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Footloose: Civil Responsibility for GMO Gene Wandering in Canada

by

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I. INTRODUCTION

The most contentious issue facing genetically modified (GM) agriculture today is that of its co-existence with non-GM agriculture, both conventional and organic. Can GM and non-GM agriculture co-exist peacefully, and what measures should be taken to ensure this?[1] And if peaceful co-existence proves impossible, and there is admixture of GM and non-GM crops, who should bear the responsibility for loss?

That admixture might occur is increasingly recognized. The possibility of post-harvest commingling of GM and non-GM crops is of increasing concern to Canadian grain farmers because the entire system of shipping and handling of grain is based on the commingling of fungibles. The distinction between GM and non-GM crops is not readily apparent. However, it is the possibility of pre-harvest co-mingling that has drawn most of the attention to date. The scientific evidence of the propensity of GM genes to wander—and to wander further than initially thought—is piling up. For example, a panel of Canada's leading scientists invited to advise the Canadian government about food biotechnology, including its "potential short- or long-term risks to . . . the environment,"[2] concluded that while gene flow from GM crops to their wild relatives can occur (particularly in canola and rice), the "complete absence of breeding barriers" makes it much more likely to occur between GM and non-GM crops of the same species, especially where the two are grown in the same region.[3] Cross-breeding between different GM plants is also a possibility, and

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1. *See* COMM'N OF THE EUROPEAN CMTYS, COMMISSION RECOMMENDATION OF 23 JULY 2003 ON GUIDELINES FOR THE DEVELOPMENT OF NATIONAL STRATEGIES AND BEST PRACTICES TO ENSURE THE CO-EXISTENCE OF GENETICALLY MODIFIED CROPS WITH CONVENTIONAL AND ORGANIC FARMING, http://www.europa.eu.int/comm/agriculture/publi/reports/coexistence2/guide_en.pdf (last visited Feb. 18, 2004); COMM'N OF THE EUROPEAN CMTYS, COMMUNICATION TO THE COMMISSION FOR AN ORIENTATION DEBATE ON GENETICALLY MODIFIED ORGANISMS AND RELATED ISSUES, http://www.europa.eu.int/comm/food/biotechnology/gmfood/gmo_comm_en.pdf (last visited Feb. 18, 2004).

2. ROYAL SOC'Y OF CAN., ELEMENTS OF PRECAUTION: RECOMMENDATIONS FOR THE REGULATION OF FOOD BIOTECHNOLOGY IN CANADA vii, http://www.rsc.ca/foodbiotechnology/GMreportEN.pdf (Jan. 2001). This report was prepared at the request of Health Canada, the Canadian Food Inspection Agency (CFIA) and Environment Canada.

3. *Id.* at 126; *see also, e.g.*, Mary A. Rieger et al., *Pollen-Mediated Movement of Herbicide Resistance Between Commercial Canola Fields*, 296 SCIENCE 2386 (2002); L.L. Wolfenbarger &

the resultant "gene stacking" could force farmers to use older, more toxic herbicides to control volunteer plants.[4]

Farmers thus risk having their crops contaminated by GM gene wandering, and none are completely free of this risk. Organic farmers have the most to lose, as they risk not only their markets but also their certified organic status if their crops become contaminated with GM genes. The level of contamination of canola on the Canadian prairies is such that this crop is now lost to them,[5] and they are concerned that other crops, notably wheat, may equally be lost. But conventional farmers are also at risk, as consumer fears about genetically modified crops mean that some manufacturers and retailers are no longer processing or selling GM foods, and Canada's principal markets (Europe and Japan) are closed to genetically modified grain, at least without proper labelling.[6] Conventional farmers could end up producing GM grain without choosing to do so, through no fault of their own. They also have to contend with the problem of volunteer GM crops on their land or run the risk of being accused of breaching the biotechnology company's patent. Even GM farmers are not risk-free. Seed dormancy (as with canola) could make it difficult to return to non-GM cultivation. Their land could be classified as contaminated, and this could imperil their access to credit as well as affect the resale value of their land.

However, the problem with gene wandering is even more profound, as it threatens the purity of the seed pool itself. For example, an apparently routine notice of the Canadian Food Inspection Agency (CFIA) to Canadian seed companies reminds them that they must inform the CFIA if they detect seeds "with novel traits" during their quality control testing. The CFIA recognizes that "inadvertent release of unapproved plants with novel traits (PNTs) could occur" and warns that "[f]ailure to notify the CFIA of the inadvertent release of unapproved PNTs is a serious contravention of the Seeds Regulations."[7]

P.R. Phifer, *The Ecological Risks and Benefits of Genetically Engineered Plants*, 290 SCIENCE 2088 (2000).

4. ROYAL SOC'Y OF CAN., *supra* note 2, at 122-23.

5. It is lost not only as a market crop, but also as a crop rotational tool. Crop rotation is the major way organic farmers control weeds and maintain fertility.

6. The European Union has had a moratorium on GM products in place since 1998. Under threat of a complaint to the World Trade Organization by GM-producing countries (the U.S., Canada, and Argentina), it has now voted to replace the ban with a stringent system of labelling and tracing. *See* http://europa.eu.int/comm/food/index_en.htm (last visited Sept. 17, 2003); *see also* Paul Geitner, *EU Approves GM Corn for Food*, THE [MONTREAL] GAZETTE, May 14, 2004, at A28. However, the United States regards this as still discriminatory. *See* British Broadcasting Corporation (BBC), *WTO to Probe Europe's GMO Policy*, *available at* http://news.bbc.co.uk/2/hi/business/3191395.stm (Aug. 29, 2003).

7. CFIA, NOTICE TO CANADIAN SEED COMPANIES, http://www.inspection.gc.ca/english/plaveg/seesem/20010504e.shtml (May 4, 2001); *see also* R.K. Downey & H. Beckie, *Report on Project Entitled Isolation-Effectiveness in Canola Pedigree Seed Production*, *available at* http://

The looming issue is, thus, that of responsibility for crop contamination from gene wandering. The biotechnology companies attempt to place the responsibility on the farmers whose crops have been contaminated, with a patent infringement suit as their ultimate weapon. The best-known Canadian example is undoubtedly Monsanto's action against Saskatchewan canola farmer Percy Schmeiser.[8] Monsanto sued Schmeiser for breach of its patent to Roundup Ready canola after its private investigators found evidence of GM plants on his lands. He refused to accept an out-of-court settlement and sign the usual letter agreeing to remain silent about it.[9] Monsanto was successful at all three levels—at trial, on appeal, and before the Supreme Court of Canada. The Supreme Court's decision, which was handed down on May 21, 2004, was awaited with particular interest in view of the fact that the Court had recently ruled, albeit by simple majority, against the patentability of higher life forms in the "Harvard mouse" case.[10] In *Schmeiser*, four justices held that the Harvard mouse case precluded patent actions for growing GM crops, as Schmeiser had done, as this would necessarily extend the scope of protection to higher life forms (plants and their offspring). The five-judge majority disagreed, but even they denied Monsanto an accounting for profits, as had been ordered in the courts below, because none of Schmeiser's profits were attributable to the patented gene.[11]

A second Canadian GMO case is presently before the courts. This is the case of *Hoffman and Beaudoin v. Monsanto Canada.*[12] It attempts to put the responsibility for gene wandering squarely on the shoulders of the biotechnology companies which develop and sell the

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www.saskorganic.com/canola_study.pdf (last visited June 22, 2004). This report was prepared for Agriculture and Agrifoods Canada.

8. Monsanto Canada Inc. v. Schmeiser, 2001 FCT 256, *aff'd*, 2004 SCC 34, http:www.lexum.umontreal.ca/csc-scc/en/rec/html/2004scc034.wpd.html (May 21, 2004). For comments on the trial decision, see Hugh Wilkins & Fernando Latorre, *Biodiversity at the Crossroads*, 4 ENVTL. L. REV. 62 (2002) and Martin Phillipson, *Commentary:* Monsanto v Schmeiser, BAR NOTES (June 2001), *at* http://www.biotech-info.net/phillipson_commentary.html). *See also* Jane Matthews Glenn, *Genetically Modified Crops in Canada: Rights and Wrongs*, 12 J. ENVTL. L. & PRAC. 281 (2003); Maria Lee & Robert Burrell, *Liability for the Escape of GM Seeds: Pursuing the 'Victim'?*, 65 MOD. L. REV. 517 (2002).

9. E. Ann Clark, *On the Implications of the* Schmeiser *Decision: The Crime of Percy Schmeiser*, GENETICS SOC'Y CAN. BULL., http://www.plant.uoguelph.ca/research/homepages/eclark/percy.htm (June 2001). The nondisclosure clause makes the number of such letters difficult to estimate.

10. Harvard Coll. v. Canada, [2002] 4 S.C.R. 45, http://www.lexum.umontreal.ca/csc-ssc/en/pub/2002/vol4/html/2002scr4_0045.html (May 21, 2002). The Court accepted, however, that the biochemical process to modify the mouse so as to make it cancer-prone was patentable. *Id.*

11. Monsanto also had to pay the costs of the appeal, as leave to appeal to the S.C.C. had been granted with the unusual stipulation that Monsanto was to bear the costs regardless of the outcome of the appeal. Press Release, Supreme Court of Canada (May 8, 2003), http://www.lexum.umontreal.ca/csc-scc/en/com/2003/html/03-05-08.3a.html (granting leave to appeal "with costs to the applicants in any event of the cause").

12. Sask. Q.B., No. 67 of 2002.

GM seeds and has been described as a potential "tidal wave" compared to the "legal ripple" of *Schmeiser*.[13]

II. *HOFFMAN AND BEAUDOIN*

Hoffman and Beaudoin is a class action by two certified organic farmers against two biotechnology companies for damages resulting from the widespread contamination of their crops by GM canola and for an injunction to prevent the commercial introduction of GM wheat. It was brought under Saskatchewan's recently adopted Class Actions Act[14] with the support of the Saskatchewan Organic Directorate (SOD)[15] on behalf of the approximately 1000 organic grain farmers in Saskatchewan who were registered organic farmers between January 1, 1996 and December 31, 2001.[16] No decision on the merits has been reached as the class action has not yet been certified under the Act, and the case has not yet come to trial. Notice of motion for certification was filed on December 19, 2002; the certification hearing was scheduled for February 2, 2004;[17] and some procedural skirmishing is already taking place.[18]

In their statement of claim, the plaintiffs allege that as a result of widespread contamination of their crops by GM canola, "few, if any, certified organic grain farmers are now growing canola. The crop, as an important tool in the crop rotations of organic farmers, and as an organic grain commodity, has been lost to certified organic farmers in Saskatchewan."[19] They further allege that if GM wheat (on which Monsanto has been conducting confined field trials in the Prairie provinces since 1998 and for which it has now applied for regulatory approval) is introduced on a commercial scale, organic farmers will

13. Sean Pratt, *Proposed GM Lawsuit May Stir Major Waves*, W. PRODUCER, Oct. 18, 2001, http://www.producer.com/articles/20011018/news/20011018/news/01.html (citing Professor Martin Phillipson of the University of Saskatchewan).

14. S.S. 2001, c. C-12.01. In fact, it is the first action brought under the new Act, and the plaintiffs had to wait for its proclamation before they could file their documents. *See* Sean Pratt, *Growers Plan Court Action to Protect Organic Industry*, W. PRODUCER, Oct. 18, 2001, http://www.producer.com/articles/20011018/news/20011018news01a.html.

15. The U.S.-based Organic Crop Improvement Association (OCIA) has also made a donation towards legal costs, as it regards the case as setting a precedent in the U.S. *See* Jason Warick, *Lining Up Against GM Wheat*, SASKATOON STARPHOENIX, Aug. 9, 2003, http://www.saskorganic.com/oapf/snn-09aug03.html.

16. The plaintiffs have reserved the right to amend their claim, if necessary, to facilitate the opting-in of certified organic grain producers elsewhere in Canada.

17. Warick, *supra* note 15.

18. On October 25, 2002, the Saskatchewan Court of Appeal granted the defendants leave to extend the time for filing their statements of defense until after the certification decision. *See* [2002] SKCA 120, http://www.canlii.org/sk/cas/skca/2002/2002skca120.html (Oct. 25, 2002). On April 10, 2003, the case management judge ruled, with mixed results, on an application by the defendants to strike various portions of the affidavits filed in support of the certification applications. *See* [2003] SKQB 174, http://www.canlii.org/sk/cas/skqb/2003/2003skqb174.html (Apr. 10, 2003).

19. Statement of Claim in the Court of Queen's Bench, http://www.saskorganic.com/oapf/pdf/stmt-of-claim.pdf (Jan. 10, 2002).

suffer irreparable harm. The plaintiffs argue that "[p]resently wheat is the most important grain grown by certified organic grain growers, and is their largest export. If wheat becomes contaminated to the extent that canola has, certified organic grain farmers in Saskatchewan will likely lose their ability to farm organically."[20] They therefore claim that the defendants are liable in negligence (for breaching their duty to ensure that their GM canola would not infiltrate and contaminate farmland, to warn growers about cross-pollination, and to advise growers of farming practices that would limit the spread of their GM canola), nuisance (by interfering with certified grain growers' use and enjoyment of their land through the introduction of GM canola into the environment), strict liability (for engaging in a non-natural use of land and allowing the escape of something likely to do mischief and damage), and trespass (for introducing and subsequently releasing GM canola unconfinedly). The plaintiffs also claim that the defendants are in breach of their duties under two environmental protection statutes, the Environmental Management and Protection Act[21] and the Canadian Environmental Assessment Act.[22]

These claims are very extensive, and the purpose of this paper is to step back from the actual case to consider more generally the civil law remedies that might be available to a Canadian farmer whose crops are contaminated by GM genes. Several preliminary observations about Canada's legal structure might facilitate this.

III. Preliminary Observations

A first preliminary observation is that because Canada is a confederation, legislative and regulatory power is divided, as in the United States, between the federal and provincial governments.[23] The federal government has jurisdiction over the patenting of GMOs under its authority over "Patents of Invention and Discovery"[24] and over the unconfined release (i.e., commercialization) of GM seeds in Canada, as well as the sale of the resulting GMO crops, because of its authority over the "Regulation of Trade and Commerce."[25] The provincial governments, on the other hand, have jurisdiction over private

20. *Id.*

21. S.S. 1983-84, c. E-10.2. This statute was replaced as of October 1, 2002 by a similar statute with the same name. *See infra* note 68.

22. S.S. 1979-80, c. E-10.1.

23. Constitution Act, 1867 (formerly known as the British North America Act, 1867), *reprinted in* R.S.C. 1985, App. II, No. 5. Sections 91 and 92 set out the powers of the federal and provincial governments, respectively.

24. *Id.* § 91(22).

25. *Id.* § 91(2). Section 95, which treats agriculture as a unified entity and gives legislative jurisdiction over it to both the federal and provincial governments, with federal legislation to prevail in the event of conflict, could also play a role here. However, this section has been largely ignored by the courts, which have preferred to base their decisions in agricultural matters, as elsewhere, on the division of powers set out in sections 91 and 92.

law matters, including the rules relating to the use of land and tort law, under the head of "Property and Civil Rights in the Province."[26] They also have authority over the sale of goods in the province by virtue of their jurisdiction over both "Property and Civil Rights" and "Matters of a merely local and private Nature in the Province."[27] This could include control over the sale of GM seeds, although this raises a possibility of conflict between the two levels of government.[28]

A second preliminary observation relates to the Canadian court system. Unlike the United States, Canada does not have a separate system of courts for matters of federal and state jurisdiction. The largely unitary character of the Canadian court system reflects the confederal, rather than federal, nature of the Canadian union.[29] The backbone of the system is the superior courts, which exist in each province, and which are the continuation of courts of comprehensive jurisdiction existing in each colony at the time of Confederation.[30] Their confederal, or collaborative, character is underlined by the fact that, under the Constitution, the judges are appointed and paid by the federal government,[31] whereas the courts themselves are organized and administered by the provincial governments.[32] It follows from this unitary structure that the ordinary superior courts of each province have jurisdiction in all areas of the law, regardless of which level of government has legislative authority over the matter.

Every rule has its exceptions, however, and the Canadian Constitution admits of the creation of other courts, along slightly more federal lines, and this is of some relevance in the context of GMO litigation.[33] While the federally created Supreme Court of Canada is a national, rather than a federal, court, it is a general court of appeal for all courts in all matters. The Federal Court, created in 1971 by the federal government, is more properly federal in character, as it has jurisdiction in regard to limited areas of federal law—including pat-

26. *Id.* § 92(13). "Civil Rights" refers in this context to private law rights rather than to modern notions of "human" or "civic" rights. The common law applies in all provinces except Quebec which, for historical reasons, is a civil law jurisdiction.

27. *Id.* § 92(16).

28. This is too large an issue to be dealt with here. Briefly put, the courts try to avoid a finding of conflict, but if this is impossible, the federal legislation has precedence under the "doctrine of paramouncy."

29. *See generally* H. Patrick Glenn, *Divided Justice? Judicial Structures in Federal and Confederal States*, 46 S.C. L. REV. 819 (1995).

30. Constitution Act, 1867, § 129.

31. *Id.* § 96 (giving the federal government power to appoint judges of "Superior, District and County Courts of each Province").

32. *Id.* § 92(14) (giving the provincial governments authority in relation to the "Administration of Justice in the Province"). *See generally* BORA LASKIN, THE BRITISH TRADITION IN CANADIAN LAW 110-17 (1969).

33. Constitution Act, 1867, § 101 (giving the federal government power to create "a General Court of Appeal for Canada, and . . . any additional Courts for the better Administration of the Laws of Canada"); § 92(14) (giving the provinces power to create additional "Provincial Courts, both of Civil and Criminal Jurisdiction").

ents and copyright[34]—as well as to judicial review of federal boards and tribunals and to actions by and against the federal crown. By and large, this jurisdiction is interpreted in a limited manner. It is also largely concurrent with that of the superior courts.[35] This means that biotechnology companies, such as Monsanto, which have a choice of courts in which to enforce their GMO patents, will regularly choose the Federal Court, not only because of the greater expertise of its judges in the technical field of patent law, but also because the defendants, such as Schmeiser, are hampered in their ability to raise the issue of the company's responsibility for crop contamination. They cannot do so by simple counterclaim, as the Federal Court does not have jurisdiction in tort actions between private individuals. They must go to the trouble and expense of commencing a separate action in an ordinary court of general jurisdiction.[36]

A final, and related, preliminary observation concerns remedies. Should special remedies be made available to farmers who suffer damages from GMO crop contamination, or is adequate protection provided under general law? The National Farmers Union, many members of which are organic farmers, calls for tailor-made remedies. It argues that "[t]he federal government must compel companies which own patents on GM seeds or livestock to set up contingency funds to compensate for product liability and [must] legislate efficient and accessible mechanisms to enable liability claims to be effectively pursued."[37] The Canadian Biotechnology Advisory Committee appeared to agree when it observed that practical difficulties of suing in negligence "may make this remedy illusory."[38] However, the Advisory Committee ultimately recommended against singling out GMOs in this way and put its faith in general tort law:

> In our view, Canadian law already adequately addresses issues of liability and compensation for damages through the common law of negligence and the civil law of obligations, which are based on principles of accountability and responsibility. Specific provisions for

34. Admiralty is the other main example of the Federal Court's jurisdiction in actions between private individuals.

35. T.A. Cromwell, *Aspects of Constitutional Judicial Review in Canada*, 46 S.C. L. REV. 1027, 1030 (1995).

36. In 1999, Schmeiser filed a claim for damages against Monsanto in Saskatchewan's Court of Queen's Bench (the appropriate court of general jurisdiction), which he now proposes to reinstate. *See* Robert Schubert, *Schmeiser Likely to Move Forward Soon with Lawsuit Against Monsanto*, *at* http://www.percyschmeiser.com/Countersuit.htm (Jan. 15, 2003).

37. NATIONAL FARMERS UNION, NFU POLICY ON GENETICALLY MODIFIED (GM) FOODS art. 9, *at* http:www.nfu.ca/gmfood-ban.htm (last visited Apr. 9, 2004).

38. CANADIAN BIOTECH. ADVISORY COMM. (CBAC), PATENTING OF HIGHER LIFE FORMS AND RELATED ISSUES 14, http://cbac-cccb.ic.gc.ca/epic/internet/incbac-cccb.nsf/en/ah00188e.html (June 2002). "While in theory such an individual may be able to sue for negligence for the adventitious spread of the plant or seed . . . the practical difficulties of doing so—proving a duty of care and a breach of that duty—may make this remedy illusory." *Id.*

> damages caused by products of biotechnology, patented or not, are not required.[39]

It did not give reasons for its apparent change of heart, but the new approach accords with the Canadian tradition of a unified court system, as set out above.

The question remains open, however: does general tort law "adequately address" issues of responsibility for gene wandering, or is this "illusory" as a remedy? This article attempts to respond to this question in examining who might be possible defendants in such a tort action and what sort of actions might be brought against each.

IV. Actions Against Neighboring GMO Farmers

A first possibility would be a suit against a neighboring farmer growing genetically modified crops. This might include biotechnology companies or the government conducting field trials. However, while government trials are done on its own land, the biotechnology companies' trials are conducted under what Monsanto calls "third-party co-operators contract[s]."[40] In these situations, private research companies conduct the trials on land rented from private farmers and transmit the data collected to the biotechnology company;[41] the farmer presumably does the actual cultivation of the GM crop. Treating the biotechnology companies as neighboring farmers would be difficult in this circumstance.

The discussion that follows thus focuses on the position of private farmers cultivating approved GM crops for sale. Actions in negligence[42] or trespass might be possible, depending on the facts in a given dispute, but cases brought under the traditional strict liability torts of either private nuisance or the rule in *Rylands v. Fletcher*[43] merit particular attention.

A. *Nuisance*

An action in nuisance—that is, an unreasonable interference with the use or enjoyment of land, causing either physical damage to the land or injury to the health, comfort, or convenience of the occu-

39. *Id.* at 17.

40. Warick, *supra* note 15.

41. *Id.* The location of the trial sites is not made public; the federal Minister of Agriculture is quoted as saying that confidentiality of the site locations "is in the public interest." *Id.* Information about some sites was obtained under access to information legislation. *See* Polaris Inst., Government Told Not to Fool Around with GE Open Air Trials, *at* http://www.polarisinstitute.org/polaris_project/bio_justice/canadian_regulation/press_rel.html (Apr. 1, 2003).

42. It would be difficult to bring an action in negligence against a farmer who was using government-approved GMO seed unless he sowed in a negligent manner, such as by ignoring any set-back requirements.

43. L.R. 3 H.L. 330 (1868), *aff'g* L.R. 1 Ex. 265 (1866).

pier[44]—is the obvious first choice, but such an action presents a number of problems in the GMO context.[45] The first problem is to determine whether the facts give rise to a private action in nuisance, or whether the issue is one of public nuisance, to be pursued by the Attorney General on behalf of the public. A complaint that GMO gene wandering threatens the biodiversity of a neighborhood would seem to sound in public nuisance alone. Multiple private nuisances, such as GMO contamination of the crops of a number of individual farmers, might also constitute a public nuisance.[46] However, a recent decision of the British Columbia Court of Appeal accepts as "settled law" that multiple private nuisances also keep their character of public nuisance.[47] This means that the affected farmers would retain their own right to sue without having to depend on the Attorney General. This procedural distinction between who can sue for public and private nuisances could be less important than usual in the case of GMOs because it appears that the Attorney General of Saskatchewan might be prepared to take action. The government of that province is becoming increasingly concerned about the introduction of GM wheat.[48]

The second problem might be proof of causation, or source of the nuisance, if there are a number of GM producers in an area. How does a plaintiff prove which possible defendant caused the contamination? This raises difficult issues of multiple tortfeasors.[49] However, recent cases in both the Supreme Court of Canada[50] and the British House of Lords[51] advocate a relaxation of the traditional "but for" test of causation when necessary to do justice in a particular case. In the House of Lords, Lord Bingham stated,

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44. ALLEN M. LINDEN, CANADIAN TORT LAW 530 (6th ed. 1997). Interference with a non possessory right, such as an easement, could also constitute a nuisance. *Id.*

45. Christopher P. Rodgers, *Liability for the Release of GMOs into the Environment: Exploring the Boundaries of Nuisance*, 62 CAMBRIDGE L.J. 371 (2003); *see also* Maria Lee, *What Is Private Nuisance?*, 119 LAW Q. REV. 298 (2003). For more general consideration of the issues in British and American law, see Michael Cardwell, *The Release of Genetically Modified Organisms into the Environment: Public Concerns and Regulatory Responses*, 4 ENVTL. L. REV. 156 (2002); Margaret Rosso Grossman, *Biotechnology, Property Rights and the Environment*, 50 AM. J. COMP. L. 215 (2002); and Margaret Rosso Grossman, *Genetically Modified Crops in the United States: Federal Regulation and State Tort Liability*, 5 ENVTL. L. REV. 86 (2003).

46. PHILIP H. OSBORNE, THE LAW OF TORTS 348 (2000). "The primary problem in this category of cases is to decide, in the particular circumstances, how many private nuisances make a public nuisance." *Id.*

47. Vancouver Int'l Airport Auth. v. Sutherland, (2002) 215 D.L.R. (4th) 1, 10. The Court rejected the Attorney General's argument that if a private nuisance (in this case, noise of aircraft using a new runway at Vancouver International Airport) affects a sufficiently large number of private properties, it is actionable only as a public nuisance. *Id.*

48. Jason Warick, *Sask. Government Opposes GM Wheat*, LEADER-POST, Aug. 8, 2003, http://www.saskorganic.com/oapf/lp-08aug03.html.

49. *See* Cook v. Lewis, [1951] S.C.R. 830.

50. *See* Snell v. Farrell, [1990] 2 S.C.R. 311 (medical malpractice).

51. *See* Fairchild v. Glenhaven Funeral Servs., Ltd., [2002] 3 W.L.R. 89 (H.L.) (negligent exposure of employee to asbestos dust by successive employers). *See* Antonia Layard, *Toxic Tort—A Landmark Decision*, 4 ENVTL. L. REV. 241 (2002).

> Had there been only one tortfeasor, C would have been entitled to recover, but because the duty owed to him was broken by two tortfeasors and not only one, he is held [in the Court of Appeal] to be entitled to recover against neither, because of his inability to prove what is scientifically unprovable. *If the mechanical application of generally accepted rules leads to such a result, there must be room to question the appropriateness of such an approach in such a case.*[52]

The third problem could relate to the classification of damages, as the courts are more receptive to nuisance suits where there is physical damage to the plaintiff's property than where the complaint relates to interference with comfort and convenience.[53] Will courts accept that the presence of GM genes constitutes physical damage, or will they hold that the plant, because it is still alive, remains intact?[54] If the court classifies the damage as interference with comfort and convenience only, particularly where the suit is brought to enjoin the planting of GMO crops to prevent anticipated contamination, a number of defenses arise, including those of the character of the neighborhood (is there extensive GMO cultivation in the area?) and the possible sensitivity of the plaintiff (is an organic producer's use of land hypersensitive?). Liability for pure economic loss could also be an issue.[55]

The most important obstacle to a suit in nuisance, however, is the protection afforded to farmers under right-to-farm legislation. Saskatchewan's Agricultural Operations Act, for example, protects farmers from nuisance actions arising from the carrying out of agricultural operations using "normally accepted agricultural practices."[56] Normally accepted agricultural practices are defined as practices that are "conducted in a prudent and proper manner that is consistent with accepted customs and standards followed by similar agricultural operations under similar circumstances, *including the use of innovative technology* or advanced management practices in appropriate circumstances."[57]

However, the Ontario Court of Appeal has recently held that under the equivalent Ontario legislation,[58] "normal farm practice" has to be assessed in the broader context of its effect on neighboring prop-

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52. *Fairchild*, [2003] 3 W.L.R. at 95 (emphasis added).

53. Tock v. St. John's Metro. Area Bd., [1989] 2 S.C.R. 1181, 1192.

54. See Rodgers, *supra* note 45, at 382-83 on the reluctance of courts to accept scientific proof of damage in nuisance cases (quoting Salvin v. Brancepath Coal Co. (1874) 9 Ch. App. 705, at 709) ("The damage must be such as can be shown by a plain witness to a plain common juryman.").

55. *See infra* text accompanying notes 97-106.

56. S.S. 1995, c. A-12.1. For a general discussion of right-to-farm legislation, see Jonathan J. Kalmakoff, *"The Right to Farm": A Survey of Farm Practices Protection Legislation in Canada*, 62 SASK. L. REV. 225 (1999).

57. S.S. 1995, c. A-12.1, § 2(i)(i) (emphasis added).

58. Farming and Food Production Protection Act, S.O. 1998, c. 1.

erty owners.[59] This would include the neighboring non-GMO farmers.

B. Rylands v. Fletcher

A second possible action against a neighboring GMO farmer is in strict liability for damages resulting from a non-natural use of land under the rule in *Rylands v. Fletcher*.[60] The Court held that

> [w]e think that the true rule of law is, that the person who, for his own purposes, brings on his land and collects and keeps there anything likely to do mischief if it escapes, must keep it in at his peril; and if he does not do so, is prima facie answerable for all the damage which is the natural consequence of its escape. . . . [I]t seems but reasonable and just that the neighbour who has brought something on his own property (which was not naturally there), harmless to others so long as it is confined to his own property, but which he knows to be mischievous if it gets on his neighbour's, should be obliged to make good the damage which ensues if he does not succeed in confining it to his own property.[61]

An action under *Rylands v. Fletcher* has the advantage, from the plaintiff's point of view, of being outside the ambit of right-to-farm legislation.[62] The elements of such an action are a non-natural use of land, an escape from one property to another of something liable to do mischief, and damage.[63] The last two elements, escape and damage, raise issues similar to those canvassed in regard to nuisance, that is, proof of the source of the escaped gene and proof of damage. The first element, non-natural use, poses problems of its own. While genetically modified crops are undoubtedly "not naturally there," the cases have moved away from the original meaning of "artificial, foreign, or not arising in the course of nature"[64] to one focusing on the danger of the activity. Where the use of the land is regarded as inherently dangerous (i.e., storage and use of explosives, dangerous chemicals, or biological agents), it is readily classified as non-natural; but where the danger is less apparent, the courts tend to balance it against other factors such as the normalcy and utility of the use and the con-

59. Pyke v. TRI GRO Enters., (2001) 148 O.A.C. 307 (leave to appeal to S.C.C. denied).

60. L.R. 3 H.L. 330 (1868); *see supra* note 43; J.W. Looney, Rylands v. Fletcher *Revisited: A Comparison of English, Australian and American Approaches to Common Law Liability for Dangerous Agricultural Activities*, 1 DRAKE J. AGRIC. L. 149 (1996).

61. *Rylands*, L.R. 3 H.L. 330, 339-40 (quoting the judgment of Justice Blackburn in the Court of Exchequer Chamber, L.R. 1 Ex. 265, 279-80).

62. *See also* Metson v. R.W. De Wolfe Ltd., (1980) 117 D.L.R. (3d) 278 (N.S.S.C., Trial Div.) (noting that considerations of normalcy of agricultural husbandry are irrelevant to application of rule in *Rylands v. Fletcher*).

63. OSBORNE, *supra* note 46, at 299. The escape must be an isolated event. Rodgers, *supra* note 45, at 377. The damage must be reasonably foreseeable. Peter Bowal & Nicole Koroluk, *Closing the Floodgates: Environmental Implications of Revisiting* Rylands v. Fletcher, 4 J. ENVTL. L. & PRAC. 310, 311 (1994) (discussing Cambridge Water Co. v. E. Counties Leather Plc., [1994] 2 A.C. 264 (H.L. 1993).

64. OSBORNE, *supra* note 46, at 299.

text in which it takes place. Under which category will the courts treat GMO agriculture? Is it akin to aerial crop spraying, which was held to constitute a non-natural use of land in some contexts[65] but might not be in others? Or does the permanency of the escape make GMO agriculture inherently dangerous?

Two possible actions against neighboring GMO farmers for crop contamination are thus in nuisance and under *Rylands v. Fletcher*. Each poses practical problems of proof. At a more practical level still, a neighboring farmer is probably not a "deep pockets" defendant, as are the other two possible defendants, the biotechnology company and the government.

V. Actions Against the Manufacturer

An action in damages against the manufacturer of GMO seed is inherently the most satisfactory solution, as it puts the burden for loss on those who have profited most. *Hoffman v. Monsanto*[66] is an example. As we have seen, affected farmers could make a number of claims against biotechnology companies, two of which are singled out in the following discussion.[67] The first is a claim of breach of statutory duty, and the second is an action in negligence.

A. *Breach of Statutory Duty*

Non-GM farmers whose crops are contaminated by footloose genes might be able to claim damages for breach of statutory duty arising under provincial environmental protection legislation. A Saskatchewan farmer has two possibilities. The first is an action under the Environmental Management and Protection Act,[68] section 15 of which gives "any person" a right to compensation from "the person responsible for a discharge" for loss or damage incurred as a result of "the discharge of a substance" (in this case, GMOs) into the environment.[69] "Loss or damage" is defined widely to include "loss of use or enjoyment of property" as well as "pecuniary loss, including loss of

65. Schunicht v. Tiede, (1979) 20 A.R. 606 (Q.B.); Cruise v. Niessen, (1977) 76 D.L.R. (3d) 343 (Man. Q.B.); Mihalchuk v. Ratke, (1966) 57 D.L.R. (2d) 269 (Sask. Q.B.).

66. Sask. Q.B., No. 67 of 2002.

67. *See supra* text accompanying note 19.

68. S.S. 2002 c. E-10.21 (replacing a similar statute with the same name, S.S. 1983-84 c. E-10.2. For a comparison of the two statutes, see J. Kelly Brown, *Contaminated Site Liability in Saskatchewan: On the "Right Track" to Remediation?* 12 J. Envtl. L. & Prac. 55 (2003).

69. The corresponding section, section 13, of the earlier statute established responsibility in the event of the discharge into the environment of a "pollutant" of which the responsible persons were "owners or persons in control." In the case of GMOs, ownership would presumably be based on patent rights and control on the reach and effect of the technology use agreements. *See* Phillipson, *supra* note 8. For a discussion of "owners or persons in control" under the earlier legislation, see *Busse Farms Ltd. v. Federal Business Development Bank*, (1998) 168 D.L.R. (4th) 27 (Sask. Ct. App.).

income."[70] In this case, the affected farmer would be the person having a right to compensation; the biotechnology company would be the person responsible foı the discharge; the substance discharged into the environment would be the GMOs (either the seed or pollen or the gene itself);[71] and the loss or damage to the affected farmer would be the sort of things suffered by Percy Schmeiser.[72]

The second is a claim under the Environmental Assessment Act,[73] section 23 of which makes any person who "proceeds with a development for which ministerial approval is required" without conducting the requisite impact assessment and obtaining the approval of the designated minister of the provincial government "liable to any other person who suffers loss, damage or injury as a result of the development."[74] "Development" is defined widely in the Act, to include "any project, operation or activity" likely to

> i) have an affect on any unique, rare or endangered feature of the environment;
> ii) substantially utilize any provincial resource and in so doing preempt the use, or potential use, of that resource for any other purpose;
> iii) cause the emission of any pollutants or create by-products, residual or waste products which require handling and disposal in a manner that is not regulated by any other Act or regulation;
> iv) cause widespread public concern because of potential environmental changes;
> v) involve a new technology that is concerned with resource utilization and that may induce significant environmental change; or
> vi) have a significant effect on the environment or necessitate a further development which is likely to have a significant impact on the environment.[75]

"Environment" is similarly widely defined, to include not only "air, land and water" and "plant and animal life, including man," but also "the social, economic and cultural conditions that influence the life of man or a community" insofar as they are related to the first two matters.[76]

The application of this legislation to GMOs is striking. The argument is that the testing and subsequent unconfined commercial release of genetically modified organisms (such as canola and wheat) is a development within the meaning of the Act for which provincial

70. S.S. 2002 c. E-10.21 § 15(1).
71. *See* Phillipson, *supra* note 8 (discussing the meaning of "pollutant" under the earlier legislation).
72. *See infra* text accompanying note 81.
73. S.S. 1979-80, c. E-10.1.
74. S.S. 1983-84, c. E-10.2. Section 23(1) goes on to state that the person alleging loss, damage, or injury "is not required to prove negligence or intention" to inflict it; and section 23(2) further provides that the burden of proving that the loss, damage, or injury "was not caused by a development is on the person who proceeds with the development."
75. *Id.* § 2(d).
76. *Id.* § 2(e).

ministerial approval is required. The definition of "development" has been considered by the Saskatchewan Court of Appeal in *Kelvington Super Swine Inc. v. Irving*,[77] which dealt with an intensive hog-finishing facility. In deciding that the construction and operation of such a facility was not a development under the Act, the court reviewed each of the criteria in turn and held that none had been met in the circumstances of the case. In the case of GMOs, however, at least three, and arguably more, of the criteria appear to have been met: the cultivation of GM plants substantially utilizes a provincial resource (agricultural land) and prevents its use for any other purpose (criterion ii); it causes widespread public concern because of potential environmental change (criterion iv); and it involves a new technology that is concerned with resource utilization and that may induce significant environmental change (criterion v). Moreover, it is likely to have a significant effect on the environment (criterion vi), that is, on the agricultural land base and its plant life as well as, and perhaps most particularly, on the economic conditions of not just the agricultural and rural communities, but also the province as a whole.[78] This final criterion, economic effects, is particularly important at the present time, as it explains the mounting concern with GM technology on the prairies. Canada's canola exports to Europe have reportedly dropped a hundred-fold, from 500,000 tons to 5000 tons, over the last five years.[79] Eighty-two percent of the Canadian Wheat Board customers do not want GM wheat;[80] Canada's wheat exports total nearly $5 billion per year, and a similar loss of markets is feared.[81] The devastating economic effect of a single incidence of mad-cow disease on Canada's beef industry has only added to this concern. The fear here is of contamination, not only through gene wandering, but also during post-harvest handling

77. (1997) 163 Sask. R. 87.

78. The Court of Appeal in *Kelvington Super Swine* appears (albeit somewhat laconically) to link this criterion (i.e., criterion vi) to criterion iii: if a proposed activity "falls under existing regulations and controls," it apparently cannot have a significant impact on the environment. *Id.* at 93. However, the effect of the intensive livestock operation on ground water, which was the particular environmental concern in the case, had been extensively reviewed as part of the requisite Department of Agriculture's approval process under the Agricultural Operations Act, and the Department of the Environment had input into this review.

79. *Frankenfoods: The Damning Proof*, DAILY MAIL, Sept. 7, 2003, http://www.cropchoice.com/leadstry.asp?recid=2009.

80. Tim Hirsch, *Canadian Farmers Debate GM Wheat*, BBC News (July 31, 2003), http://news.bbc.co.uk/1/hi/sci/tech/3114439.stm; *see also* News Release, Canadian Wheat Board, CWB Asks Monsanto to Put the Brakes on Roundup Ready Wheat (May 27, 2003), http://www.cwb.ca/en/news/releases/2003/052703.jsp.

81. In a letter dated March 31, 2003, to the federal Minister of Agriculture and Agri-Foods, the Chair of the Canadian Wheat Board and the heads of nine other organizations wrote, "[C]ustomer resistance to GM wheat in Canada's markets is strong and widespread. As has been observed in other commodities, resistance to GM crops results in lost markets." Letter from Terry Hildebrand, President, Agricultural Producers Association of Saskatchewan et al., to Lyle Vandief, Minister of Agriculture and Agri-Food Canada (Mar. 31, 2003), http://www.cwb.ca/en/topics/biotechnology/closing_gap.jsp; *see also* Paul Brown, *Cabinet Papers Warn Canada off GM Crops*, GUARDIAN (Nov. 13, 2003), http://www.cropchoice.com/leadstry.asp?RecID=2211.

and shipping, if the virtually indistinguishable GMO and non-GMO grains become mixed—as is normal in the course of bulk shipping of fungibles. The government would be responsible for putting in place two separate shipping and handling systems with all the administrative difficulties and expense that would entail.[82]

Approval for the dissemination of genetically modified seeds has not been given by the appropriate provincial minister (the Minister of Environment and Resource Management) under the Environmental Act. It is given by federal government agencies operating under federal legislation applying different criteria.[83] Lack of the requisite provincial approval could make the biotechnology companies, as the persons proceeding with the development, liable to the affected farmers for the damages they suffer as a result of crop contamination. Potential plaintiffs include organic farmers such as Hoffman and Beaudoin, as well as farmers of conventional crops. Percy Schmeiser, for example, had his 1998 crop confiscated, lost the ability to reseed with the high-yield disease-resistant seed he had developed over the years, and faces the very real possibility that his soil has become contaminated with GM seeds from shattered canola pods, leaving him open to future patent suits should he plant canola again.[84] Potential plaintiffs also include former GM farmers returning to conventional agriculture, who would face the same problem of GM seed dormancy.

B. *Products Liability*

A second possible action against biotechnology companies for crop contamination from GM gene wandering is in negligence under a well-accepted "products liability" line of argument.[85] Negligence law allows recovery for foreseeable damage caused to persons and property by a defective product. Its defining elements are thus duty, breach, and damage. The duty of care requirement would not seem to cause a problem in a crop contamination case, as it runs "even beyond

82. *See* Canadian Grain Industry Working Group on Genetically Modified Wheat, *Conditions for the Introduction of Genetically Modified Wheat*, http://www.cwb.ca/en/topics/biotechnology/pdf/gmowheat.pdf (Feb. 5, 2003). The Saskatchewan Organic Directorate strongly criticizes this document, which was prepared with the participation of Monsanto Canada but not of any representative group of organic farmers. *See* SASKATCHEWAN ORGANIC DIRECTORATE (SOD), http://www.saskorganic.com/ (last visited Apr. 13, 2003).

83. *See infra* note 121 and accompanying text.

84. *See* Clark, *supra* note 9. Note, however, that the majority of the Supreme Court in *Schmeiser*, 2004 SCC 34, emphasized that "we are not concerned here [in the case] with the innocent discovery by farmers of 'blow-by' patented plants on their land or in their cultivated fields." *Id.* ¶ 2.

85. The discussion which follows relies principally on S.M. WADDAMS, PRODUCTS LIABILITY (4th ed. 2002). *See also* LEWIS N. KLAR, TORT LAW 274-83 (2d ed. 1996); OSBORNE, *supra* note 46, at 123-31. This paper does not address the ongoing policy debate as to whether the standard of care in products liability cases should be negligence or strict liability. For additional information, see, for example, Denis W. Boivin, *Strict Products Liability Revisited*, 33 OSGOODE HALL L.J. 487 (1995). *See also* WADDAMS, *supra*, at 228-39.

the ultimate consumer or user of the product to the 'innocent bystander,' in short, to everyone within the foreseeable range of the product's harmful effects."[86] A neighboring farmer is clearly "within the foreseeable range."

As for breach, the products liability cases distinguish between three types of defects: manufacturing defects (when the product departs dangerously from the manufacturer's specifications), design defects (when the manufacturer's specifications themselves create excessive risk of injury), and marketing (labelling) defects (when the information given by the manufacturer fails to warn of hidden dangers inherent in intended or reasonably foreseeable uses of the product).[87] Most products liability cases involve the first category,[88] but this does not seem particularly applicable to the case of crop contamination by GMOs, as the propensity of GM genes to wander is not a result of a manufacturing defect but is inherent in the very design of the gene.

Cases of labelling defects involve the adequacy of warnings addressed to the ultimate user or some intermediary acting on his or her behalf;[89] the guiding principle is that the user either would not have bought the product, or would have used it differently, if he or she had been adequately warned. In their class action suit, Hoffman and Beaudoin allege the existence of a labelling defect in the marketing of genetically modified canola, arguing that

> between [the relevant dates], . . . farmers purchasing either variety were not warned about the potential harm to neighbouring crops caused by GM volunteer canola. In particular, no warnings were given to farmers to keep a buffer zone to minimize the flow of pollen to surrounding crops, to ensure that all farm trucks transporting the seed were properly and securely tarped, to thoroughly clean all farm machinery before leaving a field where the GM crop was being grown, or to warn neighbours that GM volunteers might emanate from the GM crop.[90]

The argument in favor of responsibility for such a labelling defect would perhaps be strengthened if the user (the GMO farmer) were to

86. JOHN G. FLEMING, THE LAW OF TORTS 536 (1998). *But see* Rodgers, *supra* note 45, at 390 (suggesting that an assessment made in the context of the authorization process for commercialization of GM seed that the risk of damage from contamination is minimal makes it difficult to argue that damage would be forseeable by the neighboring GM farmer).

87. Boivin, *supra* note 85, at 490.

88. The classic example of a manufacturing defect is a decomposing snail in an opaque bottle of ginger beer. *See* Donoghue v. Stevenson, [1932] A.C. 562 (H.L.). A contaminated blood transfusion is a more modern example. *See, e.g.*, Walker Estate v. York-Finch Gen. Hosp., (2001) 198 D.L.R. (4th) 193 (S.C.C.).

89. *E.g.*, Lambert v. Lastoplex Chems. Co., [1972] S.C.R. 569 (highly flammable sealant); Hollis v. Dow Corning Corp., [1995] 4 S.C.R. 634 (silicone breast implants). A number of labelling defect cases have involved pesticides or herbicides. *E.g.*, Ruegger v. Shell Oil Co., (1963) 41 D.L.R. (2d) 183 (Ont. High Ct.) (dangerous invisible mist emanated during spraying); Pirie v. Merck Frosst Can. Inc. (1989) 96 N.B.R.2d 337 (Q.B.) (post-harvest potato fungicide increased risk of soft rot on damp potatoes); Van Oirschot v. Dow Chem. Can. Inc., (1995) 31 Alta. L.R.3d 212 (Ct. App.) (harmful residue left in soil).

90. *See* Statement of Claim, *supra* note 19.

be held responsible for the contamination of neighboring farms, as has been discussed above.

The design defects category is probably the most relevant to genetically modified seeds, and negligence in relation to it is hard to prove. The plaintiff must be able to show not only that the injuries were caused as a result of the way the product was designed but also that it was designed negligently.[91] Generally speaking, Canadian courts favor a "risk-utility" approach that asks, "Do the potential risks of the design significantly outweigh its utility?" Relevant considerations have been set out as follows: the usefulness or desirability of the product; the availability of other and safer products to meet the same need; the likelihood of injury and its probable seriousness; the obviousness of the danger; common knowledge and normal public expectation of danger (particularly for established products); the avoidability of injury by care in the use of the product; and the ability to eliminate danger without seriously impairing the usefulness of the product.[92] Examples of design defects spring to mind: motorized vehicles,[93] thalidomide pills,[94] silicone gel breast implants,[95] even cigarettes[96]—and there is no reason in principle why genetically modified organisms should not find their way onto this list.

The final requirement for an action in negligence is proof of damage. This raises issues similar to those canvassed in relation to nuisance,[97] and the question of liability for economic loss merits particular mention here. Generally speaking, courts readily admit liability for economic loss where it is consequential on physical injury to

91. KLAR, *supra* note 85, at 276. On the other hand, government approval of the product is not conclusive against a finding of negligence. *See* Willis v. FMC Mach. & Chems. Ltd., (1976) 68 D.L.R. (3d) 127 (P.E.I.S.C.) (including suggestion that federal authorities might have been negligent in approving product before sufficient trial experiments conducted); *see infra* note 109 and accompanying text.

92. Ragoonanan Estate v. Imperial Tobacco Can. Ltd., (2000) 51 O.R. (3d) 603, 626-27 (Ont. Sup. Ct.) (citing Sack v. Philip Morris, Inc., 1996 U.S. Dist. LEXIS 15184 (D. Md. Sept. 19, 1996), *aff'd*, 1998 U.S. App. LEXIS 5777 (4th Cir. Mar. 23, 1998)). KLAR, *supra* note 85, at 277 lists the following factors: the utility of the product to the public as a whole and to the consumer; the likelihood of harm; the availability of a safer design; the cost, both in terms of functionality and price, of the safer design; the ability of the consumer to avoid harm by careful use of the product; the ability of the consumer to become aware of the risks; and the manufacturer's ability to spread the costs related to improving the safety of the design. *See also* Harrington v. Dow Corning Corp., (2000) 193 D.L.R. (4th) 67, 88 (B.C.C.A.), leave to appeal to Supreme Court of Canada denied, (2001) 202 D.L.R. (4th) vii (S.C.C.).

93. *E.g.*, Langille v. Scotia Gold Coop., (1978) 33 N.S.R.2d 157 (S.C., Trial Div.) (farm equipment); Gallant v. Beitz, (1983) 48 D.L.R. (3d) 522 (Ont. H.C.) (motor car); Nicholson v. John Deere Ltd., (1989) 57 D.L.R. (4th) 639 (Ont. C.A.) (riding lawn mower).

94. WADDAMS, *supra* note 85, at 50.

95. *E.g.*, *Harrington*, (2000) 193 D.L.R. (4th) 67 (upholding decision to certify class action).

96. *Ragoonanan Estate*, (2000) 51 O.R. (3d) 602 (class action for failure to produce "fire-safe" cigarette, motion for certification of class pending); Caputo v. Imperial Tobacco Ltd., (2003) No. 95-CU-82186CA (Ont. Sup. Ct.), http://www.canlii.org/on/cas/onsc/2004/2004onsc10340.html (last visited Sept. 19, 2003) (class action for production of nicotine addictive cigarettes; motion for certification of class dismissed).

97. *See supra* text accompanying notes 44-59.

persons or property, so that a non-GMO farmer whose crops are contaminated could claim the loss of profits from the sale of the contaminated crops.[98] However, courts are more circumspect about recovery for "pure" economic loss where the loss is not a consequence of some physical injury.[99] This is the case in *Hoffman and Beaudoin*, where the damages claimed are for "loss of revenues caused by: a) loss of canola as a crop to be used within their regular rotations; and/or b) loss of opportunity to participate in the certified organic canola market."[100]

Canadian courts are more open than American and English courts to claims for pure economic loss and "[look] beyond the traditional bar against recovery of pure economic loss in favour of a case-specific analysis that seeks to weigh the unique policy considerations which arise."[101] The starting point is the two-step test set out by the House of Lords in *Anns v. Merton London Borough Council*[102] under which the court determines, first, whether the damage is sufficiently foreseeable to establish a duty of care[103] and second, whether there are any policy reasons which might negate or limit the scope of the duty. Applying this approach, the Supreme Court of Canada has recognized a number of categories of claims for pure economic loss. One of these categories, negligent supply of "shoddy" (i.e., dangerous or

98. For example, one of the plaintiffs in *Hoffman and Beaudoin* ceased growing canola when a buyer refused his 1999 crop after it tested positive for GMOs, and he was forced to sell the crop at a loss ($13.75 instead of the contracted price of $16.50 per bushel). Affidavit of Dale Beaudoin, SASKATCHEWAN ORGANIC DIRECTORATE, http://www.saskorganic.com/oapf/legal.html (last visited May 28, 2003) (on file with author).

99. The discussion which follows relies principally on the most recent consideration by the Supreme Court of the issue of economic loss, Martel Building Ltd. v. Canada, [2000] 2 S.C.R. 860, in which the unanimous decision of the Court was delivered by Justices Iacobucci and Major. *See also* WADDAMS, *supra* note 85, at 30-44; Earl A. Cherniak & Elissa How, *Policy and Predictability: Pure Economic Loss in the Supreme Court of Canada*, 31 CAN. BUS. L.J. 209, 210 (1999) (describing the cases as "a labyrinth of conflicting policy-based decisions that have raised more questions than answers"); Bruce Feldthusen, *Liability for Pure Economic Loss: Yes, But Why?*, 28 U. W. AUSTL. L. REV. 84 (1999); Jane Stapleton, *Comparative Economic Loss: Lessons from Case-Law-Focused "Middle Theory,"* 50 UCLA L. REV. 531 (2002).

100. Statement of Claim, *supra* note 19, at 8-9.

101. *Martel Bldg.*, [2000] 2 S.C.R. at 877.

102. [1978] A.C. 728. In other words, Canadian courts have not followed the House of Lord's subsequent rejection of its own approach in *Murphy v. Brentwood District Council*, [1991] 1 A.C. 398. *But see* Jason Neyers, *Distilling Duty: The Supreme Court of Canada Amends* Anns, 118 LAW Q. REV. 221 (2002).

103. Note that in *M. Hasegawa & Co. v. Pepsi Bottling Group (Canada) Co.*, (2002) 213 D.L.R. (4th) 663, the Ontario Court of Appeal held that the Supreme Court requires that foreseeable harm be either personal injury or physical danger to property, although it criticized this position:

> As a matter of logic, it may seem incongruous that the existence of a duty of care should depend upon the kind of harm that might ensue from a lack of care by the defendant. The controlling test for existence of the *prima facie* duty is the parties' proximity or degree of neighbourhood. The kind of harm that might be suffered by a plaintiff, whether physical or economic, does not seem to be an appropriate test for deciding whether a duty exists, because a plaintiff, whether in a proximate relationship or not, might suffer either kind of harm.

Id. at 673.

defective) goods or structures,[104] is particularly applicable in the context of products liability. There is a general presumption of responsibility for pure economic loss in cases falling within the recognized categories, especially where the plaintiff is clearly within the ambit of foreseeable damage—as is the case with neighboring non-GMO farmers. The burden then falls on the defendant to demonstrate the existence of policy reasons negating this responsibility.[105] The strongest policy arguments against liability for pure economic loss have been a preference for contract over tort as a vehicle for attribution of responsibility[106] and a concern with indeterminacy of liability, but neither of these would seem applicable to the case of a neighboring farmer. Contractual allocation of risk is not possible between parties who are not in a contractual relationship, and this is the case with the neighboring farmer and the biotechnology company. Indeterminacy of liability—or "liability in an indeterminate amount for an indeterminate time to an indeterminate class"[107]—would equally not seem to be a problem in GMO contamination cases, at least as far as a suit by neighboring farmers is concerned. As Professor Stapleton observed,

> [a]fter an intense debate among academics, it is now recognized by Commonwealth courts that, while the total extent of economic loss and the total number of victims in an economic loss case may be indeterminate, this factual feature need not be fatal to a claim. There is no *legal* problem of indeterminacy if: first, the law can, on a normatively justifiable basis, restrict those who can sue, and second, this normatively justified class is reasonably determinate in terms of its numbers (that is, the size of the class is ascertainable by parties in the defendant's position). A parallel double requirement (that is, normative justification plus reasonable ascertainability) applies to

104. The landmark case under this category was *Rivtow Marine Limited v. Washington Iron Works*, [1974] S.C.R. 1189 (defective crane). *See also* Winnipeg Condo. Corp. v. Bird Const. Co., [1995] 1 S.C.R. 85 (dangerous building). Note that the Court in *Hasegawa* (improperly sanitized bottled water) held that the Supreme Court requires that the goods be dangerous, not simply defective or shoddy. (2002) 213 D.L.R. (4th) 663 (Ont. C.A.). The other categories are: liability of public authorities; negligent misrepresentation; negligent performance of a service; and relational economic loss (i.e., economic loss suffered by the plaintiff as a result of injury to another person's person or property). These categories were first articulated by Justice La Forest in *Canadian National Railway v. Norsk Pacific Steamships Co.*, [1992] 1 S.C.R. 1021, 1049, and have been accepted in a number of Supreme Court cases since then. *E.g.*, D'Amato v. Badger, [1996] 2 S.C.R. 1071; Bow Valley Husky (Bermuda) Ltd. v. Saint John Shipbuilding Ltd., [1997] 3 S.C.R. 1210; *Winnipeg Condo.*, [1995] 1 S.C.R. 85; *Martel Bldg.*, [2000] 2 S.C.R. 860. These categories are not closed. *Martel Bldg.*, [2000] 2 S.C.R. 860, 879. Professor Stapleton criticizes such a "pockets approach" as being normatively incoherent and would favor the adoption of a more open-textured form of legal reasoning. Stapleton, *supra* note 99, at 582.

105. *Martel Bldg.*, [2000] 2 S.C.R. at 878-79. The only exception to this is "the narrow realm of contractual relational loss" where a presumptively exclusionary rule applies. *Id.* at 877.

106. *See generally* Joost Blom, *Tort, Contract and the Allocation of Risk*, 17 SUP. CT. L. REV. (2d) 289 (2002). *See, e.g.*, *Hasegawa*, (2002) 213 D.L.R. (4th) at 677. "The plaintiff's effort to recover its business losses from the defendant is in reality an effort to obtain after-the-fact insurance from a party which did not give a warranty at the time of the original contracts. Tort law should not be used here to disrupt the contractual allocation of risk." *Id.*

107. Blom, *supra* note 106, at 292 (quoting Ultramares Corp. v. Touche, 174 N.E. 441, 444 (N.Y. 1931)). Blom observes that quoting Cardoza on this point "has become a ritual in Canada." *Id.*

> the issue of the amount for which members of the class can claim. Indeterminacy, in other words, is now seen as merely one manifestation of the institutional concern that the boundaries of liability should be ascertainable and based on normatively justifiable arguments.[108]

VI. Actions Against the Government

A final possibility might be an action in damages against the government for negligent regulation and control of genetically modified technology.[109] This possibility, which again points to a "deep pockets" defendant (although it is the taxpayer who ultimately pays the bill), takes us into the area of "government wrongs."[110] Common law jurisdictions, such as Canada, have long since moved away from the historical position of Crown immunity and now subject public officials to the same rules, generally speaking, of tortious liability as private persons, with responsibility in negligence having pride of place. There is, however, one important exception: the actions of government officials are not subject to judicial scrutiny if they relate to the "policy" rather than the "operational" stages of the activity.[111] This exception reflects the theoretical problem of maintaining separation between the activities of the (elected) government and (appointed) judiciary. It also reflects the practical difficulties inherent in having judges decide complicated questions about such matters as the allocation of scarce resources. An adversarial court procedure is not the best way to arrive at consensual compromises.

The difficulty with the policy/operational distinction, of course, is to determine which activities should be classified as "policy," and hence nonreviewable, and which should be placed in the reviewable "operational" category. All would agree with Justice Cory in *Just v. British Columbia*[112] that "complete Crown immunity should not be restored by having every government decision designated as one of

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108. Stapleton, *supra* note 99, at 544.

109. In fact, the possibility of such a recourse has been reported as having been raised in the context of *Hoffman and Beaudoin*:

> [The president of the Canola Council of Canada] also said growers and creators of GM canola have done nothing illegal because the products have passed food, feed, environmental and safety regulations and have made it through the variety registration system. "If the class action should be targeted at anybody, it would be targeted at the regulatory system that allowed that." Saskatchewan Organic Directorate officials said the federal government and other parties may be included in legal action, but the main target will be Monsanto.

Pratt, *supra* note 13; *see also* Willis v. FMC Mach. & Chems. Ltd., (1976) 68 D.L.R. (3d) 127 (P.E.I.S.C.).

110. The discussion that follows relies principally on Peter W. Hogg & Patrick J. Monahan, Liability of the Crown (3d ed. 2000), and Klar, *supra* note 85. *See also* D.K. Wilson, *Deep Pocket Justice—Recent Cases on Tort Liability of Public Authorities*, 4 Can. J. Admin. & Prac. 311 (1991)

111. *See* City of Kamloops v. Nielsen, [1984] 2 S.C.R. 2, 12-13 (building construction inspection) (applying Anns v. Merton London Borough Council, [1978] A.C. 728).

112. [1989] 2 S.C.R. 1228.

'policy.'"[113] However, the distinction between the two is not easy to formulate, although a number of judges and academics have tried. For Mr. Justice Beetz in *Laurentide Motels Ltd. v. Beauport*,[114] policy decisions are "decisions of a political nature such as the initial decision to exercise the power to establish a service," whereas the operational sphere consists of "the practical execution of its policy decision."[115] Mr. Justice Cory, in *Just*, approved a High Court of Australia distinction between "decisions which involve or are dictated by financial, economic, social or political factors or constraints" and "action or inaction that is merely the product of administrative direction, expert or professional opinion, technical standards or general standards of reasonableness."[116] Justice Braidwood, in the British Columbia Court of Appeal, emphasized the notion of an "operational implementation of a policy decision":

> Even where contested decisions are clearly ones of policy, the *operational implementation* of a policy decision may still leave government susceptible to a tort claim, as the matter essentially "reverts" to an operational one. Courts may therefore be required to assess whether policy matters under review are manifestations of the *operational* implementation of a policy choice.[117]

Professors Hogg and Monahan object to the term "policy/operational" as compounding the inherent conceptual difficulties and would prefer the adoption of the American term "planning." "The merit of the word 'planning' is that it implies decision-making of a generality and complexity that a Court cannot be expected to evaluate, let alone replicate."[118] Allen Linden, finally, suggests the words "governing" and "servicing":

> Another way of looking at this issue is to say that a government must be entitled to govern free from the restraints of tortuous liability. It cannot be a tort for a government to govern. However, when a government is supplying services, that is, doing things for its people other than governing, it should be subject to ordinary negligence principles. . . . [Immunity] must be limited only to those functions of government that properly can be considered to be "governing" and not extended to the other tasks of government that might be styled "servicing". In other words, governing is normally concerned with

113. *Id.* at 1239.

114. [1989] 1 S.C.R. 705.

115. *Id.* at 718.

116. Just v. British Columbia, [1989] 2 S.C.R. 1228, 1242 (citing Justice Mason in Sutherland Shire Council v. Heyman, (1985) 60 A.L.R. 1 (H.C. Aust.)).

117. Gobin v. British Columbia, (2002) 214 D.L.R. (4th) 328, 333 (B.C.C.A.).

118. HOGG & MONAHAN, *supra* note 110, at 164; *see also* Jean-Denis Archambault, *La distinction politique-opérationnel fournit-elle une assise judiciaire solide à la responsibilité civile de l'Etat consécutive à une décision de politique administrative?*, 59 REVUE DU BARREAU 579 (1999).

> large issues, macro decisions, if you will, not routine items, that is, micro decisions.[119]

In spite of these difficulties, Canadian courts have remained steadfast to the distinction between policy and operational activities, although the location of the boundary between the two categories has shifted back and forth.[120]

How might this distinction between policy (planning) and operational activities be applied to government treatment of GMOs in Canada? The principal areas of government activity are the regulation of biotechnology products and labelling of genetically modified food.

A. *Regulation*

The regulation of biotechnology products is carried out by the federal government on the basis of a *Regulatory Framework for Biotechnology*, adopted in 1993. Like the U.S., Canada adopts a "product-based" approach to regulation, rather than the European "process-based" one.[121] This approach relies on existing legislation and regulatory bodies, rather than creating an autonomous system, so that the treatment of GM products is generally similar to that of other agricultural products. Canadian regulation considers genetically modified products, reassuringly, simply as products with "novel traits." Within this general framework, Health Canada is responsible for carrying out food safety assessments for new food and drugs, including those developed using biotechnology,[122] and the Canadian Food Inspection Agency (CFIA) of the Ministry of Agriculture and Agri-Food is responsible for the environmental safety assessment of plants, including those with novel traits.[123] In both cases, the procedure is to

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119. ALLEN M. LINDEN, CANADIAN TORT LAW 621 (7th ed. 2001), *quoted in* Aleksic v. Canada (Attorney General) (2002), 215 D.L.R. (4th) 720, 735 (Ont. Div'l Ct.).

120. *See, e.g.*, Lewis v. British Columbia, [1997] 3 S.C.R. 1145 (highway maintenance: falling rocks); Swinamer v. Nova Scotia (Attorney General), [1994] 1 S.C.R. 445 (highway maintenance: falling trees); Brown v. British Columbia (Minister of Transportation and Highways), [1994] 1 S.C.R. 420 (highway maintenance: falling rocks); Rothfield v. Manolakos, [1989] 2 S.C.R. 1259 (building construction inspection); *Just*, [1989] 2 S.C.R. 1228 (highway maintenance: ice); *Laurentide Motels Ltd.*, [1989] 1 S.C.R. 705 (firefighting equipment provision); City of Kamloops v. Nielsen, [1984] 2 S.C.R. 2 (building construction inspection); *see also Gobin*, (2002) 214 D.L.R. (4th) 328 (highway maintenance: falling rocks).

121. Jill E. Hobbs, *Consumer Responses to Food Quality, Food Safety, and Health Concerns*, *in* Murray Fulton et al., *Transforming Agriculture: The Benefits and Costs of Genetically Modified Crops* 63 (Mar. 2001), *at* http://cbac-cccb.ic.gc.ca/epic/internet/incbac-cccb.nsf/fr/ah00388f.html#part_5. This report was prepared for the Canadian Biotechnology Advisory Committee (CBAC).

122. Food and Drugs Act, R.S.C. 1985, c. F-27. The Food and Drug Regulations, C.R.C., c. 870, adopted under the Act, were amended in 1999 to add a new Division 28 dealing with novel foods, SOR/99-392, C. Gaz., Part II, Oct. 27, 1999.

123. Seeds Act, R.S.C. 1985, c. S-8. The CFIA is also responsible for assessing new livestock feeds, Feeds Act, R.S.C. 1985, c. F-9; new fertilizers, Fertilizers Act, R.S.C. 1985, c. F-10; and new veterinary biologics, Health of Animals Act S.C. 1990, c. 21, including those derived from biotechnology. *See* CFIA, OFFICE OF BIOTECH., REGULATING AGRICULTURAL BIOTECHNOLOGY IN CANADA: AN OVERVIEW, http://www.inspection.gc.ca/english/sci/biotech/reg/bioage.shtml (last modified Feb. 13, 2001); CFIA, OFFICE OF BIOTECH., ENVIRONMENTAL

determine the extent to which a novel plant or food is "substantially equivalent," except for defined differences, to its existing conventional counterpart, and to concentrate the analysis on the defined differences.[124] "Substantial equivalence" as a decision threshold is defined as follows,

> A GM organism is "substantially equivalent" if, on the basis of reasoning analogous to that used in the assessment of varieties derived through conventional breeding, it is assumed that no changes have been introduced into the organism other than those directly attributable to the novel gene. If the latter are demonstrated to be harmless, the GM organism is predicted to have no greater adverse impacts upon health or environment than its traditional counterpart.[125]

The federal government's approval procedure has been strongly criticized on a number of grounds,[126] with the failure to include an assessment of the possible economic impact of the introduction of GM crops currently in the spotlight. The heads of ten concerned organizations[127] have written to the federal Minister requesting that the regulatory system be changed to include not only the present scientific assessment of agronomic matters but also "a cost-benefit analysis that incorporates market impact and overall farmer revenue in the approval process."[128] No action has yet been taken. Both the failure to include socio-economic (and perhaps ethical) issues in the evaluation process and the reliance on "substantial equivalence," rather than the "precautionary principle" as the decision threshold, contrasts sharply with the recently adopted European approach.[129] However, both

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SAFETY ASSESSMENTS FOR AGRICULTURAL PRODUCTS OF BIOTECHNOLOGY, http://www.inspection.gc.ca/english/sci/biotech/enviro/evale.shtml (last modified Oct. 16, 2003).

124. D. Pate, *Genetically Modified Feeds for Livestock* (Dec. 2002), http://www.gov.on.ca/OMAFRA/english/livestock/biotechnology/feeds.

125. ROYAL SOC'Y OF CAN., *supra* note 2, at 182.

126. *See id.*; *see also* CANADIAN BIOTECH. ADVISORY COMM. (CBAC), IMPROVING THE REGULATION OF GENETICALLY MODIFIED FOODS AND OTHER NOVEL FOODS IN CANADA: REPORT TO THE GOVERNMENT OF CANADA BIOTECHNOLOGY ADVISORY COMMITTEE (Aug. 2002), http://cbac-cccb.ca/epic/internet/incbac-cccb.nsf/vwGeneratedInterE/ah00203e.html; STANDING SENATE COMM. ON AGRIC. & FORESTRY, rBST AND THE DRUG APPROVAL PROCESS: INTERIM REPORT (Mar. 1999), http://www.parl.gc.ca/36/1/parlbus/commbus/senate/com-e/agri-e/rep-e/repintermar99-e.htm.

127. Some of these organizations include the Canadian Wheat Board (the federal government agency responsible for marketing Canadian grain internationally), the Alberta Soft Wheat Producers Commission, the Agricultural Producers Association of Saskatchewan, and the Ontario Wheat Producers' Marketing Board.

128. *See* Letter from Terry Hildebrand, *supra* note 81.

129. *See* Council Directive 2001/18/EC, 2001 44 O.J. (L 106) 1, http://europa.eu.int/eur-lex/en/archive/2001/l_10620010417en.html (Apr. 17, 2001). This directive is entitled Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001 on the Deliberate Release into the Environment of Genetically Modified Organisms. *See also* Press Release, European Union, Delegation of the European Commission to the United States, GMOs: Commission Publishes Recommendations to Ensure Co-Existence of GM and Non-GM Crops (July 23, 2003), http://www.eurunion.org/News/press/2003/2003046.htm. "Co-existence is concerned with the potential *economic loss* through the admixture of GM and non-GM crops which could lower their value, with identifying workable management measures to minimise admixture and with the cost of these measures." *Id.*

would probably be held to involve matters of policy, and hence, would be nonjusticiable.

On the other hand, issues relating to the assessment procedure itself might well be held to be operational in nature, and hence justiciable. Two issues stand out. One is a perceived conflict between CFIA's regulatory and promotional roles for biotechnology. Agriculture and Agri-Foods Canada is very supportive of the development of biotechnology, as the following statement of the Minister illustrates,

> Canada is already among the world leaders in the development and responsible application of agricultural biotechnology *and we intend to build upon our success*. Biotechnology is a valuable resource in our ongoing commitment to provide safe, healthy foods in an environmentally sustainable manner. Biotechnology also offers the Canadian agriculture and food industries new opportunities for economic prosperity.[130]

Agriculture and Agri-Foods Canada invests about $60 million annually in biotechnology research;[131] it collaborates with biotechnology companies in conducting field tests of GM crops on its research farms under a "Matching Investment Initiative";[132] and it stands to earn royalties of between one percent and ten percent on Monsanto's Roundup Ready wheat if it is approved.[133] Opponents of GM technology understandably object to the fact that an agency (CFIA) of this same government department (Agriculture and Agri-Foods Canada) is responsible for the approval of the commercialization of GMOs.[134]

The second issue relating to the approval procedure is the possibility of undue industry influence and lack of transparency. The CFIA relies heavily on data and information provided by the biotechnology companies themselves in the scientific assessment that is the heart of the approval process. Moreover, information about the experiments on which the assessment is based is not made public for independent

130. Press Release, Government of Canada, Federal Government Releases New Biotechnology Strategy (Aug. 6, 1998), http://biotech.gc.ca/archives/engdoc/bh00228e.html (emphasis added).

131. Warick, *supra* note 15.

132. POLARIS INST., *supra* note 41.

133. Warick, *supra* note 15. Warick quoted the director of intellectual property for Agriculture and Agri-Foods Canada, as saying, "If it is ever released, we would earn a small return for reinvestment in our science programs . . . . We are a major developer, a major user of biotech. It's huge . . . . To not use that stuff [biotechnology], you might as well close down your [farming] operation. That is the science that drives innovation in the 21st century." *Id.* However, the government is now reported as abandoning its collaboration with Monsanto in the development of GM wheat. Dennis Bueckert, *Agriculture Canada Puts Brakes on Roundup Ready Wheat Project*, [TORONTO] GLOBE & MAIL, Jan. 10, 2004, at A7. As well, Monsanto has decided to defer further development of GM wheat. Michelle MacAfee, *Shelving of GM Wheat Cause for Celebration*, THE [MONTREAL] GAZETTE, May 11, 2004, at B15.

134. *See, e.g.*, CFIA, OFFICE OF BIOTECH., RESPONSE OF THE FEDERAL DEPARTMENTS AND AGENCIES TO THE PETITION FILED AUGUST 14, 2003 BY GREENPEACE CANADA UNDER THE AUDITOR GENERAL ACT: GENETICALLY ENGINEERED (GE) WHEAT: THE PRECAUTIONARY PRINCIPLE, BIOSAFETY AND THE FUTURE OF CANADA'S AGRICULTURE (Dec. 11, 2003), http://www.inspection.gc.ca/english/sci/biotech/tech/wheblee.shtml.

verification (unlike peer-reviewed scientific papers). Both of these aspects of the approval process are strongly criticized. They are operational in flavor and could be the basis for an action in tort against the federal government.

B. *Labelling*

The second major area of government activity relates to the labelling of genetically modified foods. This is a real issue to organic and conventional farmers, as downstream fears about GM foods adversely affect their markets. Because there is no mandatory labelling requirement for GM foods in Canada, non-GMO farmers must be in a position to label their products as GMO-free in order to protect their markets. Crop contamination, either as a result of gene wandering or during shipping,[135] makes this difficult, if not impossible, to do.

At present, GM foods are subject to the same labelling requirements in Canada as any other food. This means that the labels focus on the characteristics of the food product and not how it was developed. The labels must indicate the composition and nutritional components of foods, as well as the presence of any known allergens, and they must be truthful and not misleading.[136] In spite of the fact that poll after poll shows that the Canadian public is overwhelmingly in favor of mandatory labelling of GM foods,[137] there is as yet no requirement for mandatory labelling in Canada. The federal government has so far refused to introduce legislation to this effect. In fact, the Liberal majority in Parliament defeated a Private Member's Bill (C-287) to require mandatory labelling in October 2001, even though ninety-five percent of Canadians favored its adoption. The Bill had been introduced by one of its own Members, and the opposition parties voted in favor of referring it to committee.[138] Even voluntary labelling—which the federal government prefers—is on hold, pending

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135. *See supra* note 82 and accompanying text.

136. CANADIAN GEN. STANDARDS BD. (CGSB), BACKGROUND PAPER TOWARDS THE FIRST DRAFT OF THE CGSB STANDARDS FOR VOLUNTARY LABELLING OF FOODS OBTAINED THROUGH BIOTECHNOLOGY (Nov. 17, 1999), http://www.pestlaw.com/x/international/cgsb-19991117A.html.

137. *See Poll: Most Want Labels on GM Foods*, THE [MONTREAL] GAZETTE, May 11, 2004, at A7. One observer explains,

> [W]hile genetic engineering so far offers consumers absolutely nothing, it does require them to assume whatever risks may be present. The marketing of genetically modified foods has been described as the world's largest experiment, and we are its subjects. We can't choose whether or not to participate, because we don't know when we are eating genetically engineered foods. There is no requirement that [GE] foods be labelled.

Richard C. Bocking, Biotechnology and the Future of Canadian Agriculture, Address to the Canadian Institute of Food Science and Technology, Okanagan University College (Apr. 8, 2000), http://www.canadians.org/ge-alert/bocking-future.html.

138. Society Promoting Environmental Conservation (SPEC), *Genetic Engineering: Mandatory Labelling Legislation*, http://www.spec.bc.ca/spec/labelling.htm (last visited May 15, 2003). At the provincial level, legislation to require mandatory labelling, the Genetically Engineered Food Labelling Act, was introduced by an NDP government in British Columbia in April

the development of national standards by the Canadian General Standards Board (CGSB) in conjunction with the Canadian Council of Grocery Distributors.[139]

Mandatory labelling is opposed by both the biotechnology companies and the food industry. The biotechnology companies fear the loss of market share. One commentator noted the argument is "that basic information needed for consumers to make informed choices should be withheld because sales might be affected if people knew what they were getting!"[140] The food industry opposes labelling because of the difficulty and expense of tracing GMOs into the finished product. The Saskatchewan Organic Directorate argues that the cost of segregating and labelling genetically engineered food should be borne by those who introduce it into the food system and profit from it, rather than being off-loaded onto others, such as organic producers who must bear the expense of being able to certify that their food is non-genetically modified, as is presently the case.[141] In spite of this, however, it is doubtful that the federal government could be held responsible for the absence of a mandatory labelling requirement for GM foods, as this would seem to be a matter of policy rather than operation.

VII. CONCLUSIONS

This article has explored the effect of the introduction of genetically modified crops on Canadian farmers, particularly Saskatchewan grain farmers. Crop contamination from gene wandering is a major concern, and the looming question is to establish who must bear the responsibility for it and how this responsibility can be established.

A well-known Saskatchewan case, *Monsanto Canada Inc. v. Schmeiser*, attempts to use patent law to place the responsibility for gene wandering on the farmer whose crops have been contaminated. A second, and potentially much more important, case—*Hoffman and Beaudoin v. Monsanto Canada*—is currently before the courts. It

2001 and was sent for public comments; however, it died on the order paper with a change in government and was not reintroduced. *Id.*

139. A first draft was made available for public comment in the fall of 2001; a second draft was dated August 2002. CGSB, *Standard for Organic Agriculture*, http://www.pwgsc.gc.ca/cgsb/032_310/faq-e.html (last visited Apr. 18, 2004). On March 26, 2001, the Canadian Biotechnology Advisory Committee stressed the need for adoption of a standard. Press Release, CBAC, CBAC Issues Interim Report on Improving the Regulation of Genetically Modified Foods and Other Novel Foods in Canada (Aug. 23, 2001), http://cbac-cccb.ic.gc.ca/epic/internet/incbac-cccb.nsf/en/ah00414e.html.

140. Dennis R. McCalla et al., *Regulation of Genetically Modified Food: A Submission to the Canadian Biotechnology Advisory Committee* (Apr. 17, 2001), http://www.canadians.org/ge-alert/april17-submission.html.

141. Saskatchewan Organic Directorate (SOD), Labelling and Segregation of Genetically Modified/Engineered Crops and Foods, Presentation to the House of Commons Standing Committee on Agriculture and Agri-Foods (Jan. 29, 2002), http://www.saskorganic.com/SOD_HofC_hearings.pdf; *see also* NATIONAL FARMERS UNION, *supra* note 37, art. 10.

seeks to use tort law to place the responsibility for crop contamination on the shoulders of the biotechnology company that developed the technology.

Recourse to general tort law in this way is in keeping with the preferred approach of the Canadian Biotechnology Advisory Committee, which has recommended against the creation of separate compensatory mechanisms for GMO damage and has put its faith in general tort law. This article has explored possible tort actions available to affected farmers (the "innocent bystander") against neighboring GM farmers, against the biotechnology companies, and against the government to compensate them for damages they might suffer as a result of crop contamination from gene wandering. This exploration suggests that with some fine-tuning, general tort law "adequately addresses"[142] issues of responsibility for gene wandering. Of the three possibilities, the most promising is a suit against the biotechnology companies. Reliance on general tort law in this way is in keeping with the Commonwealth common law tradition of a preference for unified courts of general jurisdiction.

142. *See supra* notes 38-39 and accompanying text.