Section 520 lists the factors to be used when determining what constitutes an abnormally dangerous activity:

In determining whether an activity is abnormally dangerous, the following factors are to be considered:

- (a) Whether the activity involves a high degree of risk of some harm to the person, land or chattels of others;
- (b) Whether the gravity of the harm which may result from it is likely to be great;
- (c) Whether the risk cannot be eliminated by the exercise of reasonable care;
- (d) Whether the activity is not a matter of common usage;
- (e) Whether the activity is inappropriate to the place where it is carried on; and
- (f) The value of the activity to the community.

[3] Whether an activity is abnormally dangerous is a question of law for the court to decide. *Siegler v. Kuhlman*, supra; Restatement (Second) of Torts § 520, comment (1) (Tent.Draft No. 10, 1964). In making this determination, we have considered each of the factors listed in the Restatement § 520. We note that not all of the elements listed in § 520 must weigh equally in favor of characterizing an activity as abnormally dangerous in order that we may so find it to be.

In determining whether the danger is abnormal, the factors listed in Clauses (a) to (f) of this Section are all to be considered, and are all of importance. Any one of them is not necessarily sufficient of itself in a particular case, and ordinarily several of them will be required for strict liability. Because of the interplay of these various factors, it is not possible to reduce abnormally dangerous activities to any exact definition. The essential question is whether the risk created is so unusual, either because of its magnitude or because of the circumstances surrounding it, as to justify the imposition of strict liability for the harm which results from it, even though it is carried on with all reasonable care.

Restatement (Second) of Torts § 520, comment (1) (Tent.Draft No. 10, 1964). See, generally *Pock, Negligence "liability*



Without Fault in Tort Law, 46 Wash.L.Rev. 225 (1971). However, in this case, each test of the Restatement is met.

§ 520(a): Whether the activity involves a high degree of risk of some harm to the person, land or chattels of others.

It is undisputed among the authorities cited to us that crop dusting involves an element of risk of harm. In Note, *Crop Dusting: Legal Problems in a New Industry*, 6 Stan.L.Rev. at 72-75, the author points out that the drift of chemicals is virtually unpredictable due to three "uncertain and uncontrollable factors: (1) the size of the dust or spray particles; (2) the air disturbances created by the [applying aircraft]; and (3) natural atmospheric forces." The author discusses these three factors in detail and notes:

In the opinion of leading scientists who are working to alleviate the dangers of crop dusting, it is impossible to eliminate drift with present knowledge and equipment. Experience bears this out.

6 Stan.L.Rev. at 75. The author states further that the problem of drift is reduced but not eliminated by the use of helicopters. Subsequent commentators have made the same observations about the uncontrollability of drift. See, e.g., Comment, *Crop Dusting: Two Theories of Liability?*, *supra* at 477-79. In this case, there is no evidence that it is possible to eliminate the risk of drift in crop spraying.

§ 520(b): Whether the gravity of the harm which may result from it is likely to be great.

Whether there will be great harm depends upon what adjoining property owners do with their land. For example, one property owner may grow wheat (a narrow-leaved crop) and his neighbor may grow peas (a broad-leaved crop). The wheat farmer may wish to spray his crop with the chemical herbicide (weed killer) 2,4-D, which kills only broad-leaved plants. If the 2,4-D drifts onto the pea farmer's property, his entire crop could be destroyed since peas are broad-leaved plants. *Frear, Chemistry of Insecticides and Herbicides*

316 (2d ed. 1948). The reported cases are illustrative of the many possible fact situations which indicate that neighboring property may be sensitive to and damaged by the spraying activity of an adjoining landowner. See Comment, *Crop Dusting: Two Theories of Liability?*, 19 Hastings L.J. 476, 479, n. 38. The cases cited in that note include the following situations: *Gerrard Co. v. Fricker*, 42 Ariz. 503, 27 P.2d 678 (1933) (bees killed by insecticide Dutox No. 20); *Brynum Cooperative Co. v. Coulter*, 219 Ark. 818, 244 S.W.2d 985 (1952) (cotton damaged by 2,4-D); *McPherson v. Billing-ton*, 399 S.W.2d 186 (Tex.Civ.App.1965) (hogs killed by arsenical). The extent of damage can be very high. See, e.g., *Crouse v. Wilbur-Ellis Co.*, 77 Ariz. 359, 272 P.2d 352 (1954) (plaintiff recovered \$10,000 when his cantaloupe crop was damaged by insecticide containing sulphur); *Sanders v. Beckwith*, 79 Ariz. 67, 283 P.2d 235 (1955) (plaintiff recovered \$10,000 when his dairy herd was injured by DDT and benzene hexachloride).

As the present case illustrates, it is economically damaging for an organic farmer who is a member of NOFA to apply nongenic materials to his crops because he would lose the association's certification. There was substantial evidence before the trial court that, once an organic farmer loses his certification, it is highly unlikely that he will be able to sell his crops on the regular commercial market due to his failure to enter into contracts with commercial produce buyers before the season begins, and, even if he could sell his crops to a commercial produce buyer, the farmer would be unable to command as high a price for his goods as he could on the organic market.

§ 520(c): Whether the risk cannot be eliminated by the exercise of reasonable care.

The same elements that produce a high degree of risk of harm, namely the uncontrollability of dust or spray drift (§ 520(a) above), also cannot be eliminated by the exercise of reasonable care. See Note, *Crop*

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*Dusting: Legal Problems in a New Industry*, *supra* at 75.

§ 520(d): Whether the activity is not a matter of common usage.

The Restatement (Second) of Torts, § 520(f) (Tent.Draft No. 10, 1964), observes "An activity is a matter of common usage if it is customarily carried on by the great mass of mankind, or by many people in the community." Although we recognize the prevalence of crop dusting and acknowledge that it is ordinarily done in large portions of the Yakima Valley, it is carried on by only a comparatively small number of persons (approximately 287 aircraft were used in 1975) and is not a matter of common usage.

§ 520(e): Whether the activity is inappropriate to the place where it is carried on.

Given the nature of organic farming, the use of pesticides adjacent to such an area must be considered an activity conducted in an inappropriate place.

§ 520(f): The value of the activity to the community.

As a criterion for determining strict liability, this factor has received some criticism among legal writers. In 2 Harper & James, *Law of Torts*, Comment to § 14.4 (Supp. 1968), the authors suggest that § 520(f) is not a true element of strict liability. "The justification for strict liability, in other words, is that useful but dangerous activities must pay their own way." See also Note, *Regulation and Liability in the Application of Pesticides*, 49 Iowa L.Rev. 135, 144-45 (1963).

[6] There is no doubt that pesticides are socially valuable in the control of insects, weeds and other pests. They may benefit society by increasing production. Whether strict liability or negligence principles should be applied amounts to a balancing of conflicting social interests—the risk of harm versus the utility of the activity. In balancing these interests, we must ask who should bear the loss caused by the pesti-

*Dusting: Legal Problems in a New Industry*, *supra* at 75. See Note, *Regulation and Liability in the Application of Pesticides*, *supra*; Prosser, *Law of Torts* § 59 (2d ed. 1955); Siegfert v. Kuhlman, 81 Wash.2d 445, 502 P.2d 1181 (1972) (Rosellini, J., concurring).

In the present case, the Langans were eliminated from the organic food market for 1973 through no fault of their own. If crop dusting continues on the adjoining property, the Langans may never be able to sell their crops to organic food buyers. Appellants, on the other hand, will all profit from the continued application of pesticides. Under these circumstances, there can be an equitable balancing of social interests only if appellants are made to pay for the consequences of their acts.

We realize that farmers are statutorily bound to prevent the spread of insects, pests, noxious weeds and diseases. RCW 15.08.030 and RCW 17.10.140-150. But the fulfillment of that duty does not mean the ability of an organic farmer to produce organic crops must be destroyed without compensation.

[5] Thus, for the reasons mentioned above, we find that the trial court did not err by instructing the jury on strict liability.

It is next contended by all appellants that the trial court erred when it gave the following instruction on wanton misconduct:

Wanton misconduct is the intentional doing of an act which one has a duty to refrain from doing or the intentional failure to do an act which he has a duty to do, in reckless disregard of the consequences and under such surrounding circumstances and conditions that a reasonable man would know, or should know, that such conduct would, in a high degree of probability, result in substantial harm to another's property.

The respondents contend that sufficient evidence is provided by the testimony of Patrick Langan. He testified that the helicopter flew over himself and his house at a low level while the spray was turned on. Respondents claim that this violation of WAC 16-235-050, which

Aircraft pilots during spraying operations are prohibited from turning and/or low flying . . . (2) directly over an occupied structure such as a residence, except by permission of the person(s) whose occupied structure is involved.

Appellants simply claim that this evidence is insufficient to support the instruction given.

[6, 7] Each party is entitled to have his theory of the case presented to the jury if there is substantial evidence to support it. *Hester v. Watson*, 74 Wash.2d 924, 448 P.2d 320 (1968). We think Mr. Langan's testimony and the administrative rule amply support the giving of this instruction.

There is no reversible error: the judgment of the trial court is affirmed.

WRIGHT, C. J., ROSELLINI, HAMILTON, STAFFORD, UTTER, HOROWITZ and HICKS, JJ., and HENRY, J. Pro Tem, concur.



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THOMAS W. ELLIS, Respondent,

DEPARTMENT OF LABOR AND INDUSTRIES of the State of Washington, Appellant.

Debra M. JOHNSON, Respondent/Cross-Appellant.

DEPARTMENT OF LABOR AND INDUSTRIES of the State of Washington, Appellant.

Nos. 44392, 44394.

Supreme Court of Washington, En Banc.

AR 1977.

The Superior Court, King County, David J. Horowitz and David C. Hunter,

JJ., awarded medical witness fees for testimony before the Board of Industrial Insurance Appeals in excess of statutory witness fee, and appeal was taken. The Supreme Court, Brachtenbach, J., held that: (1) upon successful appeal to superior court of industrial insurance claim, court has statutory authority to award medical witness fees for testimony before Board in excess of statutory witness fee and (2) testimony of permanent total disability in one case did not open for jury consideration spectrum of 0% to 100% of maximum allowable for unspecified permanent partial disability.

Affirmed.

HICKS, J., filed dissenting opinion in which Wright, C. J., and Stafford and Horowitz, JJ., joined.

1. Costs — 3

In ordinary lawsuit, right to costs is purely statutory. RCWA 4.84.090.

2. Statutes — 223.5(4)

Rule that reenactment of statute following judicial holding demonstrates legislative approval and adoption of holding is not one of absolute binding force but is merely aid or guide which court may take into account in carrying out its prime duty, which is to ascertain intent of legislature.

3. Workmen's Compensation — 1987

Upon successful appeal to superior court of industrial insurance claim, court, under statute which authorizes reasonable attorney fees for services before the Department of Labor and Industries, Board and court and provides that fees of medical and other witnesses and costs shall be payable out of administrative fund of department, can award medical witness fees for testimony before Board of Industrial Insurance Appeals in excess of statutory witness fee; overruling *Nelson v. Industrial Ins. Dept.*, 104 Wash. 204, 176 P. 15. RCWA 2.40.010, 51.12.010, 51.62.130.

Cite as: Wash. 2d 224

BRACHTENBACH, Associate Justice.

4. Workmen's Compensation — 1945  
Any increase of award above that given by Board of Industrial Insurance Appeals must be established by medical testimony.

5. Workmen's Compensation — 1629  
Though jury may arrive at verdict that lies between opinions of expert witnesses, it cannot make award in excess of maximum amount of bodily function loss testified to by experts.

6. Workmen's Compensation — 60  
Benefit amounts and method by which they are determined are governed by law in effect at date of injury.

7. Workmen's Compensation — 1671  
Where medical testimony concerning claimant's work related injury ranged from no physical or psychiatric disability to permanent partial disability of 50% of maximum allowable for unspecified injuries plus additional 5% for psychiatric disability, and there was testimony as to permanent total disability, jury could find permanent total disability or permanent partial disability up to 55% but could not return verdict of permanent partial disability greater than 55%, which would have been in excess of that testified to by any expert witness. RCWA 51.08.150, 51.08.160.

8. Workmen's Compensation — 863  
Concepts of permanent total and permanent partial disability are not separate levels on same continuum but are two separate concepts. RCWA 51.08.150, 51.08.160.

9. Workmen's Compensation — 1643  
Testimony concerning inability to work is not in itself evidence of loss of bodily function required to support award of permanent partial disability.

[1] On appeal of the Board's decision to the Superior Court, the hearing is on the record without witnesses. RCW 51.52.115. The Board hearing, however, does involve the taking of testimony. RCW 51.52.100. Thus the award of medical witness fees was for testimony before the Board, not in Superior Court.

In the ordinary lawsuit the right to "costs" is purely statutory. *State ex rel. Lemon v. Coffin*, 52 Wash.2d 894, 32d 741, 332 P.2d 1096 (1958). By definition "costs" include witness fees. RCW 4.84.090.

Slade Gorton, Atty. Gen., Virginia O. Binns, William T. Scharukow, Richard Roth, Asst. Atty. Gen., Seattle, for appellant.

Graham, Cohen & Wampold, Norman W. Cohen, Seattle, for respondent.

## Westlaw Attached Printing Summary Report for GERMOLUS, PAUL C 2810071

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Request Created Date/Time:  
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Citation Text:  
F.Supp.2d 828

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Query Text:  
STARLINK

Print Command:  
document,Complete result

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1436

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United States District Court,  
N.D. Illinois,  
Eastern Division.

In re STARLINK CORN PRODUCTS LIABILITY  
LITIGATION

Marvin Kramer, et al., Plaintiffs,

v.

Aventis CropScience USA Holding, Inc., et al.,  
Defendants.

MDL No. 1403.  
No. 01 C 4928.

July 11, 2002.

Corn farmers brought actions against creator and manufacturer of genetically modified (GMO) corn, alleging that defendants disseminated a product that contaminated the corn supply, increasing farming costs and depressing corn prices, and seeking to recover on state law common law negligence, strict liability, nuisance, and conversion claims, on behalf of nationwide class of corn farmers. Following consolidation for pretrial purposes, defendants moved to dismiss. The District Court, Moran, Senior District Judge, held that: (1) failure to warn claims amounting to constructive challenge to label were preempted, but negligence per se claims and claims arising from alleged off-label representations were not preempted; (2) claims which did not constitute a requirement additional to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements were not preempted; (3) allegations that crops were contaminated by neighboring crops or in transport or storage facilities supported claims for harm to property for which economic losses could be recovered; (4) allegations supported negligence claim arising from alleged entry of GMO corn into human food supply; (5) farmers failed to state claim for conversion; and (6) allegations supported public and private nuisance claims.

Motion granted in part and denied in part.

West Headnotes

[1] Products Liability  $\S$  43.5  
313Ak43.5 Most Cited Cases

[1] States  $\S$  18.65  
360k18.65 Most Cited Cases

Failure to warn claims amounting to constructive challenge to label for genetically modified (GMO) corn, which was toxic to insects, approved by Environmental Protection Agency (EPA), related to alleged inadequacy of label or manufacturer's failure to warn farmers who used the corn seed, would be preempted by FIFRA. Federal Insecticide, Fungicide, and Rodenticide Act,  $\S$  2 et seq., as amended, 7 U.S.C.A.  $\S$  136 et seq.

[2] Environmental Law  $\S$  411  
149Ek411 Most Cited Cases

[2] States  $\S$  18.31  
360k18.31 Most Cited Cases

FIFRA does not preempt all state laws respecting pesticides. Federal Insecticide, Fungicide, and Rodenticide Act,  $\S$  2 et seq., as amended, 7 U.S.C.A.  $\S$  136 et seq.

[3] Environmental Law  $\S$  411  
149Ek411 Most Cited Cases

[3] States  $\S$  18.31  
360k18.31 Most Cited Cases

FIFRA uses nearly identical language to the Public Health Cigarette Smoking Act, and its preemptive effect is equivalent. Federal Insecticide, Fungicide, and Rodenticide Act,  $\S$  2 et seq., as amended, 7 U.S.C.A.  $\S$  136 et seq.; Federal Cigarette Labeling and Advertising Act,  $\S$  2-12, as amended, 15 U.S.C.A.  $\S$  1331-1340.

[4] Products Liability  $\S$  43.5  
313Ak43.5 Most Cited Cases

[4] States  $\S$  18.65  
360k18.65 Most Cited Cases

Negligence per se claims by corn farmers against manufacturer of genetically modified (GMO) corn seed, which was toxic to insects, were not preempted by FIFRA; FIFRA did not prevent states from creating civil remedies for violating the federal standard, although there was no private right of action to redress FIFRA violations, the Act did not prohibit state requirements identical to FIFRA. Federal Insecticide, Fungicide, and Rodenticide Act,  $\S$  24(b), as amended, 7 U.S.C.A.  $\S$  136v(b).

[5] Environmental Law  $\S$  456

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149Ek456 Most Cited Cases

[5] Environmental Law 459  
149Ek459 Most Cited Cases

Only the Environmental Protection Agency (EPA) has standing to enforce FIFRA; the Act does not, however, prevent states from creating civil remedies for violating the federal standard. Federal Insecticide, Fungicide, and Rodenticide Act, § 2 et seq., as amended, 7 U.S.C.A. § 136 et seq.

[6] Products Liability 43.5  
313Ak43.5 Most Cited Cases

[6] States 18.65  
360k18.65 Most Cited Cases

FIFRA did not preempt corn farmers' negligence claims against manufacturer of genetically modified (GMO) corn seed, which was toxic to certain insects, arising from alleged off-label representations of manufacturers that the corn seed was safe for human consumption; alleged statements directly contradicted warning label. Federal Insecticide, Fungicide, and Rodenticide Act, § 2 et seq., as amended, 7 U.S.C.A. § 136 et seq.

[7] Products Liability 43.5  
313Ak43.5 Most Cited Cases

[7] States 18.65  
360k18.65 Most Cited Cases

Corn farmers' state law claims that manufacturer of genetically modified (GMO) corn seed, which was toxic to certain insects, failed to adequately inform grain elevator operators and transport providers of required warnings did not constitute an additional requirement, and thus was not preempted by FIFRA; states could reasonably require pesticide manufacturer share same warnings approved by Environmental Protection Agency (EPA) with parties beyond immediate purchaser. Federal Insecticide, Fungicide, and Rodenticide Act, § 2 et seq., as amended, 7 U.S.C.A. § 136 et seq.

[8] Products Liability 43.5  
313Ak43.5 Most Cited Cases

[8] States 18.65  
360k18.65 Most Cited Cases

Corn farmers' claim that genetically modified (GMO)

corn, which was toxic to certain insects, would inevitably commingle and cross-pollenate with food supply, was a failure to warn claim, rather than a design defect claim, and thus claim was preempted by FIFRA; GMO corn manufacturer's failure to prevent commingling had nothing to do with design, but with segregation practices, and manufacturer would likely change warning, rather than redesign corn, when confronted with commingling. Federal Insecticide, Fungicide, and Rodenticide Act, § 2 et seq., as amended, 7 U.S.C.A. § 136 et seq.

[9] Environmental Law 423  
149Ek423 Most Cited Cases

Approval by the Environmental Protection Agency (EPA) of a product's FIFRA label does not constitute a finding or an endorsement that its design is safe. Federal Insecticide, Fungicide, and Rodenticide Act, § 2 et seq., as amended, 7 U.S.C.A. § 136 et seq.

[10] Products Liability 43.5  
313Ak43.5 Most Cited Cases

[10] States 18.65  
360k18.65 Most Cited Cases

To determine whether allegations are really challenging the product design, which is permissible under FIFRA, or effectively challenging the accompanying warnings, which would be preempted under FIFRA, the test most frequently articulated is whether, when confronted with a type of harm, the manufacturer would change the design or the label to prevent its recurrence. Federal Insecticide, Fungicide, and Rodenticide Act, § 2 et seq., as amended, 7 U.S.C.A. § 136 et seq.

[11] Products Liability 17.1  
313Ak17.1 Most Cited Cases

Illinois defines "economic losses" as damages for inadequate value, costs of repair and replacement of the defective product, or consequent loss of profits, without any claim of personal injury or damage to other property, as well as the diminution in the value of the product because it is inferior in quality and does not work for the general purposes for which it was manufactured and sold.

[12] Products Liability 17.1  
313Ak17.1 Most Cited Cases

Under Wisconsin law, "economic loss" is generally

defined as damages resulting from inadequate value because the product is inferior and does not work for the general purposes for which it was manufactured and sold; it includes both direct economic loss, loss in value of the product itself, and consequential economic loss, all other economic losses attributable to the product defect.

[13] Damages ⇨ 36  
115k36 Most Cited Cases

The primary policy concerns of economic loss doctrine are: (1) to maintain the fundamental distinction between tort law and contract law; (2) to protect commercial parties' freedom to allocate economic risk by contract; and (3) to encourage the party best situated to assess the risk of economic loss, the commercial purchaser, to assume, allocate, or insure against that risk.

[14] Products Liability ⇨ 17.1  
313Ak17.1 Most Cited Cases

Although the economic loss doctrine is rooted in freedom-of-contract theory, privity of contract is generally not required; if this were not so, then manufacturers would become liable for economic expectations of secondary purchasers.

[15] Damages ⇨ 36  
115k36 Most Cited Cases

The economic loss doctrine extends to litigants who were both involved in a multiparty transaction but did not have any direct contractual relationship.

[16] Damages ⇨ 36  
115k36 Most Cited Cases

Economic loss rule does not bar claims for injuries to other property, or claims alleged in combination with non-economic losses.

[17] Damages ⇨ 36  
115k36 Most Cited Cases

When defining injuries to "other property," for which the economic loss rule does not bar claims, plaintiffs must have an ownership interest in the property.

[18] Products Liability ⇨ 17.1  
313Ak17.1 Most Cited Cases

The distinguishing central feature of economic loss

rule is its relation to what the product was supposed to accomplish; for example, if a fire alarm fails to work and a building burns down, that is economic loss even though the building was physically harmed, but if the fire is caused by a short circuit in the fire alarm itself, that is not economic harm.

[19] Products Liability ⇨ 43.5  
313Ak43.5 Most Cited Cases  
Rodenticides.

Allegations that corn farmers' crops were contaminated by genetically modified (GMO) corn, which was toxic to certain insects, from a neighboring farm or that the farmers' harvest was contaminated by commingling with GMO corn in a transport or storage facility supported claims for harm to property for which compensation for economic losses could be recovered, although economic loss doctrine barred farmers' recovery on claims arising from alleged unknowing purchase of seed containing GMO corn or food manufacturers' commingling of corn within their raw material storage.

[20] Products Liability ⇨ 43.5  
313Ak43.5 Most Cited Cases

Corn farmers' allegations that manufacturer or its predecessors were involved in developing and licensing genetically modified (GMO) corn, that manufacturer was responsible for manufacturing and enforcing compliance with use of GMO corn in accordance with FIFRA, and of direct harm to farmers' corn supported negligence claims against manufacturer arising from alleged entry of GMO corn, which was toxic to insects, into human food supply. Federal Insecticide, Fungicide, and Rodenticide Act, § 2 et seq., as amended, 7 U.S.C.A. § 136 et seq.

[21] Trover and Conversion ⇨ 5  
389k5 Most Cited Cases

[21] Trover and Conversion ⇨ 12  
389k12 Most Cited Cases

Corn farmers failed to state claim for conversion against manufacturer of genetically modified (GMO) corn, which was toxic to certain insects, absent allegations that manufacturers destroyed farmers' corn crops or deprived them of possession of the crops. Restatement (Second) of Torts § 222A.

[22] Trover and Conversion ⇨ 2



389k2 Most Cited Cases

Corn crops which were allegedly contaminated by genetically modified (GMO) corn which was toxic to certain insects, did not lose their identity so as to constitute a conversion by manufacturer of GMO corn seed; only damages suffered by the farmers, allegedly resulting from the contamination, were a lower price resulting from sale of the corn as fit only for domestic or industrial use, rather than as corn fit for human consumption, and crops were still viable for purpose for sale on open market. Restatement (Second) of Torts § 226.

[23] Trover and Conversion 3  
389k3 Most Cited Cases

Corn farmers' failed to state conversion claim against manufacturers of genetically modified (GMO) corn, which was toxic to certain insects, arising from alleged negligence in ensuring that the GMO corn was adequately segregated from other corn, absent allegations that manufacturer intentionally commingled GMO corn with other corn or deliberately contaminated the food supply. Restatement (Second) of Torts § 224.

[24] Nuisance 3(3)  
279k3(3) Most Cited Cases

[24] Nuisance 9  
279k9 Most Cited Cases

Corn farmers' allegations that pollen from genetically modified (GMO) corn, which was toxic to insects, drifted across property lines and onto their property supported farmers' state law private nuisance claims against GMO corn manufacturer, under Restatement law; manufacturer had affirmative duty, through limited FIFRA registration, to enforce GMO corn farmers' compliance with warnings to keep such drift from occurring. Federal Insecticide, Fungicide, and Rodenticide Act, § 2 et seq., as amended, 7 U.S.C.A. § 136 et seq.; Restatement (Second) of Torts §§ 821D, 834.

[25] Nuisance 75  
279k75 Most Cited Cases

[25] Nuisance 76  
279k76 Most Cited Cases

[25] Nuisance 84  
279k84 Most Cited Cases

The pleading requirements are not strenuous for public nuisance claim because the concept of common law public nuisance eludes precise definition; the unreasonableness of the defendant's actions and the substantialness of the right invasion, which lead to the determination of nuisance, are questions of fact for the jury. Restatement (Second) of Torts § 821B(1).

[26] Nuisance 72  
279k72 Most Cited Cases

Corn farmers' allegations that manufacturer of genetically modified (GMO) corn, which was toxic to insects, contaminated the general food corn supply supported farmers' public nuisance claim against manufacturer, seeking special damages; commercial corn farmers, as group, were affected differently than the general public by the alleged contamination, as farmers depended on integrity of corn supply for livelihood. Restatement (Second) of Torts §§ 821B, 821C.

[27] Trade Regulation 862.1  
382k862.1 Most Cited Cases

North Carolina legislature left the definition of deceptive trade practices, in North Carolina Unfair Trade Practices Act (NCUTPA), purposefully vague, with the intention that courts construe it broadly. West's N.C.G.S.A. § 75-1.1.

[28] Trade Regulation 862.1  
382k862.1 Most Cited Cases

Corn farmers failed to state claim against manufacturer of genetically modified (GMO) corn seed, which was toxic to certain insects, under North Carolina Unfair Trade Practices Act (NCUTPA), absent allegations that would sustain exercise of personal jurisdiction by North Carolina; farmers did not allege that they bought or sold goods, had contact with a North Carolina company, or engaged in any North Carolina commerce. West's N.C.G.S.A. §§ 1-75.4(4), 75-1.1.

[29] Trade Regulation 862  
382k862 Most Cited Cases

It is possible for a state to constitutionally regulate in-state conduct that has out-of-state effects.

[30] Consumer Protection 1

92Hk1 Most Cited Cases

[30] Consumer Protection 11  
92Hk11 Most Cited Cases

Tennessee Consumer Protection Act (TCPA) permitted third-party corn farmers to bring claim against manufacturer of genetically modified (GMO) corn which was toxic to insects, alleging harm arising from manufacturer's deceptive practices, although farmer had entered no consumer transaction with manufacturer. West's T.C.A. § 47-18-109(a)(1, 4).

[31] Consumer Protection 1  
92Hk1 Most Cited Cases

Tennessee Consumer Protection Act (TCPA) applies to sales to corporate entities, as well as to consumers. West's T.C.A. § 47-18-101 et seq.

\*833 Adam J. Levitt, Wolf, Haldenstein, Adler, Freeman & Herz, LLC, Chicago, IL, David A.P. Brower, Daniel W. Krasner, Katherine B. DuBose, Wolf, Haldenstein, Adler, Freeman & Herz, LLC, New York City, Melvyn I. Weiss, Robert A. Wallner, Milberg, Weiss, Bershad, Hynes & Lerach, LLP, New York City, Herbert E. Milstein, Michael D. Hausfeld, Richard S. Lewis, Cohen, Milstein, Hausfeld & Toll, PLLC, Washington, DC, Stephen A. Weiss, Christopher A. Seeger, Seth A. Katz, Stuart P. Slotnick, Seeger Weiss, LLP, New York City, for Plaintiffs.

Edward M. Crane, Deborah F. Solmor, Skadden, Arps, Slate, Meagher & Flom (Illinois), Chicago, IL, Sheila L. Birnbaum, Katherine Armstrong, Skadden, Arps, Slate, Meagher & Flom, LLP, New York City, Jeffrey E. Stone, Cathy McNeil Stein, McDermott, Will & Emery, Chicago, IL, for Defendants.

MEMORANDUM OPINION AND ORDER

MORAN, Senior District Judge.

This controversy arises from the discovery of genetically modified corn in various food products. Plaintiffs Marvin Kramer, Mitchell and Claude Corbin, Corbin Farms LLC, Clint Killin, Charles Dupraz, William Furlong, Jemar, Inc., Marvin Luiken, Keith Mudd, Edward Olsen, Gerald Greiger, Verlon Ponto, Jon Untiedt, David Christoffer, Alan Roebke, Mica Schnoebelen, Joseph and Ardene Wirts, Southview Farms, Dennis and Donald Olsen, Gordon Stine, Don Sutter, and Bart McCormack d/b/a Buford Station Farms allege that defendants Aventis

CropScience USA Holdings, Inc. (Aventis) and Garst Seed Company (Garst) disseminated a product that contaminated the entire United States' corn supply, increasing their costs and depressing corn prices. Before us are fifteen separately filed cases, consolidated here for pretrial purposes by the Panel for Multidistrict Litigation. See 28 U.S.C. § 1407. Plaintiffs have filed a 57-count master second amended consolidated class action complaint, alleging common law claims for negligence, strict liability, private nuisance, public nuisance and conversion on behalf of a nationwide class of corn farmers against Garst, and on behalf of ten statewide classes against Aventis, as well as statutory claims against Aventis under the Tennessee Consumer Protection Act of 1997, Tenn.Code Ann. §§ 47-18-101 et seq., and the North Carolina Unfair Trade Practices Act, N.C. Gen.Stat. § 75-1.1 (1999). Defendants filed a motion to dismiss, arguing that the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), 7 U.S.C. §§ 136 et seq., preempts plaintiffs' state law claims, that the economic loss doctrine bars any recovery, and that the complaint fails to state a claim under any of plaintiffs' purported legal theories. For the following reasons, defendants' motion to dismiss is granted in part and denied in part.

BACKGROUND

Aventis [FN1] genetically engineered a corn seed to produce a protein known as Cry9C \*834 that is toxic to certain insects. The seeds are marketed under the brand name StarLink. Garst is a licensee who produced and distributed StarLink seeds. Aventis applied to register StarLink with the EPA, which is responsible for regulating insecticides under FIFRA, 7 U.S.C. §§ 136 et seq. The EPA noted that Cry9C had several attributes similar to known human allergens, and issued only a limited registration, permitting StarLink use for such purposes as animal feed, ethanol production and seed increase, but prohibiting its use for human consumption. Consequently, segregating it from non-StarLink corn, which was fit for human consumption, became of utmost importance. A little background about normal practices for cultivating, harvesting and distributing corn demonstrates the extensive steps necessary to prevent StarLink corn from entering the food supply.

FN1. A sequence of related corporate entities was involved in the process of developing, registering and distributing StarLink. Aventis is the sole successor-in-

interest with respect to StarLink, and the only named party among them. We will not distinguish between Aventis and its predecessors, and will refer simply to "Aventis."

Corn replicates by the transfer of pollen from one corn plant to another, including cross-pollination from one breed to another. Once airborne, corn pollen can drift over considerable distances, meaning that different corn varieties within a farm, and from neighboring farms, regularly cross-breed. With few exceptions, there are not procedures in place to segregate types of corn. Different corn breeds within an individual farm are commingled at the harvesting stage. Corn from hundreds of thousands of farms is then further commingled as it is gathered, stored and shipped through a system of local, regional and terminal grain elevators. Elevators, storage and transportation facilities are generally not equipped to test and segregate corn varieties. The commingled corn is then marketed and traded as a fungible commodity.

In light of these general practices in the corn industry, the EPA required special procedures with respect to StarLink. These included mandatory segregation methods to prevent StarLink from commingling with other corn in cultivation, harvesting, handling, storage and transport, and a 660-foot "buffer zone" around StarLink corn crops to prevent cross-pollination with non-StarLink corn plants. The limited registration also made Aventis responsible for ensuring these restrictions were implemented, obligating it (a) to inform farmers of the EPA's requirements for the planting, cultivation and use of StarLink; (b) to instruct farmers growing StarLink how to store and dispose of the StarLink seeds, seed bags, and plant detritus; and (c) to ensure that all farmers purchasing StarLink seeds signed a contract binding them to these terms before permitting them to grow StarLink corn.

StarLink was distributed throughout the United States from approximately May 1998 through October 2000. The limited registration initially limited StarLink cultivation to 120,000 acres. In January 1999, Aventis petitioned the EPA to raise this limit to 2.5 million acres. The EPA agreed, subject to an amended registration that required Aventis to

(a) inform purchasers (i.e. "Growers") at the time of StarLink seed corn sales, of the need to direct StarLink harvest to domestic feed and industrial

non-food uses only;

(b) require all Growers to sign a "Grower Agreement" outlining field management requirements and stating the limits on StarLink corn use;

(c) deliver a Grower Guide, restating the provisions stated in the Grower Agreement, with all seed;

(d) provide all Growers with access to a confidential list of feed outlets and elevators \*835 that direct grain to domestic feed and industrial uses;

(e) write to Growers prior to planting, reminding them of the domestic and industrial use requirements for StarLink corn;

(f) write to Growers prior to harvest, reminding them of the domestic and industrial use requirements for StarLink corn;

(g) conduct a statistically sound follow-up survey of Growers following harvest, to monitor compliance with the Grower Agreement.

Over this 29-month period, StarLink cultivation expanded from 10,000 acres to 350,000 acres.

In October 2000, after numerous reports that human food products had tested positive for Cry9C, a wave of manufacturers issued recalls for their corn products. On October 12, 2000, Aventis, at EPA's urging, applied to cancel the limited registration, effective February 20, 2001. Fear of StarLink contamination nonetheless continues to affect corn markets. Many U.S. food producers have stopped using U.S. corn, replacing it with imported corn or corn substitutes. South Korea, Japan and other foreign countries have terminated or substantially limited imports of U.S. corn. Grain elevators and transport providers are now mandating expensive testing on all corn shipments.

Plaintiffs allege that the widespread StarLink contamination of the U.S. corn supply is a result of defendants' failure to comply with the EPA's requirements. Aventis did not include the EPA-mandated label on some StarLink packages, did not notify, instruct and remind StarLink farmers of the restrictions on StarLink use, proper segregation methods and buffer zone requirements, and did not require StarLink farmers to sign the obligatory contracts. Prior to the 2000 growing season Aventis allegedly instructed its seed representatives that it was unnecessary for them to advise StarLink farmers to segregate their StarLink crop or create buffer zones because Aventis believed the EPA would amend the registration to permit StarLink use for human

consumption. In July 2001, however, an EPA Scientific Advisory Panel reaffirmed its previous position on StarLink's allergenic qualities. Further, the FDA has declared StarLink to be an adulterant under the Food, Drug and Cosmetic Act, 21 U.S.C. § 301 *et seq.*

#### DISCUSSION

Fed.R.Civ.P. 8(a)(2) only requires "a short and plain statement of the claim showing that the pleader is entitled to relief." When deciding a Rule 12(b)(6) motion we must assume the truth of all well-pleaded factual allegations, making all possible inferences in the plaintiff's favor. *Sidney S. Arst Co. v. Pipefitters Welfare Educ. Fund*, 25 F.3d 417, 420 (7th Cir.1994). We will dismiss a claim only if it appears "beyond doubt that the plaintiff can prove no set of facts in support of his claim which would entitle him to relief." *Conley v. Gibson*, 355 U.S. 41, 45-46, 78 S.Ct. 99, 2 L.Ed.2d 80 (1957).

##### I. Preemption

[1] FIFRA, 7 U.S.C. §§ 136 *et seq.*, regulates the use, sale and labeling of pesticides such as the Cry9C protein found in StarLink corn. The EPA approved StarLink's label and issued a limited registration for it to be distributed. Defendants argue that FIFRA preempts plaintiffs' state law claims.

[2] FIFRA does not preempt all state laws respecting pesticides. *Wisconsin Public Intervenor v. Mortier*, 501 U.S. 597, 614, 111 S.Ct. 2476, 115 L.Ed.2d 532 (1991). The statute expressly authorizes states to regulate pesticide use. 7 U.S.C. § 136v(a). But it also prohibits states from imposing any labeling requirements \*836 beyond those imposed by the EPA. 7 U.S.C. § 136v(b).

[3] The Supreme Court has made clear that "requirements" includes both positive law, in the form of statutory and regulatory obligations, and any common law standards which could give rise to civil damages. *Cipollone v. Liggett Group, Inc.*, 505 U.S. 504, 112 S.Ct. 2608, 120 L.Ed.2d 407 (1992) (interpreting preemption clause in Public Health Cigarette Smoking Act of 1969, 15 U.S.C. §§ 1331-1340). FIFRA uses nearly identical language to the Cigarette Act, and its preemptive effect is equivalent. *Shaw v. Dow Brands, Inc.*, 994 F.2d 364, 370-71 (7th Cir.1993). [FN2] FIFRA therefore preempts any claims based on the inadequacy of StarLink's label or defendants' failure to warn StarLink farmers.

FN2. To the extent there is any disagreement among the courts of appeals, we are bound by the Seventh Circuit's interpretations of federal law, regardless of where these individual cases may have originated. Our opinion on certain plaintiffs' motions to remand discussed this choice-of-law issue in some detail. See *In re StarLink*, 211 F.Supp.2d 1060 (N.D.Ill.2002).

Moreover, plaintiffs cannot avoid preemption by artful pleading. We must scrutinize their allegations to ensure that they are not disguised failure-to-warn claims. See, e.g., *Grenier v. Vermont Log Buildings*, 96 F.3d 559, 564 (1st Cir.1996). If a claim amounts to a constructive challenge to the EPA-approved label, FIFRA preempts it. Courts have, however, recognized certain types of claims as falling outside of FIFRA. See, e.g., *Worm v. American Cyanamid Co. (Worm I)*, 970 F.2d 1301, 1308 (4th Cir.1992) (state remedy for failure to comply with EPA requirements); *Lowe v. Sporicidin Int'l*, 47 F.3d 124, 130 (4th Cir.1995) (off-label representations inconsistent with the label); *New York State Pesticide Coalition v. Jorling*, 874 F.2d 115, 119 (2d Cir.1989) (failure to warn third parties); *National Bank of Commerce v. Dow Chemical Co.*, 165 F.3d 602, 609 (8th Cir.1999) (design defects). Portions of the complaint implicate each of these, so we discuss them in turn.

[4][5] First, plaintiffs allege that defendants sold StarLink seeds without the EPA-required label, and otherwise failed to comply with the limited registration's terms. There is no federal private right of action to redress FIFRA violations. Only the EPA has standing to enforce it. *No Spray Coalition, Inc. v. City of New York*, 252 F.3d 141, 150 (2d Cir.2001). FIFRA does not, however, prevent states from creating civil remedies for violating the federal standard. See, e.g., *Lowe*, 47 F.3d at 128; *MacDonald v. Monsanto*, 27 F.3d 1021, 1024 (5th Cir.1994). The statute only prohibits additional requirements, not identical ones. 7 U.S.C. § 136v(b). Although potential civil liability obviously increases the manufacturer's incentive to comply, if the state is merely adopting as its standard of care that which is already required under federal law, no additional obligation is imposed. [FN3] FIFRA, therefore, does not preempt plaintiffs' negligence *per se* claims.

FN3. At this point we express no opinion as to whether the ten jurisdictions in question

recognize a civil remedy for the FIFRA violations alleged here. The parties have not fully briefed the issue, so we reserve judgment for a later day.

[6] Next, plaintiffs assert that defendants made voluntary statements regarding StarLink beyond those on the EPA-approved label that contributed to the contamination. Claims based on off-label representations are preempted if they merely reiterate information contained in the label. *Lowe*, 47 F.3d at 130. They are not preempted, however, to the extent the representations \*837 substantially differ from the label. *Id.* [FN4] The complaint alleges that Aventis instructed seed representatives to tell farmers that StarLink was safe for human consumption and that the EPA was going to issue a tolerance for Cry9C in food products. Such statements directly contradict the approved label and therefore fall within *Lowe*.

FN4. We note that two other circuits have held that FIFRA more broadly preempts actions based on off-label statements. *Taylor AG Indus. v. Pure-Gro*, 54 F.3d 555, 561 (9th Cir.1995); *Papas v. Upjohn Co.*, 985 F.2d 516, 519 (11th Cir.1993). The Seventh Circuit explicitly declined to take a position on this split. *Kulper v. American Cyanamid Co.*, 131 F.3d 656, 662 (7th Cir.1997). We choose to follow *Lowe* for the reasons given there.

[7] Plaintiffs also advance the theory that defendants failed to adequately inform those who handled corn further down the distribution chain, e.g., grain elevator operators and transport providers, of the required warnings. Courts have noted the distinction between failure to warn the initial purchaser and failure to warn third parties.

FIFRA "labeling" is designed to be read and followed by the end user. Generally it is conceived as being attached to the immediate container of the product in such a way that it can be expected to remain affixed during the period of use.... By contrast, the target audience of the [state] notification program is those innocent members of the general public who may unwittingly happen upon an area where strong poisons are present, as well as those who contract to have pesticides applied.

*New York State Pesticide Coalition*, 874 F.2d at 119; see also *Mortier*, 501 U.S. at 603, 111 S.Ct. 2476 (upholding regulation requiring placards be posted to notify third parties of pesticide use). Parties who handle StarLink corn down the supply chain

will not see the label on the original seed bag and, consequently, will not know that a particular batch of corn is unfit for human consumption and must be segregated and handled differently. States can reasonably require that pesticide manufacturers share the same EPA-approved warnings with parties beyond the immediate purchaser. Similar to permitting state causes of action for directly violating FIFRA, because the state standard here would mirror the federal one in substance, it does not interfere with the EPA's prerogative with respect to labeling and does not constitute an additional requirement.

[8][9][10] Finally, plaintiffs allege that StarLink corn is a defective product. They assert that, as currently designed, StarLink cannot be safely used for its intended non-food purposes because it will inevitably commingle and cross-pollinate with the food supply. The EPA's approval of a product's FIFRA label does not constitute a finding or an endorsement that its design is safe. See generally *Jeffers v. Wal-Mart Stores, Inc.*, 171 F.Supp.2d 617, 623-24 (S.D.W.Va.2001). Here we must be careful to determine whether their allegations are really challenging the product design, which is permissible, or effectively challenging the accompanying warnings, which would be preempted. The test most frequently articulated is, when confronted with a type of harm, would the manufacturer change the design or the label to prevent its recurrence? *Worm v. American Cyanamid Co. (Worm II)*, 5 F.3d 744, 747-48 (4th Cir.1993).

Defendants' failure to prevent commingling has nothing to do with StarLink's design. Plaintiffs acknowledge that, although it is not the general practice, there are means to segregate types of corn such that they maintain their identity. [FN5] It is a \*838 matter of ensuring that everyone who handles the corn adheres to certain procedures. Confronted with commingling, a manufacturer would more likely change the warnings than the design. This constitutes a failure to warn, not a design defect, and therefore FIFRA preempts it.

FN5. At several points the complaint specifically refers to "identity preserved" corn.

The allegations regarding StarLink's tendency to cross-pollinate with non-StarLink corn can be read two ways. One is that defendants should have known that the 660-foot buffer zone was insufficient to prevent cross-pollination. The 660-foot requirement

was incorporated in the limited registration and would have been communicated to farmers by the EPA-approved label. A state standard of care demanding more than a 660-foot buffer would be an additional requirement in the form of a different warning. FIFRA preempts such a claim.

It is also possible to view plaintiffs' cross-pollination charge as asserting that no buffer zone could prevent it. The theory posits that, given the way corn reproduces, cross-pollination between corn targeted for non-food uses and corn intended for the human food supply is inevitable. Defendants, therefore, had a duty to design insect-resistant corn such that it is fit for human consumption--use a protein that is safer than Cry9C. This still attacks the label because it is premised on the idea that the buffer zone warning was not sufficient to prevent cross-pollination. The EPA approved the label with the knowledge that StarLink was unfit for human consumption. It deemed the 660-foot buffer zone an adequate warning to preserve the integrity of the food supply. Plaintiffs' defect claims implicitly challenge this warning and are therefore preempted.

In summary, plaintiffs may proceed on the theory that defendants (1) violated duties imposed by the limited registration; (2) made representations to StarLink growers that contradicted the EPA-approved label; and (3) failed to inform parties handling StarLink corn downstream of the EPA-approved warnings.

## II. Economic Loss Doctrine

This rule limits the types of damages plaintiffs may recover in tort. Physical injuries to persons or property are compensable; solely economic injuries are not. The difficult question is defining what constitutes an "economic" injury.

[11][12] Although there is some variation at the margins among jurisdictions, they all recognize the same basic policy. For example, Illinois defines economic losses as

damages for inadequate value, costs of repair and replacement of the defective product, or consequent loss of profits--without any claim of personal injury or damage to other property ... as well as the diminution in the value of the product because it is inferior in quality and does not work for the general purposes for which it was manufactured and sold.

*Moorman Mfg. Co. v. National Tank Co.*, 91 Ill.2d

69, 61 Ill.Dec. 746, 435 N.E.2d 443, 449 (1982). Wisconsin, by comparison, states:

Economic loss is generally defined as damages resulting from inadequate value because the product "is inferior and does not work for the general purposes for which it was manufactured and sold." It includes both direct economic loss and consequential economic loss. The former is loss in value of the product itself; the latter is all other economic losses attributable to the product defect.

*Daanen & Janssen*, 573 N.W.2d at 845 (citations omitted); see also *Determan v. Johnson*, 613 N.W.2d 259, 262 (Iowa 2000); *Northwest Ark. Masonry, Inc. v. Summit Specialty Products, Inc.*, 29 Kan.App. 735, 31 P.3d 982, 987 (2001); *Lloyd F. Smith \*839 Co. v. Den-Tal-Ez, Inc.*, 491 N.W.2d 11, 15 (Minn.1992); *Groppel Co. v. United States Gypsum Co.*, 616 S.W.2d 49, 55 n. 5 (Mo.Ct.App.1981); *National Crane Corp. v. Ohio Steel Tube Co.*, 213 Neb. 782, 332 N.W.2d 39, 42 (1983); *Steiner v. Ford Motor Co.*, 606 N.W.2d 881, 883 (N.D.2000); *Diamond Surface, Inc. v. State Cement Plant Comm'n*, 583 N.W.2d 155, 161 (S.D.1998); *McCrary v. Kelly Technical Coatings, Inc.*, 1985 WL 75663 at \*3 (Tenn.Ct.App.1985). The recurring theme is that economic losses are about disappointed commercial expectations.

The classic case involves the purchase of a defective product. [FN6] The suit seeks compensation for the cost of repairing or replacing the product, and profits lost due to the product being out of service. See, e.g., *Seely v. White Motor Co.*, 63 Cal.2d 9, 45 Cal.Rptr. 17, 403 P.2d 145 (1965) (*en banc*) (lost profits due to defective delivery truck); *Rardin v. T & D Machine Handling, Inc.*, 890 F.2d 24 (7th Cir.1989) (broken printing press). The rule includes a product that is of inferior quality, that fails to work for the general purpose for which it was manufactured, or that does harm to itself--if a product breaks down it is really just another form of the product failing to fulfill its expected performance. Purchasers who want to insure against these failures are free to negotiate those terms, or they may choose to forego these protections in exchange for a discounted price. In any event, parties can allocate the risks according to their own preferences. It is only when the product harms a person, or some property other than the product itself, that tort law provides a remedy.

FN6. The doctrine has expanded to include most contractually acquired services. But there is considerably less uniformity among



jurisdictions, particularly with respect to the growing number of exceptions courts have carved out, when applied to services. Because StarLink is a product, however, we need not be concerned with the nuances of applying the rule to services.

contractual protections. See *Intamin, Inc. v. Figley-Wright Contractors, Inc.*, 608 F.Supp. 408, 411 (N.D.Ill.1985). We note that *Anderson Elec.*, *supra*, and *Chicago Flood*, *supra*, both rejected privity as a requirement post-*Intamin*.

[13] The doctrine derives its origin from Justice Traynor's opinion in *Seely*, *supra*. The primary policy concerns are:

(1) to maintain the fundamental distinction between tort law and contract law; (2) to protect commercial parties' freedom to allocate economic risk by contract; and (3) to encourage the party best situated to assess the risk of economic loss, the commercial purchaser, to assume, allocate, or insure against that risk.

*Daanen & Janssen*, 573 N.W.2d at 846. In describing the distinction between contract and tort, the Wisconsin court observed: "The law of contracts is designed to effectuate exchanges and to protect the expectancy interest of parties to private bargained-for agreements.... Tort law is rooted in the concept of protecting society as a whole from physical harm to person or property." *Id.* Whenever plaintiff's losses can be characterized as failing to receive the benefit of one's bargain, contract (including any warranty or uniform commercial code protections) is the only remedy.

[14][15] Although the concept is rooted in freedom-of-contract theory, privity of contract is generally not required. *Daanen & Janssen*, 573 N.W.2d at 849; *Northwest Ark. Masonry*, 31 P.3d at 988; *Anderson Elec., Inc. v. Ledbetter Erection Corp.*, 115 Ill.2d 146, 104 Ill.Dec. 689, 503 N.E.2d 246, 249 (1986). [FN7] If this were not \*840 so, then manufacturers would become liable for economic expectations of secondary purchasers. *Daanen & Janssen*, 573 N.W.2d at 849. It also extends the rule to litigants who were both involved in a multiparty transaction but did not have any direct contractual relationship. *Nigrelli Sys., Inc. v. E.I. DuPont de Nemours and Co.*, 31 F.Supp.2d 1134 (E.D.Wis.1999). The fact that plaintiffs had no viable contract remedy did not entitle them to recover in tort. We note, however, that in both scenarios the purchasers had an opportunity to negotiate warranty terms with someone--from the secondary seller or through some form of indemnity arrangement.

FN7. There are cases holding that recovery was not barred because plaintiff had no direct relationship with defendant and, therefore, no opportunity to negotiate

Another class of cases where courts typically invoke the economic loss doctrine are the so-called "bridge" cases, or, as we will describe them, "access" cases. [FN8] In an access case plaintiffs seek compensation for profits lost because the alleged tort prevented customers from reaching their businesses. The paradigm case involves a bridge or road closure. See, e.g., *Nebraska Innkeepers, Inc. v. Pittsburgh-Des Moines Corp.*, 345 N.W.2d 124 (Iowa 1984) (bridge providing access to plaintiffs' businesses closed due to defective steel); *Dundee Cement Co. v. Chemical Labs., Inc.*, 712 F.2d 1166 (7th Cir.1983) (road accessing plaintiff's plant closed due to chemical spill). But the same principle applies any time a business seeks compensation for potential customers being unable to access their premises. See, e.g., *In re Chicago Flood Litigation*, 176 Ill.2d 179, 223 Ill.Dec. 532, 680 N.E.2d 265 (1997) (flooding to neighboring stores forced merchants whose stores were not physically invaded by water to close).

FN8. As we discuss below, there are fact patterns involving other means of access, besides bridges, that implicate the same principles. We prefer the more inclusive description, "access" cases, and will use this broader moniker.

Although they are nominally under the same economic loss rule, there are really some different policy issues driving the doctrine in access cases. The usual concerns about interfering with contract law and the parties' freedom to allocate risks are not present because there is no contractual relationship. The parties are typically strangers and, with no foreknowledge of each other's activities, had no opportunity to assess and allocate risks *ex ante*. What these cases share in common with traditional economic loss doctrine jurisprudence is the lack of property damage. Moreover, because the only harms alleged were profits lost due to customers' inability to access the premises, these damages fit neatly within the rubric of "disappointed commercial expectations." Courts also emphasize the speculativeness and potential magnitude of damages in access cases. Lost profits are frequently speculative because we cannot predict potential customers' behavior to a sufficient degree of certainty. And the tort's effects on plaintiffs

are not qualitatively different from the effects on society at large. In theory, any bridge or road closing affects everyone to some extent by eliminating one potential travel route. Given the unbounded group of potential plaintiffs, damages would be limitless. So, although the original policy bases for the economic loss doctrine are not present, because of the type of injury, these cases seem to fit, at least linguistically, within the economic loss doctrine.

[16][17][18] The corollary to the economic loss rule is that it does not bar claims for injuries to other property, or claims alleged in combination with non-economic losses. *Daanen & Janssen*, 573 N.W.2d at 845. The question then becomes defining "other property." First, plaintiffs cannot rely on harm to property belonging to other people to show a non-economic injury. \*841 They must have an ownership interest in the property. *Northridge Co. v. W.R. Grace & Co.*, 162 Wis.2d 918, 471 N.W.2d 179, 183 (1991). Second, courts have uniformly held that if a defective part of a product harms the rest of the product, that does not constitute "other property." The product still harmed itself, and nothing else. See *Cooperative Power Ass'n v. Westinghouse Electric Corp.*, 493 N.W.2d 661 (N.D.1992). A majority of courts have gone a step further, holding that if a product is integrated into a single system, other parts of that system do not constitute "other property." See *Rockport Pharmacy, Inc. v. Digital Simplistics, Inc.*, 53 F.3d 195, 198 (8th Cir.1995) (Missouri law) (no recovery for lost data because defective part integrated into computer system); *Transport Corp. of Amer. v. IBM Corp.*, 30 F.3d 953, 957 (8th Cir.1994) (Minnesota law) (same); *Trans States Airlines v. Pratt & Whitney Canada, Inc.*, 177 Ill.2d 21, 224 Ill.Dec. 484, 682 N.E.2d 45, 58 (1997) (engine integrated into airplane frame); *Northwest Ark. Masonry*, 31 P.3d at 987 (cement mix integrated into wall); *Midway Powder Co. v. Clayton Indus.*, 157 Wis.2d 585, 460 N.W.2d 426, 429 (App.1990) (steam generators integrated into turbines). The modern trend is to focus on *ex ante* expectations. If the damage is of a type that the buyer could have foreseen resulting from the product failing to perform, it does not constitute harm to other property.

[T]he distinguishing central feature of economic loss is ... its relation to what the product was supposed to accomplish. For example, if a fire alarm fails to work and a building burns down, that is "economic loss" even though the building was physically harmed; but if the fire is caused by a short circuit in the fire alarm itself, that is not economic harm.

*Tomka v. Hoechst Celanese Corp.*, 528 N.W.2d 103, 106 (Iowa 1995), quoting *Fireman's Fund Am. Ins. Cos. v. Burns Elec. Security Serv.*, 93 Ill.App.3d 298, 48 Ill.Dec. 729, 417 N.E.2d 131, 133 (1st Dist.1981); see also *Dakota Gasification Co. v. Pascoe Bldg. Sys.*, 91 F.3d 1094, 1099 (8th Cir.1996) (North Dakota law); *Trinity Indus., Inc. v. McKinnon Bridge Co.*, 77 S.W.3d 159, 173 n. 1 (Tenn.Ct.App.2001), appeal denied (Apr. 29, 2002). Minnesota has gone the furthest, holding that merchants cannot recover in tort for any property damage caused by the defective product. *Hapka v. Paquin Farms*, 458 N.W.2d 683, 688 (Minn.1990). [FN9]

FN9. Although merchants' only remedy for property damage is the U.C.C., other types of buyers can still recover for harm to other property, and merchants can recover for personal injuries. *Id.*

[19] Non-StarLink corn crops are damaged when they are pollinated by StarLink corn. The pollen causes these corn plants to develop the Cry9C protein and renders what would otherwise be a valuable food crop unfit for human consumption. Non-StarLink corn is also damaged when it is commingled with StarLink corn. Once mixed, there is no way to segregate the corn into its edible and inedible parts. The entire batch is considered tainted and can only be used for the domestic and industrial purposes for which StarLink is approved. None of that supply can ever be used for human food.

There are at least four different points along the supply chain at which StarLink could have entered the food corn supply, all of which are consistent with the complaint: (1) plaintiffs unknowingly purchased seed containing the Cry9C protein, i.e. their suppliers' inventory had been contaminated; (2) plaintiffs' crops were contaminated by pollen from StarLink corn on a neighboring farm; (3) plaintiffs' \*842 harvest was contaminated by commingling with StarLink corn in a transport or storage facility; and (4) food manufacturers commingled the corn within their raw material storage or processing activities. [FN10] The first situation would fall within the economic loss doctrine. Plaintiffs could have negotiated contractual protection from their suppliers and simply did not get what they had bargained for. In the fourth, plaintiffs would have suffered no harm to their property because the corn was commingled after they had relinquished their ownership interest in it. Scenarios 2 and 3, however, present viable claims for harm to

their crops.

FN10. We note that defendants continually characterize the complaint as alleging that "the entire corn farming and production chain" was contaminated, not that plaintiffs' corn was directly harmed. Resolving the complaint's ambiguous phraseology in plaintiffs' favor, we find that they have sufficiently alleged that their crops were contaminated at some point within that chain.

The StarLink situation does not fit neatly into traditional economic loss doctrine analysis. Plaintiffs here had no commercial dealings with defendants or defendants' customers. This is more than a lack of direct privity, and not a situation where a party could have negotiated warranty or indemnity protection and chose not to. Plaintiffs had no opportunity to negotiate contractual protection with anyone. Still, as the access cases aptly demonstrate, the economic loss doctrine has grown beyond its original freedom-of-contract based policy justifications. Farmers' expectations of what they will receive for their crops are just that, expectations. Absent a physical injury, plaintiffs cannot recover for drops in market prices. Nor can they recover for any additional costs, such as testing procedures, imposed by the marketplace. But if there was some physical harm to plaintiffs' corn crop, [FN11] the lack of a transaction with defendants affects what will be considered "other property." Assuming plaintiffs did not buy corn seeds with the Cry9C protein, it cannot be said that a defective part of their crop injured the whole, that a defective product was integrated into a system or that the harm to their crop was a foreseeable consequence of the seeds' failure to perform. These facts are distinguishable from *Hapka*, 458 N.W.2d at 688 (holding farmer who purchased diseased seeds could not recover for harm to rest of crop). Plaintiffs' seeds, as purchased, were adequate. The StarLink contaminant was wholly external.

FN11. This includes corn commingled at grain elevators because plaintiffs retain ownership rights to corn stored there. Each contributing farmer owns a pro rata share of the entire, now tainted, supply. See generally, *Missouri v. United States Bankr. Ct. of E.D. Ark.*, 647 F.2d 768, 775 n. 13 (8th Cir.1981).

Nor does the StarLink controversy present the unlimited or speculative damage concerns common in access cases. There are a finite number of potential

plaintiffs--only non-StarLink corn farmers--who can claim injury. This may be a sizeable group, and the damages may be tremendous, but the fact that defendants are alleged to have directly harmed a large number of plaintiffs is not a defense. StarLink's effects on commercial corn farmers are distinct and qualitatively different from society at large. And damages are easily measured through price changes because corn is a regularly traded commodity with a readily measurable market. Further, as discussed above, the contamination of plaintiffs' corn supply is a physical injury.

To the extent plaintiffs allege that their crops were themselves contaminated, either by cross-pollination in the fields or by commingling later in the distribution chain, they have adequately stated a claim for \*843 harm to property. Once plaintiffs have established this harm they may be entitled to compensation for certain economic losses. See, e.g., *Schiltz v. Cullen-Schiltz & Assoc.*, 228 N.W.2d 10, 21 (Iowa 1975) (holding plaintiff who established tangible harm may also recover cleanup costs because they are an integral part of direct property damage); *Dundee Cement Co.*, 712 F.2d at 1170 (noting recovery of lost profits permitted where plaintiff's property was physically injured). But we caution that proving direct harm to their own property is a predicate to any recovery. We leave for another day the question of what, if any, consequential damages they may also collect, and now turn to the substance of plaintiffs' claims.

### III. Negligence

[20] Defendants challenge three separate elements: duty, proximate cause and damages. Although cast in terms of a balance between foreseeability, reasonableness and public policy, the essence of their argument is remoteness-- any effect StarLink may have had on corn markets is too far removed from defendants' conduct. Defendants contend that the causal relationship involved six distinct steps: (1) the EPA approved the registration for Cry9C; (2) seed companies incorporated the StarLink technology into seed corn; (3) growers purchased StarLink seeds; (4) the StarLink seeds/corn was handled in such a way as to allow cross-pollination and commingling; (5) the tainted corn was introduced into the mainstream corn supply, leading to food product recalls; and (6) the discovery of StarLink in the main food supply hurt corn prices.

In presenting their version of the causal chain,

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however, defendants have imposed their own construction on the complaint. On a motion to dismiss we must not only accept plaintiffs' version, but also any set of facts consistent with it. First, defendants' argument used their own characterization of Aventis' role, or lack thereof, in bringing StarLink to market. Aventis denies any involvement in numerous steps leading to the widespread StarLink contamination. This is a simple factual dispute. The complaint plainly alleges that Aventis (or its predecessors) were involved in developing and licensing StarLink. Moreover, it alleges that pursuant to the limited registration Aventis was responsible for monitoring and enforcing compliance by StarLink farmers. For now we must accept plaintiffs' version of Aventis' involvement in introducing StarLink into the food supply.

We must also collapse defendants' purported chain from the other end. Although they attempt to characterize the complaint as asserting some remote duty to preserve the market price of corn, the duty alleged is to prevent contamination. The effects on corn markets are merely a way to measure the damages. As we discussed above, we read the complaint to allege direct harm to plaintiffs' corn. Defendants are correct that the complaint does not make this charge specifically, but it is a set of facts that is consistent with plaintiffs' allegations about the impact on the corn system as a whole. At this stage of litigation we must construe this ambiguity in plaintiffs' favor.

Presuming Aventis' more active involvement with StarLink, and presuming further that the latter physically harmed plaintiffs' corn, the chain becomes substantially shorter. Aventis had a duty to ensure that StarLink did not enter the human food supply, and their failure to do so caused plaintiffs' corn to be contaminated.

Lastly, Aventis argues that even if plaintiffs suffered direct harm to their corn, its SES program would fully compensate them. Plaintiffs have alleged otherwise, and for now, that is sufficient.

**\*844 IV. Conversion**

[21] Conversion is defined as "an intentional exercise of dominion or control over a chattel which so seriously interferes with the right of another to control it that the actor may justly be required to pay the other the full value of the chattel." Restatement (Second) of Torts § 222A. Plaintiffs argue that

defendants' role in contaminating the corn supply amounts to a conversion of their property. We disagree.

The defining element of conversion, the one that distinguishes it from a trespass to chattels, is the extent of interference with the owner's property rights. If the damage is minor, in duration or severity, plaintiff may only recover for the diminished value. But if the damage is sufficiently severe, plaintiff may recover full value. Conversion is akin to a forced judicial sale. The defendant pays full value for the chattel, and receives title to it. Restatement § 222A comment c. Here, plaintiffs have not alleged that defendants destroyed their crops or deprived them of possession. Plaintiffs retained possession and still had total control over the corn. Most, if not all of it, was ultimately sold to third parties. The only damages were a lower price, for which plaintiffs could be compensated without forcing a sale.

[22] It is possible to convert a chattel by altering it, without completely destroying it. In particular, commingling fungible goods so that their identity is lost can constitute a conversion. Restatement § 226 comment e. To do so, however, the perpetrator must alter the chattel in a way that is "so material as to change the identity of the chattel or its essential character." Restatement § 226 comment d. At worst, StarLink contamination changed plaintiffs' yield from being corn fit for human consumption to corn fit only for domestic or industrial use. Plaintiffs do not claim they were growing the corn to eat themselves, but for sale on the commodity markets. The crops were still viable for the purpose for which plaintiffs would normally use them, for sale on the open market. That the market had become less hospitable does not change the product's essential character. As above, the severity of the alteration is indicated by the decrease in market price. This could arguably constitute a trespass to chattels, but does not rise to the level of conversion.

[23] Lastly, negligence cannot support a conversion claim. It requires intent. Restatement § 224. The complaint alleges that defendants did not take adequate precautions to ensure that StarLink corn was adequately segregated. Nowhere do plaintiffs claim that defendants intentionally commingled StarLink and non-StarLink corn, or deliberately contaminated the food supply. Even if defendants negligently failed to prevent cross-pollination and commingling, they would not be liable for conversion.

V. Nuisance

A. Private

The complaint alleges that defendants created a private nuisance by distributing corn seeds with the Cry9C protein, knowing that they would cross-pollinate with neighboring corn crops. [FN12] "A private nuisance is a nontrespassory invasion of another's interest in the private use and enjoyment \*845 of land." Restatement (Second) of Torts § 821D. We agree that drifting pollen can constitute an invasion, and that contaminating neighbors' crops interferes with their enjoyment of the land. The issue is whether defendants are responsible for contamination caused by their product beyond the point of sale.

FN12. The private nuisance claims appear to be premised exclusively on cross-pollination in the fields, not commingling later in the distribution chain. Commingling could not constitute a private nuisance because it does not involve an invasion of any private interests in land. By contrast, the public nuisance claims, discussed below, may be premised on commingling because "[u]nlike a private nuisance, a public nuisance does not necessarily involve interference with use or enjoyment of land." Restatement § 821B comment h.

Defendants argue that they cannot be liable for any nuisance caused by StarLink because they were no longer in control of the seeds once they were sold to farmers. But one 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." Restatement § 834. Plaintiffs maintain that defendants' design of the StarLink technology, distribution of the seeds and, most importantly, their failure to fulfill their EPA-mandated duties, constitutes substantial participation.

The paradigm private nuisance case involves a suit between two neighboring landowners, one of whom alleges that the other's activities are somehow interfering with the first's enjoyment of the land. 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. But there is precedent for such an application under certain circumstances, and it does fit within the definition of a nuisance.

Looking first at state law from the jurisdictions in question, we find that three have stretched nuisance liability particularly broadly. A Wisconsin court has gone so far as holding that a purchaser can state a nuisance claim directly against a manufacturer. *Northridge Co. v. W.R. Grace & Co.*, 205 Wis.2d 267, 556 N.W.2d 345 (App.1996) (finding asbestos constituted a nuisance). Applying the longstanding rule that "one who has erected a nuisance will be responsible for its continuance, even after he has parted with the title and the possession," *Lohmiller v. Indian Ford Water-Power Co.*, 51 Wis. 683, 8 N.W. 601, 602 (1881), the court held that "manufacturers can be liable for a nuisance long after they relinquish ownership or control over their polluting products." *Northridge*, 556 N.W.2d at 352.

An Illinois court has also taken a broad view of nuisance, sustaining a public nuisance claim against gun manufacturers. *Young v. Bryco Arms*, 327 Ill.App.3d 948, 262 Ill.Dec. 175, 765 N.E.2d 1 (1st Dist.2001). The court relied extensively on language in a gun case from this district, *Bubalo v. Navegar, Inc.*, 1998 WL 142359 (N.D.Ill. Mar.20, 1998). [FN13] Both cases emphasized that plaintiffs had alleged malfeasance on the part of the manufacturers, in the form of intentionally marketing their products to appeal to criminals. *Id.* at \*4; *Young*, 262 Ill.Dec. 175, 765 N.E.2d at 14. In doing so, they distinguished a Seventh Circuit case holding a chemical manufacturer not liable for chemicals released from a customer's facility because "[t]he uncontested record shows that when alerted to the risks associated with [the chemicals], [the manufacturer] made every effort to have [the customer] dispose of the chemicals safely." *City of Bloomington v. Westinghouse Electric Corp.*, 891 F.2d 611, 614 (7th Cir.1989) (Indiana law), quoted in *Bubalo*, 1998 WL 142359 at \*4 n. 2. *Bubalo* posited:

FN13. *Bubalo*, decided nearly four years before *Young*, ultimately dismissed the nuisance claim out of reluctance to recognize a new theory of liability without any state decisional precedent. *Id.* at \*5

Suppose, however, that [the manufacturer] had not taken steps to alert customers of the risks of the product, or intentionally marketed the product to customers who it knew or should have known would dispose of [it] in a manner \*846 that would harm the environment. Nothing in the opinion in *City of Bloomington* would preclude the imposition of liability on the manufacturer under

those facts.

1998 WL 142359 at \*4, quoted in *Young*, 262 Ill.Dec. 175, 765 N.E.2d at 14. In sustaining the nuisance claim the Illinois court found that the allegation of wrongdoing by the manufacturer "suggested a degree of participation not present in *City of Bloomington* and 'within the meaning of [the] phrase ['to a substantial extent'] in the Restatement § 834.'" *Young*, 262 Ill.Dec. 175, 765 N.E.2d at 14 (edits in original, citations omitted).

Most analogous to the case at bar, in *Page County Appliance Center, Inc. v. Honeywell, Inc.*, 347 N.W.2d 171, 177 (Iowa 1984), the Iowa Supreme Court explicitly rejected an argument identical to the one raised by defendants here. Plaintiff there alleged that radiation emanating from a neighbor's computer, manufactured by defendant, was affecting appliances in its store. Defendant maintained that it could not be liable for the nuisance because it had sold the computer to the neighbor and was no longer in control of the instrument. The court noted that the manufacturer had an ongoing contract to service and maintain the computer and, therefore, arguably had the ability to abate the nuisance. Relying on Restatement § 834, the court rejected defendant's lack-of-control argument, holding that "[the manufacturer's] material participation was a question of fact." *Id.*

Defendants point to a number of cases rejecting similar nuisance claims, particularly asbestos and gun cases. None is an authoritative state decision from the jurisdictions involved here. [FN14] There are three federal cases interpreting relevant states' law, but they are all asbestos cases, which we distinguish below, and in jurisdictions where the state courts have not considered the central question of whether a manufacturer can be liable for a nuisance caused by its product beyond the point of sale. See *Tioga Public School Dist. No. 15 v. United States Gypsum Co.*, 984 F.2d 915, 920 (8th Cir.1993); *Appletree Square I Ltd. v. W.R. Grace & Co.*, 815 F.Supp. 1266, 1274 n. 13 (D.Minn.1993); *County of Johnson v. United States Gypsum Co.*, 580 F.Supp. 284, 294 (E.D.Tenn.1984). [FN15]

[FN14. Other states have rejected nuisance claims against asbestos manufacturers on the merits, reasoning that once the product is sold, the manufacturer has no access to the product to control it or abate the nuisance. See, e.g., *Detroit Bd. of Ed. v. Celotex Corp.*, 196 Mich.App. 694, 493 N.W.2d 513, 522 (1992).

[FN15. Of these three cases, only *Tioga Public School Dist.* contains any substantial discussion of this point, and it mostly reflects the federal court's unwillingness to make new state law. 984 F.2d at 920 ("[Plaintiff] has not presented us with any North Dakota cases extending the application of the nuisance statute to situations where one party has sold to the other a product that later is alleged to constitute a nuisance, nor has our research disclosed any such cases."). *Appletree Square* and *County of Johnson* both make only cursory reference to this issue.

[24] This brings us to the case at bar, which is much closer to mainstream nuisance doctrine than either the asbestos or gun cases. In the asbestos cases, the plaintiffs had themselves purchased the product, consented to having it installed on their property and then sued the manufacturer when it turned out to be harmful. There was no invasion of a neighboring property and plaintiffs had exclusive access to the nuisance-causing agent. Here, plaintiffs did not purchase StarLink seeds, and have alleged that pollen from neighboring farms did enter their premises. [FN16] \*847 Aside from the presence of an invasion, the fact that the alleged nuisance occurred on another's property means that, unlike asbestos purchasers, plaintiffs had no ability to access or control the nuisance themselves. In the gun cases, manufacturers successfully argued that they should not be held responsible for third parties' intentional misuse of their products. Here, however, plaintiffs have not alleged that StarLink farmers defied the manufacturers' instructions, but rather that the instructions themselves violated the EPA's mandates. Moreover, the gun cases alleged a public nuisance and did not implicate plaintiffs' ability to enjoy land or anyone's unreasonable use of land. Private nuisance jurisprudence has always focused on the use and enjoyment of land. See generally, *City of St. Louis v. Varahi, Inc.*, 39 S.W.3d 531, 536 (Mo.Ct.App.2001). Plaintiffs here have alleged that they are unable to enjoy the profits of their land (selling food corn), because of an unreasonable activity on neighboring land (growing StarLink corn).

[FN16. More analogous to the present posture would be landowners who alleged that asbestos had drifted over property lines from a neighboring building and contaminated their air. We are not aware of any reported cases addressing a nuisance

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claim under that fact pattern.

Another critical factor here is the impact of the limited registration, which negates many of the concerns courts have expressed about holding manufacturers liable for post-sale nuisances. For example, they emphasized that the manufacturers did not have any control over how the purchasers had used their products, or any access to abate the nuisance. See *Detroit Bd. of Ed., supra*. Aventis, on the other hand, had an affirmative duty to enforce StarLink farmers' compliance with the Grower Agreements. This arguably gave Aventis some measure of control over StarLink's use, as well as a means to abate any nuisance caused by its misuse. This mirrors *Page County Appliance Center, supra*, where the court found the manufacturer's ongoing service contract with the purchaser gave defendant enough access and control to create a question of fact as to its contribution to the nuisance. Aventis' duties under the limited registration were, by comparison, even more extensive. Similarly, defendants' failure to give StarLink farmers the warnings mandated by the limited registration, and (ultimately incorrect) representations that StarLink need not be segregated because the EPA was going to approve it for human consumption, are also arguably the type of culpable conduct relied upon in *Young*, 262 Ill.Dec. 175, 765 N.E.2d at 14.

In summary, of the states involved here Iowa, Wisconsin and Illinois have all held a manufacturer liable for a nuisance related to its product beyond the point of sale. See *Page County Appliance Center, supra*, *Northridge, supra*, *Young, supra*. Federal courts applying Minnesota, North Dakota and Tennessee law have declined to do so without any substantial discussion of the merits. See *Tioga Public School Dist., supra*; *Appletree Square, supra*; *County of Johnson, supra*. We have found no cases on point from Kansas, Missouri, Nebraska or South Dakota. The lack of state precedent matching these precise facts does not preclude us from applying widely accepted Restatement law to new factual situations. Residue from a product drifting across property lines presents a typical nuisance claim. All parties who substantially contribute to the nuisance are liable. The unique obligations imposed by the limited registration arguably put Aventis in a position to control the nuisance. On a motion to dismiss we may not speculate whether the as yet undeveloped facts will constitute substantial contribution. To the extent the allegations comport with our preemption analysis above, they do state a valid claim for private

nuisance.

\*848 B. Public

[25] Plaintiffs also assert that StarLink's contamination of the general food corn supply constitutes a public nuisance. Beyond defendants' argument that they lacked control over the alleged nuisance, discussed above, they assert that plaintiffs cannot establish special harm. At the outset, we note the limited depth of review courts typically undertake on a motion to dismiss a public nuisance claim. "The pleading requirements are not strenuous because the 'concept of common law public nuisance elude[s] precise definition.' ... The unreasonableness of the defendant's actions and the substantialness of the right invasion, which lead to the determination of nuisance, are questions of fact for the jury." *Gilmore v. Stanmar, Inc.*, 261 Ill.App.3d 651, 199 Ill.Dec. 189, 633 N.E.2d 985, 993 (1st Dist.1994) (citations omitted).

To state a claim, plaintiffs must allege "an unreasonable interference with a right common to the general public." Restatement § 821B(1). The Restatement sweeps broadly in defining a "public right," including "the public health, the public safety, the public peace, the public comfort or the public convenience." Restatement § 821B(2)(a). Contamination of the food supply implicates health, safety, comfort and convenience, and certainly satisfies this permissive standard.

To state a private action for public nuisance, plaintiffs must also demonstrate that they have been harmed differently than the general public. Restatement § 821C. The harm must be of a different type, not merely a difference in severity or imposing a disproportionate share of the burden on plaintiffs. Among the Restatement's specific examples are physical harm to chattels, § 821C comment d, and pecuniary loss to businesses, § 821C comment h. Both are present here.

[26] The closest analogy and most pertinent discussion is in *Burgess v. M/V Tamano*, 370 F.Supp. 247, 250 (D.Me.1973). There, commercial fisherman alleged that an oil spill harmed local waters and marine life. The court found that although fishing the waters was a right of the general public, it affected commercial fishermen differently because they depended on it for their livelihood. This was consistent with "the general principle that pecuniary loss to the plaintiff will be regarded as different in

kind 'where the plaintiff has an established business making commercial use of the public right with which the defendant interferes...' " *Id.*, quoting Prosser, *Law of Torts*, § 88 at 590 (4th ed.1971). Here, plaintiffs are commercial corn farmers. While the general public has a right to safe food, plaintiffs depend on the integrity of the corn supply for their livelihood.

Defendants maintain that because plaintiffs purport to represent a group so numerous as a nationwide class of corn farmers, their damages cannot be considered special or unique. But the special damages requirement does not limit the absolute number of parties affected so much as it restricts the types of harm that are compensable. Class actions and special damages are not mutually exclusive. See, e.g., *Burgess*, 370 F.Supp. at 251 (sustaining public nuisance claims by two classes and dismissing a third based on the types of harm alleged). Commercial corn farmers, as a group, are affected differently than the general public.

#### VI. North Carolina Unfair Trade Practices Act

[27] Plaintiffs next allege that Aventis' handling of StarLink violated the NCUTPA, N.C. Gen.Stat. § 75-1.1. Like many other states, the North Carolina legislature left the definition of deceptive trade practices purposefully vague, with the intention that courts construe it broadly. \*849 *Johnson v. Phoenix*, 300 N.C. 247, 266 S.E.2d 610, 620 (1980). The dispute here, however, is not over whether any particular practice is illegal under the statute, but the statute's geographic reach. None of the named plaintiffs is from North Carolina. Nor does the complaint allege that any of them conduct business in North Carolina. Although the proposed nationwide class would certainly include North Carolina residents, it is axiomatic that the named plaintiffs must show personal injuries to state a claim and cannot rely on harm to unnamed class members. *Lewis v. Casey*, 518 U.S. 343, 357, 116 S.Ct. 2174, 135 L.Ed.2d 606 (1996).

[28][29] Defendants argue that the North Carolina statute only applies to in-state harms. To apply the statute extraterritorially, they contend, would offend the federal Constitution's due process and full faith and credit clauses. Plaintiffs, on the other hand, characterize this as nothing more than a choice-of-law problem. Because Aventis is headquartered in North Carolina, they reason, the unfair practices are likely centered there. Applying the "most significant

relationship" rule, North Carolina's trade practice law should apply. [FN17] So long as the conduct affects North Carolina commerce at all, plaintiffs maintain, even out-of-state injuries are compensable. These positions oversimplify matters. It is possible for a state to constitutionally regulate in-state conduct that has out-of-state effects. See, e.g., *Avery v. State Farm Mutual Automobile Ins. Co.*, 321 Ill.App.3d 269, 254 Ill.Dec. 194, 746 N.E.2d 1242, 1254-55 (5th Dist.2001). The question is whether the NCUTPA does so. On the other hand, even if conflicts rules would choose North Carolina law, whether plaintiffs have stated a claim under the North Carolina statute is a separate issue. So, before tackling any constitutional or choice-of-law problem, we examine the statute itself.

FN17. It is not entirely clear which choice-of-law rule North Carolina courts would apply. The federal courts that have considered the question have reached different results. See, e.g., *Santana, Inc. v. Levi Strauss & Co.*, 674 F.2d 269, 273-74 (4th Cir.1982) (applying most significant relationship); *United Dominion Industries, Inc. v. Overhead Door Corp.*, 762 F.Supp. 126, 128-29 (W.D.N.C.1991) (collecting cases and applying *lex loci delicti*). For that matter, we would not necessarily apply North Carolina's choice-of-law rules to the present case. Rather, we would apply the choice-of-law rules of the ten states in which the transferor courts are situated, which diverge considerably. Because our interpretation of the statute resolves the question before us, however, we will not address the choice-of-law question.

The NCUTPA states, in relevant part, "(a) Unfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce, are declared unlawful. (b) For purposes of this section, 'commerce' includes all business activities, however denominated." N.C. Gen.Stat. § 75-1.1. This language reflects a 1977 amendment that removed the phrase "within this state," leaving the text without any geographic limitations. North Carolina courts have addressed neither the impact of this amendment, nor the NCUTPA's extraterritorial reach in general. Looking to local federal courts' interpretations, we find two distinct characterizations. The amendment extended the statute "to the limits of North Carolina's long-arm statute," *Broussard v. Meineke Discount Muffler Shops, Inc.*, 945 F.Supp. 901, 917 (W.D.N.C.1996), or "to the full extent permissible under conflicts of

law principles and the Constitution." *Hardee's Food Sys., Inc. v. Beardmore*, 1997 U.S. Dist. LEXIS 9671 at \*7 (E.D.N.C. June 6, 1997). This disparity has led, in turn, to disagreement about whether the statute requires an in-state injury. See, e.g., *'In' Porters, S.A. v. \*850 Hanes Printables, Inc.*, 663 F.Supp. 494, 501 (M.D.N.C.1987) (requiring substantial effect on in-state business operations); *Hardee's Food Sys., Inc. v. Beardmore*, 1997 U.S. Dist. LEXIS 9671 at \*8-9 (E.D.N.C. June 6, 1997) (no in-state injury requirement).

Plaintiffs, relying on *Hardee's*, argue that *'In' Porters* is no longer good law. In fact, *Hardee's* is the only opinion we have found that rejects *'In' Porters'* reasoning, whereas several other decisions have expressly endorsed it. See, e.g., *Broussard*, 945 F.Supp. at 917; *Merck & Co. v. Lyon*, 941 F.Supp. 1443, 1463 (M.D.N.C.1996); *Dixie Yarns, Inc. v. Plantation Knits, Inc.*, 1994 WL 910955 at \*2-3 (W.D.N.C. July 12, 1994). Because these are co-equal district courts (interpreting state law), we consider them each as persuasive authority. Notably, the only court outside of North Carolina to consider this issue relied on *'In' Porters*, and it did so after *Hardee's*. See *Lithuanian Commerce Corp. v. Sara Lee Hosiery*, 47 F.Supp.2d 523, 537 (D.N.J.1999).

In construing this statute, the *'In' Porters* court looked to external sources. First, it sought to harmonize the NCUTPA with North Carolina's long-arm statute, N.C. Gen.Stat. § 1-75.4(4), which allows personal jurisdiction in cases involving foreign acts only if an injury occurs within North Carolina and the party was in, or had products in, North Carolina commerce at the time. 663 F.Supp. at 501. Second, it looked to the standards for applying the federal Sherman Act extraterritorially, which require that the foreign acts have a substantial effect on plaintiff's domestic operations. *Id.*, citing *Rose v. Vulcan Materials Co.*, 282 N.C. 643, 194 S.E.2d 521 (1973) (Sherman Act decisions instructive in determining the full reach of North Carolina's unfair trade act). Both analogies suggested that plaintiffs must establish a substantial effect on in-state operations--an in-state injury--to state a NCUTPA claim. Moreover, the court noted, such an interpretation was consistent with constitutional due process and commerce clause concerns.

The *Hardee's* court found the text's lack of any geographic restraints controlling. It noted other cases sustaining NCUTPA claims, where plaintiffs had minimal North Carolina operations. 1997 U.S. Dist.

LEXIS 9671 at \*8-9, citing *Jacobs*, 891 F.Supp. at 1111-12 (allowing suit by out-of-state franchisees against North Carolina franchiser) and *Broussard*, 945 F.Supp. at 917-18 (sustaining action against North Carolina trucking company by plaintiffs from several different states). And it found the additional profits defendants achieved by engaging in the alleged practices were a sufficient impact on local commerce.

We believe *'In' Porters* reflects the better interpretation. North Carolina courts have found that "the purpose of G.S. 75-1.1 is to provide a civil means to maintain ethical business standards of dealings between persons engaged in business and the consuming public within this state," *United Virginia Bank v. Air-Lift Assoc.*, 79 N.C.App. 315, 339 S.E.2d 90, 93 (1986), quoted in *'In' Porters*, 663 F.Supp. at 502 (emphasis in *'In' Porters*). It was designed to address "primarily local concerns." *ITCO Corp. v. Michelin Tire Corp.*, 722 F.2d 42, 48 n. 9 (4th Cir.1983). Plaintiffs point out that Illinois courts have found that the state had an interest in regulating the conduct of local businesses, even as to foreign consumers, and permitted out-of-state consumers to invoke Illinois' consumer protection statute. *Avery*, 254 Ill.Dec. 194, 746 N.E.2d at 1255. North Carolina courts have not ascribed such an intention to their legislature. Instead of emphasizing defendants' conduct, they have found that the statute focuses on \*851 "the impact the practice has on the marketplace." *Marshall v. Miller*, 302 N.C. 539, 276 S.E.2d 397, 403 (1981). The relevant marketplace is North Carolina. Plaintiffs also point out that the NCUTPA does not require contractual privity. Although this is true, courts have frequently cited a direct contractual relationship with an in-state party as the nexus justifying their application of their local statute to that out-of-state plaintiff. See *Jacobs*, 891 F.Supp. at 1111; *Broussard*, 945 F.Supp. at 917-18. Plaintiffs here have alleged no such contact with any North Carolinian.

If, as *Hardee's* found, incremental profits by an in-state defendant alone were sufficient effect on in-state commerce to trigger the statute, that would dramatically extend its reach.

Were that the case, every product manufactured and sold, directly or indirectly, in North Carolina to foreigners which later turn out to be defective would create an unfair competition cause of action whether or not the injured party had ever directed its commercial efforts toward, or even set foot in this state.

*Dixie Yarns*, 1994 WL 910955 at \*2. We also note that the two cases the *Hardee's* court primarily relied upon both applied the *'In' Porters* standard, emphasized the continuing contact plaintiffs had with North Carolina, and made express findings of in-state harm. *Jacobs*, 891 F.Supp. at 1111; *Broussard*, 945 F.Supp. at 917-18.

Following *'In' Porters'* use of the long-arm analogy, we examine whether plaintiffs' contact with North Carolina would sustain personal jurisdiction there. The answer is decidedly no. Plaintiffs have not pled any contact with North Carolina. They have not alleged that they buy or sell any goods there, have any contact with a North Carolina company, or engage in any North Carolina commerce whatsoever. Because the named plaintiffs have not alleged that they experienced any harm within North Carolina, they cannot state a claim under the NCUTPA.

#### VII. Tennessee Consumer Protection Act

[30] Plaintiff McCormack adds an additional claim under the TCPA, T.C.A. §§ 47-18-101 *et seq.*, alleging that Aventis engaged in deceptive trade practices. Defendants assert that this claim must be dismissed because McCormack does not allege he had any consumer transaction with Aventis.

The CPA is worded broadly:

Any person who suffers an ascertainable loss of money or property, real, personal, or mixed, or any other article, commodity, or thing of value wherever situated, as a result of the use or employment by another person of an unfair or deceptive practice declared to be unlawful by this part, may bring an action individually to recover actual damages.

T.C.A. § 47-18-109(a)(1). Nothing in its text requires privity or restricts relief solely to direct purchasers.

[31] Aventis' licensing of its StarLink process to seed growers brings it within the statute. It is well settled that the TCPA applies to sales to corporate entities, as well as to consumers. *ATS Southeast, Inc. v. Carrier Corp.*, 18 S.W.3d 626, 626 (Tenn.2000). We see no reason to treat selling (or licensing) intellectual property any differently from selling (or leasing) a tangible item. In defining "consumer," the statute specifically refers to one who acquires "tangible or intangible" property. T.C.A. 47-18-103(2). Moreover, at least one court has sustained a claim where the product in question was

an intangible: copyrighted music. See *Bridgeport Music, Inc. v. IIC Music*, 154 F.Supp.2d 1330 (M.D.Tenn.2001).

\*852 Aventis offers two state court cases as standing for the proposition that a plaintiff must have been party to a consumer transaction with a defendant to bring a TCPA claim. In *Messer Griesheim Indus. v. Cryotech of Kingsport, Inc.*, 45 S.W.3d 588, 610 (Tenn.Ct.App.2001), the court dismissed a claim against a party who was merely the financing lessor and did not offer a product for sale or distribution. And in *State ex rel. Pierotti v. Sundquist*, 1993 WL 166938 at \*5 (Tenn.Ct.App. May 19, 1993), the court held that plaintiffs, who had a contractual relationship with a corporation, did not have standing to bring TCPA claim against the corporation's directors because there was no consumer relationship. But we find these distinguishable because neither relied on the fact the defendant did not sell something directly to the plaintiff. As a financing lessor and a corporate director, respectively, those defendants did not sell anything to anyone.

*Bridgeport Music, supra*, dispels the idea that the TCPA requires a direct transaction between the litigants. Plaintiff copyright holders alleged that defendants sold music to consumers as original, when in fact it infringed on plaintiffs' works. There was no contractual relationship between the litigating parties, but plaintiffs alleged their property rights were harmed by defendants' sales to third parties. The court found this was sufficient to state a TCPA claim and rejected an argument identical to defendants' here.

[Defendants] insist that Plaintiffs were not themselves purchasing goods and therefore cannot sue under the Act. This gloss on the statute is evidently of the Defendants' own creation. The TCPA was amended precisely to expand the class of potential plaintiffs, making relief available to "the consumer or other person." T.C.A. 47-18-109(a)(4). The disjunctive added in 1989 precludes any reading that imposes a "buying requirement" upon the plaintiff.

*Bridgeport Music*, 154 F.Supp.2d at 1333 (emphasis in *Bridgeport Music*). See also *Olin Corp. v. Lambda Electronics, Inc.*, 39 F.Supp.2d 912, 914 (E.D.Tenn.1998) ("There is no authority that a 'consumer transaction' is a *sine qua non* of TCPA applicability."). We agree with *Bridgeport Music* that the TCPA permits third parties to bring a claim if they are harmed by defendants' deceptive practices.

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**CONCLUSION**

For the foregoing reasons, defendants' motion to dismiss is granted with respect to the claims for conversion and violations of the NCUTPA. The motion is denied with respect to the claims for negligence *per se*, public nuisance, private nuisance and violations of the TCPA. The negligence and strict

liability claims are dismissed to the extent they rely on a failure to warn, but may proceed under the theories outlined above.

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SENATE JUDICIARY COMMITTEE

February 3, 2002

HEARING ON S.B. 2304

Mr. Chairman and Members of the Committee, I am Sarah Vogel. I am testifying on my own behalf, as an attorney who does a considerable amount of work with farmers and ranchers in this state.

Initially, I want to state that the issue of liability will come up and will come up soon and will come up frequently. I have attached a copy of a paper I received on Saturday authored by several scientists from the Department of Plant Sciences, University of Manitoba, regarding "gene flow" in wheat. Segregation of GMO and non-GMO wheat will be critical if we are to preserve our export markets (the vast majority of our export customers will not accept GMO wheat); if farmers will be able to fulfill contract terms for domestic buyers who do not want GMO wheat; if organic farmers are to have a future in this state. The study I have referenced demonstrates that it is only a matter of a few years until the GMO traits will spread to non-GMO fields at rates that will cause loss of markets.

This bill therefore will be helpful to our farmers. I have several suggestions, however.

First, there should be a savings clause so that that is crystal clear that other remedies currently available under North Dakota law (e.g. negligence, trespass, nuisance, strict liability, false advertising, environmental claims) will still be available. Such a provision is routine in similar laws. For example, the pyramid promotional scheme law (Chapter 51-16.1) provides at N.D.C.C. 51-16.1-05 that:

1. The rights and remedies that this chapter grants to purchasers in pyramid promotional schemes and referral selling schemes are independent of and supplemental to any other right or remedy available to them in law or equity, and nothing contained herein may be construed to diminish or to abrogate any such right or remedy.
2. The provisions of this chapter are in addition to all other causes of action, remedies, and penalties available to the state or any of its governmental agencies.

Second, subsection 3 starting at line 3 on page 2 should be deleted. This subsection states that if a plaintiff does not win damages, that plaintiff must pay all of the costs and attorneys fees of the patent holder in defending the action. I have great difficulty with this provision. When one starts a case, one doesn't know whether or not one will be awarded damages. Here, the "complete defense" provided in subsection 4 is very broad. If the patent holder demonstrates that it "*may reasonably be believed* to have occurred as a result of an act over which the patent holder had no control" it is a complete defense to the action. This language throws a great deal of uncertainty into whether or not a farmer might prevail in a claim for damages. Patent holders may "reasonably believe" that wind and gravity (which are the basis of cross pollination according to the paper I have



provided you) are matters over which the patent holder has no control. Thus, a farmer could be contaminated due to no fault of his own but encounter a slick defense as to what the patent holder "reasonably believed" was "out of his control" and not be awarded damages. This could be such a deterrent to use of the law that it might become a dead letter on the law books of the state. That would be a pity because the law might be very helpful to our citizens.

I understand that this provision was inserted to prevent frivolous lawsuits. I would submit that there are laws already on the books that are fully adequate to prevent a frivolous lawsuit being brought under this or any other law and to protect a patent holder against frivolous lawsuits.

If a lawsuit is in fact frivolous, existing law provides that a defendant may be awarded attorneys fees and costs for the defense. This is set out in N.D.C.C. §28-26-01 which provides in subsection 2:

2. In civil actions the court shall, upon a finding that a claim for relief was frivolous, award reasonable actual and statutory costs, including reasonable attorney's fees to the prevailing party. Such costs must be awarded regardless of the good faith of the attorney or party making the claim for relief if there is such a complete absence of actual facts or law that a reasonable person could not have thought a court would render judgment in their favor, providing the prevailing party has in responsive pleading alleged the frivolous nature of the claim. This subsection does not require the award of costs or fees against an attorney or party advancing a claim unwarranted under existing law, if it is supported by a good faith argument for an extension, modification, or reversal of the existing law.

In addition, Rule 11 of the North Dakota Rules of Civil Procedure provides for monetary sanctions on attorneys who bring frivolous lawsuits. And N.D.C.C. §28-26-31 allows a court to award attorneys fees and impose other sanctions if pleadings are not made in good faith.

In summary, existing law is completely adequate to deter frivolous lawsuits and to sanction attorneys who bring them. Subsection 3 would be duplicative and it is unnecessary to have this section.

I do believe, however, that successful plaintiffs under this bill should be awarded attorneys fees if they prevail as is provided in the bill at subsection 2, starting on line 6 of page 2. This type of fee shifting is commonly allowed when enforcement of a law achieves an important public objective as it does here. For example, the consumer fraud law provides at N.D.C.C. §51-15-09, which provides:

The provisions of this chapter do not bar any claim for relief by any person against any person who has acquired any moneys or property by means of any practice declared to be unlawful in this chapter. If the court finds the defendant knowingly committed the conduct, the court may order that the person

commencing the action recover up to three times the actual damages proven and the court must order that the person commencing the action recover costs, disbursements, and actual reasonable attorney's fees incurred in the action.

I would be pleased to answer any questions.

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Date

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## Issues Related to Release of GM Wheat: Gene Flow and Selection

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### Abstract

Release of genetically modified (GM) wheat will require segregation of GM and non-GM wheat to satisfy international markets. Before GM wheat is released, it will be important to understand the fate of a GM trait within the agronomic production system. The objective of this study was to evaluate the effect of gene flow and selection pressure on the frequency of GM traits in non-GM wheat and wheat volunteers. Gene flow of GM traits to non-GM wheat will occur through pollen or seed movement. Gene flow is inevitable. When a GM trait does not confer a selective advantage in the production system, the frequency of the GM trait within non-GM wheat will be a function of the rate of gene flow. Low rates of gene flow will lead to low levels of GM contamination in the non-GM crop. With repeated gene flow events, the frequency of the GM trait will slowly increase in the non-GM crop. When the GM trait has a selective advantage, the frequency of the GM trait will increase rapidly in volunteer wheat populations. Herbicide tolerance is an example of a GM trait that provides a high selective advantage when the herbicide is applied in the production system. Predictive models show that even with very low rates of gene flow, frequent application of a highly effective herbicide will quickly increase the frequency of the herbicide tolerant GM trait in volunteer populations. This has negative implications for control of volunteers and the ability to maintain tolerance levels of GM traits in non-GM wheat crops.

### Introduction

Development of genetically modified (GM) wheat through recombinant DNA technologies is a reality in a number of wheat breeding programs. The Canadian Food Inspection Agency (CFIA) has established an extensive protocol for testing and evaluation of GM crops through regulation of Plants with Novel Traits (PNT's). Environmental safety assessments focus primarily on the impact of the new trait on weediness characteristics of the crop, the effect of gene-flow to wild relatives, the potential for the crop to become a pest, the potential impact of the trait on non-target organisms and biodiversity. Comparisons are made relative to a known non-GM counterpart. In most cases the environmental safety assessments focus on impacts outside of the agronomic production system. However, some GM traits can have significant impacts on crop production practices, pedigreed seed purity, ability to manage volunteers, and the ability to produce non-GM wheat crops.

Surveys conducted by the Canadian Wheat Board show that there is significant customer resistance to GM wheat (Canadian Wheat Board, 2001). As a result, initial release of GM wheat will require segregation of GM and non-GM wheat to satisfy different customer demands. Under these circumstances, it will be important to understand the fate of GM traits in wheat within the production system.

The objectives of this paper were to: 1) briefly review the pollination biology and out-crossing rates of wheat and 2) assess the potential effect of gene flow and selection on the frequency of GM traits in non-GM wheat and wheat volunteers using basic population genetic principles.

### Gene flow in wheat

In plants, genes move between populations either through pollen or seed movement. Pollen movement in wheat is facilitated by wind and gravity. Anthers normally dehisce within the floret, followed by filament elongation and extrusion of the anthers outside of the floret. A small amount of pollen is shed on the stigma within the floret, while 80% of the pollen is shed outside of the floret. Florets that have not been successfully self-pollinated will remain open and be receptive to pollen from other sources for up to

out-crossing rates beyond 10 m from the pollen source becomes difficult because the area from which samples must be drawn increases exponentially with distance from the pollen source. Therefore, to simplify modeling, out-crossing was assumed to occur within 10 m of the pollen source at either a level of 0.01% (similar to Katepwa in the Hucl and Matuz-Cádiz, 2001 study) or 3% (similar to Oslo in the Hucl and Matuz-Cádiz, 2001 study).

Basic population genetics models were used to evaluate the effect of gene flow either on its own or followed by the application of selection pressure (Hartl and Clark, 1989). Since most GM traits are inherited as single nuclear dominant genes, this form of inheritance was modeled. The general selection equation was modified to accommodate the primarily self-pollinating nature of wheat such that following the initial gene flow event an out-crossing rate of 1% within the resulting population was used. The selection pressure used in the general selection model was set at 95% to simulate a typical herbicide efficacy rate.

#### **Results and Discussion**

Even though gene-flow rates in wheat may be relatively low when compared to crops that are primarily cross-pollinating, the levels of gene flow are sufficiently high that it will not be possible to guarantee 0% GM trait in non-GM wheat. Statistically, it is neither practical nor possible to prove a tolerance level of 0% GM. Therefore, prior to release of GM wheat it will be important to have established standards for tolerance levels of GM traits in non-GM wheat. This will be important for both conventionally and organically produced crops. Once tolerance levels are established, sampling and testing procedures can be established to guarantee that non-GM wheat crops do not exceed the tolerance levels.

The vast acreage of wheat in western Canada suggests that some wheat fields will be grown adjacent to each other with very little distance separating them. Similarly, the minimum isolation distance for production of pedigreed Breeder and Select seed is 10 m and for Foundation, Registered and Certified seed is only 3 m (Anonymous, 1994). Based on the out-crossing rates and distances reported above, gene flow between GM and non-GM wheat will be of concern in a production system that requires segregation of non-GM wheat from GM wheat. In the short term there is little concern of gene flow of non-GM traits to GM wheat. As a result, the main focus will be on the fate of GM traits in non-GM wheat crops and volunteers.

#### ***Fate of single gene flow events***

When a field of GM wheat is grown adjacent to a non-GM wheat field some out-crossing may occur. The level of out-crossing will depend on the synchrony of flowering between the two fields, the level of male sterility in the non-GM wheat (i.e. degree to which receptive females are available), the non-GM cultivar, distance between the crops, and wind direction. The frequency of the GM trait in the harvested seed from the non-GM crop will be influenced by the rate of out-crossing experienced and size of the field being harvested. Since the highest level of out-crossing will occur on the field edge closest to the GM crop, it is expected that the frequency of the GM trait will be highest on the field edge of the non-GM crop and will diminish with distance from the GM crop. As the non-GM field is harvested, it is expected that the GM trait will be mixed with and diluted with the non-GM wheat from the remainder of the field. Depending on how the field is harvested the frequency of the GM trait may vary significantly from sample to sample with the highest frequency occurring in samples harvested from the areas closest to the GM wheat crop. If the harvested grain is used for seed, the GM trait may be introduced into a field that has never been near a GM wheat crop. Similarly, wheat volunteers that remain after harvest will contain the GM trait at a frequency equivalent to the out-crossing rate. The highest frequency of the GM trait in volunteers will occur in the field in areas close to the GM crop. Under situations that do not provide a selective advantage or disadvantage to the GM trait, the frequency of the trait will remain constant within the population. If volunteer population sizes are very low, the frequency of the GM trait may increase or decrease due to random genetic drift.

generations of herbicide treatment. Therefore, even with relatively low gene flow rates, the frequency of traits that have a high selective advantage in the production system will increase rapidly with the application of the selective agent. For herbicide resistance traits, this will have a significant impact on volunteer management, crop rotation, herbicide management, and ability to maintain minimum tolerance levels of GM traits in non-GM crops.

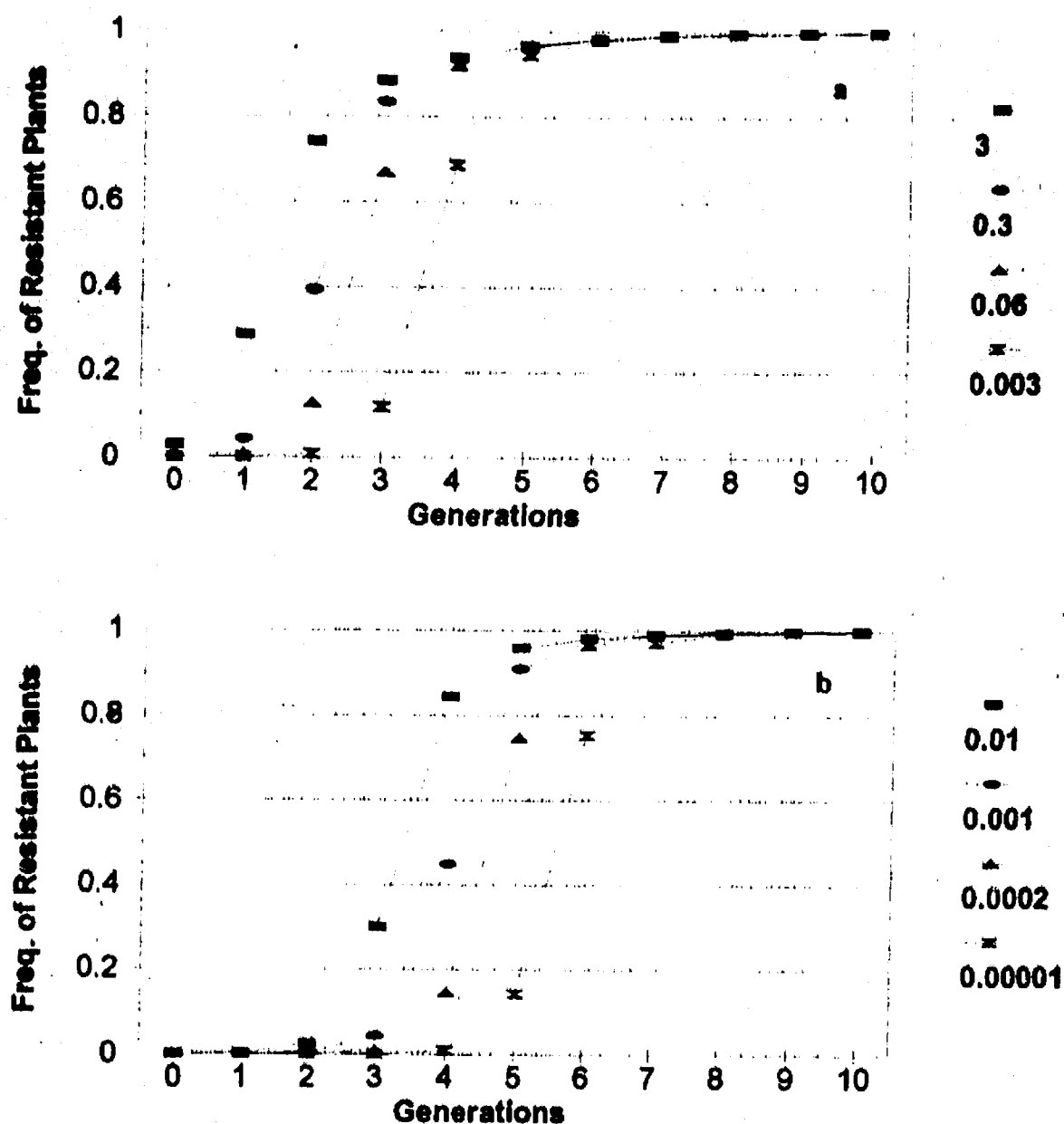


Figure 2. Frequency of herbicide resistant GM volunteers following application of the herbicide. The selection pressure of the herbicide is 95%. a) Initial gene flow rates range from 0.003 to 3% to simulate a cultivar such as Oslo that has a high out-crossing rate. b) Initial gene flow rates range from 0.00001 to 0.01% to simulate a cultivar such as Katepwa that has a low out-crossing rate.

With the exception of Canada Prairie Spring wheat, current standards for pedigreed wheat seed production allow a maximum of 1 in 10,000 off-types in Breeder and Select seed and 5 in 10,000 in Foundation, Registered, and Certified seed (Anonymous, 1994). Therefore Certified seed could have a frequency of GM traits equivalent to a gene flow rate of 0.05% and still meet pedigreed seed standards. If

movement. Customer resistance to GM traits will require segregation of GM and non-GM wheat in order to ensure ongoing marketability of the Canadian wheat crop. Tolerance limits for GM traits in non-GM wheat will have to be set to meet customer demands. Since tolerance limits will vary among different customers, it will be important to set tolerance limits that will satisfy the majority of customers. However, it will not be possible to maintain tolerance levels of 0% GM trait.

The need to segregate GM and non-GM wheat, at least for the short-term, will require a clear understanding of the fate of the GM trait within the production system. GM traits that do not confer a selective advantage within the production system may increase slowly within seed populations of wheat, but may not present significant problems for segregation of GM and non-GM crops unless tolerance levels are very low. GM traits that confer a selective advantage within the production system are expected to increase in frequency within volunteer wheat populations. The highest rate of increase will occur for GM traits that confer a high selective advantage to a selective agent that is applied frequently within the production system. Resistance to glyphosate is an example of such a trait. As GM traits are released, it will be important to review standards for pedigreed seed production to ensure that problems are not generated for those who choose to grow non-GM crops. Crop production practices, herbicide management strategies, and environmental impacts of these practices will also need to be reviewed.

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AA #4 2/3

Testimony for HB 2304  
February 3, 2003  
North Dakota Senate Judiciary Committee

Chairman Traynor and members of the Judiciary Committee,

My name is Gail Wiley and I farm with my husband south of Jamestown.

Tom and I have been quite outspoken in our opposition to the introduction of GM wheat in North Dakota. We believe that as producers who need to export at least 60% of our product, we need to pay attention to our customers who tell us that they do not want GM wheat. Two years ago, as we were lobbying for a moratorium on GM wheat, we found that our conventional, food grade non-GM soybeans, for which we had been offered a good contract, were found to be contaminated by modified genes. We lost that contract and about 10,000 dollars in premium. Since we thought (and still do think) that our contract loss points exactly to the problem we fear if GM wheat is introduced, we told our story to the press. Our story has been picked up and published around the world. Indeed, we still have reporters calling us about that contamination problem.

Because of our experience with contamination, we have been invited on two different international farmer tours to speak to farmers and officials about our views. The three week tour last January was funded by ANPED (The Northern Alliance For Sustainability which is based in Poland), Friends of the Earth of Europe, and the Berne Declaration in Switzerland. During that tour we visited four Eastern European countries, Slovenia, Croatia, Bulgaria, and Poland, and three European Union countries, Belgium, France, and Switzerland. In each country we were hosted by local NGO groups who set up exhaustive schedules with groups of farmers, farmer union leaders, legislators, press, and government officials. In Brussels we were hosted by the Green Party, to speak at a forum before members of the European Parliament. Our message was very simple, "Not all farmers in America grow genetically modified crops. We feel that their presence is a threat to our way of life, to our independence and to our rights as farmers, particularly to our right to save seed."

On this trip and the one this summer to Australia, we traveled with Percy Schmeiser and his wife, Louise, who we got to know and love. Percy Schmeiser, a Canadian farmer, has been a public servant and outstanding citizen in his community for his life of 73 years. He, like you, served in his Provincial Parliament and was mayor of his small town near Saskatoon for several years. He was a businessman, owning a farm implement dealership, a farmer, and a seed developer.

Percy is known around the world for fighting a patent infringement case brought against him by Monsanto in 1998. Contrary to what many people believe about this famous case, Monsanto dropped all accusations that Percy brown-bagged seed or obtained seed illegally. He was accused and found guilty of planting his own canola seed which he "knew or ought to have known" was contaminated with Monsanto's RoundUp Ready gene. In testimony, Monsanto claimed that as little as 1-2% of contamination would make him guilty of patent infringement. Last summer he lost an appeal of that case and it will now go to the Supreme Court in Canada. Percy's case is well documented on his website, [www.percyschmeiser.com](http://www.percyschmeiser.com).

The fact that Percy was found guilty should be a frightening signal to every farmer. What that verdict says is that any farmer, once he suspects that he may be contaminated (as with Tom's soybeans of two years ago), he cannot save his seed without risking a lawsuit with a multi-national corporation.

Percy lost his own variety of canola through this contamination, a variety he developed for his own farm over 40 years of farming. But he also lost his ability to grow any canola and this is where the red light should go on for ALL canola farmers and ALL wheat farmers once GM wheat is introduced. Percy could not plant his own seed after the lawsuit so he bought new, supposedly conventional, canola seed the next year, planted it, and sprayed a patch of it with RoundUp. Sure enough, some plants survived, showing him that even so-called conventional seed from a dealer was contaminated. According to the judgment, he, or any farmer, once they know or ought to know that their seed contains the RoundUp Ready gene, cannot plant it without paying a royalty to Monsanto. Since Percy refuses to pay a royalty to Monsanto, last year was the first year that Percy did not grow any canola on his farm. Because of contamination with genes he did not want or use, Percy has lost his lifelong profession.

Percy routinely gets phone calls from people weeping on the line. They have been visited by Monsanto representatives and accused of planting RR seeds. What can they do? They cannot afford to fight like Percy has. It has cost him and his wife their life savings and any inheritance they had hoped to leave their children. Usually these accused farmers pay the fine for the contamination (or adventitious presence as the industry calls it) and sign a confidentiality clause so they cannot even go to the press to make these bully tactics known. He has in his files hundreds of letters and received hundreds of phone calls from such farmers.

That is why we continually point out that once contamination becomes commonplace, as it has with canola and soybeans, farmers will have lost their right to save any seed. It will just be a matter of time before all farmers will have to pay a corporation who owns a patent on the genes, in order to plant any crop. Is that what we want for the farmers in North Dakota?

This bill begins to address these questions. But it barely begins. This bill would not have protected Percy and farmers like him. It only addresses a direct market loss, not a patent infringement case. Under this bill, if a farmer dare take the risk of suing Monsanto, what would prevent Monsanto of turning right around and suing for patent infringement if the farmer saves any of his own seed? And what farmer can risk paying Monsanto's legal fees? He may hire one attorney. Monsanto has dozens already on staff.

Wheat farmers in North Dakota routinely save their seed for at least three years. Most farmers bring in just a fraction of new seed each year, testing new varieties and saving seed from those that work well on their farms. The loss of this right will greatly increase the cost of putting in a crop each year and will decrease the biodiversity of seed that is essential to the wheat industry. Farmers need legal protection if GM wheat is introduced into North Dakota. Start with SB 2304, but amend it to give farmers greater protections, not just from cross-contamination, but from predatory lawsuits by the patent holders, and from the market losses to the industry as a whole. Elevators, many of which are farmer owned, need protection from the financial losses of returned grain shipments, and organic growers need protection from market losses and from loss of certification. Any company that stands to gain from the release of these genes into the environment should be held liable for the financial losses they cause the state and its citizens.

Thank you

*Ed M. Wiley*

HIT #5

4/3

ger Johnson  
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Testimony of Roger Johnson  
Agriculture Commissioner  
Senate Bill 2304  
February 3, 2003  
Senate Judiciary Committee

Chairman Traynor and members of the Senate Judiciary Committee. I am Jeff Weispfenning, providing testimony for Agriculture Commissioner Roger Johnson on Senate Bill 2304. We are in support of this bill, recognizing that there may be certain details that may need to be worked out in the final version.

Commercialization of transgenic wheat could expose non-transgenic wheat producers to considerable risks, should adequate procedures not be in place to prevent cross-pollination of the crop. If markets are not willing to accept wheat with a transgenic presence (as many markets currently are) or if those markets only will accept transgenic wheat with a discount, losses will be incurred that should not be borne by the producer.

At least at the stage before most markets accept transgenic wheat, and certainly before markets offer a premium for non-transgenic wheat, the patent holders of the transgenic wheat should be held accountable, if they have not developed workable means to prevent cross-pollination at levels that would result in rejection or discount for non-transgenic producers.

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There may be some questions about some of the details of the current bill that may bear closer discussion. For instance, on page one, number 4, the level of transgenic tolerance set at "one-half of one percent" may be too high. This is a number that may evolve over time, but I would submit that for non-food transgenic crops the tolerance should probably be closer to zero.

However the basic principle is that it should be the obligation of the patent holder to provide reasonable methods to prevent cross-pollination that would result in losses for producers of non-transgenic wheat who intend or must market to non-transgenic markets specifications and further that if these methods do not work that the patent holder should be accountable.

I urge the committee to give this bill a "do pass." Thank you. I'd be happy to respond to any questions.

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## Bringing New Technologies to Wheat

### Information on the Development of Roundup Ready® Wheat



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Biotechnology is providing new, highly effective ways to treat human disease, to manufacture chemical products, to eliminate waste, and to ensure abundant, healthful and affordable food for our world's growing population.

Several public and private breeding programs have entered collaborative agreements with Monsanto to develop Roundup Ready wheat varieties. The purpose of this brochure is to provide answers to common questions regarding the technology and the approach to market.

Roundup Ready wheat will be introduced when the following milestones have been achieved:



The food, feed and environmental safety of Roundup Ready wheat is demonstrated, resulting in regulatory approvals in the United States, Canada and Japan. The intent is to commercialize in the United States and Canada simultaneously. Regulatory approvals alone will not determine when Roundup Ready wheat will be commercialized. The following milestones also will be met.



Appropriate regulatory trade approvals, thresholds or marketing agreements are in place in major export markets. This allows wheat to be traded based on buyer preferences and specifications.



Appropriate grain handling protocols and standardized sampling and detection methods are developed and implemented. This approach will provide meaningful choice for customers who prefer conventional or biotech grain. Grain handling protocols also will facilitate variety-specific marketing opportunities - creating



Comprehensive agronomic stewardship programs and best management practices are developed. This includes an effective solution for managing wheat volunteers that contain the Roundup Ready trait.



Varieties meet or exceed industry standards for grain end-use quality. Varieties will be screened for unique quality attributes prior to introduction.



Buyers are identified who will procure and use wheat ingredients with biotech traits. Consumer acceptance for the technology is demonstrated by buyer and processor acceptance.

In Spring 2002, there were approximately 35 acres of Roundup Ready wheat breeding and research trials planted in the United States - representing 0.00006 percent of the total U.S. wheat plantings.

No. We conduct all laboratory, greenhouse and field research with extreme care, adhering to or exceeding strict federal (USDA-APHIS) and state regulatory guidelines, which are designed to prevent the unintended

Growers will be able to use a broad range of herbicides and cultural practices currently available to control volunteer wheat. Monsanto and land-grant universities are conducting research to find the most effective method for control of volunteer Roundup Ready wheat. Identifying an effective solution to manage Roundup Ready wheat volunteers and to minimize risk is a primary objective for Monsanto.

The Roundup Ready system in other crops is a proven, highly effective weed control tool that saves growers time and money. Incorporating the technology into wheat could increase the competitiveness of wheat growers in the Northern Plains and provide a much-needed additional tool in weed-control options and improved profitability for growers. This collaboration provides opportunities for thorough and careful evaluations of the technology as it moves toward commercialization.

We acknowledge and respect the complexities of today's trade and export environment, which represents approximately 45 percent of the market for U.S. spring wheat growers. As expected, some export markets have expressed a preference for conventional sources of wheat.

Monsanto is consulting the wheat industry - including export customers - to develop a commercial approach for Roundup Ready wheat that facilitates choice for wheat buyers. Monsanto will play an appropriate role within the wheat industry to consistently and confidently meet those market preferences.

The wheat industry has an opportunity to inform customers about the safety and benefits of biotechnology prior to the time varieties will be ready for sale to growers.

The concept behind Roundup Ready wheat is to meet growers' weed control needs by providing complete, dependable, cost-effective control. Applications of labeled Roundup® herbicides may be made up to the five-leaf stage at rates designed to provide control of nearly all broadleaf and grassy weeds.

Years of field-trial data suggests the Roundup Ready system can offer North American wheat growers a compelling set of technical benefits including:

- Broad-spectrum weed control
- Increased crop safety
- Increased yield
- Cleaner grain
- A different in-crop mode of action
- Simplified weed management

#### Cooperative Programs in the Eastern Spring Wheat Region

North Dakota  
State University  
Ken Grafton  
(701) 231-6693

South Dakota  
State University  
Kevin Kephart  
(605) 688-4149

University of Minnesota  
Beverly Durgan  
(612) 625-9292

Monsanto Company  
Michael Doane  
(314) 694-8351



Att #7

## TESTIMONY

BY  
CALVIN N. ROLFSON  
IN OPPOSITION TO  
SENATE BILL NO. 2304

My name is Cal Rolfson. I am an attorney in Bismarck. I represent CropLife America. CropLife America is the leading trade association in the United States representing the agricultural bio-technology companies as well as the Nation's leading Ag herbicide, pesticide and fungicide manufacturers. I appear in opposition to Senate Bill 2304.

In the 2001 legislative session, the North Dakota Legislative Assembly considered and largely rejected a Bill that would have resulted in an outright ban on research and commercialization of biotech wheat. Even though North Dakota farmers across the state currently plant other biotech crops (such as soybeans & corn) and benefit greatly from this new technology, a small minority of activists used spurious arguments to urge that a new technology for wheat, which is not even available at the market now, should be banned.

Senate Bill 2304, in effect, would essentially be the same as an outright ban on biotech wheat before North Dakota farmers even have the ability to benefit from

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the technology. Senate Bill 2304 would be a ban because, the language is tantamount to making the manufacturers of the seed strictly liable for the product.

In general, strict liability in United States and North Dakota law, holds that the manufacturer of a product should be strictly liable for damages no matter how the product was used or by whom. Strict liability normally applies to inherently dangerous products, such as explosives or hazardous waste. Biotech seeds, like hybrids or other seeds, in no way can be held to be inherently dangerous. Toward the end of the Bill, the author has tried to address this concern of strict liability. The language at the end actually may be interpreted to be contrary to earlier paragraphs of the same Bill and therefore can be very confusing to a court should this Bill be enacted into law. The end result of this Bill, notwithstanding the added confusing language, would be the same as holding manufacturers strictly liable for biotech seed products.

Biotech seeds are safe. They undergo extensive testing and are regulated by no less than three federal agencies: The USDA, EPA and FDA. The unintended presence of trace levels of commercially approved biotechnology-derived materials in an of itself is not a health, safety or an environmental concern, as these traits are federally reviewed and registered as safe to plant. Regulatory authorities carefully evaluate each biotech trait in the contexts of the environment in which it is grown to

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assess any potential adverse affects. Additionally, risk analysis is undertaken by federal agencies to address its human and animal safety in food and feed.

We have no conflict, in the depressed ag economy, with organic farming practices. Any means available for North Dakota farmers to reap financial benefits from farming practices should be applauded. However, we oppose this Bill, or anything else that would give a single group of organic farmers statutory advantage over the vast majority of established agricultural practices or to essentially prohibit new technologies like Senate Bill 2304 would do. To pass legislative policy that seeks to promote economic advantage over another well established farming practice, it simply dangerous public policy.

The United States organic standards are process standards and not product standards. Organic crops are certified because of the method used to produce them, not the crop itself. USDA has explicitly stated, in the organic standards, that mere detection of ag chemical or biotechnology residues do not mean lost of certification for the organic farmer. In that case, why is Senate Bill 2304 needed as a protection toward organic farmers?

Senate Bill 2304 contains language concerning a threshold amount. What science and which regulatory bodies were consulted to arrive at this threshold limit? Considering all the latest scientific research, and the strong regulatory process

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biotech crops must undergo in this country, this threshold was simply pulled out of thin air.

We strongly suppose the idea of thresholds, but we insist on a scientific and uniform basis to arrive at reasonable levels. Such dialog and research should be done on a nation-wide basis and not purely for the State of North Dakota. What about our neighboring states? They don't have public policy like that which Senate Bill 2304 would mandate.

Once again, this Bill attempts to create a spotlight on North Dakota worldwide as a state which does not wish to promote or even encourage advanced scientific agricultural breakthroughs for North Dakota farmers. The Bill essentially enacts a public policy fence around the State of North Dakota that sends a message to the entire world that we wish to be isolated in agricultural scientific advancement.

Ask yourself this question. Why do some wish to put the majority of our North Dakota farmers at a disadvantage to those farmers in neighboring states that do not have such a policy fence erected? Why take away their access to new technologies? There is not one logical explanation for doing so.

A noted scholar on the issues of contamination from the University of Oklahoma, Dr. Drew Kershen, recently pointed out in "Reason" magazine that:

"US law generally does not allow those with special sensitivity to an

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activity to declare that they have been harmed by it. It is their responsibility to protect themselves from the activities they dislike. You do not have a claim based on your assertion of increase sensitivity. If you do not like to hear rock music, you cannot prohibit your neighbors from playing it at reasonable levels. Stay away from concerts and sound proof your home."

Dr. Kershen also points out:

"Those who have created a niche market should be the ones responsible for protecting it. After all, they are the ones trying to differentiate their products in order to obtain higher profits. The rest of us who don't care, shouldn't be saddled with the cost of defending their self-imposed standards and labeling. That would be akin to forcing conventional meat packers to carrier 'Non-kosher' labels on all their meats for the benefit of kosher meat producers."

Some previous speakers have used the word "contamination" to describe what is in reality "unintended presence". "Contamination" is an inflammatory term that is inappropriate when applied to products that have been subjected to a more stringent safety review than any other food crops on the market. The term "unintended presence" is appropriate to describe the unintended presence of biotech-derived crop material in a non-biotech or organic or non-biotech crop.

It is a normal occurrence in agriculture that with naturally cross-pollinating crops there will be a minimal pollen movement between neighboring fields (some of which may cause the unintended presence of biotech-derived material in a non-biotech crop). There are a number of factors that can affect the occurrence and

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extent of pollen movement.

Growers who wish to protect the identity and integrity of their crop should use generally accepted agricultural practices, or develop a certified organic plan in accordance with USDA guidelines, to minimize pollen flow. It is the well-accepted practice that each grower has the responsibility to provide any crop isolation that might be required to protect the identity of his or her crop.

The unintended presence of bio-tech derived material and non-biotech crop is not a health, safety or environmental concern. The common law concept of strict liability was never intended to apply to potential economic damages that might result from the use of a safe, federally regulated product that works as intended. Biotech-derived plants and seeds are neither defected nor unreasonably dangerous. Indeed, they are not dangerous at all or they would never be allowed on the market by three federal agencies.

The approach of assessing the safety of introduced proteins is well established and based upon international guidelines. Commercialized biotech crops have been thoroughly evaluated for food, feed, and environmental safety. The proteins introduced into biotech crops have a history of safe use. The unintended presence of trace levels of commercially-available biotechnology-derived material, in an of itself, is not a health, safety or environmental concern, as these traits are

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federally reviewed governmentally tested and cleared as safe to plant. Regulatory authorities carefully evaluate each biotech trait or event in the context of the environment in which it is grown, to assess any potential effects. Additionally, risk analysis is undertaken to address human and animal safety in food and feed. No instance of actual harm to health, safety or the environment has ever been confirmed for biotech-derived crops on the market today. There simply is no need for a strictly liability standard in this environment.

#### CONCLUSION

1. Theories of strict liability do not apply to potential economic damages caused by a safe seed or plant product that works as intended.
2. Strict liability is unwarranted where our existing fault-based liability (tort) systems work and treat all participants fairly.
3. Strictly liability is for inherently dangerous products or for those who do not work as intended. Biotech-derived plants, and seeds are fully cleared for feed, seed and food in the US and work as designed as intended. (e.g. a herbicide will not kill plants that are tolerant to the herbicide).
4. State efforts to impose strict liability on the manufacture or the seller of federally-approved, biotechnology-derived plants and seed is

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economically dangerous and wrong. It is unnecessary, it deviates from decades-old legal standards, and sends a world-wide message that North Dakota rejects science-based agriculture. It sends the message that our state should be avoided.

5. As an attorney having practiced in the area of strict liability and product liability, I can clearly assure you that no agriculturally-based production research that utilizes biotechnology will wish to conduct wheat-based research in North Dakota - the leading wheat producing state in the union. The risk would simply eliminate N.D. from growth. I am sure that Montana, South Dakota and Minnesota will be absolutely delighted if this Bill passes.
6. The unintended presences of trace-levels of commercially approved biotechnology-derived material, in and of itself, is not a health, safety or environmental concern.
7. Essentially, the proposals in Senate Bill 2304 lower by an extraordinary amount, the barrier for defining strict liability, to the point where, in every day action (driving your child to school, pushing a grocery cart) could be next in line for treatment under this strict liability approach.

Page No. 8

I urge this committee to reject Senate Bill 2304 with a "do not pass" recommendation and in doing so to send a message to the state, the nation and the world that science-based agriculture and research is the future of North Dakota's agriculturally economy, and that in doing so you reject the efforts by some to isolate North Dakota.



Calvin N. Rolfson  
Legislative Counsel  
CropLife America  
(Lobbyist No. 144)

Page No. 9

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# Outcrossing/Pollen-Mediated Gene Movement

## Glossary

**Adventitious presence** - Used to describe the unintended, incidental presence of a product impurity. Refers to the unintentional mixing of trace amounts of seed, grain or other product of one plant variety within a different variety. In the context of plant biotechnology, refers to the unintended, trace levels of traits developed through plant biotechnology in seed, grain or feed and/or food products.

**Gene Flow** - Refers to the successful transfer of genetic material between plants. Gene flow is a natural process and key to the evolutionary success of plant populations.

**Pollen Flow** - The physical movement of pollen in nature by wind, insects, humans or other factors. Represents one mechanism by which gene flow can occur. Pollen flow results in gene flow ONLY when pollination of one plant by another successfully results in the production of seed. The frequency of pollen-mediated gene flow depends on many complex factors including flowering synchrony, pollen quantity and stability, physical proximity of the recipient plant from the source plant, topographical and climate conditions and the sexual compatibility of the recipient plant with the source plant.

**National Organic Program** - This USDA-regulated marketing program became effective in October 2002 in certifying feed and food through a defined process rule in order for such products to receive a USDA Certified Organic seal. The National Organic Program defines food eligible to receive organic certification as food and feed grown in a process with less than 5% of the ingredients treated with a pesticide (defined as prohibited substances under the Rule), and no use of excluded methods which include recombinant DNA-mediated products, no sewage sludge or irradiation used in the process of growing certified organic food and feed. The NOP clearly states in its Preamble (see web reference here) that the presence of biotech material in the product does not necessarily render the crop "non-organic," as long as the presence of biotech was not intentional. This policy allows for the accidental or adventitious presence of biotech material through cross-pollination.

**Outcrossing** - Used to describe pollen-mediated gene flow or "cross pollination." Plants whose pollination characteristics are at the opposite extreme of self-pollination are said to be in the arena of "outcrossing."

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**Strict Liability** - A Legal doctrine defined as "automatic responsibility (without having to prove negligence) for damages due to possession and/or use of equipment, materials or possessions which are inherently dangerous, such as explosives. Control, ownership and damages are sufficient to hold the owner liable." <http://dictionary.law.com/lookup2.asp>. Liability that does not depend on actual negligence or intent to harm but that is based on the breach of an absolute duty to make something safe. Strict Liability most often applies either to ultrahazardous activities or in products-liability cases. *Black's Law Dictionary*, 7<sup>th</sup> Edition (1999) p. 926

**Strict Products Liability** - A manufacturer's or seller's tort liability for any damages or injuries suffered by a buyer, user, or bystander as a result of a defective product. The legal theory by which liability is imposed on the manufacturer or seller of a defective product. (quotes?) *Black's Law Dictionary*, 7<sup>th</sup> Edition (1999) p. 1225.

**Biotechnology** - Food biotechnology covers diverse activities - from the use of yeast in brewing or bread making to advanced plant-breeding techniques. New developments in biotechnology allow for the identification and transfer of the specific gene that creates a desired trait in a plant, and offer a more precise way to produce plants with certain beneficial characteristics - such as greater nutrition.

**Transgenic** - A transgenic crop plant contains a gene or group of genes which have been inserted into the genome of the plant organism via plant biotechnology techniques, as opposed to the plant acquiring them through pollination. The inserted gene sequence (known as the transgene) may come from another unrelated plant, or from a completely different species: Bt corn, for example, which produces its own insecticide, contains a gene from a bacterium. Plants containing transgenes are often called genetically modified, although in reality all crops have been genetically modified from their original wild state by domestication, selection and controlled breeding over long periods of time.  
(<http://www.colostate.edu/programs/lifesciences/TransgenicCrops/what.html>)

**Identity Preservation** - Crops produced and handled outside of the traditional bulk commodity system to meet the specific needs/contracts of the processor and/or end user. IP crops typically have attributes not found in traditional commodity grain, oil or fiber crops. Examples of IP crops include colored cotton, white corn, waxy corn, high oil corn, sweet corn, high oleic soybeans, clear hilum soybeans and organic crops.

## USDA National Organic Program and the Unintentional Presence of Biotech Material in a Certified Organic or Identity Preserved Crop

- The organic rule was designed to make the "organic" claim possible to meet by those conscientiously operating under an approved organic program. The rule states that it imposes a specific production process for organic food, not a product guarantee, or an assurance of greater safety or enhanced nutritional value.
- Some groups have tried erroneously to characterize the National Organic Standards as setting a zero-tolerance for the presence of genetic material introduced through modern biotechnology in organic crops. The threat of liability being raised by some groups has unfortunately resulted in conflict among growers. The organic rule allows all segments of the agricultural community to coexist peacefully and grow crops effectively and efficiently.
- The rule recognizes that the movement of genetic material among plants by means of pollen flow is a natural occurrence. Pollen may move between flowering plants of the same or related species. Knowledgeable farmers are fully aware of that and take specific steps to preserve the identity of their crop when choosing to grow a crop for specific markets, such as white, high oil, sweet corn, or insect resistance. It makes sense that organic plans should also incorporate these identity preservation techniques.
- Just as it is difficult, if not impossible, to guarantee that organic products are 100% free of pesticides, it is impractical to guarantee that the products of biotechnology are not present at any level in organic products or vice versa.
- Organic farmers purchasing conventional seed, seedlings or planting stock will not be able to purchase seed with an absolute guarantee of no presence of genetic material derived by biotechnology. Such guarantees are impossible to make with the current testing technology.
- It is important to remember that all of the biotechnology-derived materials and crops used in conventional agriculture in the U.S. have been fully reviewed for safety by three agencies of the U.S. government.
- USDA has gone to great lengths to ensure consumers that the USDA's organic seal indicates only that a certified production method was followed and is not a guarantee of food safety or quality. It has been the tradition and practice within agriculture that the grower of an identity preserved crop, whether it is organic produce, seeds, white or waxy corn, or herbicide resistance etc., bears the responsibility of maintaining "purity" simply because that grower reaps the premium price. To reverse this burden is contrary to the established standards of American agriculture and ignores relevant economic considerations.
- Suggestions on minimizing pollen flow in order to maintain identity preservation apply equally to EITHER the organic or identity preserved producer who wishes to keep his

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crop identity preserved, and to the biotech producer, as part of a "good neighborly" discussion between neighbors should include criteria such as: seed quality, temporal isolation to minimize flowering synchrony, spatial isolation, buffer rows, direction from other fields and prevailing winds, what neighbors are planting, thorough equipment clean out and maintenance, planting and harvest procedures to ensure identity preservation, detailed record keeping and field maps, grain testing and understanding the flowering characteristics of male and female inbreds.

Deciding among these various IP practices depends on a number of factors unique to each specific situation. It is important to note that the USDA, in its Preamble to the National Organic Program, specifically states that it is the responsibility of the organic producer, who gains value from marketing an identity-preserved crop, to ensure that his/her crop is in fact what it is marketed as. It is not the responsibility of a neighbor to ensure that someone else's crop has certain qualities.

*"A: The Preamble to the National Organic Program regulations, Applicability, Clarifications (1) Genetic Drift, states:*

*"This regulation prohibits the use of excluded methods [which include GMOs] in organic operations. The presence of a detectable residue of a product of excluded methods alone does not necessarily constitute a violation of this regulation. As long as an organic operation has not used excluded methods and takes reasonable steps to avoid contact with the products of excluded methods as detailed in their approved organic system plan, the unintentional presence of the products of excluded methods should not affect the status of an organic product or operation."*

*For a complete discussion of this issue, read the National Organic Standards, subpart G, Administrative, sections 205.670 - 205.671.*

- The USDA, through its Q/A section listed on its web site, specifically addresses the questions around buffer zones and isolation distances to prevent any unintentional presence of prohibited substances.  
<http://www.ams.usda.gov/nop/nop2000/nop2/FAQ.htm> (underlined text OUR emphasis, not that of USDA)

*Q: Please provide discussion, examples, and guidance. on buffer zones. Section 205.202 requires distinct boundaries and adequate@ buffer zones, but minimums are not specified, nor is the term adequate defined.*

*A: Section 202.202(c) requires distinct, defined boundaries and buffer zones to prevent the unintended application of a prohibited substance to land under organic management.*

*In examining this issue, USDA concluded that imposing a specific size for buffer zones could impose unnecessary burdens on some organic producers without offering greater protection of organic fields and crops from unintended contact with prohibited substances. For example, buffer zones might not be needed for an organic farm if it were completely surrounded by wilderness or areas not in agricultural production. Accordingly, the national standards do not specify specific dimensions for buffer zones, but leaves the determination of their size to the organic producer and the certifying agent on a case-by-case basis.*

It has always been the responsibility of organic operations to manage potential contact of organic products with other substances not approved for use in organic production systems. The organic system plan must outline steps that an organic operation will take to avoid drift from neighboring operations, particularly drift of synthetic chemical pesticides.

When considering drift issues, both certifying agents and producers must remember that organic standards are process based. Certifying agents attest to the ability of organic operations to follow a set of production standards and practices that meet the requirements of the Organic Foods Production Act and the national standards. The national standards prohibit the use of genetically modified organisms (defined in the standards as excluded methods) in organic operations. The presence of a detectable residue of a product of excluded methods alone does not necessarily constitute a violation of the regulations. As long as an organic operation has not used excluded methods and takes reasonable steps to avoid contact with the products of excluded methods as detailed in their approved organic system plan, the unintentional presence of the products of excluded methods should not affect the status of an organic product or operation.

Therefore, while the national organic standards provide significant discretion in establishing buffer zone dimensions, buffer zones should not be sized at distances which attempt to achieve a zero tolerance for prohibited substances. The intent of the regulations are to foster a collaborative effort between the certifying agents and their grower clients to determine an appropriate buffer zone with each party being fully cognizant of the process-based nature of the organic label claim.

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Att # 8

### Gene Flow Through Pollen Drift in Spring Wheat

Mohamed Mergoum, Joel Ransom and Albert Schneller  
Plant Sciences Dept., NDSU, Fargo, ND

Hard Red Spring Wheat grown in North Dakota is in high demand in the world market because of its high protein content and excellent bread making characteristics. The continued production of wheat with these qualities demanded by the world market is essential if North Dakota wheat growers are to maintain their market share. With the introduction of transgenic or genetically modified crops, gene flow from transgenic to traditional varieties has become a critical issue. The presence of a transgene could significantly affect the marketability of the wheat into certain segments of the world market. Therefore, being able to maintain the genetic purity of a crop (i.e. keeping transgenes from mixing with non-transgenic varieties) will be important for farmers wishing to produce grain for a specific market.

The movement of genetic material from one variety to another variety (gene flow) in nature only occurs through sexual reproduction. In wheat, sexual reproduction occurs when the genetic material in a pollen grain combines with the genetic material in an ovule. Wheat is classified as a self-pollinated crop, which means that most seeds result from the fusion of pollen and ovules developed in the same floret. Wheat florets produce a large number of pollen grains (2000 to 4000) which are capable of moving with the wind and pollinating other receptive plants. Pollen remains viable for only 2 to 20 minutes depending on factors such as temperature, humidity, and UV radiation. Outcrossing does occur at relatively low frequencies in wheat and is dependant on the distance between the varieties, varietal characteristics, synchrony of flowering and environmental conditions that influence pollen dispersal and viability. A foreign pollen grain must also compete for a receptive stigma with the thousands of pollen grains produced within that same floret before outcrossing can occur.

Studies in New Zealand, Canada and the USA (but not North Dakota) have attempted to quantify the amount of outcrossing in wheat. This research has shown that the amount of outcrossing can vary from location to location and from year to year. Under normal environmental conditions, however, outcrossing was less than 1% when varieties were grown adjacent to each other. In most studies and with most varieties, no outcrossing was detected when varieties were separated by at least 10 ft. However, this research demonstrated that some cultivars tend to outcross more than others. In New Zealand, outcrossing rates ranged from 0.14% to 3.95% for 10 cultivars planted 1 ft apart and concluded that these rates were comparable to those reported previously for most European varieties. In Canada no outcrossing was detected beyond 10 ft with the cultivars "Katepwa" and "Biggar" while cultivars "Roblin" and "Oslo" exhibited some outcrossing at distances up to 90 ft.

These data confirm that with most wheat varieties, outcrossing is limited and can be largely eliminated by growing varieties at least 10 ft apart. However, they also show that varieties are more prone to outcrossing than others. Given the importance that containing transgene flow by ND HRSW producers may have on meeting export market requirement when the first transgenic wheat is released, additional information on the outcrossing potential of currently grown ND HRSW varieties will be critical. An initial study of gene flow in wheat under ND conditions is currently planned for the summer of 2003 by NDSU.

SB 2304

HH #9

THE PURPOSE OF THE NORTH DAKOTA AGRICULTURAL EXPERIMENT STATION IS TO DEVELOP AND DISSEMINATE TECHNOLOGY IMPORTANT TO THE PRODUCTION AND UTILIZATION OF FOOD, FEED, AND FUEL FROM CROP AND LIVESTOCK ENTERPRISES. WE BELIEVE THE PURSUIT OF NEW TECHNOLOGIES, INCLUDING BIOTECHNOLOGY, FOR ENHANCING FARMING, FOOD QUALITY AND THE ENVIRONMENT, IS CONSISTENT WITH OUR PURPOSE. TRANSGENIC FORMS OF PLANTS AND ANIMALS ARE BEING DEVELOPED WORLDWIDE BY BOTH PRIVATE AND PUBLIC AGENCIES. AND PRODUCERS HAVE ADOPTED THIS TECHNOLOGY AT AN EXTREMELY FAST RATE.

WE BELIEVE NDSU NEEDS TO CONTINUE TO EVALUATE NEW MATERIALS AND NEW TECHNOLOGIES THAT MAY BE IMPORTANT TO AGRICULTURE. AND OUR INVOLVEMENT WILL BETTER ENABLE NORTH DAKOTA TO ASSESS AND PARTICIPATE IN THE BENEFITS THAT BOTH CURRENT AND FUTURE TECHNOLOGIES MAY PROVIDE.

WHILE WE PURSUE RESEARCH AND EXTENSION WORK UTILIZING BIOTECHNOLOGY, WE RECOGNIZE THAT OTHER FACTORS SUCH AS MARKET FORCES, WILL ULTIMATELY DETERMINE THE ACCEPTANCE AND VALUE OF ANY NEW TECHNOLOGY.

WE ALSO FULLY RECOGNIZE THAT PRODUCERS AND CONSUMERS CONTINUE TO WANT CHOICES.....CHOICES OF WHAT FOOD PRODUCTS TO PURCHASE AND WHAT AGRICULTURAL PRODUCTION AND MARKETING SYSTEMS TO USE. AND WE RECOGNIZE THAT SOME PRODUCTION AND MARKETING SYSTEMS HAVE NOT

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EMBRACED BIOTECHNOLOGY. THEREFORE, WE BELIEVE IT'S IMPORTANT TO PURSUE RESEARCH AND NEW VARIETY DEVELOPMENT THAT BENEFIT BOTH BIOTECH AND NON-BIOTECH CROP PRODUCTION AND MARKETING SYSTEMS.

IN OUR POLICY REGARDING THE RESEARCH AND DEVELOPMENT OF TRANSGENIC ORGANISMS FOR NORTH DAKOTA WE STRESS THE NEED TO

\*CONTINUE TO PURSUE NEW TECHNOLOGIES FOR ENHANCING FARMING, FOOD QUALITY AND THE ENVIRONMENT.

\*PROMOTE THE CO-EXISTENCE OF VARIOUS PRODUCTION AND MARKETING SYSTEMS.

\*MANAGE THE DEVELOPMENT AND PROPAGATION OF NEW VARIETIES TO INSURE THE AVAILABILITY OF PURE SEED TO THE FULLEST EXTENT POSSIBLE.

*for both biotech & non-biotech crop production*

*2 test plots*

WE ENCOURAGE THE LEGISLATIVE BODY TO BE CAUTIOUS WITH ACTIVITY THAT MAY RESTRICT THE PURSUIT OF NEW TECHNOLOGIES. NORTH DAKOTA AGRICULTURE NEEDS TO BE POSITIONED TO PARTICIPATE IN OPPORTUNITIES THAT MAY BE PROVIDED THROUGH NEW TECHNOLOGIES. WE ~~ALSO~~ ENCOURAGE OPEN AND FACTUAL PUBLIC DIALOGUE, GROUNDED IN SOUND SCIENCE, AS WE DEBATE THE ECONOMIC AND SOCIAL IMPACT OF ALL NEW TECHNOLOGIES. WE FEEL THAT A CO-EXISTENCE APPROACH TO VARIOUS CROP PRODUCTION AND MARKETING SYSTEMS, ALLOWING BOTH PRODUCERS AND CONSUMERS TO CONTINUE TO HAVE CHOICES, WOULD BE IN THE BEST INTEREST OF OUR STATE.

THANK YOU

DUANE HAUCK

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[www.ndmarketmanager.org](http://www.ndmarketmanager.org)

*Working for you,  
the producer!*

North Dakota Grain Grower Testimony  
Senate Bill 2304  
February 3, 2003

Mr. Chairman and members of the committee, my name is Bruce Freitag, I farm near Scranton, and am currently serving as President of the North Dakota Grain Growers. NDGGA has policy that supports research, development, and the advancement of biotechnology for the opportunity it provides consumers, processors, and production agriculture, and we encourage the education, promotion, registration, and customer acceptance of genetically enhanced wheat worldwide.

Wheat, as a crop has not made the agronomic advances that other crops have enjoyed. In fact when comparing gross returns in North Dakota from the three major crops over a forty year period, gross returns from wheat have increased 150%, gross returns from soybeans have increased 300%, and gross returns from corn have increased 450%. These advances have come for a variety of reasons, but are an indication of the reduced competitiveness of wheat, and the need for new varieties which are disease tolerant, herbicide tolerant, drought tolerant, or simply higher yielding. Biotechnology is the future of plant breeding and offers wheat producers hope that this disparity of competitiveness can be addressed.

Phone: 701-222-2216 Toll Free: 800-932-8822 Fax 701-223-0018 [www.ndmarketmanager.org](http://www.ndmarketmanager.org)  
4023 N. State Street Bismarck, ND 58503

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The North Dakota Grain Growers oppose Senate Bill 2304. This legislation singles out wheat as a crop and establishes potential liability concerns for companies and universities that could provide new and needed technology to North Dakota wheat producers. We believe this potential liability will discourage research and development of new wheat varieties through biotechnology.

We also believe this legislation is premature as no transgenic wheat varieties are available at this time and it will be several years before a transgenic wheat variety is commercialized. Wheat, as a crop is largely self pollinated and has a very low propensity for cross pollination. It is unlikely that cross-pollination will result in any negative effect on producers of non transgenic wheat. There is certainly no scientific basis for the one-half percent tolerance level in the legislation.

Wheat producers would be better served by efforts to advance the wheat industry through research in biotechnology, as opposed to legislation which encourages lawsuits and discourages research.

Thank you

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Att # 11

**Testimony For Senate Judiciary Committee  
on SB 2304  
Terry Wanzek - ND Grain Growers**

Chairman Traynor and members of the Senate Judiciary Committee, my name is Terry Wanzek. I farm near Jamestown and I also represent the ND Grain Growers Association. We have some concerns with SB 2304 and at this time we are opposed to its passage. We are aware that this legislation is a well intentioned effort and that the sponsor is honorably attempting to address a concern that may arise in the future. We realize SB 2304 is trying to protect some producers. However, we feel the passage of this measure has the potential to be counter productive in the long term. We believe it provides an incentive for potential nuisance litigation and discourages the research and development and eventual availability of new technologies in ND. These technologies are going to be necessary, for our farmers survival, to be able to compete in a global market environment.

Our farmers need to be economically competitive to survive long term. Quality, consistency and dependability are important to our customer's needs, but still the no. # 1 issue in competing in the world market is price. Our farmers continually strive to be low cost producers as well as quality producers. Technology has been the equalizing force over the course of many years for the US in being able to compete with other countries that do not share the same high standards for health & safety, environment, labor, business and other societal concerns as we do.

Biotechnology presents many great advantages for American Agriculture and many potential benefits for mankind. I am sure that ND wants to be part of this future. It is our concern, that we are careful not to overreact or go too far and discourage and prohibit the accessibility of these new technologies to ND citizens.

We have no interest in discouraging responsible biotech companies from doing business in ND. We recognize there should be accountability to the extent that there is negligence or improper behavior on the part of the developer, but we believe it is a dangerous precedent for our state to require absolute liability.

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*Dennis Wanzek*  
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Some final points to consider when deliberating this bill. We have a number of ND people sitting on national biotech boards and wheat boards that are working through the issues regarding the release of biotech wheat. It is in our best interests to allow them to continue their work and dialogue and to be patient in not getting ahead of ourselves. It is imperative that we work in a coordinated, cooperative effort with the other states and stakeholders throughout the nation in addressing the issues, including liability, regarding the release of biotech wheat. The advent of biotechnology is not isolated to ND, but is a major phenomenon involving the whole world.

Another point is why just wheat in this bill? There will be no release of biotech wheat yet for at least 3 to 5 years. Biotech wheat is in the approval process with the federal regulatory agencies. Any new biotech product goes through an extensive approval process that takes years. It must clear acceptance with the EPA, the FDA and the USDA. Farmers have been currently utilizing biotech soybeans, canola and corn at an increasing rate. The adoption rate of biotech crops has gone from virtually zero acres in 1995 to nearly 90 million acres in the US in 2001. In the US, in 2002, nearly 75 % of the soybeans, 71 % of the cotton and 34 % of the corn is biotech. Another point to consider, is that most scientists would agree that it is much less likely for contamination through cross pollination, especially in wheat as it is self pollinating. The likelihood of contamination coming from the handling, storing or transporting is much greater than cross pollination, thus creating a legal nightmare for proving contamination through cross pollination.

In summary, biotechnology presents great potential benefits. We already have biotech crops that provide resistance to diseases, pests and tolerance to weed sprays. We will have crops that provide resistance to frost, drought, excessive rain, saline soils, etc.. There will be direct benefits to consumers in the future in enhanced nutritional or medicinal traits or crops designed specifically for people with certain ailments or diseases. So, in this sensitive issue, we want common sense, rational reasoning, science, and logic to prevail. We want to encourage a continued quest for knowledge in pursuing workable solutions when it comes to addressing the issues surrounding new technologies like biotech crops. We do not want to create a litigious environment in ND. We want education not litigation!

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A# #12

**North Dakota Farm Bureau**

[www.ndfb.org](http://www.ndfb.org)

**NORTH DAKOTA FARM BUREAU  
TESTIMONY ON  
SENATE BILL 2304**

Good morning Chairman Traynor and members of the Judiciary Committee.  
My name is John Mittleider and I am representing the 26,000 member families of North Dakota Farm Bureau.

North Dakota Farm Bureau is supportive of the development of transgenic crops. Transgenic crops such as soybeans, corn, and canola are widely produced in the state today and have proven their economic and market value. These biotech crops are grown because our producers have found agronomic, economic and market advantages for producing biotech over conventionally-developed seeds. We believe the day will arrive in the near future when biotech wheat will provide the same advantages that other biotech crops have shown.

We support the research and development of biotechnologically enhanced wheat and other commodities. We encourage and support North Dakota State University in becoming a leader in biotechnology. We believe the majority of our wheat-buying customers should accept biotech wheat before it is released, but we also realize that more work needs to be done so that biotech wheat, not if, but when released, can be segregated for marketing purposes from conventionally-produced wheat. Biotech wheat holds great promise in overcoming many of the disease issues we face today and we

*One future. One voice.*

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cannot turn our backs to this new technology. We also realize that North Dakota needs to take a cautious and responsible approach to the commercial production of biotechnologically enhanced wheat.

Senate Bill 2304 seeks to provide claims for relief to producers of conventionally-produced wheat who may be negatively impacted by cross-pollination of transgenic wheat. North Dakota Farm Bureau supports the concept that patent holders of transgenic wheat technology should accept responsibility for losses that release of the product may unintentionally cause others so long as the product is used as directed.

We have questions and concerns with the bill as drafted, however. Lines 9-11 on Page 1 speak to "good-faith intent" to plant a nontransgenic wheat crop. How will "good-faith intent" be defined? Will this require, for example, buffer strips to comply with the intent of the legislation? If so, how wide do they need to be? And who decides the width of the buffer strips and will there have to be a certification process? If so, who or what government agency will be charged with certification?

We strongly disagree with the mechanism used in the bill to determine tolerance levels. Section 1, Item 4 of the bill would provide for a transgenic tolerance level of one-half of one percent. We do not believe the North Dakota Legislature is the appropriate body to determine tolerance levels. Ultimately, the U.S. Department of Agriculture, the Environmental Protection Agency, the Food and Drug Administration, and the marketplace will determine the appropriate tolerance level. The government agencies I

mentioned are well equipped with scientific data to make that decision, not the North Dakota Legislature.

We also have questions with regard to Section 1, Item 5. In order to determine the price difference between transgenic and non-transgenic wheat, will producers be required to contract their production? Which leads to the next item on Lines 1 through 5 of Page 2? This section would allow for damages to be awarded not to exceed the price difference between non-cross-pollinated and cross-pollinated wheat. This provision of the bill could easily lead to manipulation and fraud such as we have seen with CRC durum. What if the producer actually receives more money for his crop if, for example, he has higher yields and less disease due to the cross-pollination? Will the producer in this instance then be required to pay the patent holder? We applaud Senator Bowman for his efforts and support the concept of the bill, but believe much more work needs to be done prior to passage of this bill.

Thank you, Mr. Chairman, and members of the Committee. I will try to answer any questions you may have.



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THOMAS L. FRIEDMAN

## Ah, Those Principled Europeans

BRUSSELS

Last week I went to lunch at the Hotel Schweizerhof in Davos, Switzerland, and discovered why America and Europe are at odds. At the bottom of the lunch menu was a list of the countries that the lamb, beef and chicken came from. But next to the meat imported from the U.S. was a tiny asterisk, which warned that it might contain genetically modified organisms — G.M.O.'s.

My initial patriotic instinct was to order the U.S. beef and ask for it "tartare," just for spite. But then I and my lunch guest just looked at

Acting morally superior is just blowing smoke.

each other and had a good laugh. How quaint! we said. Europeans, out of some romantic rebellion against America and high technology, were shunning U.S.-grown food containing G.M.O.'s — even though there is no scientific evidence that these are harmful. But practically everywhere we went in Davos, Europeans were smoking cigarettes — with their meals, coffee or conversation — even though there is indisputable scientific evidence that smoking can kill you. In fact, I got enough secondhand smoke just dining in Europe last week to make me want to have a chest X-ray.

So pardon me if I don't take seriously all the Euro-whining about the Bush policies toward Iraq — for one very simple reason: It strikes me as deeply unserious. It's not that there are no serious arguments to be made against war in Iraq. There are plenty. It's just that so much of what one hears coming from German Chancellor Gerhard Schröder and French President Jacques Chirac are not serious arguments. They are station identification.

They are not the arguments of people who have really gotten beyond the distorted Arab press and tapped into what young Arabs are saying about

their aspirations for democracy and how much they blame Saddam Hussein and his ilk for the poor state of their region. Rather, they are the diplomatic equivalent of smoking cancerous cigarettes while rejecting harmless G.M.O.'s — an assertion of identity by trying to be whatever the Americans are not, regardless of the real interests or stakes.

And where this comes from, alas is weakness. Being weak after being powerful is a terrible thing. It can make you stupid. It can make you reject U.S. policies simply to differentiate yourself from the world's only superpower. Or, in the case of Mr. Chirac, it can even prompt you to invite Zimbabwean President Robert Mugabe — a terrible tyrant — to visit Paris just to spite Tony Blair. Ah, those principled French.

"Power corrupts, but so does weakness," said Josef Joffe, editor of Germany's *Die Zeit* newspaper. "And absolute weakness corrupts absolutely. We are now living through the most critical watershed of the postwar period, with enormous moral and strategic issues at stake, and the only answer many Europeans offer is to constrain and contain American power. So by default they end up on the side of Saddam, in an intellectually corrupt position."

The more one sees of this, the more one is convinced that the historian Robert Kagan, in his very smart new book "Of Paradise and Power," is right: "Americans are from Mars and Europeans are from Venus." There is now a structural gap between America and Europe, which derives from the yawning power gap, and this produces all sorts of resentments, insecurities and diverging attitudes as to what constitutes the legitimate exercise of force.

I can live with this difference. But Europe's cynicism and insecurity, masquerading as moral superiority, is insufferable. Each year at the Davos economic forum protesters are allowed to march through the north end of town, where last year they broke shop windows. So this year, on demonstration day, all the shopkeepers on that end of town closed. But when I walked by their shops in the morning, I noticed that three of them had put up signs in their windows that said, "U.S.A. No War in Iraq."

I wondered to myself: Why did the shopkeepers at the lingerie store suddenly decide to express their antiwar sentiments? Well, the demonstrators came and left without getting near these shops. And guess what? As soon as they were gone, the antiwar signs disappeared. They had been put up simply as window insurance — to placate the demonstrators so they wouldn't throw stones at them.

As I said, there are serious arguments against the war in Iraq, but they have weight only if they are made out of conviction, not out of expedience or petulance — and they are made by people with beliefs, not identity crises.